Scene changes, experienced changes: a longitudinal and comparative study of Canberrans who use illegal drugs

Phyllis Rose Dance

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Unless otherwise stated, the research reported in this thesis is my own

Phyllis Rose Dance

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ABSTRACT

The most widespread image of people who use illegal drugs is that they manifest a range of problems due to their dependence. But some people who use illegal drugs represent themselves as "recreational" users who differ from this stereotype. This research investigates a group of polydrug users who called themselves "recreational" users when I first met them in 1989. I study how they have fared over the nine years I have had contact with them. In 1989, their use was associated with fun, most obviously displayed in the spoof worship of "Saint Oswald", the "Patron Saint" of drug use. For obvious reasons, the members of this group call themselves "Oswaldians."

My first hypothesis was that, not only was the invention of this "Saint" unique, but that group members were different from other users of illegal drugs, both in their approach to drug using and also in realms such as education, their extensive polydrug use, their strong friendship links and their limited involvement with serious crime. After an examination of the literature, which indicated that there are more non-dependent than dependent heroin users, my second hypothesis was that the Oswaldians' "recreational" use of heroin would persist longterm.

To test these hypotheses, I interviewed both Oswaldians and non-Oswaldians, and I also considered it important to conduct two rounds of interviews in order to measure changes over time. I interviewed 139 Canberra-based users of illegal drugs during 1992 and, during 1993 and 1994, I reinterviewed 97 of these people, 40 of whom were Oswaldians. Both qualitative and quantitative data were collected on sociodemographic characteristics, drug use, health and crime. The baseline data obtained at the first interview and the prospective data on a variety of changes which occurred between interviews were used to explore differences between Oswaldians and non-Oswaldians.

Most people I interviewed had completed their Higher School Certificate and many were involved in tertiary education. A history of extensive polydrug use was common. The majority had strong social support networks. A few IDUs were still sharing needles and syringes. There was a high incidence of unsafe sex. Between interviews, several IDUs had been diagnosed with hepatitis B and/or C. There was very little involvement in serious crime and very few people had been incarcerated.

Whilst there were some differences between the total population I studied and some other studies of people who use illegal drugs, I found very little evidence to support my hypothesis that the Oswaldians were different from other users of

illegal drugs. Very few were able to maintain all their drug use at a "recreational" level. Over the years, many Oswaldians have become dependent on heroin and this precipitated their first treatment. Others had ceased or decreased their use of illegal drugs, including heroin.

Amongst the total sample, there was a significant increase in the number of people with a history of treatment at the second interview. I also found a significant relationship between treatment status and both age and duration of heroin use. These findings lead me to question previously held wisdom about the ratios of dependent to non-dependent heroin users. I suggest that, in contemporary Australia, long term non-dependent heroin may be possible for only a minority. My findings are derived from only a small sample. I recommend, therefore, a longitudinal study of a larger sample of heroin users in order to better estimate Australian ratios of dependent and non-dependent heroin use.

I was also interested in gender differences but found only a few, most notably in women's riskier sexual behaviours. I also compared those who went on to present for the second interview with those interviewed only once. The latter were significantly younger and it is possible, therefore, that their experiences between interviews would have been different from those who presented twice.

Partly as a consequence of an expansion of places in the Methadone Program, there were significantly more people in treatment at the second interview than at the first. There was a significant reduction in the number of drugs used between interviews. Many people linked their changes in drug use to their health. Between interviews, there was a significant improvement in physical health which is probably related to the overall reduction in drug use. Several respondents cited personal changes, such as entering into new relationships, or becoming parents for the first time, as reasons for changes in drug use. The changes in some drug patterns were due simply to availability. These changes affected both Oswaldians and non-Oswaldians. Although many of my findings question stereotypical images of people who use illegal drugs, the problems some people experienced confirm that part of the image which suggests that drug use may have detrimental health effects. Based on these findings, the thesis concludes with some suggestions for further harm minimisation strategies.

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CHAPTER 1: INTRODUCTION

1.1: Background to the research

Most known human societies, as well as some non-human societies, have used psychotropic substances (Plant, 1975; Davies, 1986; Mugford and Cohen, 1989; Siegel, 1989; Fraillon, 1990). People have been using these substances for a long historical period of at least 8 thousand years (Lang, 1998). In more recent times, it has become apparent that such use may lead to harm. My interest is largely in the prevention of health problems among people who use illegal drugs. This interest evolved throughout a nursing career which taught me that, where possible, prevention rather than treatment of disease should be the primary goal of health professionals. My philosophy towards the use of drugs came, therefore, to be based on the harm minimisation approach. This is defined by The National Drug Strategy (NDS) (abbreviations and acronyms are also included as Appendix 1) Committee for the Ministerial Council on Drug Strategy as "an approach that aims to reduce the adverse health, social and economic consequences of alcohol and other drugs by minimising or limiting the harms and hazards of drug use for both the community and the individual without necessarily eliminating use" (1994:4).

My involvement with research among people who use illegal drugs began in 1989. I begin this chapter with an overview of the genesis of the further research discussed in this thesis. I then present the general hypotheses generated by the 1989 research. I go on to outline the research conducted for this thesis, the structure of the thesis, and define some of the associated terminology. The chapter continues with a summary of the main findings.

1.2: Genesis of the research

My research into illegal drug use began in 1989 when, as part of my Honours degree in Sociology at the Australian National University (ANU), I become involved in data collection for two ongoing research projects. The first project was the Australian National AIDS and Injecting Drug Use Study (ANAIDUS). The aim of this research was to "determine the variables associated with the risk of HIV (human immuno-deficiency virus) infection in Australian injecting drug users" (ANAIDUS, 1991: unnumbered page, executive summary)[1]. The second project was the Australian Capital Territory's (ACT) Drug Indicators Project (DIP), a three year research initiative funded by the then National Campaign Against Drug Abuse (NCADA). This was set up to "develop and refine methodologies for estimating the incidence, prevalence and character of drug use in local communities" (Stevens and Wardlaw, 1994:21). My task for both these projects was to find Canberra-based "recreational" injecting drug users (IDUs).

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[1] The ACT data were not used for this report.

At that time I knew no IDUs, and in order to gain access I was advised by my then supervisor, Stephen Mugford, to ask all of my friends and acquaintances if they knew anyone who injected drugs. I asked about 50 people without success until I found Roger (pseudonyms are used throughout) whom I first met when he came along to a meeting of an organisation to which I belonged. The following description of accessing the group of which Roger is a member, as well as the description of the group, is synthesised from previous publications (Dance, 1989; Dance, 1991a; Dance, 1991b; Dance, 1992a; Dance and Mugford, 1992). Two of these publications are included as Appendices 2 and 3 (Dance, 1991a; Dance and Mugford, 1992).

After our second meeting with Roger, my partner and I invited him home for dinner. By the end of the evening I had told Roger of my project. After questioning my attitudes toward the use and legalisation of illegal drugs, he told me he was a "recreational" injecting drug user, and enthusiastically insisted that he be the first person I interviewed:

> *It's about time someone got interested in us. All anyone has done so far is research addicts and we're not addicts [I've got] thirty to forty friends who are recreational users ... they're from mostly middle class backgrounds and we're not idiots. Whatever you do, don't treat us like idiots.*

Roger said that he would get as many as possible of his friends to come to me for interview, and for the 1989 ANAIDUS and DIP research he was the nucleus of a snowball for 13 of his friends whom I also interviewed. The link with Roger, who had been around the Canberra drug scene for thirteen years, was crucial in encouraging his friends to present for interview. Since Roger was an influential group member, a "recreational" illegal drug user of many years standing, respected and trusted by his friends, I benefited from the "halo effect." Fetterman describes this as a process whereby the greater the trust which the group places in the intermediary, the greater the trust extended to the researcher (1989). During the ethnographic work, which was not planned but which evolved during the 1989 research, the closeness and reciprocal friendship with Roger led people to relax in my presence, permitting a study of people who use illegal drugs in their "native habitats" (Becker, 1970:33). The "halo effect" was also a crucial factor in encouraging Roger's friends to present for interview. Not only did Roger see me as a friend, we both belonged to an organisation that had excellent credibility in his eyes and this fortified his personal trust in me.

In order to plot networks of the friendship, needle sharing and sexual links among Roger's group of friends, I conducted more research in the second half of 1989. At that time, I reinterviewed 8 group members and a further 14 people from the group. During 1989 I interviewed a total of 36 people who use illegal drugs: 27 were group members

and the other people were all only once removed from Roger. During the networking research, details of a further 25 group members were given to me by the group-members. Because some members of the group invented "Saint Oswald" the "Patron Saint of drug use, group members often call themselves the "Oswaldians." I subsequently use this term when referring to them.

1.3: The Oswaldians

At the core of the Oswaldian group are many people who have known each other since schooldays. Several belong to the same families. During the 1989 interviews Sarah prompted the first real awareness that these people were, in the strict sociological meaning of the term, a group, not merely an aggregate:

> *This is a strange lot here in Canberra, they'll use anything. I don't know anywhere else like it. We get on each other's nerves; we all know everything about each other, do things together and we all sleep with each other. We have to get away sometimes, but we all come back.*

Similar tantalising comments were coming through as I conducted the ANAIDUS and DIP interviews. For example, Patrick said: "We're a close knit group, I guess you could call us incestuous." Jackie made a similar comment: "We're incestuous, we've really slept with everyone in the group. If we've not actually slept with them we've at least slept with someone who has." Drew-1[1] said "I tried Uni' at Wollongong but couldn't fit in. They're a bit rough there. They think we're intellectuals in Canberra, and I guess our group is."

Based on interview data from 1989, and data from the interviews for the research described here, as well as my ethnographic work, I consider the core group of Oswaldians to contain 36 people. I have interviewed all but five of these Oswaldians at some stage and have interacted with all of them during ethnographic work. I have also, over the years, interviewed 22 people I consider to be peripheral or transitory group members. Some Oswaldians have presented for all four interviews I have conducted since I first made contact with them.

The requirements for entry into the Oswaldian group are not tightly based on such factors as gender or age, and even though the majority come from middle class backgrounds such values are eschewed and are not a basis for group entry. The individuals in the group, though largely from Anglo-Celtic backgrounds, also include those from Aboriginal and other non-Anglo-Celtic backgrounds. The ratio of women to men is fairly even and members represent a wide variety of occupations including

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[1] The method of allocating pseudonyms is discussed in the following chapter.

tertiary students, health professionals, academics and public servants. Many Oswaldians are, however, unemployed.

Although there is no universality concerning characteristics such as those described above, there are other characteristics which are both common and highly valued. The patterns of use and routes of administration vary considerably, but the consumption of alcohol and the use of illegal drugs is common to all group members. The 1989 interview data, and my ethnographic work, led to Stephen Mugford and myself coining the phrase "drug enthusiasts" to describe both the variety and intensity of the drug use by group members (Appendix 3). We concluded that much of the group organisation revolves around drug consumption, both legal and illegal.

There are group norms other than illegal drug use, such as belonging to the left of the political spectrum (best described as non-violent anarchism). As Drew-1, a longstanding core-Oswaldian, had pointed out, erudition is another valued group norm. His claim to intellectualism has been validated by my ethnographic work where I have frequently observed boardgames such as Scrabble, Goh and chess being played. Most Oswaldians are well read and are informed and articulate about current affairs. There are also expectations that group members will be interesting and friendly. Other researchers have noted that people who use illegal drugs not only share the drug using experience, they also "share many valued things such as housing, food, money, clothing and childcare" (Grund et al, 1992:383). Similarly, I found that the Oswaldians share their problems, look after each others' children, play sport together and have fun together. One of the most fun things they share is the participation in the spoof "worship" of "Saint Oswald", the "Patron Saint" of drug use. This "Patron Saint" was invented in 1981 by three group members and is one of the bonds which unites them. The celebrations revolve around a yearly ceremony for "Saint Oswald's Day", as well as frequent references to this imaginary figure at other social occasions (Appendix 3).

Although most Oswaldians had been involved in crime other than illegal drug use, generally they had restricted these activities to shop stealing[1] and selling illegal drugs. Very few Oswaldians had been apprehended by law enforcement agencies, and none had been incarcerated. A few peripheral group members had previously been in treatment for their opioid use, but at the time of the 1989 interviews they considered themselves to have become "recreational" users.

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[1] In Australian Jurisdictions, the term "shoplifting" has been abandoned in favour of "shop-stealing."

1.4: General hypotheses

During my 1989 research I had serendipitously discovered a group of people who use illegal drugs. The Oswaldian group structure differs from the people Zinberg studied since he found "controlled" heroin users "huddled together in small isolated groups." The groups he described were "fragile and drug-centred ... because it is difficult to find controlled users who would make compatible friends" (1984:153). My discovery, as well as the specific features of the Oswaldians, stimulated a desire to undertake further work with the group, to observe and record their behaviours longitudinally, and to make comparisons between them and other people who use illegal drugs.

My first general hypothesis, which emerged from the 1989 research findings, was that the Oswaldians were very different from most samples of people who use illegal drugs which are usually derived from "captive" populations (Becker, 1970:33). Becker coined this term to describe those in drug treatment or law enforcement institutions and from whom, he argued, most samples of people who use illegal drugs at that time were drawn. (Since the advent of HIV/AIDS, there have been several successful attempts to access illegal drug users not in treatment. Some of these studies are described in other parts of the thesis.) I hypothesised that not only was the invention of "Saint Oswald" unique to the group, the Oswaldians would be different from other illegal drug users I studied in variables such as their education, their extensive polydrug use, their strong friendship links and their marginal involvement with serious crime.

According to the Commonwealth Department of Community Services and Health (CDCSH), Australia has up to two non-dependent heroin users for every one that is dependent (1988a). Upon reading of this ratio put forward by a government body, I then hypothesised that the Oswaldians who used heroin would be able to maintain their use at a non-dependent level.

The ratio put forward by the CDCSH appears to be derived from the one proposed by Hartnoll and colleagues in the United Kingdom. Opioid users were asked by these researchers to nominate friends who were regular opioid users and to indicate whether or not they had attended a clinic in the past year. This ratio was then used to extrapolate the total hidden population. For every regular opioid user nominated by respondents, there were typically 2 to 3 people whom they knew to use occasionally or intermittently (1985). In addition, for every nominated opioid user who had received treatment in the previous year, 6 to 10 who had not were nominated.

Bammer and Sengoz cite a personal communication from Reuter who "suggests that the ratio is very sensitive to the stage of the "epidemic" of heroin use and that it is currently much lower than that suggested by Hartnoll and colleagues" (1994:5). As the research

progressed, I learnt of several respondents whose heroin use was increasing and of several who had entered into treatment. These changes affected both Oswaldians and non-Oswaldians. I use longitudinal data, particularly those from the Oswaldians, to discuss ratios of dependent to non-dependant heroin users. In so doing, I recognise that making a direct comparison between my findings and previous studies of ratios dependent to non-dependant heroin users is problematic since my conclusions are based on a longitudinal study whilst previous studies have been cross-sectional.

1.5: Overview of the research

To test my hypotheses, I interviewed 139 Canberra-based users of illegal drugs during 1992. During 1993 and 1994, I reinterviewed 97 of these people. Forty were Oswaldians and 57 were not. One of my major interests was in changes over time. Unless otherwise specified, the findings are, therefore, based on the people who were interviewed twice.

Since the majority of Oswaldians had not been in treatment and none had been incarcerated, I wanted to compare them with similar people. I consequently made attempts to access as many people as possible who used illegal drugs who did not have a history of treatment or incarceration. I was only partially successful. Considering both Oswaldians and non-Oswaldians, 7 respondents were in treatment at the first interview and a further 21 had a previous history of treatment. A further 5 people without a treatment history had also been incarcerated, all for a short period of time. As I go on to show in Chapter 5, there was a significant increase in the number of people with a history of treatment at the second interview and I also found a significant relationship between treatment status and both age and duration of heroin use.

Because the Oswaldian group contained both IDUs and non-IDUs, I wanted the comparative subset to be of a similar composition. At the first round of interviews, 81.8 per cent of Oswaldians (n=36) and an almost identical proportion (74.7%, n=71) of non-Oswaldians were current IDUs. (When used in relation to the first interview, "current/ly" means during the 12 months prior to interview, and when used in relation to the second interview, it means the period between interviews. These definitions are also included in Table 1 in Appendix 4.) There was some attrition at the second interview (this is fully discussed in Chapter 2) but these proportions were little changed when 82.5 per cent of Oswaldians (n=33) and 80.7 per cent of non-Oswaldians (n=46) were current IDUs.

I compared the 40 Oswaldians and the 57 non-Oswaldians and I further subdivided the Oswaldians into 26 core-Oswaldians and 14 non-core-Oswaldians. For other comparisons, I grouped the 14 non-core-Oswaldians with the non-Oswaldians into a

subset of 71, which I refer to as the "Remainder", whom I compared with the core-Oswaldians. (The definitions of these and other subsets are included in Table 2 in Appendix 4.) I also looked to see if there had been any significant changes between the two interviews for the total sample, as well as all the subsets. Whilst the thrust of the thesis is on the findings from the 97 people who were interviewed twice, I also used the data from the first interview to compare those who went on to present for the second interview with those who did not. Where possible, I compare my findings for the total sample with other, mostly Australian, studies of people who use illegal drugs.

Adler has hypothesised that women's and men's behaviours are converging. This convergence includes similarities in "their profile of physical diseases, their psychological configurations, their criminal deviances, and their addictive patterns" (1975:132). This hypothesis has been the subject of some debate in the drug literature (reviewed by Robbins, 1989). Several researchers have argued that women have been rendered invisible by drug researchers (for example, Gomberg, 1986; Hser et al, 1987; Stevens, 1991). Wodak believes that "the combination of intoxication and risk taking is predominantly a male prerogative", adding that men "also account for a far greater proportion of the adverse health and social consequences associated with alcohol and drugs" (1992:108). Broom notes that the kinds of suffering experienced by men and women may be qualitatively different, and she gives as an example the fact that though more men drink alcohol, women are damaged more quickly by excessive alcohol consumption (1994). Whilst far more men than women in the Western world have contracted HIV, Treichler has persuasively argued that, in most issues related to HIV/AIDS, women have been relegated to the place of "Other"[1] (1989:194). Given this debate, I looked to see if there were any gender differences among the people I interviewed. Those I found are discussed in the relevant parts of the thesis.

As early as 1940, Lindesmith argued that many so called "dope fiends" maintain their self-respect and social status: "it is not the effect of the drug that produces the alleged deterioration of character in the addict, but rather the social situation into which he is forced by the law and by the public's conception of addiction which does the damage" (1940:202-3). More recently, Dole also argued against the myth of the stereotype of the "narcotics addict" (1994:4). Still, the stereotypes persist such that people who use illegal drugs are still seen as "mad (addicted) or bad (criminal)" (Newcombe, 1993).

Users fear the discrimination which emanates from such stereotypes and many have experienced losing their job or children or have suffered discrimination by pharmacists, members of the police forces and professionals such as doctors and solicitors who may

[1] Treichler has drawn this phrase from de Beauvoir who asks "why is woman the other?" (de Beauvoir, 1949 [1987 ed]:69).

refuse to have them as clients (Newcombe, 1993). Not surprisingly, the people who use illegal drugs I got to know dislike these images and many live in fear of the possible ramifications of their illegal drug use being discovered. They see one of my important roles as telling the "'true story' (which will get) to the public through [the researcher's] report" (Becker, 1970:30). Fetterman describes "advocate ethnography" as a process whereby participants "define their reality (and) consider their view about the ideal solution to their problem" (1989:126). The task of the ethnographer is, however, not only to describe the respondents and their world as their respondents see it, but also as they see it themselves (Walters, 1980). However sympathetic the ethnographer's view may be, it may not always accord with the opinions of the people they study, who may, indeed, differ among themselves.

I attempt to fulfil this dual role by presenting qualitative and quantitative data on the lives of people who use illegal drugs in aspects related to their illegal activities as well as the many normal aspects of their lives. This has been made possible, not only by the interview data, but also by several respondents inviting me into their everyday lives.

1.6: Overview of the thesis

The thesis is presented in two volumes. Volume I contains the text, and the chapters are constructed so that the relevant literature review, specific hypotheses and research questions are covered in each chapter. These are woven into my research findings thus making each chapter relatively self contained. In the second Chapter, I present an overview of the research design and the methodology. Chapter 3 sets the drug use patterns of the people I interviewed in context by presenting the sociodemographic findings. In Chapter 4, I document the drug use histories before going on in Chapter 5 to discuss in detail the changes in drug use which occurred between interviews. Chapter 6 is concerned with general physical, psychological and social health whilst Chapter 7 focuses on bloodborne viruses (BBVs) and sexual and genital health. Criminal behaviours are outlined in Chapter 8. The concluding Chapter includes a summary of the main findings and, suggestions for future research, as well as possible further harm minimisation strategies.

The pagination from Volume 1 is continued in Volume II which contains the appendices. Some of the appendices are attached documents and their original page numbers have been erased. The Opiate Treatment Index (OTI), one of the instruments I used for the interviews, is included as Appendix 10. I sometimes make reference to the page numbers in the OTI. These page numbers refer to those in the Appendix rather than the original OTI.

1.7: Definitions related to drug use

In this thesis, "drug use", means all drug use, from the legal and commonly used drugs, most notably tobacco and alcohol, to illegal drugs such as marijuana and heroin. Prescribed drugs may be used strictly according to a physician's prescription, or they may be used in other ways by the individual who is prescribed them. They may also be given to, or obtained from, friends and acquaintances. There are also drugs which are obtained over the counter, or bought in supermarkets, such as nitrous oxide (available in bulbs containing meringue, described more fully in Chapter 4) as well as a range of drugs, most commonly mushrooms and poppy seeds, which users simply go out and gather, or purchase, but whose use is still prohibited. Thus, I use the term "drug use" to denote the use of both legal and illegal drugs, and the term "illegal drug use" to denote the illegal use of any substance even if the substance is not prohibited.

Drug users are often classed as "dependent" or "non-dependent." Dependent users are those who use frequently and regularly (CDCSH, 1988a). Dependence has been defined as "a cluster of cognitive, behavioral and physiological symptoms indicating that the individual continues use of the substance despite significant substance-related problems" (American Psychiatric Association, 1994:178). Recently, it has been recognised that neuroadaption, "an altered physiological state ... produced by the repeated administration of a drug", occurs when people become dependent (Whelan, 1998:22). Non-dependent users are those who use occasionally, or in particular contexts (CDCSH, 1988a). For the sake of convenience I use the terms "dependent" and "non-dependent", but as Edwards and colleagues note "no sharp cut-off point can be identified for distinguishing dependence from non-dependent but recurrent use" (1981:230). As my findings demonstrate, levels of use may also vary considerably over time.

As I found, and as Stowe and Ross also indicate, "recreational use" is a term used by people who use illegal drugs (nd:3). To that we might add that the terms "junkie" and "addicts" are commonly used by those who use illegal drugs, but they should no longer be used by professionals. I have abandoned the use of the term "recreational" use (which I used to describe the people I accessed in 1989), in favour of "non-dependent" use.

1.8: Conclusion

Whilst finding some differences between the people I interviewed and some other studies of people who use illegal drugs, I found very little evidence to support my hypothesis that the Oswaldians were different from other users of illegal drugs. With the hindsight of following the Oswaldians for almost 10 years, it is possible that there was some observer bias in my previous descriptions of these people as non-dependent

users who had experienced little pathology with their drug use. I was looking for "recreational" IDUs and this is how the people I first contacted described themselves. The drug use histories, however, corresponded with this self description and I am as confident as I can be that this was a true self description.

Findings from both Oswaldians and non-Oswaldians lead me to question previously held wisdom about the ratios of dependent to non-dependent heroin users. Previous ratios have been derived from cross-sectional studies. I suggest that, in contemporary Australia, long term non-dependent heroin use may be possible for only a minority and that, in order to appreciate what happens to drug consumption patterns over time, it is necessary to conduct longitudinal studies. Since my findings are derived from only a small sample, I recommend a further longitudinal study of a larger sample of heroin users. This would provide a better estimate of ratios of dependent and non-dependent heroin use in Australia than the one currently used. A longitudinal study of a larger sample would, like my study, measure what happens to non-dependent heroin users over time and would demonstrate how generalisable my findings were.

CHAPTER 2: METHODOLOGICAL APPROACH

2.1: Introduction

With the advent of HIV/AIDS, there have been several longitudinal studies of people who use illegal drugs (for example, Plant et al, 1988; Power, 1989; Skidmore et al, 1989; Morrison, 1991; Nicolosi et al, 1991; Vlahov et al, 1991; Loxley and Marsh, 1992). Because I wanted to evaluate changes in a range of behaviours, I also conducted a longitudinal study.

Below, I present an outline of the sampling system, the integrated methodology, the instruments used for the interviews and a description of the way the interviews were conducted. I go on to discuss ethical considerations, possible sources of bias and issues of validity and reliability. The chapter then outlines the way in which the data were analysed, and the way the results are presented.

2.2: Sampling

I wanted to compare the Oswaldians with other people who use illegal drugs in terms of these other people being similar in having a history of minimal contact with treatment and law enforcement agencies. These people are sometimes referred to as "hidden users." Becker says that these are people who participate in an activity which is both stigmatised and illegal so that "those who engage in it do not make that face publicly known or easily available" (1970:30). This description most closely approximates the group I found in 1989 and the population from which I was hoping to seek more respondents.

Several other researchers have successfully collected data from non-treatment populations (or example, Feldman and Biernacki, 1988; Power, 1988; Wiebel, 1988; McKeganey et al, 1989; Watters and Biernacki, 1989; Darke et al, 1990; Rhodes et al, 1990; Marsh and Loxley, 1992; Meandzi et al, 1994; Needle and Mills, 1994; Rezza et al, 1994 ; Baker et al, 1995). Our knowledge of people who use illegal drugs is still, however, largely confined to those easily accessible for research through agencies such as drug treatment settings and the law courts (Becker, 1970; Watters and Biernacki, 1989; Moore et al, 1992; Grund et al, 1993). As Becker notes, "When you believe you know nothing and have no contacts (this is) the only sure method of getting at least some beginning information" (1970:32). These people, he terms as "captives", are almost certainly dependent users. Becker draws attention to the fact that they differ greatly from the more successful non-captive population, adding that samples taken from them are not only unrepresentative but that people drawn from them do not behave as they might in their "native habitats" (1970:33).

A criterion of probability sampling is a population with high visibility (Biernacki and Waldorf, 1981). Given that my aim was to find people engaged in illegal activities, and, moreover, to find as many as possible of those "hidden users", my target group did not meet this criterion. Alternative sampling methods, therefore, had to be found. The most important of these was snowballing, which had also proved to be successful for my 1989 research. This is a method of sampling through referrals made among people "who share or know of others who possess some characteristics of research interest." It is particularly applicable when the focus of study is a sensitive issue (Biernacki and Waldorf, 1981:141), and when exploring populations about whom we know little (Kaplan et al, 1987). Although some researchers are disparaging about snowballing (Barnes, for example, says that "for most purposes this is a poor way of sampling" [1972:23]) the method has been widely used for obtaining samples of people who use illegal drugs (Plant and Reeves, 1976; Zinberg, 1984; Power, 1988; Power, 1989; Watters and Biernacki, 1989; Goldstein et al, 1990; ANAIDUS, 1991; Morrison, 1991; Fitzgerald, 1993; Pivnick et al, 1994).

I prepared flyers (Appendix 5) containing details of the interview and my mobile phone number. Table 2.1 shows the results of the sampling for all respondents at both interviews. For the first round of interviews, 60 flyers were sent to the Needle Exchange Program (NEP) in the nearby town of Queanbeyan, 40 were taken by an ACT Refuge worker and I placed 140 in the paper bags used to distribute injecting paraphernalia for IDU clients of the AIDS Bus[1]. I gave 21 to peer outreach workers and a further 288 were taken by 50 respondents to hand out to their contacts. A majority of interview referrals (68.3%) were from other respondents, mainly prompted by the flyers. Other researchers have also found this method of referral to be an effective method of recruitment where out-of-treatment samples of people who use illegal drugs have been sought (Nelson et al, 1991; Marsh and Loxley, 1992).

Some respondents whose only illegal drug was marijuana, and that very occasionally, passed the flyers on to respondents who injected heroin and amphetamines, thus indicating that a variety of drug use patterns may exist within a drug-using network. Through my ethnographic work, I was able to ask 21 people directly for an interview and many self referrals were also made in this context. Although only 5 respondents presented for interview after picking up flyers on the AIDS Bus, most of these referred several other respondents. Similarly, the *Junkmail* article (a journal for IDUs and their service providers) (Dance, 1992a), yielded only one phone call but this person referred 10 people directly to me and most of these people referred others too.

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[1] The AIDS Bus travels to different locations in Canberra. Workers exchange needles and syringes, and also offer a range of other appropriate services.

There were 28 occasions when people did not show up for their scheduled first interview. Six of these people recontacted me and were interviewed later.

At the end of the first interview, I asked respondents if they would be willing to present for a follow-up interview. Though one person declined, he still appeared for a second interview. I asked people for means of contacting them. Most gave me a phone number; some said they wanted me to phone someone mutually known and a few people said they would prefer to be recontacted via a flyer on the AIDS Bus.

For the second round of interviews, I left 100 flyers on the AIDS Bus and placed advertisements at the ACT Drug Referral and Information Centre (DRIC)[1] and at the ACT Intravenous League (ACT IV League)[2]. Because I was aware that some respondents were in methadone treatment, I also placed a total of 90 flyers in the two ACT outlets. Thirty six people took 150 flyers for the second interview. The most successful way of reaccessing people for the second round of interviews was by personal contact (66.0%).

Table 2.1: Sampling for all respondents at both interviews

	First interview		Second interview	
Method	n	%	n	%
Referral by respondents	95	68.3	24	24.7
Direct request by me	21	15.1	64	66.0
Self referral	14	10.1	0	0.0
AIDS Bus "flyers"	5	3.4	4	4.1
Junkmail article	1	0.7	NA	NA
Referral by non-respondents	3	2.2	0	0.0
Methadone Clinic	-	-	5	5.2
Total	139	-	97	-

Of the 139 people originally interviewed, 44 (31.6%) were Oswaldians and I consider 28 of these people to be core-Oswaldians. Nine Oswaldians I interviewed during 1989 did not present for interview. One had stopped all illegal drug use and had disassociated herself from most group members, 5 had left the ACT, and the other two offered themselves for interview only after I had commenced the second round of interviews.

[1] This is a community based organisation which offers a range of services for drug users and their families including advice, counselling, information and education.

[2] This is a peer-based organisation which offers services to IDUs, including education, information and needle exchange.

I started the first round of interviews in January 1992 and finished it in September of that year. The second round of interviews began in November 1993 and was completed in April 1994. There was an average length of 18.3 months between the interviews with a range of 11-24 months. Ninety seven of the 139 people interviewed during 1992 made themselves available for reinterview (Table 2.2). This represents a follow-up rate of almost 70 per cent. Particularly given this timespan between interviews, the follow-up rate compares favourably with other longitudinal studies. Plant and colleagues, for example, report a follow-up rate of 56 per cent over a six month period for their study of drug users in Sydney (1988). Over a similar timeframe, Robertson and colleagues report a follow-up rate of 80 per cent in their British study of IDUs (1988).

Given my continued ethnographic contact with the Oswaldians, these people were the easiest to reaccess for the second interview. Forty of the people who presented for the second interview were Oswaldians (41.2% of the sample, 90.9% of Oswaldians interviewed at the first interview). Of the 4 Oswaldians who were not reinterviewed, two peripheral group members had left the ACT and two core-Oswaldians were having personal problems. Fifty seven non-Oswaldians (58.8% of the sample, 60.0% of non-Oswaldians interviewed at the first interview) presented for the second interview.

Table 2.2 demonstrates the sampling bias at the second interview. Proportionately more non-Oswaldian IDUs (35.2%) and non-Oswaldian non-IDUs (54.2%) than Oswaldian IDUs (8.3%) and Oswaldian non-IDUs (12.5%) were lost to attrition. Although the attrition rate for the non-Oswaldians may impact on the major findings, the attrition rate for the Oswaldians was low. It is, therefore, unlikely that the attrition rate for this subset will affect the conclusions based on their findings.

Table 2.2: Direction of sampling bias

	Presented for 1st interview		Went on to present for 2nd interview		Attrition	
	n	%	n	%	n	%[1]
Oswaldian IDUs	36	81.8	33	82.5	3	8.3
Oswaldian non-IDUs	8	18.2	7	17.5	1	12.5
Total	44	100	40	100	4	9.1
non-Oswaldian IDUs	71	74.7	46	80.7	25	35.2
non-Oswaldian non-IDUs	24	25.3	11	19.3	13	54.2
Total	95	100	57	100	38	40.0
Cumulative total	139	100	97	100	42	30.2

[1] This is a percentage of the number of people who presented for the first interview.

Table 2.3 shows what is known about the people who did not present for a second interview. In the majority of cases, the people concerned had simply moved out of Canberra. This was ascertained either from ethnographic work or from people these respondents said I could communicate with as a means of recontacting them. I was able to contact a further two people who had moved to Sydney and I reinterviewed them on a visit there. Even though I used a variety of strategies to recontact respondents, including making several phone calls, writing letters or making contact with someone mutually known, in some cases this was to no avail. I made personal contact with 3 people who then did not appear for interview. Evidence from a variety of sources, including the media and ethnographic work, shows that at least 5 of those who did not present for the second interview had legal problems and a further two had family problems. Using the data obtained at the first interview, I discuss the differences found between those who did and did not present for the second interview in the results chapters (Chapters 3–8).

The question of what is meant by treatment has become controversial since the introduction of NEPs (Power, R. London. 1996, September 9, pers comm). For the purposes of my research, and in common with other Australian researchers (ANAIDUS, 1991; Darke et al, 1992a), I did not consider clients of needle exchange outlets as being in contact with treatment services. Most of the people I interviewed who were not in treatment for their drug use had some contact with health professionals. I also did not consider these people to be in treatment.

Table 2.3: Reasons for respondents not presenting for the second interview

Reason	n	%
Moved out of the ACT	19	45.2
Flyer passed on but respondent did not present for interview	5	11.9
Personal contact and request for interview but no further contact	3	7.1
A mutual contact had moved out of Canberra and had lost touch	2	4.8
Phone disconnected, no other form of contact	2	4.8
Not known if flyer was passed on	1	2.4
Not known if flyer was passed on, plus moved interstate	1	2.4
Family problems	2	4.8
Presented for interview at respondent's house, respondent ill and did not reconnect	1	2.4
Phone disconnected, message left with contact, not known if message passed on	1	2.4
Moved and no other form of contact	1	2.4
Letter returned (from interstate)	1	2.4
Letter to interstate address, no response	1	2.4
Unknown	2	4.8
Total	42	-

Whilst specifying too few eligibility criteria can create problems related to screening, specifying too many can result in verification problems (Biernacki and Waldorf, 1981). Because of the potential criticism that respondents will tell the interviewer what s/he wants to hear, I did not stipulate a particular type or history of illegal drug use on the flyer (Appendix 5). Because of the possibility of phone-tapping, I did not ask any questions that might be incriminating when people phoned to book an interview. Furthermore, it would not have been wise to ask about drug treatment and criminal histories as soon as I met someone and then refuse to interview those who had these histories and who had taken the time and trouble to present for interview. Had I acted in that way it is also possible that subsequent respondents might not have divulged these histories. Since these are particularly sensitive areas, I needed to establish some rapport and it was not until well into the interview that I asked these questions. I found Goldstein and colleagues to be correct in their perception that the problem is seldom how to recruit people but rather how to reject those who, for one reason or another, do not meet the criteria for participation (1990). It was inevitable, therefore, that my sample did contain people with a history of treatment or incarceration.

Some strategies were, however, used to maximise the number of respondents without a history of treatment or incarceration. At the end of the first interview, I told respondents

who were willing to pass on flyers that though I was interested in all drug use behaviours, "hidden users" were, by definition, the most difficult to access and I would be grateful if they could give the flyers to any of these people. I also gave this information to people during the process of my ethnographic work, as well as to the ACT IV League and NEP staff. The article I wrote for *Junkmail* outlined my research interests and my major target group for research.

Table 2.4 shows the results of these strategies, demonstrating that 11 people were in treatment at the first interview and 128 were not. A further 24 people had a history of drug treatment. Seven people with a history of treatment also had a history of imprisonment and 7 people who did not, had also been imprisoned. We are thus left with 95 people (69.3%) who had never been in treatment or incarcerated. Fifty nine (43.1%) were current heroin users.

A markedly greater proportion of people who went on to present for the second interview had a history of treatment for drug use. This may affect some of the findings discussed in subsequent chapters, particularly the significant increase in the number of people presently in treatment at the second interview, which included some people with a previous history of treatment.

Table 2.4: Treatment and imprisonment history for all respondents at the first interview

	Presented only for 1st interview		Went on to present for 2nd interview		Total	
History	n	%	n	%	n	%
Present treatment	4	9.5	7	7.4	11	8.0
Previous treatment	3	7.1	21	22.1	24	17.5
Previous imprisonment, no treatment	2	4.7	5	5.3	7	5.1
No treatment or imprisonment	33	78.6	62	65.3	95	69.3
Total[a]	42	-	95	-	137	-

[a] There are 2 missing values for imprisonment history for those who went on to present for the second interview.

2.3: Integrated methodology

The guiding philosophy of this research was that of harm minimisation. The techniques I used were grounded not only in my training as a sociologist but also in my 25 years experience as a health professional.

In order to maximise the benefits of the interview I collected both qualitative and quantitative data. Their relative merits have long been debated but, as several authors

have indicated, both methods have their weaknesses which, to some extent, may be compensated for by the strengths of the other (Watters and Biernacki, 1989; Lambert and Wiebel, 1990; Steckler et al, 1992). The strengths of quantitative methods are that they produce "factual, reliable outcome data that are usually generalisable to some larger population" and the strengths of qualitative methods are that they "generate rich, detailed, valid process data that usually leave the study participants' perspectives intact" (Steckler et al, 1992:2). Steckler and colleagues go on to say that "social interventions are complex phenomena which require the application of multiple methodologies in order to properly understand or evaluate them" (1992:4). Other researchers in the drug field are now combining both qualitative and quantitative research methods (for example, Wiebel, 1988; Goldstein et al, 1990; Marshall, 1990; Morrison, 1991; Barnard and Frischer, 1995).

Ethnography was one component of the qualitative methodology. This has been defined as "the art and science of describing a group or culture from their perspective" (Fetterman, 1989:11). Although it has traditionally been seen as the domain of social anthropologists, it is a methodology which has also been used by other people researching drug use *per se* (for example, Becker, 1963; Preble and Casey, 1969; Plant, 1975; Moore, 1990; Grund, 1991; Maher, 1996) and also by those working specifically on ways of preventing HIV among IDUs (for example, Feldman and Biernacki, 1988; Wiebel, 1988; Power, 1989; Williams, 1990; Grund et al, 1991; Rivera-Beckman, 1992).

My involvement with ethnographic work was an unplanned consequence of the initial 1989 research. (This process is fully discussed in the publications attached as Appendices 2 and 3.) During the research described here I have, in addition, undertaken some ethnographic work with non-Oswaldians. I have seen 14 people from this subset (definitions of the subsets are included in Table 2 in Appendix 4) in a social setting at least once and have had more intense interactions with 8 of them.

Participant observation is a major component of the ethnographic method. It has evolved from anthropological studies where ones peers approve of participation in a strange culture (Plant and Reeves, 1976). But as Plant and Reeves go on to say, participation in deviant groups is a "much more vexed question" (1976:157). According to Becker, "Researchers often feel that if they want fully to understand the deviants they study they should partake themselves of the forbidden activity", but he disagrees: "I think it indisputable that one need not engage in an activity to understand it. In spite of the romantic yearnings and the earnest ideological assurances of some deviants, scientific requirements do not force us to join in deviant activities" (1970:47). Some

respondents did ask about my drug-taking activities, but no one tried to pressure me into participating in illegal drug use.

One of the rules of participant observation is that the researcher must, as far as possible, not influence events but endeavour to record them as they occur. This is an unacceptable luxury to ethnographers who may be observing potentially harmful behaviours. Power concludes that "in the current climate research objectivity may at times have to take a back seat to health education and risk reduction" (1989:50). Marsh and Loxley also believe that rigid separation between research and intervention is inappropriate in the HIV/AIDS area (1992).

Whilst the continued ethnographic work allowed closer contact with many respondents than that allowed by relying only on contact at interview, there was very little information gleaned from this contact which shed any light on further harm minimisation strategies. I have as a consequence used very few of these data in the thesis. The papers included as Appendices 2 and 3 describe previous ethnographic work in more detail.

Before commencing the interviews, I undertook a health education course at the ACT NEP, and became qualified to exchange injecting equipment and distribute condoms. I also gained practical experience by working several shifts on the AIDS Bus, I trained as a volunteer at ACT AIDS Action Inc and I worked as a nurse in the ACT Sexually Transmitted Disease Clinic/AIDS Reference Centre.

2.4: Instruments used for interviews

The ANAIDUS and AIC questionnaires influenced the interview guide I drafted (Appendix 6). I also examined other questionnaires. Some questions were suggested by Oswaldians and some by service providers. Many of the qualitative questions were stimulated by the 1989 research when it was apparent that respondents found it difficult to confine themselves to pre-coded responses concerned with the complex behaviours associated with drug use, needle use and sexuality. They were, however, very willing to talk about these matters in detail. Other questions flowed from my ethnographic work, as well as my literature review.

The final interview guide contained structured and semi-structured questions on sociodemographic variables, drug use behaviours, needle use behaviours, general health, sexual behaviours, criminal behaviours and networks (networks are not discussed in this thesis). The interview guide (Appendix 7) for the second interview concentrated on changes which occurred between interviews. The specifics of the various sections of the interview guides are discussed with the relevant findings in the

results chapters. Not all of the quantitative questions were pre-coded. The codes I used for the quantitative data at the first round of interviews are attached as Appendix 8. Those for the second interview are attached as Appendix 9.

At both interviews, I also employed the Opiate Treatment Index (OTI) (Appendix 10). As Darke and colleagues indicate, a major problem in most drug-related research is the inability to compare results (1991a; 1992a). Where possible I compare my results with those from other researchers who have also used the OTI. The OTI was developed in Sydney for both research and clinical applications (Darke et al, 1991a). The NDS has recommend its use (1993). One of the functions of the OTI is to assess the impact of treatment over time and it has been used in this way by other researchers (Macleod et al, 1996). I also used it to assess the changes that occurred between interviews. The OTI has been used for people both in and out of treatment (Darke et al, 1991a) and also solely for those not in treatment (Baker et al, 1994). It has also been administered to people whose primary drug was amphetamine (Hall and Hando, 1994). Where possible, I use these findings from other researchers to make comparisons with the people I interviewed.

The OTI has been found to be both reliable and valid (Darke et al, 1991a; Darke et al, 1991b; Darke et al, 1992a; Adelekan et al, 1996; Deering and Sellman, 1996). It has been structured so that the higher the score, the greater the degree of indicated dysfunction. During the development of the OTI, results obtained in the HIV risk behaviour scores (HRBS), and the social, criminal, physical, and psychological health domains, were divided by Darke and colleagues into quintiles. This, then, allows for a clinical interpretation of the degree of dysfunction for each of these domains. The degrees of dysfunction were classified by the researchers as High, Above Average, Average, Below Average and Low (Darke et al, 1991a:23-24). I also analysed my data according to these degrees of dysfunction (also defined in Table 3, Appendix 4) but the results must be viewed with some caution since, as Dark and colleagues indicate, the degrees of dysfunction are based solely on the distribution of the scores of respondents interviewed during the development of the OTI and they are continuing their work "to provide more comprehensive norms" (1991a:24).

The General Health Questionnaire-60 (GHQ-60) was developed by Goldberg with the aim of detecting people with a current diagnosable non-psychotic psychiatric illness (1972). Several scaled versions were subsequently designed including the GHQ-28 (Goldberg and Hiller, 1979). This has been found to be a valid and reliable instrument for measuring psychopathology (Goldberg and Hiller 1979; Goodchild and Duncan Jones, 1985). Since it is incorporated into the OTI (Appendix 10:393-5), I used it to measure psychological health.

Goldberg and Hiller broke items in the GHQ-28 down into a somatic symptoms area, an anxiety area, a social dysfunctional area and a depression area. Each area has seven self-completed questions and respondents are informed that the questions relate to "medical complaints, and how your health has been in general *over the past few weeks*" (1979:143). There are four possible responses to each of these questions (Appendix 10:393-5). Either of the first two responses are scored as zero, and either of the second two responses are scored as one (Goldberg and Hiller, 1979).

The GHQ-60 item version has been tested within an Australian population of general practice clients by Tennant. Each respondent's score was also re-calculated for the 12-, 20- and 30-item versions. Tennant found all four to be reliable and valid (1977). Darke and colleagues found a high Pearson correlation coefficient of 0.88 for the GHQ-28 score among 50 opioid users who were retested one week after their initial interview (1991a).

Although these findings give room for optimism that the GHQ-28 is a valid and reliable instrument for one-off testing, Radovanovi´c and colleagues document a problem they found when they looked at the test-retest validity of the GHQ-60. When using this version of the GHQ, they found a marked decrease in the mean GHQ scores of both men and women when they administered the questionnaire to a sample of medical students three times with an interval of two years between each test (1988). In order to examine the sensitivity of the GHQ-60, respondents were also interviewed by a psychiatrist who based his assessment solely on the use of the Standardised Psychiatric Interview. Over time, a fall in sensitivity to 64.7 per cent was found. No sensitivity tests were possible in my study, and even though Radovanovi´c and colleagues used a different version of the GHQ, and were able to identify the confounding factors of an attempt by students to hide their symptoms and the inability of the psychiatrist to completely ignore the knowledge obtained at previous interviews, their finding is of some concern and needs to be considered when looking at my longitudinal findings.

2.5: The interviews

The first interviews ranged from 1 hour 20 minutes to 7 hours and 45 minutes with an average of about three hours; the second interviews ranged from 50 minutes to 2 hours and 45 minutes with an average length of about 1 hour and 20 minutes.

Eleven of the first, and 12 of the second, interviews were conducted in respondents' homes. Nine of the first and three of the second interviews were conducted at my home. These were generally with people I had got to know through ethnographic work and who had previously visited my home. The rest of the interviews were conducted in a discretely located office.

Once we were in the interview venue, a consent form (Appendix 11) was read out to prospective respondents who were then asked to read through it themselves to ensure they were properly informed. In order to preserve anonymity, and with the approval of the ANU's Ethics in Human Experimentation Committee, the consent form was signed by me once I was confident the participant had given their informed consent.

Everyone granted permission for the qualitative data in the first interview to be audiotaped. I instructed the people who transcribed the tapes to return them immediately if they recognised anyone's voices. This did not prove to be necessary. The audiotapes were a source of some concern to some respondents and once they were transcribed and the transcriptions checked, I wiped the tapes. Due to financial constraints, the qualitative data in the second interview were not audiotaped.

2.6: Ethical considerations

I attempted to get my research gazetted under the Commonwealth Epidemiological Studies (Confidentiality) Act 1981. This Act helps ensure the confidentiality of data provided by respondents. Both the 1989 ANAIDUS and AIC research were gazetted under this Act, and this proved to be useful in encouraging respondents to present for interview. I was unable to have my research covered as the Act covers only research instigated by the Commonwealth. I eventually commenced interviewing without legal protection. This meant that strenuous efforts had to be undertaken to ensure that everything possible was done to protect the respondents from prosecution resulting from the data collection. These measures were approved by the ANU's Ethics In Human Experimentation Committee. Completed questionnaires were locked in a secure place and data keyed into the computer were placed in a locked partition.

The first 94 people at the first interview were told there was no legal protection of their data (Appendix 11: consent form 1). Michael Moore (an Independent Member of the ACT Legislative Assembly) was instrumental in drawing up an Epidemiological Studies (Confidentiality) Act in 1992 for the ACT[1] (Appendix 12). The Act protects the respondents by stipulating punishment in the form of imprisonment and/or a fine if the researcher divulges any information which might identify them. When my research was gazetted under this Act, which contained a clause to protect the data already collected, subsequent respondents were informed of this protection (Appendix 11: consent form 2). I also wrote a small article for the ACTIV League newsletter which included this information (Dance, 1992b). Until Simon Bronitt conducted some research on legal issues for the Feasibility Research into the Controlled Availability of Opioids, I believed the information I gave in both this consent form, and the consent form for the second

[1] The impetus for this Act was primarily to protect data collected by the research team for the Feasibility Research into the Controlled Availability of Opioids.

interview (Appendix 11: consent form 3) to be correct. I now know that although "The Act does not ... permit the disclosure of information ... simply because the information is reasonably necessary for the enforcement of the criminal law ... disclosure is permitted in special circumstances including ... where [it] has been expressly authorised by the Minister" (Bronitt, 1995:42).

I recorded only given names and the first three letters of respondents' surnames. I had already given pseudonyms to respondents from the 1989 research, as well as to the earlier new respondents for the research under discussion. After several disparaging comments about the pseudonyms I had chosen, I asked subsequent respondents to choose their own. The result was happier respondents but, as will be seen, there was some duplication of choices, for example, a James-1, James-2 and James-3. There were also some unusual choices such as "Mishima" and "Snork."

The ANU's Ethics Committee had concerns about me interviewing people under the age of consent. Since many adolescent drug users are no longer living in the parental home it was not possible to seek parental consent. In addition, full names of respondents were not asked for so it was not possible, nor would it have been ethical, to get parental consent. The ANU's Ethics Committee gave me permission to interview young people once these points were put to them. As it transpired, I interviewed only one person under the age of 16.

Other researchers have raised the question of reciprocity, recognising that the researcher takes up a lot of their respondents' time (Fetterman, 1989; Power, 1989). I provided respondents with an honorarium of $40.00 for each interview. This may have been one of the reasons people, particularly younger people, presented for interview. There has been some debate on the ethics of paying respondents, but, as Cannell points out, we do not "really know what effect they have and what is good and bad about them. We have a folklore but not the data" (1985:49). Several other Australian researchers have used honoraria (Mugford and Cohen, 1989; Darke et al, 1991a; Ross et al, 1993a; Spooner and Flaherty, 1993; Dobinson and Poletti, nd). It is possible, however that payment is a form of coercion and it is also possible that this payment biased the sample by attracting those with low incomes. These are more likely to be younger people.

During the interviews I provided tea, coffee, biscuits and cigarettes. For some of the longer interviews I also provided lunch or dinner. I handed out educational leaflets and booklets related to illegal drug use and HIV to interested respondents. Respondents were asked if they wanted feedback from the interview and for those (the majority) who did, I gave education about unsafe drug use, needle use and sexual behaviours. I supplied condoms and exchanged needles and syringes, and where necessary, supplied

referrals to people who solicited help or information or whom I thought needed professional help.

All my research findings so far have been directed back to as many respondents as possible and I offered copies of my publications to everyone I interviewed. Most respondents took some, or all, of my publications. The paper on the "Saint Oswald's Day" celebrations proved the most popular (Appendix 3). Largely as a consequence of this, there were many more participants in the 1992 celebrations than in previous years. This caused me some angst, but Oswaldians considered this to have been a very successful "Saint Oswald's Day" and non-Oswaldians did not appear at subsequent celebrations.

Other researchers have demonstrated a correlation between illegal drug use and physical and sexual abuse (Dembo et al, 1988; Howard, 1993a; Howard, 1993b). After careful consideration, and with the rationale that I did not want to resurrect such painful memories, I decided not to include questions relating to abuse. Nevertheless, several people talked spontaneously about their physical, sexual or emotional abuse. Some time after the interviews, I was criticised by one young man because of his recollection of the way I had conducted the interview. His memory was that I had asked him questions relating to his childhood abuse and then not discussed them with him. Only by going through the transcripts with him was I able to convince him that I had not. The fact remains that the interview triggered some painful memories and I did not deal with his feelings adequately. I remain concerned that there are other people I have similarly hurt. One of the harm minimisation recommendations I make (Chapter 9) is related to the importance of interviewers being prepared to deal with issues of abuse.

Given my continued closeness to some Oswaldians, these are the people that the thesis is most likely to reach. This poses ethical problems since giving too much detail will identify the individuals being discussed. In those cases where I was in doubt about disclosing information of a sensitive nature, and which could possibly also reveal the identity of the respondent involved, I showed what I had written to the person concerned. In instances where respondents expressed any misgivings, these findings were removed from the written work.

2.7: Sources of bias

The people with whom I conducted ethnographic work became friends. There are negative implications of this. I did not have the same degree of rapport with everyone I interviewed and this may be reflected in my research findings.

I became aware that it takes some time to stop looking through the eyes of respondents. The researcher is surprised and happy with all the things that they (contrary to expectations) can identify with and have in common with a culture which is different from their own and this colours their vision. There follows a kind of transformation, for in order to be able to look at the data objectively the researcher must reimpose some distance from it[1].

Another possible source of bias in this research is that, from its inception, its design was guided by only some of the people that I interviewed. This happened first during the 1989 interviews when Sarah indicated to me that there was a group structure, later informing me that there had been profound changes amongst the drug use patterns of some Oswaldians and that these should be studied. Some group members, as well as service providers, made suggestions regarding the structure of the interview guides and, because I respected their knowledge and their ability to give me constructive comments, some respondents were deliberately chosen for the pilot interviews. Their views may not be representative of everyone I interviewed.

Lastly, only a finite number of illegal drug users are willing to be interviewed, particularly for such a long and penetrating interview as mine, and their self-selection, as well as my selection of some respondents, may also bias the findings.

2.8: Reliability and validity

Several studies have been conducted on the reliability and validity of data obtained from illegal drug users. These have relied largely on treatment samples where the respondent is already a known drug user, or on surveys from probability samples of households or schools. Following comparisons between data collected at interview from 59 "narcotic drug addicts" with their hospital and FBI records, and urine samples Ball concluded that the results indicated "a rather surprising veracity ... the data were quite reliable and valid" (1967:653). He went on to suggest that the method of interviewing affects the respondent's motivation to be either "candid, equivocal or deceitful" (1967:654). Willie also found the data he collected from formerly dependent opioid users to be valid and reliable (1983). Some researchers have also looked at the data on HIV risk behaviours collected from people who use illegal drugs and also found them to be reliable (Gibson and Young, 1994; Des Jarlais et al, 1996).

In their small sample of heroin users who were interviewed face to face, Davies and Baker found major differences dependent upon whether the interviewer was a known heroin user or a "straight" interviewer: respondents presented themselves as more

[1] I am grateful to Dr Leslie Devereaux (a social anthropologist) for elucidating this concept to me.

"'addicted'" to the "'straight'" interviewer. Davies and Baker concluded that it was not possible to know which version was more truthful (1987). A national probability survey of high school students' drug use reported by Bachman and O'Malley found marked discrepancies between drug use reported during the previous month and that reported during the previous year. Blaming recall bias, they suggest that much of the discrepancy was due to an under-reporting of drug use in the past 12 months (1981).

The evidence is, therefore, somewhat equivocal, but there are ways in which the interviewer can maximise the validity of data collected at interview. Several are outlined by Nurco (1985:8-9). Firstly, he discusses the issue of assuring confidentiality of the data. I did my best to ensure this, but having prior legal protection for the data would have been even more reassuring to those respondents who had to be told that there was a possibility that the data could be subpoenaed.

Nurco recognises the establishment of rapport as another important element. Becker believes that deviants and non-deviants are each outsiders to the other (1963). Adler is even more pessimistic in her belief that "deviants are more difficult to locate, befriend and investigate than other subject populations" (1990:97). Although Tam Stewart is writing about new heroin users contacting current users, some of her more optimistic insight is also apposite for researchers. My experience is similar to Stewart's who maintains that, in many respects, users want you to be "like them ... to prove they are not weird outsiders after all. Against their better judgement, they want your acceptance, involvement and approval." It is not, however, necessary for researchers to "share [all users'] experiences" (1987:12). Further advice which assisted my interaction with respondents was provided by Roger, who at that first discussion back in 1989 had told me "We're not idiots, whatever you do don't treat us like idiots."

Nurco also identifies the need to concentrate on recent events as being a major issue. In my pilot interviews I did ask several questions relating to early drug use, but most were removed when I realised the problem of recall. The final relevant issue discussed by Nurco is related to making questions less specific. For example, from the pilot interviews I conducted, it became obvious that most people, particularly those whose drug consumption patterns were high, could not tell me how many times they had used a drug in the 12 months prior to interview. Instead, I then asked for some sort of range from the maximum number of times they had used a drug in the given period, to the minimum number of times they had used it.

My integrated methodology also helped maximise validity since this allows the checking of some of the interview data against ethnographic observations (Plant and Reeves,

1976; Fetterman, 1989). The prospective nature of this data collection also enabled me to check on the validity of data collected at the first interview.

I used several ways of maximising the reliability of the questions I asked. Firstly, I was the only interviewer for the data collection so I was sure that the questions were always asked in the same way. After reading *The Opiate Treatment Index (OTI) Manual* (Darke et al, 1991a), I contacted Shane Darke on several occasions to ensure that I understood the questions. Having designed the interview guides myself and having conducted all the interviews, I was conversant with the rationale for the questions being asked, and the questions were all asked in a similar way. The interview guides for the first round of interviews were piloted with 23 respondents (both Oswaldians and non-Oswaldians). The major changes that occurred took the form of shortening questions and removing those that either did not work or were repetitive. The interview guides for the second round of interviews were piloted with 10 respondents. The data from the pilot interviews were included in the analyses but, as a consequence, there are some missing values.

Because of financial constraints I was the only person who coded the qualitative data. Having other people also code the same data would have been another way of maximising the reliability of the findings.

2.9: Data analysis

Qualitative analysis requires the researcher to search the transcribed text and explore and interpret its meaning (Richards, 1990). The transcripts of my qualitative data were searched in this way, then coded and analysed with the Non-Numerical Unstructured Data Indexing, Searching and Theorising (NUD·IST) computer program.

Analysis of the descriptive quantitative data was largely achieved with the StatView program. Because there were no normal distributions in any of the variables discussed, I relied on non-parametric statistics for analysing the ordinal data. Where there were more than 20 people represented in a given numerical variable, I performed comparative tests and worked out the medians, ranges and interquartile ranges. In variables which involved fewer than 20 people, comparative tests were not performed and only the range is presented. I used the Chi^2 test for comparisons of nominal variables at each interview. The McNemar test was used to examine the significance of changes in nominal variables between the two interviews. Since the StatView program does not include the McNemar test, I worked out these analyses with the aid of a calculator. Where there were ordinal data, non-parametric statistics were also used for making comparisons between subsets. The Mann-Whitney *U* test was used for comparing

subsets within each interview and the Wilcoxon matched-pairs signed-ranks test was used for examining changes between interviews.

Most tables are attached separately as appendices. I present only the median numbers in the text where I also refer to tables which include ranges and interquartile ranges. The results of the significance tests are presented in the text rather than the tables since the size required for most tables precluded their inclusion there. When working out the percentages, very few of the totals reached a round 100 per cent and these totals are usually left blank.

I used the data from the first interview to compare those who presented only for this interview with those who went on to present for the second interview. I also made gender comparisons, and comparisons between the Oswaldian subsets and their opposite subsets at both interviews. Unless otherwise indicated, no significant differences were found and I have only tabled the results of the subsets separately where I did find significant differences.

As determined by Fisher, probability (p) tests are usually set at the 0.05 level of significance (Blalock, 1979). According to Rothman, many statisticians have been concerned about the interpretation of p values when multiple comparisons are made, and they have suggested that this should be corrected for by dividing 0.05 by the number of tests performed in order to obtain a nominal significance level (1986). Rothman, however, questions this by asking at what point a researcher should stop making these adjustments, for example should it be at the level of one question, or should it be all the tests ever performed by a particular researcher?

I checked to see what would be the effect on my p values of correcting for multiple tests. If, for example, I take one variable and divide 0.05 by 4, the largest number of comparative tests performed on a variable (that is between all the subsets at the first interview), a p of 0.0125 is obtained. If 0.05 is divided by 3 (the most comparative tests performed on a variable at the second interview) a p of 0.0167 is obtained. Taking this further by, for example, looking at the 12 variables in the OTI Social Domain, which results in 48 comparative tests at the first interview, a p of 0.00104 (0.05 divided by 48) is obtained. I took this even further and divided 0.05 by all the comparative tests done for all the variables in the OTI and obtained a p of 0.00047. I concluded that there obviously comes a point at which correcting for multiple testing, particularly when there is a small number of respondents as in my sample, means that the power to test anything is lost. I decided to set the p at 0.01, that is, approximately according to the number of tests performed on each variable. Given the debate in the literature surrounding the issue of multiple comparative tests, and given that I set the p value at 0.01, lower than

that determined by Fisher, I also note where any differences approached the level of significance I set. I acknowledge that there may, therefore, be Type A errors but I have also noted where differences approached significance because my research was exploratory and the intention was that is should be hypothesis generating. I have also noted when my findings were different from those obtained from other samples of people who use illegal drugs.

Though it was possible to fill in some of their missing values from the interview guide, there are two missing values for most of the OTI findings from the people I interviewed because two people did not have enough time to complete the OTI at the first interview. In these cases, and also in other instances where there were missing data from one interview, and where comparative tests were made between the two interviews, the corresponding values were also treated as missing.

Where possible, I also made comparisons between my results and previous relevant results collected from (mostly Australian) people who use illegal drugs. When making comparisons between my sample and samples that were solely composed of IDUs, I also looked separately at the subsets of IDUs I interviewed. Since I used non-parametric statistics, while most results from other samples were obtained by parametric statistics, direct comparisons were not possible. The comparisons do, however, give some indication of how the people I interviewed compare with other samples of people who use illegal drugs.

2.10: Summary

This chapter has covered the methods I used to obtain and analyse the data for the findings discussed in Chapters 3–8. The discussion in these chapters show that though some of my findings are similar to those reported by other researchers, there are also some differences. In these results chapters, I also discuss problems associated with the attrition rate and the, often quite profound, changes which occurred between the two interviews.

CHAPTER 3: SOCIODEMOGRAPHIC PROFILES

3.1: Introduction

Before going on in subsequent chapters to discuss aspects of the respondents' lives related to their drug use, I set these in context by presenting here the sociodemographic profiles of the people I interviewed. In addition to other comparisons, where possible, I also compare my findings with the results from the 1992 ACT Census of the general population in Canberra.

The sociodemographic results, related to residential stability, gender, age, country of birth, religion and secondary and tertiary education, are prefaced with an overview of some of the features of the geographical location of the research.

3.2: Characteristics of the ACT

Canberra is the national capital of Australia and is part of the ACT which, when the research began in 1992, had a population of around 296 000 (Jacobs, 1993). Canberra is a planned city and was created in 1911 to house both a Federal Parliament and a Commonwealth Public Service. As a result, Canberra has more than half of its work force in the public sector, compared to less than a third nationally (ACT Community and Health Service, 1988), resulting in what may be described as a government company town.

The ACT is an "island" within the south east of New South Wales (NSW). It is situated between Sydney (the state capital of NSW), which is 320 kilometres away from Canberra, and Melbourne (the state capital of Victoria), which is 640 kilometres away. Both these cities are important sources of illegal drugs The small adjacent city of Queanbeyan, which is in NSW, functions, in part, as a suburb of Canberra since residents treat the cities as an extension of one another for services such as housing and shopping. Nor is it unusual for people seeking illegal drugs to travel from one city to the other to obtain them.

3.3: Residential stability

At the first round of interviews, everyone gave an ACT post code. In spite of the population of the ACT being considered to have a "traditional volatility of interstate arrivals and departures" (Jacobs, 1993:25), the majority of respondents had been Canberra residents for at least 11 years (Table 1, Appendix 13). Other research has found that people who use illegal drugs tend to be more mobile than those I studied. The researchers in the ANAIDUS study, for example, concluded that the respondents in their survey had "a substantial degree of mobility" (1991:16).

Those who went on to also present for the second interview had lived in Canberra for a median of 13 years (range one month-31 years, interquartile range 5-23 years) compared to a median of 4 years (range one month-30 years, interquartile range 10 months-17 years) for those who presented only for the first interview (Z -3.422, $p < 0.001$).

3.4: Gender

There were 38 women (39.2%) and 59 men (60.8%) in the sample. The gender distributions for current IDUs were similar at both interviews to that of the total sample, as were the gender distributions for the Oswaldian and non-Oswaldian subsets (definitions of the subsets are included in Table 2 in Appendix 4) (Table 2, Appendix 13).

Some other samples show a smaller proportion of women than found in my sample. The ACT DIP drew all of its sample from treatment settings and corrective agencies and 29 per cent of their sample were women (Stevens and Wardlaw, 1994). In the national ANAIDUS project, where 57.8 per cent of people had been in treatment and 35.6 per cent had been in prison, 31.9 per cent of the respondents were women (1991). The OTI study included 230 people receiving opioid treatment, as well as 60 who were not, and these researchers found a "male to female ratio of approximately 2:1" (Darke et al, 1992a:735). A census conducted of treatment agencies in Australia during March 1992 found that only 27.9 per cent of clients were women (Chen et al, 1993). (This survey excluded clients receiving only methadone and no other services.) Of the 716 respondents in Crofts and Aitken's' cohort of IDUs from Victoria (Australia), 39 per cent were women and 60 per cent were men (one respondent was transsexual) (1997). This gender distribution was, therefore, almost identical to that found in my sample. In their study of "recreational" cocaine users Mugford and Cohen found a slightly larger proportion of 44 per cent of women than that found in my study (1989), as did Maher in her ethnographic work where 45 per cent of the sample were women (1996).

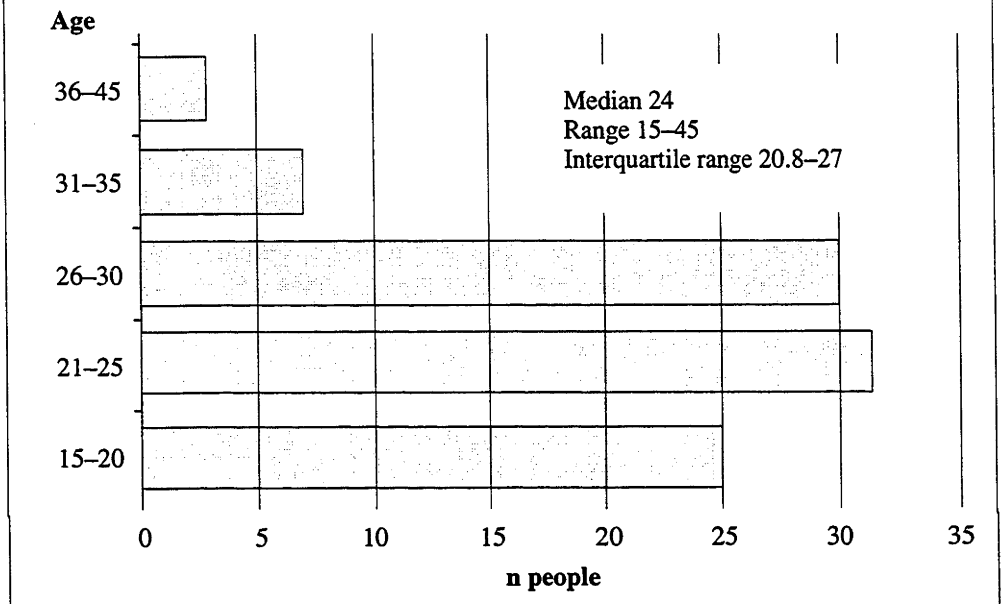
The possibility that women are more likely to present for interview where the interviewer is also a woman is not supported by the research on "recreational" cocaine users reported by Mugford and Cohen where the interviewers were male and a large proportion of respondents were female (1989). The majority of people in my sample had never been in treatment or in prison. The different gender distribution, compared to those drawn from treatment or prison settings, may be due to the fact that men are more likely than women to go into treatment or be incarcerated. Some Australian researchers maintain that women are under-represented in most drug treatment programs (Walby, 1988; Stevens, 1989; Hamilton, 1993). These authors believe that women-centred services are required in order to both attract and retain women with health problems due to drug use. Based on her experiences as a co-ordinator of a Therapeutic Centre which

provides childcare, Major-Blatch has found that the provision of this service leads to an increase in the number of women using the service (1994).

3.5: Age

Figure 3.1 shows that at the first interview this was a young sample of respondents with a median age of 24. Those who presented only for the first interview had a younger median age of 19 (range 15-37, interquartile range 18-25) than those who went on to present for the second interview (Z -2.854, $p < 0.01$).

Figure 3.1: Age distribution at first interview



By the time of the second interview, the median age was 26 (Table 3, Appendix 13). Mugford and Cohen found the same median age in their sample of "recreational" cocaine users (1989). The respondents in the ACT DIP had a similar mean age of 26.5 (Stevens, 1990), as did the ANAIDUS respondents who had a mean age of 27 (1991). Darke and colleagues report a slightly higher mean age of 29.7 among respondents interviewed for the development of the OTI (1992a). The census data reported by Chen and colleagues found an even higher mean age of 34.3 for clients of treatment services (1993). Maher's ethnographic work in Sydney uncovered a very young sample with a mean age of 20 (1996).

Because it is a comparatively new city, Canberra has a younger age profile than Australia as a whole. The 1991 Census of population and housing found the greatest number of ACT residents in the 20-24 age group (9.8%), whilst Australia in general had a greater number of people aged between 30-34. The median age of people living in the ACT was 29.7 at the 1992 census compared to an Australian median of 32.2 (Jacobs,

1993). This may partly explain the younger age at their first interview of the people I interviewed compared to some other samples. Unlike most other samples, the majority of people had not been in treatment at the time of the first interview (as will be seen in Chapter 5, there were profound changes in treatment status between interviews). It is probable that age and a longer history of drug use are correlated, which, in turn, correlates with a need for treatment.

There are other possible reasons for the low median age in my sample. Quite unplanned, my interviewing room turned out to be situated next door to a "squat"[1]. Sara, one of the young people living there, picked up one of my flyers from the AIDS Bus and made an appointment for interview. She passed flyers on to her friends in the "squat" who used illegal drugs. Most then presented for interview. It was obvious that the honorarium was a major incentive. In addition, Cliff, a core-Oswaldian, passed on one of my flyers to his sister Annabel who was still at school. Annabel presented for interview and was then the source of a snowball for her network of friends, the majority of whom were also still at school. As previously detailed (in Chapter 2), one of my ethnographic areas is a venue frequented by (mostly young) tertiary students. This led to several introductions with students who then made interview appointments.

There was a median age of 23 at the first interview for women, compared to a median age of 25 for men (Table 3, Appendix 13). By the second interview, there was a median age of 25 for women and a median age of 26 for men. At both interviews, these differences approached significance (at the first interview: Z -2.329, $p = 0.0198$, at the second interview: Z -2.24, $p = 0.0250$).

Similar gender differences in age are not restricted to my sample. The ACT DIP study (Stevens and Wardlaw, 1994), Maher's ethnographic study (1996) and the Australian Study of HIV and Injecting Drug Use (ASHIDU) (Loxley et al, 1995) also found that women were younger than men. The ANAIDUS research (1991), the census of clients of treatment services (Chen et al, 1993), a study of clients in methadone maintenance in Adelaide (Dyer et al, 1992) and studies from the USA of clients in methadone maintenance (Hser et al, 1987) all found this difference to be significant.

Table 3 in Appendix 13 also shows the ages of the IDUs and the ages of the people in the other subsets revealing only marginal differences between any of the subsets.

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1. A "squat is an abandoned building which is utilised as a dwelling place without payment or rent. "Squats" are often used by homeless people, particularly young people. These dwellings are usually occupied on a temporary basis.

3.6: Country of birth

Seventy six people (78.4%) were Australian born (Table 4, Appendix 13). Two of these people were Aborigines. Fifteen of the other respondents were born in an Anglo-Celtic country. Of the 6 who were not, only one woman (born in Argentina) and one man (born in Japan) were of non-Anglo-Celtic parentage. Most of the 21 people born outside of Australia were long term Australian residents since 16 had arrived before 1975. A further 4 people had arrived during 1976 to 1987 and one had arrived quite recently, since 1990.

The profile for country of birth is very similar to the 1992 treatment census reported by Chen and colleagues, in which 75.1 per cent of clients were Australian born non-Aborigines (1993). It is also like the ANAIDUS sample, where 80.1 per cent were Australian born (1991) and approximates that of the 1992 ACT census which showed that 74.6 per cent of the ACT population was Australian born (Jacobs, 1993).

Only three (3.1%) of the people I interviewed said that a language other that English was spoken at home. This is somewhat different from the 1992 ACT census which found about 15 per cent of people over the age of 4 in this category; the languages most commonly spoken were Italian at 10.8 per cent, one of the Chinese languages at 9.5 per cent, and both Greek and Croatian at 8.3 per cent (Jacobs, 1993). Only 11 of the people I interviewed (11.3%) had one or both parents who were of non-Anglo-Celtic origin. None of these people had either Italian or Greek parents. There was only one Australian-born person who had a parent born in a country where Chinese languages were commonly spoken. Another Australian-born person had one parent who originated from Croatia. Part of the difference in my sample, compared to that of the census, could be attributed to the fact that only people who were proficient and confident with their English speaking skills felt comfortable about presenting for a long face to face interview. Other factors might include differentials in illegal drug use consumption between ethnic groups, or a greater fear of illegal drug use being discovered among some ethnic groups.

3.7: Religion

At the first interview, most people (n=78, 80.4%) said they did not belong to an orthodox religion and only 6 people (6.2%) said that they belonged to a Christian religion (Table 5, Appendix 13). Thirteen people nominated a non-Christian religion: 5 were core-Oswaldians who laughingly responded that "Oswaldianism" (Appendix 3) was their religion.

The low incidence of affiliation with orthodox religions is similar to Mugford and Cohen's finding that only 5 of their 73 "recreational" cocaine users identified themselves

with any organised religion (1989). My finding supports Plant's opinion, based on his research with people who use illegal drugs, that "many drug takers identify themselves as agnostic, atheist, or as having adopted Oriental forms of belief ... Many belong to recently formed sects" (1976:40). The finding is, however, very different to the overall population in Canberra where in the 1991 census 71.1 per cent of people identified themselves as Christian (Jacobs, 1993).

3.8: Secondary education

At 62.1 per cent for the first interview (n=59), and 66.3 per cent for the second interview (n=62) (Table 6, Appendix 13), there was a high proportion of people who had completed their secondary education by attaining a Higher School Certificate (HSC) in year 12. In order to make a better comparison with studies which have focused on IDUs, I looked separately at the IDUs in my sample and found the proportions of completed HSC to be similar to those of the total population I interviewed. At the first interview 61.6 per cent of current IDUs (n=45) had achieved their HSC. There was only a minimal change at the second interview when 61.8 per cent of the then current IDUs (n=47) had achieved this level of secondary education.

According to Plant, "Drug takers are more likely than non-drug-takers to report that they have stayed on at school after the minimum leaving age (1976:39). Several Australian studies have, however, shown a smaller proportion of people who have completed their HSC than found in my sample. The ANAIDUS researchers report that 19.7 per cent of their sample nominated having completed secondary education as their highest level of education attained. An additional 11.4 per cent had undertaken some tertiary education and a further 8.8 per cent had completed tertiary education (1991). It is probable than those in the latter two categories had also completed their secondary education, giving a likely overall proportion of 39.9 per cent who had reached this level of education. In Lenton and Tan-Quigley's Western Australian study, 23.8 per cent of their sample nominated completion of "Senior High School" as their highest level of education (1997:23). An additional 6.8 per cent had completed university or college and 3.7 per cent were enrolled in this form of tertiary education and could, therefore, be also expected to have completed high school. This gives a probable overall percentage of 34.3 per cent who had completed high school. The ASHIDU finding was similar since 27.4 per cent of their national sample had "Completed year 12" (Loxley et al, 1995:21). Spooner and colleagues found a higher proportion. Forty nine per cent of the 581 young people (described as occasional illegal drug users) they interviewed had "at least" their HSC (1993:161).

As shown in the following section of this chapter, a large proportion of the people I interviewed were university students who were likely to have completed their HSC.

The higher level of HSC found in my sample, compared to others cited may also partly be explained by Canberra having higher school retention rates than the national average (Jacobs, 1993). Other evidence that some people who use illegal drugs do achieve higher levels of education was found in a United States study of secondary students where 70 per cent of the academically successful reported some type of drug use (Evans and Skager, 1992). The findings to be reported in Chapter 5 reveal a significant reduction in the numbers of drugs used between the first and second interviews, and also show that many people had reduced their levels of intake. In a study of 422 heroin users, Waldorf found that those who had remained in high school had more resources to support long abstentions compared to those who did not (1970). Though this finding may bode well for the people in my sample who had completed their HSC, and who wished to control their drug use, it is not an optimistic finding for the less academically successful.

At 62.8 per cent (n=59), those who went on to present for the second interview had a larger proportion of people who had completed their HSC at the time of the first interview than the proportion of 28.6 per cent (n=12) for those who were only interviewed once (Z -3.553, $p < 0.0005$). One of the most difficult subsets of people to relocate were those still at school at the first interview and who could not, by definition, have completed their HSC. This would explain much of this difference.

Although I found no significant educational difference between women and men at either interview, other Australian studies of people who use illegal drugs have found that women had achieved a significantly higher level of education than men (ANAIDUS, 1991; Loxley et al, 1995).

During my 1989 research, I found that most Oswaldians I interviewed had attained their HSC and hypothesised that, compared with the other illegal drug users I interviewed, there would be a higher proportion of those who completed HSC among the Oswaldians. At the first interview, 71.1 per cent of Oswaldians (n=27) had obtained their HSC compared to 57.1 per cent of non-Oswaldians (n=32). At the second interview, there had been no change in the number of Oswaldians with their HSC but three non-Oswaldians had obtained their HSC between interviews so that a total of 62.5 per cent of non-Oswaldians (n=35) had their HSC.

At the first interview, 80 per cent of core-Oswaldians (n=20) had obtained their HSC compared to 56.5 per cent of the Remainder (n=39). These differences approached significance (Z -2.293, $p = 0.0220$). By the second interview, there had been no change in the number of core-Oswaldians who had obtained their HSC but 3 people in the Remainder subset had attained their HSC between interviews thus increasing their

proportion to 69.8 per cent (n=42). This difference in educational level no longer approached significance. There is, therefore, insufficient evidence to support my hypothesis.

3.9: Tertiary education

The proportion of people previously or presently involved with tertiary education was high (Table 7, Appendix 13). Of those who were eligible by age, there were only 36.0 per cent at the first interview and 31.9 per cent at the second who had no tertiary education. Only small numbers had, however, completed a degree or diploma. At the first interview 10 people (11.6% of those eligible by age) had completed an undergraduate degree or diploma (1 completed postgraduate, 5 present postgraduate and 4 completed undergraduate). By the second interview, 15 people (16.0% of those eligible by age) had completed their undergraduate studies (two completed postgraduate, four present postgraduate, two discontinued postgraduate and seven completed undergraduate). There were a further five people at the first interview, and seven at the second, who had completed a trade or professional certificate.

These finding support Plant's belief that some form of higher education is more commonly reported among drug takers than non-drug takers (1976). The figures for completion of tertiary studies in my sample are also comparable to some other Australian studies. The ANAIDUS researchers report that 8.8 per cent of respondents had completed tertiary education (1991). A slightly higher percentage of 14 per cent who had completed a university or college course, and an additional 27.2 per cent who had completed a trade or technical course was uncovered in the ASHIDU research (Loxley et al, 1995). Lenton and Tan-Quigley report that 6.8 per cent of their sample had completed university or college and an additional 22.4 per cent had completed a trade or technical course (1997). Only 16 per cent of the "recreational" cocaine users surveyed by Mugford and Cohen had not attended a tertiary institution.(1989).

At their first interview, more than a quarter of the people I interviewed who had completed secondary school were presently university undergraduate students (n=23, 26.7%). This is much higher than the proportion found by Lenton and Tan-Quigley where 3.7 per cent of their sample were enrolled at a university or college at the time of interview (1997). One of my ethnographic areas is a venue frequented by tertiary students, which led to several introductions to students who then made interview appointments. This partly explains the large number of university students in my sample compared to other samples. In addition, a history of involvement in tertiary education is fairly common in the general ACT population since around 20 per cent have a degree or diploma and a similar proportion have a trade or other certificate (ACT Community and Health Service, 1988).

At the first interview, 11 people had discontinued an undergraduate degree or diploma and one had discontinued a trade certificate. By the second interview, the number of people who had discontinued their tertiary studies had increased to 15: two more people had discontinued a trade certificate and two a postgraduate degree or diploma. This attrition rate is of some concern but I did not ascertain reasons for discontinuation of studies and am unaware of data from the general population of tertiary "drop outs" that would allow for any comparisons.

3.10: Conclusion

I was looking for Canberra-based people who use illegal drugs. In spite of Canberra having a relatively mobile population, most people I interviewed had been Canberra residents for a lengthy period. This indicates residential stability in the majority of respondents who presented for the second interview. These people had, however, lived in Canberra for a significantly longer time than those who presented only for the first interview.

Those who presented only for the first interview were also significantly younger than those who were interviewed twice. In fieldwork terms, the people I had least success in tracking down for a follow-up interview were those who had presented from the snowball to the school and those, mainly teenagers, from a "squat." Only nine of the 19 people from the snowball into the school (47.4% of this snowball), and only 11 of the 24 people from the "squat" (45.8% of these people) were accessible for the second interview. This high attrition rate from these two sources helps to explain both the significantly younger age of those who presented only for the first interview and their significantly shorter period of Canberra residency. These differences will influence the findings discussed in subsequent chapters in as much as the people who were interviewed twice would, in general, have a longer history of using drugs.

The people I interviewed were similar to other ACT residents in terms of their sociodemographic profile but not in terms of their religious beliefs. In this respect, they are similar to Mugford and Cohen's finding (1989) that belonging to an orthodox religion is uncommon among people who use illegal drugs.

As with other samples of people who use illegal drugs, more men than women presented for interview but compared to samples drawn from treatment and corrective agencies, and also samples which contained a larger proportion of people with a treatment and incarceration history, a larger proportion of women presented for my interviews. Both my research and that of other largely non-treatment populations suggest that there are more women using illegal drugs than indicated by samples solely drawn from treatment settings.

Several studies, including mine, have found women to be younger than men. It is possible that, in the samples obtained from treatment settings, the women are younger because younger women are more likely to have no childcare responsibilities. This would facilitate their ability to enter into treatment. This does not, however, explain the younger age of women who were not in treatment. I suggest that there is a need for further research to examine more fully the relationship between gender and age among illegal drug users. Until there is more research, several questions remain unanswered. For example: if women do start using drugs at an earlier age, what sort of predisposing factors are at work? With regard to the findings that women in treatment are younger than their male counterparts, could this be because they are more likely to have problems earlier, or could it be that they are perceived by themselves, or others, to be having more problems?

Respondents at the first interview were younger than those found in other Australian studies, but by the second interview their median age was similar to that of several other studies.

There was a higher proportion of those who had completed their secondary education in my survey compared to other surveys of illegal drug users. Both my study and some other Australian studies have found that many illegal drug users spend some time studying in tertiary institutions. Mine also found that there was a considerable attrition rate. These findings suggest that in order to promote safer drug use and to also potentially reduce tertiary attrition rates among illegal drug users, it would be worthwhile to specifically target tertiary institutions with harm minimisation messages.

Because of the honorarium of $40.00 for each interview, there might have been an over-sampling of the unwaged, the unemployed, low income workers and students. All of these people are more likely to fit in the younger age brackets.

Overall, then, I found some differences when comparing the people I interviewed with other samples, but I also found some similarities. Based on these findings, my hypothesis that the people I interviewed would be different from other illegal drug users studied is only partially upheld. I found no significant differences in any of the characteristics discussed here, either when I compared all the Oswaldians with the non-Oswaldians, or when I compared the core-Oswaldians with the Remainder.

In addition, the sociodemographic results reported in this chapter provide no evidence to support my hypothesis that the Oswaldians would be different from other illegal drug users I studied.

CHAPTER 4: SETTING THE SCENE: A HISTORY OF DRUG USE IN AUSTRALIA, THE ACT AND AMONG RESPONDENTS

4.1: Introduction

This chapter demonstrates that, by comparison with most other Australians, the people I interviewed are not unique in that they use drugs, but they are unique in their range of experimentation with a wide range of drugs. The majority of drugs they used are presently illegal. Unlike the general population of Australians who use only legal substances, they are, therefore, likely to be prosecuted for their use. Most people smoked tobacco and drank alcohol. As well as the dangers associated with these drugs, they are at increased risk because there is no quality control on most of the other drugs they used. Over the years, research has demonstrated that many heroin-related deaths

are due to concurrent use of other drugs, notably alcohol (Concool et al, 1979; Kreek, 1984; Kreek, 1987; Bammer and Sengoz, 1995; Strang et al, 1996; Zador et al, 1996). Klee and colleagues found that polydrug users, particularly those who used the benzodiazepine temazepam, had an increased likelihood of taking more health risks, in particular, sharing needles (1990). Similarly, Darke found polydrug users to be a more risky subgroup because they injected more frequently and because they borrowed and lent needles more frequently (1994). These findings indicate that the extensive polydrug use of the people I interviewed has the potential to further increase the harm associated with drug use.

I had hypothesised that I would find differences between Oswaldians and non-Oswaldians in polydrug use. In our paper on the Oswaldians (Appendix 3) Stephen Mugford and I described this group as "drug enthusiasts". Although the Oswaldians in the present research had used significantly more classes of drugs than the non-Oswaldians, there was no longer a significant difference when comparing the number of individual drugs. The findings for this research demonstrate the large numbers of drugs that had been used by all respondents, and that the term "drug enthusiasts" might equally apply to both Oswaldians and non-Oswaldians.

Zinberg maintains that "in any valid theory of drug use [it] is necessary to understand in every case how the specific characteristics of the drug and the personality of the user interact and are modified by the social setting and its controls" (1984:15). This insightful theory of "drug, set and setting" influenced the way I conducted my research and present my findings. In this chapter, I discuss the characteristics of the drugs used by the people I interviewed and also the social setting and the controls on these drugs. In subsequent chapters, I weave in some of the qualitative findings which allow glimpses of some of the personalities of the people I interviewed.

As will be shown in both this chapter and the next, the people I interviewed were polydrug users. When Gould and Kleber wrote about polydrug use in 1974 they thought that it was probably of only "recent concern" to drug treatment programs. In their review of research conducted in the late 1960's and early 1970's, they showed that previous research had concentrated on the association between heroin and marijuana. Following their own study among people in treatment settings (who had used a variety of other drugs in addition to heroin and marijuana) they concluded that drug use in the USA was moving into a polydrug rather than a heroin era (1974). There is now a wealth of evidence from overseas (for example, Stimson and Ogborne, 1970; Flaherty et al, 1984; Wilkinson et al, 1987; Wiebel, 1988; De Leon, 1989; Klee et al, 1990; Kramer et al, 1990; Martin et al, 1993; Pivnick et al, 1994), from Australia in general (Carroll, 1988; Mugford and Cohen, 1989; Bell, Fernandes and Batey, 1990; Moore et al, 1992; Howard, 1993b; Darke, 1994; Hall and Hando, 1994; Loxley et al, 1995) and from within the ACT (for example, Latukefu, 1987; Dance, 1991b; Dance and Mugford, 1992; Stevens and Wardlaw, 1994) to demonstrate that polydrug use is common among people who use illegal drugs.

As a backdrop to both the scene changes and individual changes in drug use behaviours described in the following chapter, I set the scene in this chapter by giving a broad overview of the history of drug use in Australia, followed by a general picture of the drug use in the ACT. As an introduction to the histories of the use of classes of drugs, I present a brief overview of their effects, largely concentrating on the perceived positive effects. Their harmful effects are discussed more fully in Chapter 6. Towards the end of this chapter, I present an overview of the respondents' treatment histories.

Among the comparisons between my results and those from other researchers, I include some from the NDS household survey. As Larson and Bammer have indicated, there are, however, several drawbacks to general population surveys: since the use of illegal drugs is quite rare, even large surveys identify only a small number of users; homeless and institutionalised populations could be expected to contain people who use illegal drugs, yet both are obviously excluded from household surveys; and there is a high non-response rate where data on illegal activities are being sought (1996). Estimates based on the household survey need, therefore, to be viewed with some caution.

4.2: A brief history of drug use in Australia

Contrary to popular belief, Aborigines did use drugs prior to white settlement. The major difference between that long pre-settlement history and the 200 years since, is that the monitoring and distribution of drugs was previously in the hands of the Aborigines rather than in the hands of the Europeans (Brady, 1991). Prior to colonisation,

Aborigines, generally men of ritual standing, used at least four plants containing nicotine (Watson, 1991). Pituri, an indigenous desert plant, was used most commonly. Many Aboriginal peoples also made intoxicating beverages from local flora (Brady, 1991).

When the first white settlers arrived they brought with them alcohol, usually in the form of rum. Aborigines were sometimes forced to drink alcohol for the "amusement" of the settlers and white men gave it to Aboriginal women as payment for sexual favours (Brady, 1992). We have now reached such a tragic stage that one prominent Aboriginal leader was led to say: "Nothing has so thoroughly wasted potential human talent as has the widespread contemporary dependence on alcohol and other harmful substances among our indigenous population" (O'Donoghue, 1990:5).

The overall amounts of alcohol consumed in Australia, and the relative popularity of wine, beer and spirits, have varied greatly since colonisation (Krivanek, 1982) when Australia was predominantly a spirit-drinking country and it was legally permitted to supplement wages with spirits, usually rum (McAllister et al, 1991). In this century, beer became the predominant form of alcohol and a steep rise in use occurred in the latter half of this century (Sargent, 1979). Recently, wine has overtaken beer as the most popular alcoholic drink and there has also been a large increase in the consumption of low alcohol beer (NDS, 1994). The lowest consumption of alcohol occurred in the 1930s, largely due to the effects of the Temperance Movement and the Great Depression (McAllister et al, 1991). After this time, alcohol consumption increased dramatically and by 1977 had spread to the extent that Australia was dubbed by a Senate Standing Committee into drug use "An Intoxicated Society" (Baume et al, 1977). Since that report, there has been a reduction in alcohol use. In recent times alcohol consumption dropped by 13 per cent during the period from 1988/89 to 1992/93 (NDS, 1994). Notwithstanding this reduction, in 1991, Australia had the second highest per capita alcohol consumption in the English speaking world (after New Zealand) . At this time, it also ranked seventeenth in the world for absolute alcohol consumption (NDS, 1994).

Tobacco arrived in Australia shortly following white settlement and was used as an incentive to increase workers' productivity (McAllister et al, 1991). Its use increased gradually in the earlier part of this century, then in the mid 1970's started to decrease (Krivanek, 1982). By 1993, 21 per cent of Australian women and 29 per cent of men were regular smokers (NDS, 1994).

In nineteenth century Australia, opiates were used often by all sectors of the population in ways that were similar to other western nations. Because there was little distinction between opiates used as treatment and "out of need or desire", there were no medical, legal or social sanctions on their use (Manderson, 1992a:508). As in other newly

colonised countries which experienced waves of Chinese migration from the 1850s, it was racial discrimination against these new immigrants which was the progenitor for the development of sanctions, including legislative sanctions, against heroin (Manderson, 1992a). There were also moves from within the Chinese community to prohibit its use (Lonie, 1979; Manderson, 1993).

The prohibition on the smoking of opium (but not other methods of use) was gradually introduced in every Australian State over a 13 year period beginning in 1895. But, as Manderson puts it, "the ardour of the moral entrepreneurs and temperance lobby was by no means slaked with the prohibition of opium smoking" (1992a:511). In the early decades of this century, Australia followed other English speaking nations, notably the United States, which developed laws prohibiting the use of opiates and cocaine unless they were prescribed by a medical practitioner. These laws arose in tandem with the upsurge of medical dominance (Manderson, 1992a).

Following the first World War, the League of Nations set up an Advisory Committee on Traffic in Opium and Other Dangerous Drugs, and in 1925 Australia signed the Geneva Convention which led to the adoption by State Governments[1] of a legislative scheme of regulation, prohibition and severe penalties for non-prescribed drug use which soon came to include cannabis (Manderson, 1992a).

Both before and after the second World War, Australia had very high levels of legal heroin consumption and by 1951 it was the highest per capita user in the world. This led to an enquiry by the Commonwealth Department of Health which concluded that consideration be given to prohibiting its medical use. Prohibition was enacted by the Commonwealth Government in 1953 and eventually all State Governments bowed to Commonwealth pressure to follow suit (Manderson, 1992a).

Australian drug law has been influenced largely by international obligations. In 1967, the Australian Federal Government ratified the Single Convention on Narcotic Drugs of 1961. Whilst preserving this Single Convention, in 1989 Australia signed the 1988 United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (Norberry, 1991).

In the first half of this century there were some "middle class, middle aged therapeutic addicts" who were given their drugs on prescription (Manderson, 1992b:529). This practice continued until the late 1960's when there were not only legislative changes, but

[1] Australia was federated in 1900 and this ultimately led to the establishment of six State Governments, as well as a Federal Government. There are now also two Territory Governments, including (since 1989) the ACT, which was previously under the jurisdiction of the Federal Government.

a change on the profile of drug users who were "young, used drugs recreationally and most often smoked marijuana" (Manderson, 1992b:529).

Prohibition has brought to Australia problems which might be considered to be worse than the personal use of presently prohibited drugs. For example, numerous commissions and official enquiries in Australia (as well as elsewhere) have reported on the nexus between corruption and the illegal drug trade (Wodak, 1991; Fox and Matthews, 1992). Based on 1988 data, Collins and Lapsley estimated that the economic cost of drug use in Australia is $14.3 billion a year. Tobacco accounts for 47.5 per cent of this cost, alcohol for 41.9 per cent and illegal drugs for around 10.0 per cent. Because there were major unquantifiable areas, Collins and Lapsley consider these figures to be "minimum estimates". They go on to document that 75 per cent of the tangible economic cost of illegal drugs arise solely from their illegality (1992).

From the 1960's onward, there has been a dramatic increase in the use of illegal drugs throughout most western societies. Explanations for this include the dominance of modern day consumer culture with its emphasis on leisure and pleasure (Mugford and Cohen, 1989) and the need to retreat from the complexities of modern society through the use of drugs: an adaptation which manifests in "the rejection of cultural goals and institutional means" (Merton, 1963:153). Australia is no exception to the modern day increase in illegal drug use. In the 1960s there was, as in other Western nations, an upsurge of "youth rebellion" alongside a widespread increase in drug use (McAllister et al, 1991:203).

4.3: Drug use in the ACT

Most of the people I interviewed were longterm Canberra residents, and in this section, I present an overview of what is known about drug use in this city.

The Australian Bureau of Statistics (ABS) National Health Survey found that 30.3 per cent of people aged over 18 in the ACT were smokers. This is proportionately higher than elsewhere in Australia (Jacobs, 1993).

This survey also found that, compared to the rest of Australia, the ACT reported the highest proportion of adults who had consumed alcohol in the seven days prior to interview. More males (79.8%) than females (61.3%) reported drinking during this period. People in the ACT reported an average consumption of 24.5 millilitres of alcohol per day compared to a lower Australian average of 23.6 millilitres (Jacobs, 1993).

A random survey drawn from all but three high schools in the ACT found that analgesics, alcohol and tobacco were the drugs most widely used. Approximately one quarter of the students had used marijuana and inhalants, but the use of other illegal drugs was rare (ACT Alcohol and Drug Service, 1991). Results from the 1989 to 1990 ABS National Health Survey show that the majority of people in the ACT use drugs. According to these findings, 66.7 per cent had used medications in the two weeks prior to interview. Most (49.9%) had taken pain relievers (Jacobs, 1993).

As part of the Feasibility Research into the Controlled Availability of Opioids, a review of illegal drug use in the city was undertaken by other researchers and myself (McDonald et al, 1993). This full paper is attached as Appendix 14 and I also make reference to it during some of the discussion on specific drugs in both this and the following chapter. Some of the more general findings are highlighted below.

In this publication, we remarked that whilst some heroin users fit the stereotypical image of "alienated individuals with lifestyles manifesting a constellation of problems", we drew on qualitative data from heroin users interviewed in the ACT to demonstrate that many were in control of their lives. We concluded that there is no such thing as a "typical heroin user" (McDonald et al, 1993:130).

Our research with illegal drug users, service providers and law enforcement agencies demonstrated that almost all illegal drugs were brought into Canberra. Owing to the dilution of the drugs as they moved through more levels of the drug market to reach Canberra, the drug price/quality relationship was worse than in Sydney or Melbourne. As I indicate in the following chapter, there has subsequently been a reported increase in the purity of heroin.

4.4: Data collection on drug use at the first interview

The discussion moves on to focus on the drug use histories taken at the first interview I conducted for this research. I begin by describing how I collected these data.

Wilkinson and colleagues have demonstrated that there are variations in drug concentration among pharmacological classes (1987). The people I interviewed in 1989 also educated me about the variations in effect among classes of drugs they used. The drug use sections of my interview guides (Appendices 6 and 7) were consequently designed so that data were collected on specific drugs within a pharmacological class. I nominated a class of drug then asked respondents what drugs within this class they had used. I did not read out the list of drugs because I did not want to alert respondents, particularly the younger ones, to illegal drugs which they had never heard of. I also wanted to minimise the chance that people might report use of drugs that they had not

actually used. Consequently, particularly where I was asking about drugs ever used, rather than drugs being currently used, there may have been under-reporting.

Data were collected on drugs which were taken either for their psychotropic effects (alcohol, tobacco, some opioids, cannabis, stimulants, psychedelics and inhalants) or to assist with problems associated with drug use (some opioids, benzodiazepines, barbiturates and antidepressants). There is some overlap between the classes of drugs. I considered cannabis, for example, as a separate class but it also has hallucinogenic properties. The questionnaire was designed so that people were asked about tranquillisers they had used. With the exception of Mandrax (which was then included in the miscellaneous drugs category) all the tranquillisers that had been used were benzodiazepines. I also asked people about their use of barbiturates. Though benzodiazepines and barbiturates are not, strictly speaking, classes of drugs, I termed them as such for the purposes of this work.

The data collection on prescribed and over the counter drugs was restricted to those that the respondents indicated were related to their other drug use. For example, I collected data on the use of codeine which was used to assist people when they were experiencing withdrawal symptoms from heroin, or to cure a hangover, but did not do so if it was used to relieve the discomfort of dysmenorrhoea.

In addition to the drugs which fell into these ten designated classes, I also asked respondents if any other drugs had been used for their psychotropic effects, and if, for any reason, any other drugs had been taken because of the drugs they consumed. That is, I was exploring inter-relationships between drugs consumed. A few people mentioned antipsychotic agents thus giving a possible total of 11 classes. Twenty one respondents also named "cocktails" of drugs and 18 named miscellaneous drugs which they said were taken for their psychotropic effect. In a few instances, people could not name a particular drug, only its class. There were also a few drugs mentioned that I could not find in any of the pharmacopoeias I consulted but whose effects people were usually able to describe. These are not included in the totals but are listed as unknown in the tables in Appendix 15.

After completing several interviews, it became apparent that many people were using prescription drugs, particularly Doloxene, codeine, the benzodiazepines and antidepressants, that had not been prescribed to them, but which had been obtained illegally. I then started to collect data on whether the drugs were prescribed or not. These findings are recorded in the tables on drug use histories (attached as Appendix 15) but with the exception of methadone, there are too many missing values to give an accurate picture of whether drugs were legally or illegally obtained.

4.5: Drug use histories of respondents

Before presenting the respondents' histories of the classes of drugs used, and the individual drugs used within these classes, I present an overview of the total classes and drugs ever used at time of the first interview and the histories of involvement with illegal drug use.

A median of 8 drug classes (out of the possible total of 11) had been used (range 3-10, interquartile range 7-9). The median stayed at 8 for all the subsets (definitions of the subsets are included in Table 2 in Appendix 4) but the Oswaldians had used a range of 5-10 classes (interquartile range 8-9), which was greater than the range of 3 to 10 (interquartile range 7-9) among the non-Oswaldians (Z -2.634, $p < 0.01$).

One hundred and two drugs had been used by the total sample during their drug taking careers. A median of 17 drugs per person (range 3-45, interquartile range 13-22) had been used. Men had used more drugs (median, 20, range 3-45, interquartile range 13-24) than women (median 15, range 7-40, interquartile range 12-20) (Z -2.344, $p = 0.0192$). As shown in Chapter 3, there was a tendency for the women I interviewed to be younger than their male counterparts and this may explain the gender difference.

Oswaldians had used more drugs (median 18, range 8-40, interquartile range 14-25) than non-Oswaldians (median 16, range 3-45, interquartile range 12-22) but, unlike the finding for classes of drugs, this difference was not significant.

There was a median period of 9 years of illegal drug use (median 9 years, range 1-30 years, interquartile range 6-12.3 years) which was longer than that found in the subset who presented only for the first interview (median 6.5 years, range 1-21 years, interquartile range 4-10 years) (Z -2.264, $p = 0.0238$).

Men had used illegal drugs (median 10 years, range 1-30 years, interquartile range 6.3-13 years) longer than women (median 8 years, range 2-18 years, interquartile range 4-11 years). This may partly explain the greater number of drugs used by men.

The median age of first illegal drug use was 14 (range 11-19, interquartile range 13-15). Women first used illegal drugs at the age of 14 (range 11-20, interquartile range 13 -16); men had a slightly higher median age of 15 (range 10-29, interquartile range 13.3-16).

The following part of the chapter examines the histories of the use of individual classes of drugs and drugs used within those classes. These are listed in order of frequency of use of classes.

4.6: Alcohol

Alcohol use is common in Australia, and it was virtually universal in my sample. There was only one respondent who had not drunk alcohol, and there was a young median age of 13.5 for first use for the majority that had (Table 1, Appendix 15).

4.7: Tobacco

All but 3 people (96.9%) had smoked tobacco (Table 2, Appendix 15). There was a young median age of 14 for first use. Though the NDS found that women tended to start smoking earlier than men (1994), I found no significant gender difference .

4.8: Cannabis

Cannabis contains the psychoactive chemical delta-9-tetrahydrocannibinol (THC). Its concentration varies in the three most commonly used forms: marijuana, hashish and hashish oil (Hall, 1995). Users experience several psychoactive effects including hallucinations and feelings of euphoria, relaxation and self confidence (Australian Bureau of Criminal Intelligence, 1996).

In 1989, the newly formed ACT Legislative Assembly instituted a Select Committee on HIV, Illegal Drugs and Prostitution chaired by Michael Moore. Following consultation with an array of interested parties, there was an amendment to the ACT Drugs of Dependence Act to the effect that police now have an option to issue a $100 on the spot fine for "cultivating or participating in the cultivation of not more than 5 cannabis plants, or possession of not more than 25 grams of cannabis or self use (administration) of cannabis". The cultivation and possession of a larger number of plants or of cannabis resin or oil are treated more harshly and may lead to imprisonment (ACT Department of Health and Community Care, 1996). Similar legislation passed in South Australia in 1987 does not appear to have led to an increase in the use of cannabis (Christie, 1991).

Ninety nine per cent of the people I interviewed (n=96) had used cannabis (Table 3, Appendix 15). Most had commenced their use before this Act was passed. Several respondents said they approved of this new legislation. Most people had used marijuana, hashish or hashish oil. One person had also used pure THC when he lived overseas.

4.8.i: Marijuana

Marijuana is the most commonly used illegal drug in the world (McAllister and Makkai, 1991a). The 1993 NDS found that 28 per cent of women and 41 per cent of men had used it. Among those aged between 14-34, the rates increased to between 46 and 47 per cent for women and 58 to 60 per cent for men (1994). Marijuana had been used by all

the cannabis users in my survey (Table 4, Appendix 15). The first route for all 96 people was inhalation and the median age at first use was 15.

4.8.ii: Hashish

Most people had also used hashish (n=95, 97.9%) (Table 5, Appendix 15). The median age of 16 for first use was older than that for marijuana.

4.8.iii: Hashish oil

A majority of 60.8 per cent of respondents (n=59) had tried hashish oil (Table 6, Appendix 15). Seventy five per cent of Oswaldians (n=30) had used it compared to 50.9 per cent of non-Oswaldians (n=29) (Chi^2 at 1 df = 5.7, p = 0.0166).

The median age of 17 for first use of hashish oil was higher than for first use of both marijuana and hashish. This suggests that many of those who continue to use cannabis progress to the more potent forms as they become older and more experienced cannabis users.

4.9: Hallucinogens

Several drugs can induce alterations of mood and thinking in such a way that people see or hear things that do not exist (Goodman Gilman et al, 1990; Australian Bureau of Criminal Intelligence, 1996). The major sources for these drugs are natural plant substances, extractions from natural substances, and synthetic manufacture (Brecher, 1972).

The 1993 NDS found that 7 per cent of women and 9 per cent of men had ever used hallucinogens. There was a higher rate of use among younger people: 8 to 9 per cent of women and 12 to 15 per cent of men in the 14-34 year age bracket reported using them (1994).

Ninety five of the people I interviewed (97.9%) had used hallucinogens (Table 7, Appendix 15), making this the second most common class of illegal drugs used. Fifteen different hallucinogens had been used by the total sample and there was a median of 3 types that had used. Men had used a median of 3 (range 1-9, interquartile range 3-5) compared to a lower median of 2 for women (range 1-5, interquartile range 2-3) (Z -3.616, $p < 0.001$).

4.9.i: Psychedelic mushrooms

Allen and colleagues conclude that *Psilocybe cubensis* and/or *Psilocybe subcubensis*, *Psilocybe subaerginosa* and *Copelandia cyanescens* are the most common species of psychoactive mushrooms used in Australia. These are all dung inhabiting species and it

is likely that they were introduced to Australia when livestock were brought in shortly following white settlement. There was an upsurge in the use of these fungi between 1969 and 1975 which led to each Australian State and Territory enacting legislation to prohibit their use (Allen et al, 1991).

The ACT has a temperate climate in which psychedelic mushrooms grow readily. Perhaps as a consequence, these were the hallucinogens most commonly used by the people I interviewed (n=87, 89.7%) (Table 8, Appendix 15). The median age of first use was 18.

4.9.ii: "Trips"

Lysergic Acid Diethylamide (LSD) was originally synthesised in 1938. Its psychotropic effects became apparent in 1943 (Brecher, 1972). Subsequently, it was used for psychotherapy before its non-medical use spread among the young (Brecher, 1972; Goodman Gilman et al, 1990). LSD was "romanticised" in the 1960's by Timothy Leary and other "drug gurus" of that period (Drucker, 1990:9). According to available intelligence, LSD is manufactured by a small number of people in the USA and then shipped to Australia before being diluted and impregnated into perforated blotting paper (Australian Bureau of Criminal Intelligence, 1996).

Though the use of pure LSD is uncommon in the ACT (McDonald et al, 1993), 31 people I interviewed (38.8%) said they had used it at some time (Table 10, Appendix 15). This is an underestimation because, during the piloting of the interviews, I treated LSD and "trips"[1] as one category. I then separated them and re-entered the values previously entered as "trips". As a consequence, there are 17 missing values for LSD and comparative tests were not made. The terms LSD and "trips" are often used interchangeably, but most respondents subsequently interviewed (after the piloting), were able to distinguish them. "Trips" were said to be less powerful than LSD and, suggesting they were adulterated with amphetamine, some respondents also said that "trips" gave them a "speedy" rather than an hallucinogenic effect.

Eighty six people (88.7%) reported using "trips" (Table 10, Appendix 15). There was a low median age of 18 for first use. Those who were interviewed once had a lower median age of 16 for first use (Z -2.737, $p < 0.01$).

4.9.iii: Methylenedioxymethamphetamine

Methylenedioxymethamphetamine (MDMA, now more commonly know as ecstasy) has both hallucinogenic and stimulant properties (Fitzgerald, 1991). Because of the

[1] "Trips" are sometimes sold as LSD and may contain a variety of hallucinogens, amphetamines or other substances (McDonald et al, 1993).

combination of drugs used in its manufacture, it is also referred to as a "designer drug" (Buchanan and Brown, 1988; Chesher, 1990; Jerrard, 1990; NDS, 1994).

MDMA was developed in 1914 as an appetite suppressant but was never used clinically for this purpose. By the 1970s it was being used in psychotherapy (White et al, 1997). Patients who received MDMA reported euphoria, empathy and increased self esteem (Buchanan and Brown, 1988). It is also used to enhance sexual pleasure (Moore et al, 1992). Although MDMA appeared in the illegal market in 1972, it was not widely used until the 1980s (Chesher, 1990). Its use recently attracted public attention in Australia because of a number of deaths among young people who have used it (White et al, 1997). White and colleagues consider this number to be "relatively small compared with the likely frequency of its use" (1997:117). Only 3 per cent of respondents in the 1994 NDS household survey, however, reported use of ecstasy or other "designer drugs". There was, however, a slightly higher proportion of reports among younger than older people (1994).

Forty three of the people I interviewed (44.3%) had a history of ecstasy use (Table 11, Appendix 15). There was a median age of 21 for first use.

4.9.iv: Other hallucinogens

Eleven other hallucinogens were mentioned by a few respondents. They had taken them mostly by mouth on the first occasion and there was an age range of 12-33 for first use.

4.10: Stimulants

Stimulants had been used by 91 people (93.8%) (Table 13, Appendix 15). Ten different stimulants were mentioned, and there was a median of 1.3 different types that had been used.

4.10.i: Amphetamine

The most frequently used stimulants were amphetamine based. Amphetamine was originally manufactured by a German chemist in 1887 (Australian Bureau of Criminal Intelligence, 1996). Its stimulant effects (which have led to the drug being colloquially called "speed") and euphoric, and appetite suppressant effects were soon recognised and this led to its use for non-medicinal purposes (Derlet and Heischober, 1990).

Amphetamines are usually manufactured in illegal laboratories in Australia. According to the Australian Bureau of Criminal Intelligence, Outlaw Motor Cycle Gangs are "actively involved" in the production and distribution of amphetamine in the ACT (1996:74). Some laboratories with links to the "bikie" subculture have been closed

down by law enforcement agencies (Parliamentary Joint Committee on the National Crime Authority [The Cleeland Committee], 1989).

The NDS 1993 household survey found that 8 per cent of women and 9 per cent of men had tried amphetamine. Rather larger proportions of those in the younger age brackets reported its use (10-12% for women and 13-16% for men in the 14 to 34 age bracket) (1994). There are some indications of an increase in the number of people using amphetamine in the ACT (McDonald et al, 1993).

Ninety of the people I interviewed (92.8%) reported the use of "speed" (Table 14, Appendix 15) and there was a median age of 18 for first use. This is similar to the median age of 17 Hall and Hando found in their study of amphetamine users in Sydney (1994).

4.10.ii: Cocaine

According to Mugford and Cohen, there was a perception in some (government) quarters in the mid 1980s that Australia might be about to experience a wave of cocaine use similar to that experienced by the USA (1989). In the 1993 NDS survey, however, only 2 percent of women and 3 per cent of men had ever tried cocaine or "crack"[1] (1994). McAllister and colleagues are, therefore, correct in their conclusion that the "anticipated cocaine threat to Australia has not yet materialised" (1991:138).

Over half the people I interviewed had used cocaine (56.7%, n=55) (Table 15, Appendix 15) and there was a median age of 19 for first use. Most had only used it once or on an occasional basis. This low level of use is similar to the finding reported from the sample surveyed by Hall and colleagues (1991). As will be shown in the following chapter, less than half of the people I interviewed who reported ever using cocaine used it during the 12 months prior to the first interview, and only 14 used it between interviews.

Only one person reported trying "crack" (Table 16, Appendix 15). Its use has become widespread in the USA, largely among inner-city communities experiencing a range of social problems. As with other forms of cocaine, its use in Australia is rare (McAllister and Makkai, 1991b).

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[1] This is a potent, smokeable form of cocaine (Drucker, 1990).

4.10.iii: Other stimulants

Six other stimulants which, apart from "red speed"[1] were caffeine and/or ephedrine based, were used by only small numbers of people (Table 16, Appendix 15). There was an age range of 14-24 for their first use. With the exception of Adifax (which was prescribed as an appetite suppressant, but which was also used as a stimulant), all the other drugs had been taken solely for their stimulative properties.

4.11: Opioids

Opioids are either natural compounds derived from unripe seed capsules of the Oriental poppy, or semi-synthetic and synthetic compounds with similar properties (Goodman Gilman et al, 1990; Cherubin and Sapira, 1993). The people I interviewed had used 17 different opioids during their drug-taking careers (Table 17, Appendix 15). There was a median of 4 different types that had been used.

4.11.i: Heroin

The opioid which causes most concern in the western world is heroin, which was first synthesised from morphine in 1874. On entering the body it is transformed into morphine and most users experience intense feelings of euphoria (Australian Bureau of Criminal Intelligence, 1996).

The 1993 NDS survey found that 2 per cent of their sample had used heroin and that there was little variation by age or gender (1994). There are signs of an increase in the number of ACT residents using heroin (McDonald et al, 1993).

Based on data collected for the ACT DIP during 1988-89, Larson and colleagues estimated that there are around 1250 "arrest-vulnerable and treatment/counselling seeking population of heroin users", but that number did not reflect "all heroin users or even all dependent users" (1994:830).

Most heroin importations into Australia are made using couriers on commercial air flights (Parliamentary Joint Committee on the National Crime Authority [The Cleeland Committee], 1989). The "Golden Triangle" is the source of around 80 per cent of heroin importations into Australia (Australian Bureau of Criminal Intelligence, 1996). According to Wodak, only 5-10 per cent of the estimated 1000 kg of illegal heroin brought into Australia a year is intercepted (1991).

Heroin was the most common opioid used by the people I interviewed; 77.3 per cent of respondents reported its use (n=75) (Table 18, Appendix 15). Most people who had

[1] Respondents informed me that this is a concoction of chemicals sold pre-drawn-up in syringes which acts as a stimulant and is red in colour. It is sometimes also referred to as "dragon's blood."

used it (n=59, 78.7%), had injected it the first time they had taken it, and there was a median age of 19 for first use. Men were slightly older (median 19, range 13-34, interquartile range 18-20) than women (median 18, range 14-26, interquartile range 17-20) at their first use.

4.11.ii: Doloxene

Doloxene is "a mild analgesic structurally related to ... methadone" (Thomas, 1988:658). It is available on prescription in tablet form in Australia. With 43.3 per cent of respondents reporting using it (n=42) (Table 19, Appendix 15), Doloxene was the second most commonly used opioid among the people I interviewed and there was a median age of 20 for first use. Everyone who had used Doloxene had also used heroin. The data from 36 respondents on prescription of Doloxene showed that 29 people had it prescribed. Fourteen of these people had also taken Doloxene illegally, as had the other 7.

4.11.iii: Opium

The milky juice obtained from *Papaver somniferum* is dried and powdered to make opium (Goodman Gilman et al, 1990). Thirty eight respondents (39.2%) reported using opium in this raw form (Table 20, Appendix 15). There was a median age of 20 for first use.

4.11.iv: Codeine

Codeine has properties which, though less potent, are similar to morphine. It is available on prescription but other forms of codeine (Mersyndol, for example, which contains both codeine and paracetamol) (Thomas, 1988), is available over the counter in Australia. Codeine had been used by 38.1 per cent of respondents (n=37) (Table 21, Appendix 15). The median age of first use was 19 and most people had taken it orally the first time they had used it. All but two of the codeine users had also used heroin.

4.11.v: Methadone

Methadone programs were first introduced to Australia in 1970 by Dr Stella Dalton whose advocacy of the treatment led to a steady and gradual increase in the number of places (Ward et al, 1992). In the late 1970s and early 1980s there was, however, a reduction in availability of methadone treatment because it did not, as some had expected, cure heroin dependence (Burgess et al, 1990). Because of rising demand from heroin users, and then in response to fears of an HIV epidemic among IDUs, the number of places expanded again (Ward et al, 1992).

Thirty five of the people I interviewed had a history of methadone use (Table 22, Appendix 15) and there was a median age of 23.5 for first use. Sixteen people had used non-prescribed methadone, 13 had used only prescribed methadone and 6 had used both prescribed and non-prescribed methadone. Only three core-Oswaldians (11.5%) had used methadone compared to 32 of the Remainder (45.1%) (Chi^2 at 1 df = 9.3, $p < 0.01$). Only one of the core-Oswaldians had it prescribed.

4.11.vi: "Homebake"

"Homebake" was first seen in New Zealand in the early 1980's and appeared in Western Australia in 1986 (Lenton et al, 1992). Except to a few illegal manufacturers, the exact recipe is unknown, but it has been ascertained that it is chemically modified codeine which is prepared for injection (McDonald et al, 1993). Towards the end of 1991, both drug users and treatment agency personnel in the ACT reported knowledge of its use (McDonald et al, 1993). There were no reports of the use of "homebake" during my 1989 interviews (Dance, 1989), but by the 1992 interviews, 27 people (27.8%) reported its use (Table 23, Appendix 15). The median age of first use was 23.

4.11.vii: Poppy extract

Twenty five people (25.8%) reported using "poppies" (Table 24, Appendix 15). They were most commonly taken after purchasing poppy seeds or harvesting poppy parts from gardens and brewing them to take as a beverage. A greater proportion of women (39.5%, n=15) than men (17%, n=10) had used them (Chi^2 at 1 df = 6.1, p =0.0133). There was a median age of 21 for first use.

4.11.viii: Morphine

Morphine had been used illegally by 24 people (24.7%) (Table 25, Appendix 15). There was a median age of 20.5 for first use. Most users (87.5%, n=21) had injected it at their first use.

4.11.ix: Other opioids

An additional 9 synthetic opioids had been used illegally by small numbers of people (Table 26, Appendix 15).

4.12: Inhalants

Inhalants can be grouped into four basic classes: volatile solvents, aerosols, anaesthetics and volatile nitrites. After a review of the international literature, Kerner concludes that the use of inhalants is a "world-wide phenomenon", and that their use is becoming more prevalent (1988:23).

Four per cent of the 1993 Australian NDS household sample reported using inhalants (1994). Studies from both overseas and Australia have demonstrated they are mainly used by young people (Kerner, 1988; Dinwiddie et al, 1991; NDS, 1994). In Australia, the inhalation of petrol is unfortunately common among young people of Aboriginal and Torres Strait Islander origin living mostly in isolated regions where it is difficult to access other drugs. Petrol sniffing in these communities has escalated over the past few decades leading to an increased mortality and morbidity among young Aboriginal people (Brady, 1991).

Seventy six of the people I interviewed had used 11 different inhalants since beginning their illegal drug use but there was a median use of only one type (Table 27, Appendix 15).

4.12.i: Nitrous oxide

Nitrous oxide was the most common inhalant ever used (n=56, 57.7%) (Table 28, Appendix 15). The median age for first use was 18.

Nitrous oxide is an anaesthetic agent (Kerner, 1988) and a few people I interviewed said they had found cylinders containing the gas. The most common way that the gas was obtained was, however, by purchasing or shoplifting containers of meringue or whipped cream from supermarkets. The meringue or cream is encased in a synthetic outer case (the "bulb") and nitrous oxide is used to propel the contents. Bruce describes his first use and method of administration:

> *then someone said 'Oh you know those bulbs you get in the supermarkets they've got nitrous oxide in them'. And I said 'Oh really'. So one thing lead to another and somehow we got hold of a soda stream machine thing and just had a couple of packets of bulbs.*

Trevor had a similar story:

> *we discovered that nitrous oxide ... which we knew was a dental anaesthetic, was in these cream-whipping bulbs that you buy in supermarkets ... so we said, 'Oh, well, we'll try it, see what that's like' ... we got an old soda siphon and put one in and tried it and ... amazing.*

Similar access has been reported from the USA where nitrous oxide is also used to propel some brands of whipped cream (Kerner, 1988; Wagner et al, 1992). ACT users have been advised by a health educator that although the most common way of administering nitrous oxide for non-medical use is via a soda syphon, inhaling it from balloons is safer (McPartlan, 1997).

4.12.ii: Amyl Nitrite

Amyl nitrite is a volatile nitrite which has been used medically since 1867 (Sigell et al, 1978). It relaxes most smooth muscle which causes vasodilatation and increased bloodflow (Goodman Gilman et al, 1990). These properties have led to its non-medicinal use to alter consciousness, enhance meditation, stimulate dancing and intensify sexual experience (Sigell et al, 1978). Because of the euphoria associated with its inhalation, amyl nitrite is also commonly known as "rush" (Australian Bureau of Criminal Intelligence, 1996). In Australia, it can be purchased legally in sex shops as "'room deodorisers'" and, because of the effects reported above, its use has become popular with both the gay and dance "scenes" (Australian Bureau of Criminal Intelligence, 1996:136).

Amyl nitrite was the second most popular inhalant among the people I interviewed. Thirty two people (33.0%) had used it and, as with nitrous oxide, there was a median age of 18 for first use (Table 29, Appendix 15).

4.12.iii: Other inhalants

Nine other inhalants had been used by small numbers of people (Table 30, Appendix 15).

4.13: Benzodiazepines

Since they were first used in clinical practice in the USA in 1961, many different benzodiazepines have been synthesised (Goodman Gilman et al, 1990). These drugs largely replaced barbiturates for the relief of anxiety and depression but, like barbiturates, they are now known to have a variety of adverse effects, including a potential for dependency (McAllister et al, 1991).

Thirty four per cent of respondents in the 1993 NDS sample reported using tranquillisers (1994). Previous research in the ACT has shown the use of tranquillisers to be common among people who use illegal drugs (McDonald et al, 1993).

Seventy two people (74.2%) I interviewed had used 10 different benzodiazepines since beginning their illegal drug use, and there was a median of 2 that had been used (Table 31, Appendix 15). Thirty five Oswaldians (87.5%) had used benzodiazepines compared to 37 non-Oswaldians (64.9%) (Chi^2 at 1 df = 6.3, p = 0.0123).

The history of benzodiazepine use was very similar for men and women; 73.7 per cent of women (n=28) and 74.6 per cent of men (n=44) had used them. Use of prescribed tranquillisers has, however, previously been found to be more common among women than men (Cooperstock, 1978; Cooperstock and Parnell, 1982). The reason I found

gender similarities may be due to the fact that I collected data on both non-prescribed and prescribed use.

Following a review of both the overseas and Australian literature, Darke concluded that the use of benzodiazepines is widespread among IDUs (1994). Among the people I interviewed, a high proportion of 81.3 per cent of those who had ever injected (n=65) had used benzodiazepines. Their use was not, however, significantly related to the period of IDU.

4.13.i: Diazepam

Diazepam was the most common benzodiazepine used (68.0%, n=66) (Table 32, Appendix 15). This is consistent with the finding that in Australia, it is the most frequently prescribed drug in its class (Mant et al, 1993). The median age for first use among the people I interviewed was 19. There was a lower median age for women (median 16.5, range 14-23, interquartile range 15.5-21) than for men (median 20, range 14-38, interquartile range 17-24.5) (Z -2.457, p = 0.0148).

Eighty two and a half per cent of Oswaldians (n=33) had used diazepam compared to 57.9 per cent of non-Oswaldians (n=33) (Chi^2 at 1 df = 6.5, p = 0.0105). This largely explains the difference found between these subsets in the class of benzodiazepines.

4.13.ii: Flunitrazepam

Flunitrazepam was the next most commonly used benzodiazepine; 34.0 per cent of respondents reported its use (n=33) (Table 33, Appendix 15). There was a median age of 21 for first use.

4.13.iii: Oxazepam

Oxazepam had been used by 28.9 per cent of respondents (n=28) (Table 34, Appendix 15). There was a median age of 22 for first use.

4.13.iv: Nitrazepam

A little over a quarter of respondents had used nitrazepam (n=25) (Table 35, Appendix 15) and there was a median age of 21 for first use.

4.13.v: Temazepam

Twenty one people (21.6%) had used temazepam (Table 36, Appendix 15). There was a median age of 23 for first use.

4.13.vi: Other benzodiazepines

Another 5 benzodiazepines had been used only by small numbers of people (Table 37, Appendix 15).

4.14: Antidepressants

Tricyclic antidepressants were synthesised in the 1940s (Goodman Gilman et al, 1990). More than a quarter of the respondents (28.9%, n=28) had used them (Table 38, Appendix 15), but each was used by only small numbers of people. There was an age range of between 13-42 for first use. Seven different types had been used (Table 39, Appendix 15).

4.15: Barbiturates

Barbiturates were previously used extensively for their sedative-hypnotic properties (Goodman Gilman et al, 1990). The 1993 NDS survey found that 2-3 per cent of those in the 14 to 34 year age brackets had used barbiturates compared to 5-6 per cent who were 35 or over (1994).

Sixteen of the people I interviewed had used barbiturates during their drug using careers (Table 40, Appendix 15). A range of 1 to 4 had been used and there was an age range of 16 to 36 for first use. Six different types had been used (Table 41, Appendix 15).

4.16: Antipsychotics

Five respondents had used antipsychotics (Table 42, Appendix 15) and 3 different types had been used (Table 43, Appendix 15). Only one person reported using any of these drugs (Largactyl) other than on prescription. This low level of use may indicate a low incidence of psychopathology among respondents; a reluctance to seek medical help for problems; or a perception that these drugs do not have desirable psychoactive effects.

4.17: "Cocktails"

Eighteen people had used "cocktails" (that is, mixtures of drugs) (Table 44, Appendix 15). Most people had injected "cocktails" containing heroin and/or amphetamine (Table 45, Appendix 15). There was an age range of 15-37 for first use.

4.18: Miscellaneous drugs

Ten people (Table 46, Appendix 15) had used ten different miscellaneous drugs (Table 47, Appendix 15). Those drugs which were impossible to categorise are also included in these tables. There was an age range of 14-16 for first use and most people had taken these drugs by mouth.

4.19: Respondents' histories of treatment for drug problems

The discussion now turns to a brief overview of treatment histories. In order to conduct a one day census of clients of alcohol and other drug treatment services in Australia, Chen and colleagues identified 465 treatment agencies in 1992 (self help groups and agencies that provided only "information, education, 'brief' counselling and/or referral" were excluded from this total (1993:7). This census showed that non-residential services were more commonly utilised than residential services. Counselling comprised the main form of service on census day. At the time of the survey, the total number of clients of treatment services in Australia was estimated to be between 29 000 and 44 000 (Chen et al, 1993).

Twelve of the treatment agencies identified by Chen and colleagues were in the ACT. These agencies include both government and non-government agencies. There are also a variety of self help group such as Narcotics Anonymous (NA).

At the first interview I conducted, only 7 people were then in treatment. Six were receiving methadone. Two of these people had recently entered their first treatment of any kind and the remaining four had undergone between 3 and 21 previous courses of methadone. Two of these people had also experienced other kinds of treatment for opioid dependence. The seventh person was receiving his first treatment in the form of drug-free counselling.

Of the 21 people with a previous history of treatment, 13 had received methadone; some had undergone more than one course and some also had a history of other treatment for opioid use. Three people had at one time entered a Detoxification Centre as their only mode of treatment for opioid use, and a further 3 people had once been admitted to this form of treatment for other drug use (one for barbiturate use, one for hashish use and one for both amphetamine and alcohol use). One person had received previous treatment only in the form of counselling and another only in the form of NA.

The gender proportions for treatment history were similar: 32.2 per cent of women (n=9) and 23.7 per cent of men (n=19) were either in treatment at the first interview, or had a history of treatment.

Of the 28 people in treatment at some time, 9 were Oswaldians (22.5%) and 19 were non-Oswaldians (33.3%). Only two core-Oswaldians (7.7%) had a history of treatment at the first interview compared to 26 of the Remainder (36.6%) (Chi^2 at 1 df = 7.8 $p < 0.01$).

4.20: Conclusion

Most people had been involved with the illegal drug scene in Canberra for several years. The majority had commenced both their legal and illegal drug use in their teens and early twenties and, as Lukoff points out, the one unambiguous association with drug use in western society is youth (1980).

Those who completed both interviews had used drugs significantly longer than those who only presented for the first interview. This is probably because these people were significantly older. As shown in Chapter 2, a larger proportion of those who were reaccessed for the second interview also had a treatment history. These factors may influence the findings discussed in subsequent chapters, particularly the changes in treatment history.

Apart from the treatment history (particularly the use of methadone), there were few other significant differences between the Oswaldian subsets and their opposite subsets. There is, therefore, little in these findings to support my hypothesis that the Oswaldians were different from other people who use illegal drugs in terms of extensive experimentation with a wide range of drugs. It is possible my hypothesis was stimulated by the fact that, at first contact, very few Oswaldians had been in treatment. As will be shown in the following chapter, even this difference had disappeared by the second round of interviews. In my honours research, I speculated that because the people I interviewed were polydrug users who were not dependent on specific drugs, they might be at a lower risk of requiring treatment (Dance, 1989). As will be shown in the following chapter, time has shown this not to be true.

CHAPTER 5: DYNAMICS OF DRUG USE: SCENE CHANGES, EXPERIENCED CHANGES

5.1: Introduction

One reason for the follow-up interviews was to obtain data on reasons for any changes in drug consumption. Apart from a study conducted by Bammer and Weekes in the ACT on factors associated with stopping heroin use (1994), there appear to have been no other Australian studies looking at transitions in drug consumption patterns; some Western Australian researchers are, however, presently conducting research on transmissions in modes of intake (Bammer, G, 1998, March, 31, pers comm). Several overseas longitudinal studies have investigated variations in drug use, but most have focused only on dependent opioid users (for example, Waldorf, 1970; Maddux, 1981; Jorquez, 1983; Simpson et al, 1986; Faupel and Klockars, 1987; Rounsaville et al, 1987), whereas my data cover any drugs used. Another major difference between my research and other studies is that in my study, many drugs were used occasionally or only once.

Previous studies of variations in drug consumption patterns have developed two major models: "drug career" and "maturing out". The concept of a "drug career" evolved from the Chicago school of sociology's concept of occupations which referred to "the sequence of movement from one position to another in an occupational system by an individual who works in that system" (Becker, 1963:24). Becker extended the application of this model when he talked about the "careers" of marijuana users (1963:61). The concept has subsequently been employed by several other researchers studying drug use (for example, Maddux, 1981; Nurco et al, 1981a, 1981b, 1981c; Crawford et al, 1983; Jorquez, 1983; Bennett and Wright, 1986; Simpson et al, 1986; Anglin et al, 1987a).

Becker identified three phases in the careers of marijuana users: "beginners, occasional and regular users" (1963:61). He pointed out that sometimes users do not advance beyond the second stage or may stop altogether. As users move from one stage to another, social controls become progressively less effective. For some people, however, the controls are effective and prevent progress from one stage to the next (Becker, 1963). Though Becker has been criticised because his theorising was based only on men who use drugs (Naffine, 1987), the model has become a widely used theoretical explanation for changes in drug use.

The second model is "maturing out". Until the 1980s it was commonly believed that few people who were opioid dependent ever recovered (Maddux and Desmond, 1986). Then Winick examined five years of records of opioid users who were reported to the

Federal Bureau of Narcotics in 1955, finding that around two thirds were not reported again during this period. This led him to conclude that they were no longer using opioids. He found that they became "inactive" at around 35 years of age and that the average period of dependence before this inactivity was 8.6 years (1962:4). He then proposed his theory of "maturing out" and postulated that the problems for which people began taking drugs had become "less salient" as they matured (1962:4).

Several other studies of "maturing out" among dependent heroin users who become abstinent have raised questions about Winick's conclusions. Maddux criticised Winick for interpreting the status of "not reported again" as equivalent to cessation of use. He believes that although some people probably did cease use, others were not reported because they were in prison, had died, or had resumed use without being detected. Following his study of the long term careers of men (mostly black or Mexican-American) who had been discharged from treatment, Maddux pessimistically concluded that even abstinence of three years or more does not necessarily signify permanent abstinence (1981).

Waldorf found that long voluntary abstentions from heroin use were more reliably predicted by a longer period of using than by age (1970). Snow reported that "maturing out" occurred in around 23 per cent of the known "addicts" he followed up in New York, pointing out that this was lower than the proportion reported by Winick (1973:925). Snow went on to say that although the majority of his sample in the 28-37 year age-bracket did become "inactive", 24.6 per cent became "inactive" even younger.

The theory of "maturing out" has also been criticised by Yates because of its implication that a drug user is immature and it is this immaturity which leads to drug use (1990).

Whilst there has been some criticism of Winick's assumptions, subsequent research showed that long-term abstinence is possible. Other research has also revealed that the cessation of opioid use does not necessarily require treatment (Waldorf and Biernacki, 1979; Willie, 1983; Stall and Biernacki, 1986).

I wanted to apply these general models of "drug careers" and "maturing out" in an Australian context and tease out some of the underlying reasons for modifications in types of drugs and consumption patterns by collecting prospective data. These data illuminated some of the complexities of drug use behaviours over time. The major "scene" change was an expansion of places in the ACT Methadone Program which allowed several people to enter or re-enter treatment. Some modifications in drug

consumption were due simply to altered access. Health concerns and lifestyle changes were also frequently reported as reasons for modifying drug use.

After briefly describing the data collection on drug use at the second interview, I present a largely quantitative description of the variations in consumption patterns which occurred between interviews before going on to describe the reasons people gave for the changes.

5.2: Data collection on drug use at the second interview

As with the first interview, I nominated a class of drugs. I then asked respondents which particular drugs within this class they had used between interviews, before investigating consumption patterns and the route/s used for administration. Although I did not collect adequate data at the first interview on whether prescription drugs were legally or illegally obtained, I designed the interview guides for the second interview so that complete data were collected on this aspect of use.

Apart from the instances of "binge use" and seasonal use, and the instances of people who had used a drug between interviews but who said that they had "stopped", the other codes related to changes in drug use levels were ordinal scales. Since there were relatively few instances of nominal codes, the data from these people at both interviews were removed from the analysis in order to perform the Wilcoxon matched-pairs signed ranks test.

Previous research shows that the frequency of drug injecting varies widely, even for the same individual (Wodak and Des Jarlais, 1993). I found this to be true for many of the drugs used by the people I interviewed, regardless of their mode of consumption. When conducting the pilot surveys, it became apparent that the frequency of some respondents' drug use had varied greatly over the period for which I was requesting data. The coding for levels of use was, therefore, reorganised to allow a range of drug use consumption levels (Table 5.1).

Table 5.1: Codes for levels of use

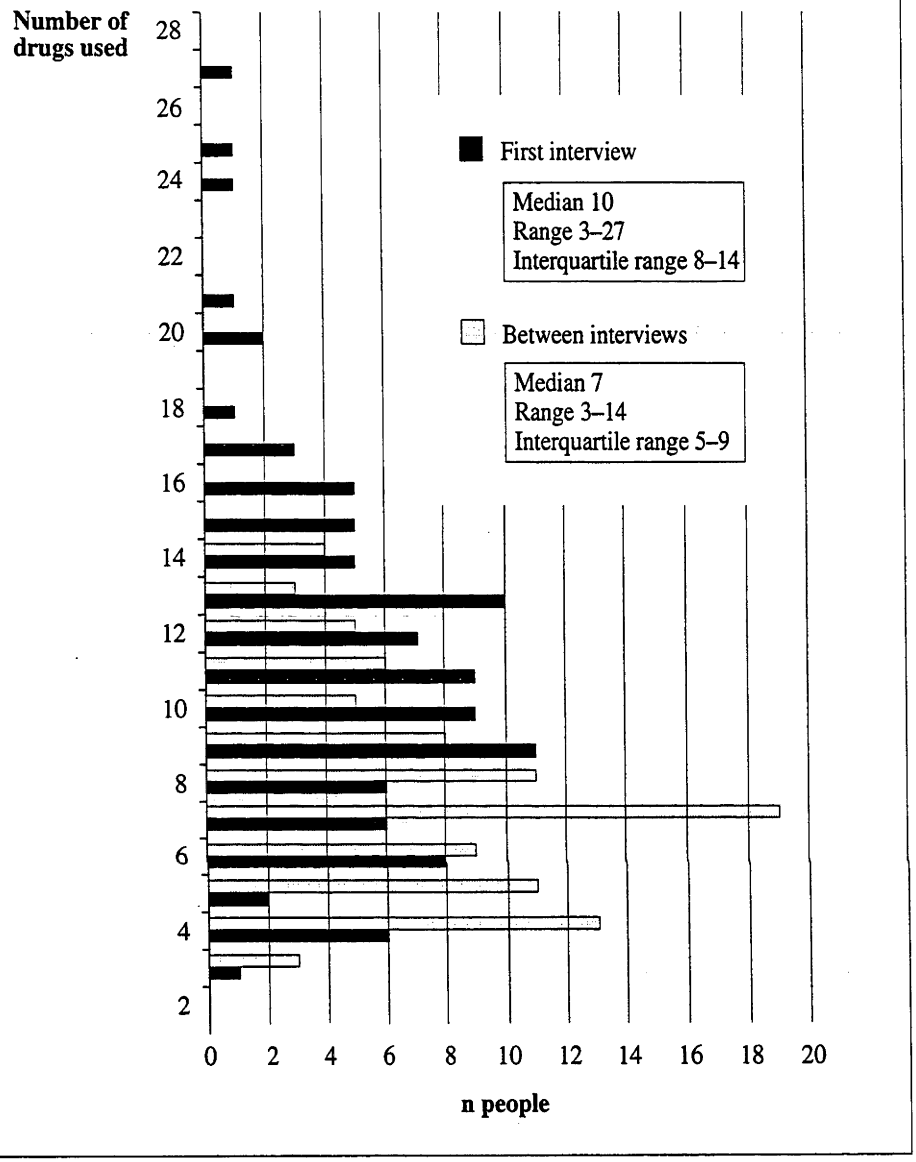
Level of use	Value
Not used	1
Occasionally/once only	2
Less than weekly	3
Equal to or less than 1-2 a week	4
Equal to or less than 3-6 a week	5
Equal to or less than daily	6
Always daily	7

The few significant differences found between subsets (definitions of the subsets are included in Table 2 in Appendix 4) are briefly described in the relevant sections of this chapter.

5. 3: Changes in number of drugs used between interviews

The data collection covered 11 classes of drugs. Including "cocktails" and miscellaneous drugs, 77 drugs were named by respondents. Sixty nine were used during the 12 months prior to the first interview and 53 between interviews. A median of 10 drugs were used in the 12 months leading up to the first interview. Between interviews this median dropped to 7 (Figure 5.1) (Z -6.713, $p < 0.0001$). At the first interview, I asked about drugs used in the previous 12 months; for the majority of respondents, the period between interviews was longer than this (average 18.3 months) making the reduction in the number of drugs used even more notable.

Figure 5.1: Number of drugs used during 12 months prior to first interview and number of drugs used between interviews



Not only was the reduction in the number of individual drugs used highly significant, there was also a highly significant change in the number of classes. In the 12 months prior to the first interview, there was a median of 6 classes used (range 3-10, interquartile range 5-7) compared to 5 between interviews (range 3-9, interquartile range 4-6); despite this overlap in the ranges, the fall in the median was highly significant (Z - 5.042, $p < 0.001$).

The OTI polydrug score (Appendix 10:375-380) assessed the number of categories of drugs used during the month prior to interview (heroin, other "opiates", alcohol, cannabis, amphetamines, cocaine, tranquillisers, barbiturates, hallucinogens, inhalants, tobacco). At the first interview, this median score was 5 (range 2-9, interquartile range 3.3-6), and by the second it was down to 4 (range 0-7, interquartile range 3-4) (Z -5.256, $p < 0.001$). The median polydrug use scores at both interviews were similar to the mean of 4.1 reported by Darke and colleagues among the 290 people interviewed when they compiled the OTI (1991a).

5. 4: Changes in alcohol use

People's levels of drinking can vary quite widely over a period of time, and since I was asking people about periods of around a year, the estimates needed to be able to reflect that variation. At each interview, I asked respondents to estimate both the lowest and highest number of standard[1] drinks they consumed a week during the relevant timeframes. Most people were able to quantify these amounts but some people either said they always "binged" on alcohol, or they gave a range from a lowest number to "binge." These people were excluded from the statistical analyses.

The lowest number of standard drinks for the current non-binge drinkers at the first interview worked out to be a median of 7 compared to a median of 2 among the current drinkers at the second interview. At both interviews, the median highest number was 14. (Table 1, Appendix 16).

The National Health and Medical Research Council (NHMRC) guidelines on safe maximum number of standard drinks a day differs by gender (2 for women and 4 for men (1992). Consequently, I analysed the data from men and women separately. At the first interview, 34.2 per cent of women (n=13) currently consumed more than 14 drinks a week at their lowest level of consumption, and 47.4 per cent (n=18) consumed more than this at their highest level. At the second interview, smaller proportions

[1] My estimates of standard drinks were gleaned from *A guide to healthier drinking*. This stipulates that 570 millilitres of low alcohol beer, 285 millilitres of normal strength beer, 120 millilitres of wine, 60 mls of liqueur or 30 millilitres of spirits equal a standard drink (Heather et al, 1989).

currently consumed more than 14 drinks a week at both their lowest level (15.8%, n=6) and highest levels of consumption (36.8%, n=14).

At the first interview, a smaller proportion of men than women currently consumed more than the safe level recommended for their gender (28 drinks a week) at both their lowest (11.9%, n=7) and highest (22.0%, n=13) levels. There was still a gender difference at the second interview for the lowest level (8.5%, n=5), but for their highest level (30.5%, n=18) the proportion was similar to that of women.

Although during both timeframes some people had drunk above the highest recommended levels, a majority were drinking below levels deemed to be harmful. A major exception to this was the drinking patterns of the Oswaldians. Although both the lowest and highest median number of drinks was greater among Oswaldians than non-Oswaldians in the 12 months prior to the first interview (Table 2, Appendix 16), the differences at that time were not significant. In the period between interviews, however, the Oswaldians drank a median of 6 standard drinks a week at their lowest level compared to one among the non-Oswaldians (Z -2.807, $p < 0.005$) (Table 3, Appendix 16). At their highest level, the Oswaldians drank a median of 30 standard drinks a week compared to 10 among the non-Oswaldians (Z -2.947, $p < 0.005$).

When comparing the core-Oswaldians with the Remainder, the difference at the first interview was nearly significant for the lowest number of drinks (Z -2.565, $p = 0.0102$), and highly significant for the highest (Z -3.41, $p < 0.001$). Although the core-Oswaldians then currently drank at their lowest level 5 drinks compared to 6 in the Remainder (Table 4, Appendix 16), their higher levels in the interquartile range explain the difference. The most number of drinks consumed was much greater for the core-Oswaldians with their median of 30 compared to a median of 13 for the Remainder. Between interviews, the median levels for both the lowest and highest number of drinks for the core-Oswaldians were fairly similar to those at the first interview (Table 5, Appendix 16). The Remainders' median had dropped to 1 for their lowest number of drinks but their highest number of drinks remained fairly stable. The differences between the subsets reached significance for both the lowest (Z -2.961, $p < 0.005$) and the highest number of drinks (Z -3.441, $p < 0.001$).

These findings for high levels of alcohol consumption among the Oswaldians confirm my ethnographic work where I have observed heavy drinking among the majority of Oswaldians. As with many other drugs consumed by this group, alcohol is frequently celebrated in the "hymns" sung on "Saint Oswald's Day." One example is "All drinks alcoholic" sung to the tune of "All things bright and beautiful." This begins:

All drinks alcoholic,
All pills both great and small,
All illegal substances,
St Oswald took them all.

"Naughty, Naughty" is sung to the tune of "Glory, glory hallelujah" and contains these lines:

Naughty, Naughty, what a booner,
Johnno threw up in his schooner,
He couldn't find the door,
But he quickly found the floor
St Oswald staggers on.

5.5: Changes in tobacco use

The vast majority of people I interviewed smoked tobacco (90.7%, n=88 at the first interview, 88.7%, n=86 at the second) (Table 6, Appendix 16). At both interviews, I asked respondents to estimate the lowest and highest number of cigarettes they smoked a day during the appropriate timeframe. Most people were heavy smokers; at both interviews there was a median number of between 20-25 cigarettes smoked a day at both levels. Although the median for the lowest number of cigarettes smoked was 20 at both interviews, the smaller number in the bottom end of the interquartile range at the second interview led to a significant reduction (Z -2.696, $p < 0.01$).

I found no significant gender differences, but the NDS survey reported a tendency for women to smoke fewer cigarettes than men (1994).

5.6: Changes in cannabis use

Cannabis was the most frequently used drug amongst respondents in the ACT DIP (McDonald et al, 1993). At both interviews, the majority of people I interviewed were also current cannabis smokers (at the first interview, 93.8%, n=91, at the second 88.7%, n=86) (Table 7 Appendix 16). There was a decrease from a median of 2 forms of cannabis currently used at the first interview to 1 between interviews (Z -6.988, $p < 0.001$). There was a fairly similar wide range of consumption patterns at both interviews.

5.6.i: Marijuana

This wide range in consumption patterns for cannabis was largely due to the range of use for marijuana (Table 8, Appendix 16). At both interviews, around a quarter of those who had used marijuana were smoking it on a daily basis.

5.6.ii: Hashish

The significant reduction in the number of types of cannabis used between interviews was largely due to a significant reduction in the number of people who had used hashish (Table 9, Appendix 16). This dropped from 83.5 per cent of respondents (n=81) in the 12 months prior to the first interview to 29.9 per cent (n=29) between interviews (Chi^2 at 1 df = 50.1, $p < 0.001$). As a consequence, there was an equally significant reduction in the levels of use (Z -5.83, $p < 0.001$). At both interviews, very few people used hashish more than weekly.

5.6.iii: Hashish oil

Only 10 people were current users of hashish oil at the first interview (Table 10, Appendix 16), and most had used it occasionally or only once. Between interviews, it was used by only one person.

5.7: Changes in stimulant use

Nine different stimulants were used during the 12 months prior to the first interview and 8 in the period prior to the second. Between interviews, 14 fewer people had used stimulants (Table 11, Appendix 16). In addition, there were reductions in all the other levels of use involving between one and 12 people (Z -2.662, $p < 0.01$). (As noted earlier (Section 5.2), the people who had "binged" (n=4) and those who said that they had "stopped" for more than 4 months at the second interview (n=5) were excluded from the analysis.) At both interviews, more than half of those who had used stimulants had used them occasionally or once only and no one had used them every day.

At the first interview, I found a significant difference between those who were interviewed only once and those who went on to present for the second interview in current routes of the administration of stimulants (Chi^2 at 8 df = 24.1 $p < 0.01$). The largest difference lay in those who had used only the intravenous (IV) route; reported by 37.5 per cent of those who were interviewed only once (n=12) compared to 59.7 per cent of those who went on to present for the second interview (n=46). Those in the latter subset tended to be older and to have been using drugs for a longer period which may explain why those who were interviewed only once still tended to favour other routes of administration. At the second interview, the majority of stimulant users also tended to use the IV route.

5.7.i: Amphetamine

The stimulant reported most commonly at both interviews was amphetamine. Thirteen fewer people currently used it at the second interview than at the first (Table 12, Appendix 16), when there were also 11 less people who used it always less than weekly. The proportions for range of use were fairly similar in the other categories.

5.7.ii: Cocaine

About a quarter of respondents were current users of cocaine at the first interview (Table 13, Appendix 16). By the second interview, there were only 14 current users (Chi^2 at 1 df = 6.5 $p < 0.01$). At both interviews, the majority of cocaine users had used it only occasionally and most had injected it.

5.7.iii:: Other stimulants

At both interviews, 6 other stimulants had been used. Seventeen people had used them at the first interview and 7 at the second (Table 14, Appendix 16). Nearly everyone had taken them occasionally or only once. At the first interview, most had been taken orally (73.9%, n=17). At the second, equal numbers had been taken orally and IV (n=3).

There has been concern in the USA about the use of "ice"[1]. Among the people I interviewed, only Eggplant reported its use. This was in the period between interviews when he had smoked it by accident in the belief that it was "mull" (marijuana). This report of the use of "ice" by only one respondent suggests that its use has not become widespread in Australia.

5.8: Changes in opioid use

Twelve different opioids were used during the 12 months prior to the first interview and 11 in the period between interviews. The median number used fell from 3 to 2 between interviews (Z -4.69, $p < 0.001$) (Table 15, Appendix 16). There were a few more people at the second interview (n=77, 79.4%) than at the first (n=74, 76.3%) who reported current use. At the second interview, however, 8 people said they had "stopped" all opioid use. They all hoped this would be permanent, and 5 had good reason to believe this might be so since they had not used any opioids for 12 months or more. Two people had not used any for 8 months, and one person had not used any for 5 months. A further two people (not included in the "stopped" category) said they had not used any opioids for about 3 months and they too hoped for this to be permanent.

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[1] A smokeable form of methamphetamine (Derlet and Heischober, 1990; US Department of Health and Human Services, 1990).

At the second interview, the number of people who said that they used opioids equal to, or less than, daily increased by 19. This is largely explained by the number of people who had entered methadone treatment between interviews and whose opioid use had, as a consequence, included daily use. Seven fewer people also said that they used opioids equal to or less than once or twice a week. The variation in levels of use of opioids was significant (Z -2.81, $p < 0.01$). (As explained above (Section 5.2), the person who had "binged" at the first interview and the people who said that they had "stopped" opioid use at the second interview (n=8) were excluded from the analysis.) Reflecting the range of different opioids used, most opioid users at both interviews had used more than one route.

5.8.i: Heroin

Six more people at the second interview than at the first reported current use of heroin (Table 16, Appendix 16). Five had used it for the first time, and Eggplant, who had used heroin very occasionally prior to the 12 months before his first interview, had used it once between interviews.

At the second interview, 12 people said that they had "stopped" the use of heroin (seven for more than 12 months, one for 10 months, two for 8 months, one for 5 months and one for 4 months). Six of these people were in treatment at the second interview, one had finished a course of repeat counselling and one had been prescribed diazepam which had enabled her to stop her use. In addition, two people (mentioned in the introduction to this section, and also not included in this table) said that they had "stopped" all opioid use for less than 3 months.

Nearly all heroin used was by injection, this is in keeping with previous reports that heroin in Canberra is usually taken this way (McDonald et al, 1993). At the first interview, 7 people had injected heroin every day but at the second interview no one was using this frequently. More people had used it on an equal to, or less than daily, basis. As with opioids as a class, this is mainly because those people who had entered treatment used heroin less often, exchanging their frequent heroin use with daily methadone use.

5.8.ii: Doloxene

The number of people who used Doloxene fell from 35 (36.1%) to 21 (21.6%) between interviews (Chi^2 at 1 df = 9.8, $p < 0.01$) (Table 17, Appendix 16). The number who had taken it by prescription only was roughly similar at both interviews (15 and 14), and 3 people had taken it only illegally at both interviews. By the second interview, no one had taken both prescribed and unprescribed Doloxene, whereas at the first interview 11 people had done so.

5.8.iii: Codeine

Similarly, a fall from 32 to 17 occurred in the number of people who used codeine between interviews (Chi^2 at 1 df = 9.8, $p < 0.01$) (Table 18, Appendix 16). This led to there also being a significant change in levels of use (Z -2.667, $p < 0.01$). (As previously stated (Section 5.2) 3 people who had "binged" at the first interview and the one person at the second interview who had not used any codeine for 12 months were excluded from the analysis.) In the 12 months prior to the first interview, 7 IDUs had sometimes or always taken codeine by injection but no one reported injecting it in the period between interviews.

5.8.iv: "Homebake"

The number of people currently using "homebake" also fell from 25 to 5 between interviews (Chi^2 at 1 df = 13.3, $p < 0.001$) (Table 19, Appendix 16). I found a variety of consumption patterns at the first interview but, by the second, most people who used it had only done so occasionally. Only 7.1 per cent of those interviewed once (n=3) were current "homebake" users compared to 25.9 per cent who went on to present for the second interview (n=25) (Chi^2 at 1 df = 6.3, $p = 0.0119$).

5.8.v: Methadone

I found an increase from 21 to 36 between interviews in the number of people using methadone (Table 20, Appendix 16) (Chi^2 at 1 df = 8.3, $p < 0.01$). Two people had not used any for at least 4 months and both said they had "stopped." The majority of people at both interviews had used it once a day or less but, due to the increased number of people who had entered treatment, the number in this category increased from 10 to 26 between interviews (Z -4.05, $p < 0.001$).

In recent years there have been increased efforts to educate IDUs about the dangers of injecting methadone (ACT IV League, 1995; Connexions, 1995; New South Wales User's and AIDS Association (NUAA), 1997) but it is obvious that the temptation to inject is still too great for many. Ten people I interviewed had injected methadone, which represents a fairly high proportion (23.8%) of the 42 people who had used methadone at both interviews.

At the first interview, 10 people had taken only prescribed methadone and 10 had only obtained it illegally. In both instances, this worked out to be 47.6 per cent of the then methadone users. By the second interview, the majority of methadone that was used had been prescribed (75.% of the then methadone users, n=27).

5.8.vi: Poppy extract

The number of respondents reporting current use of poppy extract dropped from 20 to 8 between interviews (Chi^2 at 1 df = 7.2, $p < 0.01$) (Table 21, Appendix 16). Most use was occasional, and almost everyone had taken poppies in the form of a juice.

5.8.vii: Other opioids

Six different other opioids had been used by 34 people in the 12 months leading up to the first interview and 5 had been used by 25 people between interviews (Table 22, Appendix 16). Most had been taken on an occasional or once only basis and a range of different routes was used.

5.9: Changes in hallucinogen use

Nine different hallucinogens were used during both the 12 months prior to the first interview and the period between interviews (Table 23, Appendix 16). A median number of 2 different types was currently used at the first interview compared to one at the second (Z -5.328, $p < 0.001$). The results demonstrated a fall from 64 to 45 in the number of people who had used hallucinogens between interviews (Chi^2 at 1 df = 15.7, $p < 0.001$). The majority of hallucinogen users at both interviews used them occasionally or once only, and most people took them by mouth.

Those who were interviewed once were fairly evenly divided between using hallucinogens occasionally or only once, and using them always less than weekly, in the 12 months prior to the first interview. Both these categories constituted 46.7 per cent of this population (n=14 for each category) and only small proportions of people mentioned other patterns of use. Forty three people who went on to present for the second interview had used hallucinogens occasionally or once only (75.4%) while only 21 per cent said they used them always less than weekly. This was the only other significant difference (in addition to that described above in the routes used for stimulants) found in drug use behaviours between these two subsets (Z -2.64, $p< 0.01$). (As noted in Section 5.2, people who said that they were "binge" or seasonal users were excluded from the analysis (n=9)).

In the previous chapter, I reported a significant gender difference in the number of hallucinogens ever used. There was, however, no significant gender difference in the number currently used at either interview.

Although no significant difference was found between the core-Oswaldians and the Remainder in the number of hallucinogens ever used, a significant difference was found in current use at the first interview. The 18 current hallucinogen users among the core-Oswaldians had used a median of 1.5 drugs in this class (range 1-3,

interquartile range 1-2) compared to a higher median of 2 (range 1-5, interquartile range 2-3) among the 46 current users in the Remainder subset (Z -3.43, $p < 0.001$). This difference had disappeared by the second interview.

5.9.i: "Trips"

"Trips" were currently used by 57.7 per cent of people at the first interview and by 36.1 per cent at the second (Table 24, Appendix 16) (Chi^2 at 1 df = 17.6, $p < 0.001$). At both interviews, the majority of use had occurred occasionally or once only, and most "trips" had been taken by mouth.

5.9.ii: Psychedelic mushrooms

Psychedelic mushrooms were the second most frequently used hallucinogen at both interviews; 48.5 per cent of respondents reported current use at the first interview and 23.7 per cent used them between interviews (Chi^2 at 1 df = 20.6, $p < 0.001$) (Table 25, Appendix 16). Most use occurred on an occasional or once only basis, and they were taken by mouth.

5.9.iii: Other hallucinogens

Seven other hallucinogens had been used by less than 20 per cent of people at the first interview, and six by less than 14 per cent at the second (Table 26, Appendix 16). There were 29 current users of other hallucinogens at the first interview and a fall to 16 by the second interview. Very few had been used other than on an occasional or once only basis and the majority had been taken by mouth.

5.10: Changes in benzodiazepine use

Ten different benzodiazepines had been used during the 12 months prior to the first interview. Eight were used between interviews. There was a median of 2 different benzodiazepines used at the first interview and one at the second (Z -4.118, $p < 0.001$). The proportion of people who used them also decreased from 50.5 per cent at the first interview to 35.1 per cent at the second interview (Chi^2 at 1 df = 8.4, $p < 0.01$) (Table 27, Appendix 16). At the first interview, 91.8 per cent of benzodiazepine users (n=45), were IDUs and at the second interview 94.1 per cent were IDUs (n=32). This is consistent with other reports on the high levels of benzodiazepine use among IDUs (Perera et al, 1987; Darke et al, 1992b; Seivewright et al, 1993; Darke, 1994). I found a wide range of use patterns at both interviews. Most benzodiazepines were taken orally.

5.10.i: Diazepam

The only benzodiazepine used by more than 17 people was diazepam. This was currently used by 45 people (46.4%) at the first interview and 27 (27.8%) at the second interview (Table 28, Appendix 16) (Chi^2 at 1 df = 11.6, $p < 0.001$). Ten fewer people had used it occasionally or once only at the second interview, and the number of people who had used it always less than weekly had dropped from 8 to zero. The numbers in the other categories were fairly similar at both interviews. Most people had taken diazepam by mouth. Fewer people had taken unprescribed diazepam at the second interview than at the first, whilst the number who had taken only prescribed diazepam was greater. This may, however, be an artefact of the missing values (n=11).

Between interviews, a greater proportion of core-Oswaldians (50%, n=13) than the Remainder (19.7%, n=14) used diazepam (Chi^2 at 1 df = 8.7, $p < 0.01$).

5.10.ii: Other benzodiazepines

Another nine benzodiazepines had been used at the first interview amongst 32 people, and seven amongst 21 people at the second (Table 29, Appendix 16). Most had been used by fewer than 10 people. At the first interview the majority of users had taken them on an occasional or once only basis. At the second, there were fairly similar numbers of people using at this level and the equal to or less than daily level. At both interviews, the numbers of users at the other levels were similar. Most people had taken these drugs orally, and a greater proportion of people at the second interview were having them prescribed. As with diazepam, this may be an artefact of the missing values (n=14).

5.11: Changes in inhalant use

Six inhalants had been used during the 12 months prior to the first interview and 3 in the period between interviews. At both interviews most people had used only one type. Thirty eight people were current inhalant users at the first interview compared to 21 at the second (Chi^2 at 1 df = 9.7, $p < 0.01$) (Table 30, Appendix 16).

5. 11.i: Nitrous oxide

The only inhalant currently used by more than 14 people was nitrous oxide. At the first interview there were reports of nitrous oxide use from 28 people (28.9%) and a small fall to 21 people (21.6%) at the second interview (Table 31, Appendix 16). Very few users of nitrous oxide had used it on other than an occasional or once only basis.

5.11.ii: Other inhalants

Another 5 inhalants had been currently used at the first interview and 2 were used in the period between interviews (Table 32, Appendix 16). Amyl nitrite was currently used by 14 people at the first interview and by two at the second. The other inhalants had been used by only one or two people at both interviews, and only two people (who had always used them less than weekly) had taken them more frequently than occasionally or once only.

5.12: Changes in other drugs used

Only 11 people at the first interview and 6 at the second were current users of antidepressants (Table 33, Appendix 16). Five were used during the 12 months prior to the first interview, and 3 were used between interviews (Table 34, Appendix 16). Most people had been prescribed these drugs.

In the 1960's, barbiturates gained a reputation both for dependence and as the drug most often used for suicide. As a result, restrictions were placed upon their use in Australia, and they are now prescribed primarily for the treatment of epilepsy (McAllister et al, 1991). The 6 people I interviewed who reported current use of barbiturates at the first interview (Table 35, Appendix 16) had either found them, or they had been found by friends, in discarded containers. Stephen was the only person who reported use between interviews. He was one of the oldest respondents who had previously been treated for barbiturate dependence. Between interviews, he had travelled interstate and "managed to get a 'script'". Four barbiturates were used in the 12 months prior to the first interview, and only one between interviews.

One person had used a prescribed antipsychotic during the 12 months prior to the first interview, and another person had one prescribed in the period between interviews (Table 36, Appendix 16).

Four cocktails had been used both during the 12 months prior to the first interview and between interviews (Table 37, Appendix 16).

Five people had used miscellaneous drugs during the 12 months prior to the first interview and a different person had used one in the period between interviews (Table 38, Appendix 16).

5.13: Personal explanations for changes in drug use

The following part of this chapter supplements these quantitative results with the results of the analyses of the qualitative data from the second interview on reasons given by respondents for changes in drug use. I compared the quantitative data from the two interviews and asked people to explain any changes. Most gave several

reasons. I then asked respondents to discuss both their negative and positive effects. Apart from the effects related to the drug *per se*, these effects are discussed in the relevant subsequent chapters.

Almost half of the changes that occurred were in drugs that had been used in the 12 months prior to the first interview but were not used between interviews (Table 5.2). In general, people were only considered to have "not used" a particular drug if they had not consumed it at all between interviews. A few people who had used a drug between interviews insisted they had now stopped their use. In these instances, a shorter period of time was accepted as non-use (these timeframes are noted in the attached tables).

Several people had, however, commenced or recommenced use of certain drugs and others had increased their consumption patterns. In a few instances, drug use patterns had fluctuated so greatly between interviews that it was impossible to put them into any of these categories. Some people's drug use had remained stable but, since I mainly wanted to ascertain reasons for variation, details of stable use were not obtained except from those people who had continued with methadone maintenance.

Table 5.2: Total changes and types of drug use consumption variations between interviews

Change	n
Commenced	80
Recommenced	42
Increased	74
Decreased	186
Not used	433
Fluctuating	25
Total	840

On all but 26 occasions, people were able to give a reason for a transition in their consumption levels. Many gave a variety of reasons, and these data required multiple coding. Unless otherwise stipulated, several different levels of consumption (by the total sample) were involved in the case of most drugs. Because very few significant differences were found between any of the subsets in any of the quantitative results recorded above, and also because these changes involved a large number of drugs and analyses would have increased the possibility of spurious findings, I did not code these changes then analyse quantitative differences between the subsets. I have, however, recorded the findings from all the subsets separately in the attached tables which show

that most of the variations in most of the drugs affected all of the subsets. The codes I used for these qualitative data are attached as Appendix 17.

5.14: Methadone treatment

In the early 1980s , there was "widespread concern about the apparent rise in illnesses, crime and death associated with heroin use." In 1985, NCADA endorsed methadone maintenance as an "appropriate and useful method" of treatment for heroin dependence. During the interim, there has been a "steady and substantial growth in the number of individuals receiving methadone treatment in most jurisdictions[1] in Australia" (NDS, 1997:4). In 1995, there were more than 15 000 people on methadone programs throughout Australia compared with 2203 in February 1985 (Drug Offensive Bulletin, 1995).

In its third interim report, members of the recently formed ACT Government's Select Committee on HIV, Illegal Drugs and Prostitution noted that they had "heard a number of complaints" about the ACT Methadone Program. One of the major complaints was that there was a limited number of places on the Program. Members of the Committee go on to say that this problem had now been addressed since there had already been an increase in the number of places and, furthermore, there was a proposal to further increase this number. The recent, and generally Australia-wide, increase in the number of methadone places is, therefore, mirrored in the increased number of ACT people receiving this treatment. There were 68 ACT people receiving treatment in 1987 compared to 323 in 1994 (NDS, 1994). During the period between commencing my first and second rounds of interviews, there was a more than two and a half fold increase: 112 at the beginning of 1992, 293 in September 1993 (Table 5.3). At the first interview, some people not in treatment were experiencing a range of problems associated with their heroin use. The increased number of places in the Methadone Program facilitated treatment entry for some of these people. Several remarked how easily and quickly, often within a day, they were able to enter treatment when they needed to.

[1] The Northern Territory is an exception to this since methadone can only be prescribed there "in special circumstances following approval by the Chief Medical Officer, under strict guidelines approved by the Minister for Health Services" (NDS, 1997:4).

Table 5.3: ACT Methadone Program

Date[a]	Maintenance n	Reduction n	Total n
January 1992: commenced first round of interviews	102	10	112
October 1992: completed first round of interviews	141	5	146
September 1993: commenced second round of interviews	293	0	293

[a] I wanted to correlate the increasing number of methadone places with the time of my interviews and obtained these figures from people in contact with the ACT Methadone Program. Figures for 1992 were obtained from Rod McClure, then a physician in the Program. The 1993 figure was obtained from a peer educator who was involved in the Program. The number of people receiving methadone in the ACT has continued to rise. In mid 1997, 405 people were in treatment, 280 through the public hospital system and 115 through the private sector (Battisson, L. Clinical Nurse Consultant, ACT Methadone Clinic. 1997, July 3, pers comm).

At the first interview, 69 people had never been in treatment, 7 were currently in treatment and 21 had a previous history of treatment (Table 1, Appendix 18). (As reported in the previous chapter, several people had been in treatment more than once in the past.) By the second interview, the number currently in treatment had increased to 29, the number with only a previous history of treatment had decreased to 17, and there was a corresponding decrease to 51 in the number of people who had never had treatment. Only 4 of the 26 people in methadone treatment at the second interview had been in this treatment at the first. (In efforts to control their tobacco consumption one woman had meditated and one had enrolled in a QUIT Program between interviews. Their results are not included in the table.)

The ANAIDUS data showed that women were less likely than men to be in treatment (Ross et al, 1993b). At the second interview I conducted, a slightly smaller proportion of women (42.1%, n=16) than men (50.9%, n=30) were presently in treatment, or had a history of treatment.

The change in treatment status was highly significant for the total population of respondents (Chi^2 at 1 df = 21.2, $p < 0.001$). With the exception of the core-Oswaldians, there were also significant changes in all the subsets (Table 5.4).

Table 5.4: Significance of change in treatment status between interviews by subset

Subset	Chi^2 at 1 df	p
Women	10.0	< 0.01
Men	11.3	< 0.001
Oswaldians	11.0	< 0.001
Non-Oswaldians	10.3	< 0.01
Core-Oswaldians	5.0	= 0.02
Remainder	16.2	< 0.001

Of the 46 people who were either in treatment at the second interview, or who had a history of treatment, 20 were Oswaldians (50%) and 26 were non-Oswaldians (45.6%).

In addition to one core-Oswaldian who re-entered treatment and another having a previous history of treatment, 7 core-Oswaldians entered treatment for the first time between interviews. This resulted in 34 per cent of core-Oswaldians (n=9) currently or previously in treatment compared to 52.1 per cent of the Remainder (n=37). The significant difference in treatment history at the first interview between these two subsets (reported in the previous chapter) had disappeared by the second interview.

5. 14.i: Commencing and recommencing treatment

The results for both the commencement and recommencement of methadone treatment are combined in the following discussion since the reasons given were similar for both types of treatment entrants.

All but one person mentioned the negative effects of their increased heroin use as precursors to them entering treatment (Table 2, Appendix 18). These problems covered the impact of heroin use on lifestyle, health and relationships with significant others. (I considered "significant others" to be partners, children, other family and friends). Patrick's comments are illustrative of the impact this increased use had:

> *The way it increased, it ... just the way it does, it just comes to dominate your life. We got to where we were using so much we weren't paying rent, we weren't buying much food. We borrowed a thousand dollars to buy a truck, we sold it and we used all the money to buy heroin and we still owed a thousand dollars. A bit after that, I was just so distraught about it really. Even then, I think, my libido started going, with that great use it just sort of petered out. We got to the doctor about that time and he got us on methadone.*

Chris was the only person who was in methadone treatment at the second interview who said his heroin use had so been out of control that he had contemplated suicide. In addition to Patrick and Chris, another 12 people mentioned health concerns as forces which led them to seek treatment. Most comments referred to feeling generally "sick" or stressed. Two people said that their hepatitis had led to them seeking treatment, and Tamara talked about concerns related to a friend being HIV positive.

Eight men and one woman mentioned reasons related to criminal activities as part of their rationale for seeking methadone treatment. Erin said these were the only reasons that he had entered treatment. He and Sam were dealing partners, as well as sexual partners, whose home had been raided by the police who were looking for drugs. Although none had been found, this raid, and having their drugs and money stolen by other dealers who had a shotgun, had scared them so much that they had sought treatment. Erin had remained on methadone for only three and a half weeks, but Sam was still in treatment. Another three men also mentioned reasons associated with heroin dealing and another was on a good behaviour bond for possession of chemicals to manufacture amphetamine. Two other men also had direct contact with the police. One said that his partner had been caught for fraud and one said: "the police tracked me down for scams that I was doing. I was charged with eighty counts of theft, so I went on methadone." Brett had a history of incarceration and his partner had recently had their first baby. He said: "Now I have family commitments, I can no longer break and enter."

People surveyed by Anglin and colleagues gave 3 major reasons for entering methadone treatment: they were "tired of addiction, tired of the lifestyle and wanted to use less heroin" (1987b:261). Weatherburn and Lind interviewed 246 people entering treatment. Most reported that being tired of the lifestyle (97%) was the major reason for wanting to stop heroin use. Other reasons included the expense of heroin (67%), good family support (41%) and trouble with the police (30%) (1996). Dale and colleagues found that the two major reasons people gave for entering into treatment were because "they were experiencing drug use problems or because they wanted methadone" (1992:55). The people I interviewed thus have much in common with these other reports from people entering treatment. The primary differences among the people I interviewed were in the numbers who specifically reported health problems related to their increased heroin use and that no one said that they "wanted methadone."

5.14.ii: Effects of methadone treatment

After thirty years experience of prescribing methadone, Dole (one of the physicians who first prescribed it for opioid-dependence) (1966), concludes that "the essential questions concerning (its) efficacy and safety have been decisively answered" (1994:3). Following an extensive review of the international literature from both randomised controlled trials and observational studies, Ward and colleagues found that methadone maintenance is an effective harm minimisation strategy. The positive outcomes include reductions in heroin use, crime, injection-related risk behaviours and premature mortality (Ward et al, 1994).

I asked everyone who had commenced, recommenced or continued methadone treatment, and the man who had discontinued his treatment to continue with counselling, to discuss its effects. Most people described ways treatment had affected them both positively and negatively. Only effects associated with methadone *per se* and the Methadone Program are discussed in this chapter. (The others are included in relevant subsequent chapters.)

5.14.iii: Positive effects of methadone and the Methadone Program

Dale and colleagues report that the majority of people they surveyed mentioned positive aspects of methadone such as, it being clean and safe and that its effects last longer than other opioids (1992). Although no one I interviewed said that they had gone into treatment because they "wanted methadone", 9 did mention positive effects of the drug. Alexander, who had not used any heroin since starting his first methadone treatment shortly after our first interview, said: "It works better than heroin because it lasts all day."

Three people also mentioned positive aspects of the Program itself. Kerry said "It's given me something to do, every day I've got to go and get the methadone ... The nurses are great, they're really supportive."

5.14.iv: Positive effects of methadone treatment on other drug use

In addition to methadone treatment, some people gave other reasons for their modification in drug consumption patterns and some variations were said to be due to other causes. These are reported in the appropriate sections below.

There were 71 reports that certain other drugs were not being used due to Methadone treatment (Table 3, Appendix 18). The classes of drugs most frequently mentioned were opioids (including heroin, which four people had not used for periods of 4 to 12 months) and benzodiazepines. Everyone except Brigid and Mishima said they no longer needed these drugs because they were receiving methadone. Brigid had

stopped the use of psychedelic mushrooms because they did not go well with methadone, and Mishima had stopped the use of both psychedelic mushrooms and "trips" for the same reason. (Because of the cases of imprecise data collection detailed in the previous chapter, "trips" and LSD were combined for the purposes of the analysis of these data.) One man, who had not used heroin for 12 months, and had also stopped use of most other drugs, attributed his success not only to methadone treatment, but to treatment administered by a psychiatrist and counsellor. He said this treatment had helped him resolve problems experienced in childhood.

There were 31 reports of a decrease in drug use attributed to methadone treatment. Most (n=22) involved heroin which, apart from the woman who had ceased then recommenced treatment, meant that everyone still in treatment at the second interview had stopped or reduced their heroin use between interviews. Although the majority of people in methadone were still using heroin, their levels of use had dropped. As other researchers have indicated, a goal of successful maintenance rather than abstinence can be considered appropriate treatment (Bianchi et al, 1992; Ward et al, 1994).

5.14.v: Negative effects of methadone and the Methadone Program

In addition to the positive comments about their methadone treatment, there was also several complaints from most respondents. The most common was that of disliking the drug itself (n=12), although this was often accompanied by a positive comment. This ambivalence is best summed up in Mulch's comment: "It's an insidious drug, but thank God for it."

Five people made negative statements about the Program. Snork, who had only had 3 months of methadone before he took himself off the Program, made comments which encompass many of the negative feelings expressed by the others:

> *having hours to remember to be there ... and they're different times at weekends, and I'd often miss my dose 'cos I forgot, having to go all the way to the hospital every single day, having to go there was publicly showing everyone you were a junkie, someone might see you there, I didn't like that.*

5.14.vi: Negative effects of methadone treatment on other drug use

Eight people either said that heroin was less effective since they had commenced methadone, or that it cost them more money to feel its effects. Chris, who had stopped his use for 10 months, plaintively said "I still get urges for heroin."

In contrast to the 102 reports of a non-use of a drug or a reduction in drug use, there were only 9 reports, which came from three people, of drugs being commenced, recommenced or increased due to methadone treatment (Table 4, Appendix 18).

Two came from Alexander. He had stopped injecting "speedballs" since the first interview but had once injected a "cocktail" of methadone and amphetamine. He also increased his use of marijuana between interviews (at the first interview he reported a range of daily use to occasional use and at the second he reported consistent daily use), partly because:You get a euphoric rush from heroin, and the painkillers, but with methadone you don't get a euphoric feeling, you get the underlying painkiller but not the euphoria, and the marijuana with the methadone gives you the euphoric effect.

5. 15: Other drug treatment

Table 5 in Appendix 18 shows the reasons given for treatment entry by those 8 people who had entered other forms of treatment and whose drug use had been affected by their treatment. Greg had ceased methadone treatment and continued with counselling in order to cease opioid use. Three people had entered treatment because of the influence of their partners: one of these people also mentioned her "Mum" not liking her heroin use as part of her reason for commencing prescribed diazepam. Four people mentioned the negative effects of their drug use on their health as a reason for entering treatment. Damien was the only person apart from Chris (mentioned above) who said that one of the reasons he went into treatment was because he felt suicidal:

> *Well, in the last survey I put down that I wished I was dead ... I was very fortunate that I found NA ... There is no doubt in my mind that I could not have stopped using drugs and started having a good life without the NA fellowship.*

The remaining people who had entered these other forms of treatment also only mentioned their positive effects (those connected with drug use are listed in Tables 6-7, Appendix 18).

Another man started his first heroin Detoxification Program between interviews. Although it had brought his use under some control, he was still using frequently at the time of the second interview. One woman had been in and out of a repeat NA treatment between interviews and had found it unsatisfactory. She was still struggling with her illegal drug use.

5.16: Discussion of treatment histories

Of the 51 people who had not had any treatment by the time of the second interview, 30 had used heroin between interviews. Most were low level users but there were still some who were experiencing problems due to their heroin use. Those heroin users at the second interview with a history of treatment for opioid use had a median age of 28 (range 22-41, interquartile range 25-30), compared to a median of 23.5 among those

heroin users without a treatment history (range 17-38, interquartile range 20-27) (Z -3.547, $p < 0.001$). There was also a significant difference in the duration of heroin use. Those with the history of treatment for opioid use had a median of 9 years from their first use (range 2-20, interquartile range 4.3-10), compared to a median of 4 years (range 1-16, interquartile range 2-6) among those with no treatment history (Z -3.418, $p < 0.001$). These findings are supported by similar results from an analysis of the ANAIDUS data (Ross et al, 1993b).

A notable difference between my studies and other studies where the theory of "maturing out" has been applied to abstinence is that other researchers have estimated duration of use not only from first use but from first heavy use. Duration of use in my study is based only on age at first use. The theory of "maturing out" in terms both of age and period of using may, however, be applicable not only to abstinence but to entry into treatment.

5.17: Other reasons given by respondents for changes in drug consumption patterns

In this section, I relate the richness of the variety of reasons given by the respondents for other changes in their drug consumption patterns.

5.17.i: Experimental use

Experimental use has been found to be one of the determinants for commencing drug use (World Health Organisation [WHO] Expert Committee on Drug Dependence, 1974; Bennett and Wright, 1986; Navaratnam and Foong, 1990a). I based the decision to code a reason for taking a drug as an experiment (Table 8, Appendix 18) on whether respondents indicated that they had some curiosity about a drug before it was made available to them. This was exemplified in the following comment from Jackie. She had tried her first unprescribed methadone after some of her friends had obtained take-home doses from the Methadone Program: "I wanted to try it and see how other people were feeling and stuff."

Fourteen of the 80 instances of a drug being used for the first time between interviews were partly or completely explained as an experiment. Since most people had used the drug only once or "a few times", my use of the terminology is largely in accordance with Swadi's belief that it should be abandoned except when restricted to those who have only used a drug once or twice (1990). One woman who had stopped her use said that she had previously only tried poppy extract once as an experiment, and Maggie, who had taken both opium and heroin for the first few times between interviews then stopped (mainly because she was pregnant), said that she had tried them because: "I wanted to see what (they were) like."

5.17.ii: Availability

Other researchers have found the availability of a drug to be a major reason for altering drug use behaviours (Lukoff, 1980; Fraser and George, 1988; George and Fraser, 1988; Glassner and Loughlin, 1990; Morrison, 1991; Grund, 1992). Most people who mentioned availability (Table 9, Appendix 18) as a reason for a change in consumption patterns had taken the drugs involved only once or occasionally. Tamara's explanation of her recommencement of amphetamine use was one of the very few instances where access was connected with market forces: "A dealer broadened his range." Most comments were more general, such as Patrick's explanation for his commencement of occasional unprescribed Murelax use: "I just know someone with a 'script'." Many people simply said that their use was "just opportunistic", that the drugs had been found, or that their use was "due to availability."

Thirty eight instances of commencing the use of a drug, 12 of recommencement, and 13 of increased use were associated by respondents with their availability. Three of the instances of increased use were related to heroin. Since I first met Jeff (a core-Oswaldian) in 1989, he had always been a very occasional user of heroin, By the time of our second interview for this research he had gone through episodes of using "a few times a week", one of the reasons being that he was "more often aware that it's around."

Of the 186 reports of decreased drug use, 18 were related to the drug being less available. By way of illustration, Emma had commenced cocaine use two months before the first interview. She had then gone through periods of two day cocaine "binges." Between interviews she had only used it very occasionally because: "At the previous interview I was in contact with people who were using it, and it's only around erratically."

The biggest shift in availability was in drugs that had not been used; 121 people reported that they had previously used the drug only because it was available. The drug most frequently cited was hashish, for which 27 of the 40 reports of a transition from use to non-use were explained simply as lack of availability. Eleven people who had previously reported occasional use of cocaine had not used it between interviews. Drew-1 said: "The circles in which it's sold are different to mine, and I haven't had anyone asking if I want to buy it." All the other people who had stopped the use of drugs included in Table 9 in Appendix 18 offered similar reasons. This covered drugs usually available only on prescription (indicating that they had previously been illegally obtained).

Ruari was one of 3 people who reported variations in availability as all or part of their explanation for fluctuating drug use consumption patterns. He had increased his marijuana use from an average of twice a week at the first interview, then had a period of daily use before bringing it down again to its previous level. He explained the reason for the increase: "The harvest came in and a friend had it and I saw them every day and had it."

5.17.iii: The effects of the drug

Other researchers have indicated that the effects of the drug may in themselves be reason enough for people to use them (Lewis et al, 1987; Navaratnam and Foong, 1990a, 1990b). Eleven people I interviewed had increased the use of a drug for this reason (Table 10, Appendix 18). Apart from Eggplant, who said his use of tobacco had increased because he was "addicted", and Amelia who had increased her use of 3 benzodiazepines because of a "pill dependency", respondents who had a transition in drug use consumption gave a similar reason to Jessie. She was the only person who had recommenced the use of a drug between interviews because of the feelings she had for the drug: "I love it." Snork, who had recommenced heroin use (after temporarily stopping use between interviews) also offered a similar explanation: "I like it ... I missed it."

Many changes which occurred in this category were in drugs that were not used (n=114) and in drugs where there had been a decrease in use (n=23). Most respondents explained these variations by saying: "I'm not that interested in it", or "I can't be bothered with it", or "I don't enjoy it any more." According to the WHO Expert Committee on Drug Dependence, such reasons are often given for stopping use (1974).

Some people then went on to comment about the effects of the drugs. Sixteen of these comments were positive, and they all came from people who had commenced or recommenced their use of a drug (Table 11, Appendix 18). Most people said they "liked" or "loved" the drug.

There were also 16 negative comments related to drugs *per se* (Table 12, Appendix 18). One person who had used opium for the first time, and another who had his first use of datura, said that the drug made them feel "touchy" (meaning irritable). Stephen, who at the age of 45 had inhaled glue for the first time, said "1 wouldn't like to do it again." The negative comments made by other people stemmed from the drug being "boring" or "not very effective." This included Cathie's first and only use of heroin, which she had smoked.

Eggplant had re-commenced heroin use and had used only it once. He was "still not keen on it." Olivia made a similar comment about her recommencement (on just one occasion) of poppy extract. The people who had increased their heroin use (one temporarily) all expressed concerns about this increase. Snork's increased use of "trips" led him to say: "I got a little worried about my acid use. I was having it heaps, but wanting it more heaps."

5.17.iv: Other drug use

In 93 instances, the explanation for a variation in drug use consumption was partly or completely inter-related with another drug (Table 13, Appendix 18). The "other drug" most commonly cited was heroin. In five of the 51 instances where heroin was mentioned, there had been a commencement or recommencement of use - in 9 an increase, in 9 a decrease, and in 28 non-use (one temporarily) of the drugs listed in Table 13. Twenty comments were connected with one of the other opioids listed in this table. One person said that they had stopped the use of poppy extract because they no longer needed them with increased use of heroin, but most people were trying to control their use of heroin and other opioids. A few comments were not directly related to a change in heroin use. Two people said they had previously only used non-prescribed methadone when they were "hanging out" for heroin and one person had only used "homebake" because there was "poor quality heroin around at the time." Only another two variations were explained as a replacement for other drugs.

The main reason given for the remaining opioids that were decreased or not used, and that were correlated with heroin, was because people favoured heroin more. Sara's comment typified these responses: "I don't really like any other drugs, just heroin."

Daryl said that because he was trying not to use heroin he was using more "speed" which, in turn, he connected with his increased use of alcohol. Tamara had increased her tobacco consumption because of periods of "hanging out" for heroin. Jeremy put his increased tobacco use down to stopping heroin (as well as other illegal drugs).

As other researchers have found (for example, Maddux and Desmond, 1980; Hartman et al, 1983; Anglin et al, 1989; Almog et al, 1993) there was an inverse relationship between alcohol and heroin use. Five people who had increased their alcohol use said this was due to either stopping, or temporarily decreasing, heroin use. Conversely, 3 people who had decreased their alcohol consumption said this was related to increased heroin use.

Some of the diversifications in patterns of heroin use had affected some other drug use (Table 13, Appendix 18). Sara had increased her use of heroin and stopped the use of

most other drugs because "I only like heroin now." Two people who had stopped their heroin use had stopped their use of other opioids and benzodiazepines and, when Morgan went through a period of not using heroin, her marijuana had decreased because she said she tended to use it in conjunction with heroin.

There have been disparate findings on the relationship between deviations in heroin consumption patterns and the use of other drugs. In addition to alcohol, Anglin and colleagues also found that the use of other drugs is inversely related to heroin (1989). In one of the few studies to compare different levels of heroin use Flaherty and co-workers, however, found that daily heroin users tended to use other drugs to a slightly greater extent than the occasional heroin users (defined as those who used heroin less frequently than daily) (1984). Rounsaville and colleagues report a reduction in alcohol, cocaine, and other drug use among the people they surveyed who had not used heroin for more than 6 months (1987). In a follow-up study of clients who had been admitted to methadone clinics, Fairbank and colleagues found that those who stopped their heroin use, or who used less than weekly, were more likely to also decrease their use of other drugs, compared to those who continued to use heroin more frequently (1993). This reduction parallels a finding from a study of 114 people receiving methadone maintenance in a Glasgow treatment setting who completed the OTI. They were also found to have significantly reduced the mean number of drugs (from 4 to 2.4) between an early attendance and after 6 months of treatment (Macleod et al, 1996).

No one said their use of alcohol had increased because of going into treatment but I checked through the qualitative data to see how many people who had entered or re-entered methadone treatment had increased their alcohol use. There were only 4 such people among the 18 who had increased their alcohol consumption between interviews. James-1 and Amelia had re-entered methadone treatment. James-1 related his increase to him "having more of a social life" and Amelia said "I don't know why [it increased]." Brigid, who had started her first methadone treatment, said she drank because it "always made me happy" and Sinead, who had been in and out of her first treatment, largely associated her increased alcohol intake to a period when she was trying not to use heroin.

As seen in the discussion on treatment above, most people who went into treatment had decreased or stopped the use of not only heroin but other drugs. In order to get a more complete picture of the impact that decreased or non-use of heroin had on other drug use, I looked at the number of drugs used at each interview by the 12 people who had stopped heroin and the 33 who had reduced their use. At the first interview, these 45 people had used a median of 12 drugs (range 3-25, interquartile range 9-15) and at

the second the median had dropped to 7 (range 3-14, interquartile range 6-10) (Z -4.882, $p < 0.001$). My findings, therefore, support those from other researchers who have demonstrated that there is not necessarily an inverse relationship between the use of heroin and other drugs.

Changes in the use of the benzodiazepines (listed in Table 13 in Appendix 18) were also commonly associated with heroin. Four of the people who had commenced or recommenced benzodiazepine use had them prescribed to control heroin use, and 3 people who had stopped the use of a drug in this class had done so because they no longer needed them since they had stopped using heroin. Most of the instances of the non-use of a benzodiazepine involved a switch to another drug in this class.

Drew-2 said his decreased use of heroin (as well as amphetamine and his non-use of ecstasy) was due to him "discovering energy" (a "cocktail" of ecstasy and amphetamine). Part of Roger's reasoning for his decreased heroin use was "heroin's not my drug of choice, that's alcohol and tobacco for me." Olivia was using less heroin because she had "better access to marijuana." Lisa's heroin use had risen when she was trying to stop her use of Doloxene, which had been prescribed as an analgesic.

There was a miscellaneous array of other drugs mentioned in conjunction with the drugs listed in Table 13, including 6 mentions of marijuana, 6 of alcohol and one each of hashish, tobacco, "trips" and No doz[1] .

Four people made positive comments about the effects of new drugs on other drugs they used (Table 14, Appendix 18). Both Sara and Gazoo, for example, who had commenced benzodiazepine use, said these drugs enhanced the effects of heroin. Navaratnam and Foong have reported a similar finding among the people they interviewed (1990a and 1990b).

A few people also made negative comments about the effects that their changes had on other drugs (Table 15, Appendix 18). For example, Jeff, who had increased his use of heroin, had starting using unprescribed codeine to assist him with periods of "slight withdrawal."

5.17.v: Drug quality

In addition to Gazoo's remark that fluctuating heroin quality had been one of the reasons he had entered methadone treatment, another 19 people referred to an alteration in drug quality when discussing their reasons for varying their drug use

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[1] An over the counter substance containing caffeine.

levels (Table 16, Appendix 18). Verifying the findings reported by McDonald and colleagues (Appendix 14), Rob was among several heroin users who, at the first interview, maintained that Canberra's heroin was of a poorer quality then elsewhere. At the second interview, Sam was one of 7 people who commented on an increase in heroin purity "[There's] heaps better heroin around. Now you can get rocks pretty pure. Sometimes they're cut, but [you can get] forty to sixty per cent [purity]."

These comments are corroborated by reports from police services and analytical laboratories which show that purity levels of heroin rose in most States and Territories during 1992 from the 0-10 per cent purity range to 20-25 per cent purity (Anon, 1992). This trend has continued. During 1995 to 1996, samples of heroin tested ranged from 13.2 per cent to 79.8 per cent purity with an average of 58.7 per cent purity (Australian Bureau of Criminal Intelligence, 1996). In spite of this increase in heroin purity, only Jeff and Brenda associated their increased heroin use (Brenda's temporarily) with an increase in its quality.

Jeff had also recommenced the use of "trips" because he felt they were of good quality. The people who had stopped or decreased their use of "trips", amphetamine, ecstasy and cocaine said this was because of their inferior quality.

5.17.vi: Injection-related

Otto was one of only 4 people who referred to injecting when discussing their variations in drug use (Table 17, Appendix 18). He described his first opioid injection of dissolved morphine tablets:

> *we got this tablet and tried to dissolve it. It went into the consistency of glue, but we had some. I liked the effect, but not the process of injecting it.*

Alison had increased her amphetamine use because "Half the time, it's just to hit up" (to inject). One of the reasons that Annabel had used amphetamine only once between interviews was because "It's a hassle when you're out to have to find somewhere to inject and you have to go and get a clean fit" (needle and syringe). James-3 had reduced his amphetamine use because "I don't want to use needles any more."

5.17.vii: Age

In addition to the one person who said they had gone into methadone treatment because of their age, and the two people who said they had gone into methadone treatment because they had been using for 10 to 11 years, there were only another eight instances where people alluded to their age or period of using in relation to the drug use changes (Table 18, Appendix 18). All were associated with a decrease or a non-use of a drug. Some comments were along the lines of James-3's explanation for

not using Sudafed[1] : "It's a bit of a kiddies' drug." Others were similar to Rob's comment that, at the age of 23, he was "too old to handle trips."

5.17.viii: Lifestyle events

A variety of lifestyle events precipitated 89 changes in drug use consumption levels (Table 19, Appendix 18). Several were due to a party or particular event. One such scenario is "Saint Oswald's Day." Aidan and Rafe (two core-Oswaldians) had recommenced the use of "speed" as part of the celebrations involved with "Saint Oswald's Day" and, although Trevor (another core-Oswaldian) had not used any between interviews, he said he might "just have a line [on the next] Saint Oswald's Day." Most drugs mentioned in the context of a party or particular event were used on an occasional or once only basis.

Snork was one of only 5 people who associated a variation in drug use consumption with moves to or from Canberra. One of these was his fluctuating heroin use. At the first interview, this ranged from occasional use to using 2 to 3 times a week. Between interviews, his use had increased to a period when he used 4 to 5 times a day, followed by a period of non-use for 3 months which was due to him "escaping from Canberra." Since returning, he had recommenced use: "I actually went out to get it ... because of Canberra ... it's hard not to do in Canberra ."

Alcohol was the drug most commonly cited when variability in use was related to a lifestyle change. The increased use was mostly because, as James-1 said, the people involved were having "more of a social life", while the decreased use was often simply explained along the lines of "I'm staying home more."

In addition to the 10 people who gave a general lifestyle reason for entering methadone treatment, there were 5 people who had decreased their heroin use, one woman who had decreased her alcohol use and one who had stopped using amphetamine who all also gave general lifestyle reasons as part of their rationale for the variation. Rob, for instance, who had reduced his heroin use explained: "I was making a mess of things, there were new things I wanted to do ... more to see about life." During the twelve months prior to the first interview, Susie had consumed 6 to 10 drinks twice a week "to get pissed." At the second interview she still "Sometimes had maybe ten drinks" but went weeks without and in the "Past few months, not as much. I don't want to drink or use [heroin] ... I don't like what it does to my health or lifestyle." Simpson and colleagues also found that the main reason that the people in

[1] An ephedrine-based substance.

their study (65%) stopped daily opioid was because they were tired of the lifestyle (1986).

Several people linked their changes with the demands of work or study. This is how James-1 explained his decreased marijuana use: "I've got to work, I've got to be alert." Cathie, Steve and Marie, who had all completed their studies, were exceptions. Cathie said that having less stress due to not studying had enabled her to reduce her marijuana and alcohol use, and Marie had temporarily stopped smoking for the same reasons. Steve's tobacco use had fluctuated. He said:

> *I was keen to finish Uni' and wanted to stop smoking. When I finished Uni', the guard, the reason for stopping went and I just started again.*

Morgan was the only other exception in this category. Her use of heroin had fluctuated between interviews. It had increased when:

> *I was working nights and on my own in the day, so I had time to stew things over and go and get heroin and hassle around and scam.*

5.17.ix: Financial

There were 58 instances where a modification in drug consumption levels was related to finances (Table 20, Appendix 18). In one of the two instances where use of a drug had commenced, 9 where there was as increase, and in 6 where use had temporarily increased, or recommenced, people said their financial situation had improved. Apart from Otto, who had commenced heroin use and whose increased income was due to selling marijuana: "[I've] got plenty of money, I can afford to buy heroin"; this increased income had been legally obtained.

Comments of a somewhat different nature came from 5 other people who attributed their change to the drug being "cheap" or "free." For example, David and Maggie had both commenced opium use (Maggie then stopped when she was pregnant) for this reason.

Twenty instances of a decrease in the use of a drug, 19 of a drug not being used and 4 where the use had temporarily stopped, or had reduced, were partly or wholly explained as being due to the expense of the drug, not being able to afford the drug, getting into debt, or wanting to spend money on other things. Jackie was one of 5 people who had reduced their heroin use partly or completely due to financial reasons: "I was sick of not having food in the house and being hassled for money." Blackwell's respondents also referred to the financial drain of heroin use being a major disincentive for continuation of use (1983)

5.17.x: Significant others

Several other researchers have found that significant others play a part in reducing or stopping drug consumption (Waldorf, 1970; Simpson et al, 1986; Stall and Biernacki, 1986; Anglin et al, 1987b; Valiant, 1988; Morrison, 1991). In addition to 18 reports of significant others affecting treatment seeking, I found 62 instances where a decrease in use or non-use was associated with a significant other.

5.17.x.a: Partners

Only two instances of commencement of drug use were attributed to partners and both involved a new relationship (Table 21, Appendix 18). Seven reports of an increase in use were partly or wholly due to a partnership change. Alison linked several of her variations in drug use to her change in partners. She considered, for example, that her commencement of cocaine use and her increased use of amphetamine and ecstasy was due to her new partner "really liking" the drugs. Daryl also associated several of his changes in consumption patterns to his partners. His use of alcohol had increased from 3 drinks once a week at the first interview to "sometimes binge use" at the second because his new girlfriend was "an alcoholic." He had stopped smoking cigarettes for a period and said he had recommenced because his new partner smoked. His heroin use had also fluctuated: he had stopped because his "ex-partner ripped me off" and he had been using heavily with her, and he started again because his new girlfriend was a "heavy user."

Ten reports of decreased drug use, and 5 of non-use, were connected to partners. Most were either because a partner did not use the drug or did not like the respondent's use. Roger had a 16 year history as a non-dependent user of heroin at the first interview, and his reduction of heroin use (from weekly to monthly) between interviews is included in this category. This had "probably got something to do with Lynda who doesn't use heroin, she knows I do and there's no particular pressure - perhaps some subtle pressure."

Three other people said that their decrease or non-use of a drug was due to a break-up of a previous relationship where the partner used the drug. Without going into treatment, Greta had "stopped" heroin for more than 12 months at the second interview. Among her reasons was the fact "I broke up with Kevin, we were using heroin and that kept us together."

Amy's reason for decreased heroin use was somewhat different. She had used heroin fortnightly at the first interview then had a period between interviews when she "started using daily when my ex-boyfriend was dealing and using a lot and giving it to me." When she broke up with this boyfriend she formed a partnership with Lee and

"stopped using heroin for a period. Lee had a nervous breakdown, I was worried about him and using drugs was the last thing I wanted to do." Marsha's reason for not using amphetamine for more than 12 months was also partly because: "I wasn't comfortable with Tim using the drug."

Including the cases reported above, there were 10 instances of fluctuating drug use patterns which respondents partly or wholly explained as due to the break-up of a relationship. Both Emma and Sinead, for example, had stopped using heroin for a period after leaving a relationship where the partner was a heavy user. Sinead then recommenced her use because "John was around and harassing me and my friends."

5.17.x.b: Pregnancies

Between interviews, Deirdre had given birth to her first child and Brett's *de facto* wife had their first child. Another three women were pregnant for the first time, Chris's *de facto* wife was expecting their first child and Annie was trying to conceive. Among these seven respondents, there were 10 reports of a reduction in drug use, 21 of a drug not being used, and two of fluctuating patterns, which were all largely explained by a previous, current or hoped for pregnancy (Table 22, Appendix 18).

Deirdre's pregnancy had led to her stopping the use of several drugs. At her first interview, she was injecting heroin 5 times a week, consuming an average of 12 alcoholic drinks a day and smoking up to 50 cigarettes a day. She also currently used another 10 drugs. Shortly after our interview, Deirdre conceived her first child and, without going into treatment, she stopped all illegal drug use. By her second interview, when she was accompanied by her healthy and happy toddler, she had reduced her alcohol use to 2 to 4 drinks a week and her cigarettes to 5 a day.

5.17.x.c: Other family

In addition to those new and expectant parents and the one person who said a child was an influence on them entering methadone treatment, another two people, both women, said that their changes in drug use were related to their children (Table 23, Appendix 18). Julie had reduced her cigarette smoking from an average of 40 a day to 25 because "My kids don't let me smoke in the house." Marsha had stopped using amphetamine for more than 12 months partly because one of her children was a victim of a criminal activity which precipitated police involvement: "[I want my children] to live in a safe environment and deal with the police in a non-paranoid environment."

Only two people ascribed variations in their drug use to their parents. Greg had commenced prescribed Tofranil when he was depressed "to please Mum", and one of the reasons that Robyn was smoking less was because her Mother didn't like her

smoking. Only Jackie mentioned another family member in conjunction with a change in drug use. She had temporarily stopped smoking when one of her grandparents was dying of lung cancer.

5.17.x.d: Friends

Other research has indicated that friends are influential in changing drug use patterns (for example, Waldorf and Biernacki, 1979; Bennett and Wright, 1986; Glassner and Loughlin, 1990; Morrison, 1991). In contrast to the few reports of influence on drug use consumption patterns by family (other than partners and children), there were 46 partially or completely due to friends (Table 24, Appendix 18).

I found no evidence for people being coerced into drug use by, as Faupel puts it, "the veteran addict/dealer promiscuously turning on the young and vulnerable." As Faupel goes on to say, in spite of this popular image, there is no evidence to suggest that this happens in reality (1991:53). In their study of adolescents, Glassner and Loughlin found that "Drug use arises out of association with peers not so much as the result of pressures, but rather as part of a social context" (1990:159). I found only two indications of any coercion into initiation into drug use. Both were by friends. Mr X said that he had been completely influenced by a friend to take heroin for the first time:

> *Well, one of my friends just fully conned me into it ... she spent about three hours conning me, and I just did. Both times* [I used heroin], *it was the same person.*

Gazoo had commenced prescribed flunitrazepam because a friend had persuaded him to get a prescription for her in exchange for heroin. He had then used some of the flunitrazepam himself. There was no coercion involved in Bert's first amphetamine use: "Friends brought up the idea, so I said 'No worries.'"

Several variations were said to be due to the influence of a peer. Elke is a case in point, but, as an example of the multiple coding required, she also indicated this was partly to experiment:

> *there was this guy I was living with and he got me into marijuana, and he was a really bad influence on me. And I met up with him at this festival, and I'd been curious about heroin and we injected it.*

Most of the increases, non-use and fluctuation of drug use patterns explained as being due to friends were largely results of a change in the people that respondents were "hanging around" or living with. Sara's variation in alcohol consumption typifies these responses. Her alcohol consumption had dropped from a third of a cask of wine

5 times a week to "a couple of drinks a week" because "My drinking friends have left town."

Rosetta was one of 16 people who had stopped or reduced a drug because of witnessing detrimental effects in friends: "My flatmate smokes [marijuana] and that annoys me - she's always stoned and doesn't do anything and I don't want to be like that." This had led to her reducing her marijuana use from the daily use of several "bongs" at the first interview to fortnightly use. Three people had not used amphetamine since before the first interview, and one person had not used any for more than 12 months. Greta and Aaron were among 4 people who had reduced or not used amphetamine due to seeing the effects of heavy use on a friend. They had seen the same friend in hospital with "speed psychosis."

There have been several recent heroin-related deaths in Canberra, as in other States and Territories in Australia (Hall, 1996; Zador et al, 1996). These have often occurred in clusters. Bammer and Sengoz investigated one apparent cluster that occurred in Canberra between my two rounds of interviews. As part of this process they examined ACT ambulance records from the second half of 1992 to the first half of 1993. These showed a dramatic increase in the number of people treated for "likely or possible heroin overdoses" (1995;316).

Although I did not ask respondents if they knew anyone who had overdosed, either during ethnographic work or at the second interview, 7 people volunteered the information that they knew someone who had recently died in this way. At interview, Greg was one of three people who said they had decreased their heroin use for this reason. He was receiving methadone treatment and also having counselling at the first interview. He had discontinued methadone treatment 6 months prior to the second interview but had continued with his counselling. Recently, two of Greg's friends had died of a heroin overdose and he had been the last person to see one of them alive. His last use of heroin had been 3 months ago, shortly following this death:

> *I was terribly worried when Tina OD'd, I was worried about my own using ... it's easier not to use when you think you might die if you do, and I basically want to live. If Tina hadn't died, I would still be dabbling I reckon ... I had a friend who shot himself a few years ago and his brother really cleaned himself up and I said I'd do the same as him after Tina died.*

Two of the ex-heroin users interviewed by Bammer and Weekes also said that the death of a significant other had been the point at which they decided to stop using heroin (1994). No one in my study reported increasing their use after such an experience, but some people in Bammer and Weekes's study did.

Steve had not used any heroin for two and a half months (and was hoping for this to be permanent) because he had used it with a friend who then became "clinically dead and was rescussed" (resuscitated). Blackwell found that several of the people she interviewed had reflected on their heroin consumption after witnessing adverse effects in friends (1983).

5.17.xi: Legal/criminal

Simpson and colleagues report that 32 per cent of the people they surveyed who stopped daily opioid use said that a fear of the law was a motivating factor (1986). Following a study of 406 men admitted to a drug treatment centre, Anglin and colleagues concluded that their results "support a concept of maturing out of drug addiction as a phenomenon conditional upon levels of drug dealing and crime" (1986:244). Maddux and Desmond found that a major facilitating factor for a long period of abstinence was a period of probation or parole for a year or more (1980).

In addition to the 9 people who had commenced methadone treatment and who discussed criminal activities as part of their rationale, there were another 22 instances where I was able to identify a link between a variation in drug use with either a criminal activity or a legal reason (Table 25, Appendix 18). One was related to a respondent's dealer getting "busted" and 10 were related to personal dealing. Otto associated his commencement and continuation of heroin use with earning more money from increased sales of marijuana, and two people had increased their marijuana use because they were also selling it. One woman had decreased her marijuana use because she was no longer dealing it or living with people who did.

Both Erin and Snork had temporarily increased their heroin use when they were dealing it. One person had decreased his alcohol use and one his tobacco use because they had stopped selling heroin. They both believed that their use had increased during the stressful period when they were. Bart had been found with 0.5 gram of cocaine prior to the previous interview and this police involvement and its ramifications had led him to stop its use. Boy Wonder had decreased his amphetamine use after being caught in possession of chemicals to manufacture amphetamine and he was on a two year good behaviour bond.

There were 4 other examples of direct police involvement. Brian had prided himself on being a very "hidden user." He had been through a terrible experience between interviews when a friend he was with had died of a heroin overdose, which had led to his involvement in police inquiries. He had then reduced his heroin use from often very heavy use to occasional use: "I decided to go for 'script' drugs [he said he was now "dependent" on diazepam] because of the illegality of heroin." Jade's non-use of

temazepam was partly because "Last time I had them, weird things happened with a police case." Forest had not used Avils[1] because when he used them "I was out of control ... and was picked up by the cops." Marsha had stopped using amphetamine for more than 12 months partly because (as related above) one of her children was a victim of a criminal activity which had precipitated police visiting her home.

Two people had decreased their cannabis use when they moved to New South Wales because of the more stringent laws related to its use in that State. Mishima said that one of the reasons for his decreased alcohol use was because he had been involved in a drunken fight and Mick had been assaulted when he was drunk and this had led him to drink less alcohol. Fred had reduced his amphetamine because of the "general secretiveness" involved, and Daryl, after committing an act of vandalism towards a previous girlfriend, had temporarily stopped his heroin use because he realised that "What I did was wrong."

Very few people I interviewed reported a link between stopping the use of a drug and their criminal behaviour. In particular, only a few said that they had stopped the use of a drug because they had been charged with a criminal offence. The discrepancy between my finding and that of other researchers is probably related to several differences between the samples. For example, the people in my sample were different in variables such as gender composition and the variety and levels of drugs used and, as will be shown in Chapter 8, few people had committed serious crimes, and comparatively few had been imprisoned.

5.17.xii: Health

The WHO Expert Committee on drug dependence report that use of a drug is often discontinued because of concern a user has about his or her welfare (1974). Health-related issues were among the most common triggers for a change in drug consumption patterns among the people I interviewed. In addition to the 18 people who said that one of the reasons they sought treatment was because of the negative impact drug use had on their health, there were another 174 instances of a change in drug use patterns being juxtaposed with a health related issue (Table 26, Appendix 18).

Ten people connected their commencement, and 11 their recommencement of the use of a drug (including 3 whose heroin use had fluctuated) with their health. Most drugs in these categories had been prescribed for symptoms including headaches, insomnia

[1] Avils are a type of antihistamine available over the counter in Australia. When used as advised, the side-effects are minimal but when used in large doses, they can produce hallucinations (Thomas, 1988).

and depression, and for the control of heroin use. A few drugs that had not been prescribed, where respondents had commenced or recommenced a drug, as well as a few increases in use, had been used to help allay a variety of health problems including insomnia, depression and stomach cramps.

Only two people who had increased their use of drugs due to a health problem had been prescribed the drug. Both had used diazepam to assist with problems related to their use of heroin. There were 8 instances of increased use of a drug and two of recommencement related to people having more stressful lives.

Fifteen of the instances of decreased drug use (including one person's fluctuating use) were related to health problems following marijuana use. A wide range of health problems were mentioned, most by only one person. Some people reported diminished cognitive ability. Several problems, such as memory loss, paranoia, auditory hallucinations or feeling "edgy", "scared", "uncomfortable" or "nervous", were psychological. The only person who had stopped marijuana use said that this was because of paranoia, and Sara had stopped hashish use for the same reason. Physical health problems mentioned by those that had decreased their marijuana use, and by two people who had stopped hashish use, included dependency, queasiness, sleeping problems and respiratory problems. Problems mentioned by the people I interviewed correspond with those discussed by Hall in a review of the health problems associated with cannabis use (1995).

The other health-related comments about decreased use, non-use or a temporary cessation of use were mostly general such as "I don't like what it does to my health", "I had a filthy habit" or "I was generally rundown."

Some people had stopped or decreased their use of a drug because of hepatitis and these reasons are discussed in Chapter 7. Five people who had decreased their tobacco use had suffered respiratory problems, including 3 who had been ill with pneumonia.

Most of the 16 people who stopped amphetamine use for a health reason, as well as the 7 who had reduced their use also for a health reason, referred to the negative aspects of the "comedown." Although, for some, it was a matter of feeling generally unwell, others, such as James-2, had experienced more profound after-effects. He had been through a period of injecting amphetamine four times a day for 6 of the 12 months leading up to his first interview. In the period between interviews he had used it only occasionally and had usually administered it intranasally. He explained this by saying: "Now I feel really bad coming down. I feel shithouse and it scares me." After a history of using 3 to 4 times a month at the first interview, Rob had stopped his use of

amphetamine for more than 12 months and talked about several health problems he had experienced which had formed part of his rationale for stopping:

> *Speed made me feel edgy, angry, a bit stupid ... I don't think it's safe. You can talk to people without thinking they're going to kill you.*

Five other people mentioned negative psychological sequelae of the drug including paranoia and "speed psychosis." This high prevalence of health problems associated with amphetamine use resonates with the finding of Hall and Hando. They report that around a third of the of 231 amphetamine users they surveyed in Sydney had experienced amphetamine-related health problems (1994).

Many people who had decreased or stopped the use of hallucinogens also mentioned the unpleasantness of the "comedown" or having a "bad trip," Five people who had stopped the use of "trips", one who had reduced his use, and 3 who had stopped the use of psychedelic mushrooms, also referred to negative psychological side-effects.

I did not ask respondents if they had ever experienced an overdose of heroin, only if they had one during the month prior to interview (as part of the OTI). Daryl was the only person who spontaneously reported an overdose affecting his drug use. He had gone through a "near death experience" after concurrent use of several drugs including heroin and hallucinogens. The reason he gave for not using any psychedelic mushrooms was because of this experience, saying "No psychedelics, it's not practical." He did not relate any of his other changes to this experience.

Both of the people who had reduced their nitrous oxide use, and two who had stopped its use, said they were worried about the effects on their lungs of the metal in the bulbs containing the drug.

Everyone who had stopped the use of benzodiazepines referred to the fact that they made them feel "sleepy" or "stupid." Tim had stopped his use of prescribed Prothiaden because "I was depressed about being on methadone. I wanted to take one less drug. I wanted to stop being a half person."

The theme emerging from 5 people's variations was somewhat different to those covered above. One had increased the use of "trips", two had increased their use of marijuana, two had decreased their marijuana use and one had temporarily stopped smoking because they were feeling more relaxed.

5.18: Discussion

One of the reasons for collecting the prospective data was to tease out some of the reasons for changes in drug use "careers" and reasons for "maturing out" of drug use. In describing the reasons for stopping or decreasing their use, very few people referred to their age or their period of using and only one man related his stopping the use of drugs to having resolved traumatic childhood experiences. Many did, however, give reasons such as added family responsibilities, the pressures of employment, wanting to spend their money on other things or the deleterious effects of drugs on health. These reasons may be interpreted as being part of a process of "maturing out."

The lower rate of consistent daily use for some drugs at the second interview may be an artefact of the longer timeframe since levels of use are more likely to fluctuate over the longer timeframe for which data were being sought at the second interview (median 18.3 months) compared to the first (12 months).

Most people I interviewed had been using illegal drugs for a shorter period than those surveyed by other researchers who studied the "maturing out" of opioid users. They also tended to be younger and, despite the significant increase in the number of people in treatment, there were still more people who had never experienced treatment than who had. It is possible that "maturing out" occurs at an early age in the case of the use of drugs other than opioids. It is also possible that the differences are due to geographical location.

I did not interview enough people who said they had "stopped" using heroin to be confident about any comparisons with other studies on "maturing out" of heroin dependence. In addition, these people had all "stopped" for a much shorter period than those studied by other researchers and it is possible that some will revert to heroin use.

Most people gave several reasons for the changes in their drug use. Many reductions were due to factors such as unavailability, treatment, and dislike of the drug. Although the number of people using heroin had increased by five between interviews, 12 people said they had "stopped" their use and 33 had reduced their consumption.

Most of the people who had entered into treatment said the major reason they had sought treatment was the multitude of problems which accompanied their increased use of heroin. Fortunately, the need for treatment coincided with an expansion of places in the Methadone Program but, as evidenced by those 3 people who had commenced their first treatment only to leave it shortly afterwards, this form of treatment had not worked for everyone. There were, however, 26 people in methadone treatment at the second interview compared to 4 at the first. Although there were

mixed accounts of the efficacy of methadone treatment, most people who had continued with their treatment mentioned its positive effects. All those who entered into treatment between interviews and who were still in treatment at the time of the second interview had either stopped or reduced their heroin consumption. Amongst all respondents, including those who entered into treatment, there was a significant reduction in the number of drugs used between interviews.

Given the relatively young profile of the respondents in my sample, there were probably many people in the beginning or occasional stages of drug use when "social controls" (Becker, 1963:61) led them to stop their drug use at an early stage and they did not progress in their drug using careers. Their ability to not revert to use may, therefore, be greater than for those who are at later stages of their careers where social controls had not previously prevented their progress to higher levels of use.

Several people discussed the correspondence between their use of two or more drugs. The non-use or decrease in the use of heroin had also led to the reduction or decreased use of other drugs, particularly other opioids and benzodiazepines. Other research has also demonstrated that opioid users tend to use fewer non-narcotic drugs when using less opioids (Shaffer et al, 1985). As reported in the previous chapter, polydrug use is associated with heroin overdoses and BBV risk behaviours. It may be hoped that the reduction in polydrug use amongst the population I studied will lessen their potential for the mortality and morbidity associated with drug use.

Biernacki found that one quarter to one third of his sample of 101 ex-dependent opioid users who became abstinent without treatment, had stopped their use because of a "rock bottom" event which he defines as "a highly dramatic emotionally loaded life situation" (1986:43). There were very few examples of "rock bottom" events among the people I interviewed. Examples of these types of events were friends' deaths, one friend's near death from a heroin-related overdose, and perhaps some of the criminal behaviours which led to police involvement. Similarly, Klingemann found that among the people he studied who had stopped using heroin and alcohol without treatment "this absolute image of hitting bottom can not be empirically supported in many cases" (1991). Some of the reasons given by the people I interviewed can be likened to those Klingemann found. Some he terms "'cross-roads cases' [those] who want to drop out before reaching the subjective absolute low point." Others he terms "'pressure sensitive cases' for whom social pressure plays a particularly important role" (Klingemann, 1991:734).

There were two people in my study who had felt suicidal because of their drug use. According to Biernacki, "The thought of taking one's own life as an alternative to

continuing the addiction is a major factor that distinguishes the rock bottom phenomenon from the existential crisis. The existential crisis is felt as a sense of mortification where the most profound kind of self questioning occurs and where the individual feels that he has nowhere to turn to salvage a sense of well being" (1986:59).

Whilst the terms "maturing out" and "drug using careers" are useful umbrella terms, the prospective data collection revealed the multitude of reasons offered by respondents for changes in their drug using patterns.

5.18.i: Ratios of heroin users

Citing an article by Treaster in *The New York Times*, Winick records that in 1993 current treatment programs catered for less than a third of the nation's "addicts." Winick associated this with the lack of available facilities and interest on the part of the users (1993). Previously, there were also too few treatment places for people experiencing problems with their heroin use in Australia. Due to calls from IDUs and the HIV/AIDS epidemic, there is now greater access to methadone treatment (Ward et al, 1992). This has led to more people entering treatment, which must have impacted on the ratio of treatment to non-treatment heroin users. Only one person I interviewed expressed a fear of contracting HIV, and only two people said that a form of hepatitis had led them to seek treatment. As will be shown in the following Chapter, there have, however, recently been huge increases in the numbers of IDUs who have a form of bloodborne hepatitis. Allowing these people to enter treatment will necessitate further increases in the number of treatment facilities.

Hartnoll and colleagues (1985), the CDCSH (1988a) and Marks (1992) have suggested that there are more non-dependent than dependent heroin users. The ratios, however, give no indication of how long a non-dependent career may last. My results, along with those reported from the ANAIDUS data (Ross et al, 1993b) revealed that people not in treatment were more likely to be younger and at an earlier stage of their drug-taking career. If younger users hear of these ratios, and I have found that some have, they may be misled into thinking that they will be among a fortunate perceived majority who will succeed in controlling their heroin use.

It is difficult to make generalisations based on a small sample but my research, particularly my nine years' contact with the Oswaldians, lead me to question the ratio of non-dependent to dependent heroin users. Thirty five Oswaldians had ever used heroin. Two had experimented with it once before the first interview and one had been an occasional user and stopped before the first interview. He had previously been in treatment for non-opioid use. Table 5.5 is based on the findings from the 32

Oswaldians who had used heroin between interviews, and also on subsequent ethnographic work which has informed me that one other core-Oswaldian and one peripheral group member have been treated for opioid use.

This table shows that 20 Oswaldians have a history of treatment. Five had re-entered treatment between interviews, one had been in continuous treatment, one had not been in treatment since before the first interview, and the other 13 had gone into treatment for the first time. The 3 people who had "stopped" heroin use had done so without going into treatment. They had "stopped" for periods of 8 to 12 months. The problems experienced by the 4 people who had also not been in treatment included periods of dependency, contracting a bloodborne form of hepatitis, periods of dealing heroin and, for one person, a short period of incarceration for possession and dealing.

Of the five Oswaldians who had no problems with their heroin use, one had commenced shortly before the first interview and had only used it 4 times. Between interviews, his use ranged from a "few times a week" to a 4 month period with no use. Since he said he "really loved" heroin, I considered him to be at risk of increasing his use. Two people had used heroin for the first time between interviews. I also considered one of these people to be at risk of developing a dependency since he had continued to inject it on a fortnightly to monthly basis and had previously received detoxification treatment for hashish use. The other person who had used heroin for the first time had only smoked it once. The other two people who had experienced no problems had been occasional users for periods of 12 and 16 years.

Table 5.5: Summary of heroin use history for Oswaldians

Status	n
Treatment history opioid use	20
"Stopped" heroin use	3
No treatment but problems related to heroin use	4
No problems related to heroin use	5
Total	32

Harding and colleagues have reported findings from a small sample which demonstrated that it is possible for those with a treatment history to revert to controlled heroin use (1980). Theresa, Sebastian and André, 3 Oswaldians whom I first met in 1989, also had a treatment history for opioid use at that time when they then reported "recreational" use. Sebastian subsequently told me that he did not think he was ever a "recreational" user. He was back in treatment at the time of both

interviews conducted as part of this research. Theresa was back in treatment at the time of the second interview. André had not returned to treatment but had gone through periods of very heavy heroin use. Two Oswaldians who have subsequently entered methadone treatment had not used heroin at first contact. The other Oswaldians I met in 1989 all considered themselves "recreational" users at the time. This is best summed up in one of the remarks made in 1989 by a core-Oswaldian who had experienced problems with use by the time of our second interview for this research: "It's an OK drug if you use it right. Recreationally it's a right laugh. If you use it all the time it's no good."

Overseas research has shown that long-term non-dependent heroin use is possible (Powell, 1973; Zinberg and Jacobson, 1976; Harding and Zinberg, 1977; Zinberg, 1984). This was also shown in my long-term study of the Oswaldians, but by only two people. For the overwhelming majority of Oswaldian heroin users, this "recreational" phase of a heroin-using career was transient with its endpoint being a need for treatment, other problems with use, or discontinuation of use.

An up to date Australian study is needed to more accurately estimate the current ratio of non-dependent to dependent heroin users and to also estimate the ratio of dependent users not in treatment to those receiving treatment. Such a study would have to be longitudinal in order to ascertain the ratio who continue with long-term non-problematic heroin use and the ratio who do not enter treatment. As Larson and Bammer have indicated there are, however, inherent difficulties in achieving meaningful estimates of people involved in illegal activities (1996).

5.19: Conclusion

These results show that drug use patterns are dynamic and influenced by a variety of "scene" and individual changes. In particular, the increase in the number of places available for methadone treatment impacted on the drug use behaviours of those concerned. The prospective data support other evidence which suggest that many drug users either stop or reduce their illegal drug use. I found a significant reduction in both the number of individual drugs used and in the classes of drugs used between interviews. There were also many examples of a decrease in the use of individual drugs. A decrease, or non-use of heroin, led to a significant reduction in the use of other drugs. There is, however, a less optimistic sub-theme since some people had commenced, recommenced or increased their consumption patterns.

People stop using drugs for a great variety of reasons. One of the most important themes to emerge from my findings was the reduction, or non-use, of a drug due to

detrimental health effects. A secondary theme was a concern for the health of significant others. This shows that people who use illegal drugs can reflect on the impact drug use has on their own lives as well as the lives of other people. One harm minimisation approach may be to give drug users access to the voices of people who have reported problems in studies such as this. It is my intention to make this report available as widely as possible to the people I interviewed, as well as to other people who use illegal drugs.

During a period when there was an increase in heroin quality and also the potential for a trial for controlled availability of opioids (National Centre For Epidemiology And Population Health [NCEPH], 1991), many respondents had either stopped or reduced their heroin consumption. There were also several heroin-related overdoses in this period. There is a need fur future research to tease out the complicated associations between heroin using patterns and the changes in heroin quality and heroin-related overdoses.

A limitation of my study is that I did not ask people why they had continued to use drugs. If I had done so, there would have been more data on both the positive and negative aspects of drug use. When compared with those who went on to present for the second interview, the people who presented only for the first were younger and at an earlier stage of their drug using career. It is possible that the changes in this latter subset would have been different. In particular, there may have been fewer people entering treatment and the alterations in consumption patterns might have included fewer instances of stopping the use of a drug and more of commencing the use of a drug.

In the following chapters, I discuss changes in health and criminal behaviours and refer to the variations in drug use behaviours discussed here. I also report the effects that these changes in drug use behaviours had in these realms.

CHAPTER 6: PHYSICAL, PSYCHOLOGICAL AND SOCIAL HEALTH

6.1: Introduction

One of my major research interests was in minimising the harm associated with illegal drug use. This is the first of two chapters which discuss the health of the people I interviewed, focusing primarily on the differences found at the two interviews, and the relationship between drug use transitions and health. Since BBVs and sexually transmitted diseases (STDs) are of major concern among IDUs and their sexual partners, the whole of Chapter 7 is devoted to injecting and sexual behaviours.

To enable people to achieve optimum health, it is necessary to consider their physical, mental and social well-being (WHO, 1986). This chapter focuses on these three areas beginning with a brief overview of the history of the development of harm minimisation in Australia (some of which is also relevant to Chapter 7). As a prelude to my results, I then review previous general findings on the mortality and morbidity associated with drug use, before discussing the positive effects of drug use. Though they are not mutually exclusive realms, I have divided the chapter into sections on physical, psychological and social health. At the end of each section, I discuss the implications of the findings before uniting the major findings from these three sections in the conclusion.

6.2: The harm minimisation movement in Australia

Australia was quick to take measures to help prevent the spread of HIV among IDUs (Rumbold and Hamilton, 1998). In 1985, the Australian Federal Government of the day convened a Joint Federal-State Drugs Summit which formed the basis of NCADA (Ministerial Council on Drug Strategy, 1992). Since its inception, the "guiding principle" of NCADA has been that of harm minimisation (Rumbold and Hamilton, 1998:138). Following reviews in 1988 and 1991, NCADA evolved into the NDS (Allsop, 1995). The NDS definition of harm minimisation is presented in Chapter 1, Section 1. The NDS operates at both Federal, and State and Territory Government levels, as well as working with non-Government organisations (Rumbold and Hamilton, 1998). As Rumbold and Hamilton remark, the NDS "represents a quite extraordinary commitment on the part of the sectors of health, education, justice (law-making) and law enforcement agencies to work together" (Rumbold and Hamilton, 1998:138).

The ACT Drug Strategy has been developed along the lines of the NDS, seeking to provide a balance between promoting safer drug use and harm minimisation (ACT Department of Health, 1995: foreword by Terry Connolly, then Minister for Health and Attorney General of the ACT).

Although much of the concern around harm minimisation has focused on the prevention of HIV in the illegal drug using community, the harm minimisation movement has a longer history than this focus would suggest. Methadone maintenance is one important example of harm minimisation which occurred well before the advent of HIV/AIDS (Brettle, 1991; Des Jarlais and Friedman, 1993). Originally, NCADA's main focus was on illegal drugs but, in 1988, recognising that most harm is caused by alcohol and tobacco, it placed due emphasis on problems associated with the use of these drugs (Crofts and Herkt, 1995). It is now apparent that more Australian heroin users die of overdoses than of AIDS, and that both HCV and HBV are more prevalent among Australian IDUs than is HIV/AIDS. The prevention of these sequelae of illegal drug use has emerged as an important issue for the harm minimisation movement.

6.3: Mortality and morbidity associated with drug use

I return to BBVs in Chapter 7, and in this section I present an overview of some of the other harms associated with drug use. These harms may "take the form of illness, disability, social dysfunction and, ultimately, death" (Drugs of Dependence Branch, Department of Health Housing and Community Services, 1992:1). In Australia, health problems attributed to both legal and illegal drug use lead to the premature loss of 160 000 person years of life per year and 1.6 million bed days of hospital use per year (English et al, 1995). Approximately one in five of all reported deaths in Australia are related to drug use (Australian Bureau of Criminal Intelligence, 1996). It is estimated that around 23 000 Australians a year die from the use of drugs (English et al, 1995). Legal drugs are responsible for the vast majority of this mortality since tobacco is implicated in around 72 per cent of these deaths and alcohol in more than 25 per cent (NDS, 1994).

Deaths due to illegal drug use account, therefore, for less than 3 per cent of drug-related mortality. There are, however, important age differentials. Almost one in every three deaths recorded in people aged 15-34 can be attributed to drug use (Drugs of Dependence Branch, Department of Health Housing and Community Services, 1992). Alcohol accounts for around 62 per cent of the deaths in this age group whilst illegal drug use accounts for 34 per cent (NDS, 1994).

During the period from 1981 to 1990, there was an 8 per cent decrease in the drug-caused death rate (deaths per 100 000 population). This reduction, however, largely occurred in deaths due to legal drugs. Over this period, there was a 17 per cent decrease in the alcohol death rate and a 6 per cent decrease in the tobacco death rate. Conversely, there was a 170 per cent increase in the opioid death rates and a 46 per cent increase in the death rate from other illegal drugs. The number of people who died from opioid use rose from 397 in 1989 to 457 in 1990 (Drugs of Dependence Branch, Department of

Health Housing and Community Services, 1992). Most died from heroin-related overdoses. There was an agreement by Federal, State and Territory police and health ministers to set up a National Task Force to look at ways of trying to curb this tragic trend (Drug Offensive Bulletin, 1995). Unfortunately, there are indications that it has continued (Hall, 1996).

Other potentially life-threatening sequelae of illegal drug use, such as infections, musculo-skeletal problems and cardio-respiratory disease, are most commonly associated with IDU (Chiang and Goldfrank, 1990; Cherubin and Sapira, 1993). People who use illegal drugs are also at increased risk of suffering from a range of other physical health problems which are not usually life-threatening. Examples of these include the vomiting and constipation associated with opioid use.

Those who use non-injecting routes of administration are not immune from adverse side-effects. Respiratory diseases are associated with both inhalatory and intranasal administration, and there have been reports of gastrointestinal problems following oral consumption of drugs (Chiang and Goldfrank, 1990). Deaths due to inhalant use have been also reported (Wagner et al, 1992).

Not only are people who use drugs at increased risk of physical health problems, they are also at increased risk of psychopathology. Following a study of a sample of 20 291 people interviewed in the National Institute of Mental Health Catchment Area Program in the USA, Regier and colleagues found that, for those with severe mental disorders, comorbidity with an addictive disorder was particularly high. Among those who were dependent on illegal drugs, more than 50 per cent had at least one pyschopathological symptom. Around 37 per cent of those who were dependent on alcohol had a pyschopathological problem (1990). In their study of 533 opioid users in treatment, and 107 who were not, Rounsaville and colleagues found that over 70 per cent had a history of depressive illness (1985). According to a 1993 NDS report, only two studies of psychopathology among opioid users had been conducted in Australia at that time. Both found approximately 60 per cent of respondents had significant levels of non-psychotic psychiatric comorbidity (1993).

The pyschopathological diseases associated with the use of alcohol and illegal drugs range from anxiety and depressive or antisocial personality disorders, to more severe psychiatric conditions such as schizophrenia (Regier et al, 1990; Latkin and Mandell, 1993; American Psychiatric Association, 1994; Lipsitz et al, 1994; Dinwiddie et al, 1996). Including mental ill health associated with dependence, the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) devotes almost a

hundred pages to problems associated with drug use *per se* (American Psychiatric Association, 1994).

Other psychopathology may predate drug use, and some drugs may be used as self-medication (Edwards et al, 1981). It may be difficult to distinguish these pre-existing problems from those resulting from drug use (Edwards et al, 1981; Wesson et al, 1986; NDS, 1993). In addition, some associations between psychopathology and drug use are "chance associations" (Edwards et al, 1981:233). Further complicating the issue, users themselves may also be ambiguous about their rationale for taking drugs. In response to being asked "What would you say were the best things about heroin?", Erin responded:

> *I feel that I've got schizophrenic tendencies. Heroin is a cure for that. I don't care what any psychologist says, or psychiatrist ... I know that my schizophrenic tendencies are completely nullified when I take heroin. And that allows me to be more creative, more relaxed, and just go about my life in a much easier and freer manner ... If I didn't have it, I'd be jerky, I'd be shy, and I just wouldn't be able to be myself ... and I think, because of all the other drugs I've done, maybe I have messed up my head a bit ... but I don't really think so, I think I've always had those - like - you know, schizophrenic kind of traits, and it just gets rid of them completely.*

In addition to the physical and psychological pathology, social problems, such as poor housing and loss of support networks, often go hand in hand with illegal drug use and may also contribute to the health burden some users experience.

At our first interview, Damien talked about the physical, psychological and social costs of his drug use. He was then 28 and had drifted in and out of heroin dependence for ten years having tried several forms of treatment to assist him in controlling his drug use. He had also used a multitude of other drugs during his drug-using career, including 21 in the 12 months prior to interview:

> *I wake up in the morning, I feel shithouse, I always do, and I'm depressed, I'm an unhappy person ... every single day of my life, I take those pills [Valium and Debendox] ... if I don't take them for a day I have a really uncomfortable, miserable ... day, I'm very agitated, my skin crawls ... I sweat ... when it's hot ... or when it's cold ... and shiver when it's hot and ... get goosebumps, that sort of thing ... [heroin's] ... ruined my life, my job prospects, my housing prospects, my social life ... all these things - my financial situation they're all shot to pieces ... all because of heroin, because I've spent every cent I've got on heroin - I'll even forget the food, forget the rent, forget everything ... I've lost just a lot of my youth. In the end, you even end up taking off your own family.*

By our second interview, Damien had been going to NA meetings and, apart from a daily cigarette he had gradually stopped all drug use.

Much of the health burden associated with illegal drug use accompanies the sort of heavy prolonged use Damien had experienced. Many of the younger people I interviewed had been using illegal drugs for only a short time and such users are also at risk (Erickson, 1993). Some of the people I interviewed consumed drugs at quite low levels and other researchers have noted pathology associated with this level of use (Moore, 1993; Keene, 1995; Williamson et al, 1995). Moore, Hawks and Saunders mention problems such as lethargy, depression, anorexia and having periods of, or becoming dependent on, a drug, as potential side-effects of "recreational" drug use (Moore et al, 1992).

6.4: The positive effects of drug use

The emphasis on deleterious health effects can obscure the fact that, for some people, drug use may be advantageous to health. The intense feelings of pleasure accompanying the use of drugs such as heroin and cocaine have been well documented (for example, Siegel, 1989; Warburton, 1990). Zinberg maintains that drug users benefit from "regular controlled use because it brings them relaxation and a sense of freedom from inhibitions" (1984:192). Mugford and Cohen also argue that the pleasure obtained from the use of drugs is, in itself, sufficient motivation for commencing and continuing drug use (1989). Moore and Saunders believe that not only is it possible for users to gain physically and psychologically from the pleasurable effects of a drug, there is also the potential for such social benefits as belonging to a peer group or forging new friendships (1991). Following a study of the illegal drug market in Nottingham, Bean and Wilkinson found that "central to the drug users' world was what they called a "'treat'" which could be "justified" in almost any way (1988:538). Implicit in this idea of a "treat" is the positive effect that the user perceives the drug to have.

Several people I interviewed (reported in Chapter 6) mentioned the pleasurable effects of the drugs they used. Such effects are vividly described by Roger. I first met him in 1989 when he was 29. He will be 39 in 1998 and he has used heroin for 20 years without ever developing a dependency. At the first interview for this research he described the way heroin made him feel:

> *it makes you feel physically very pleasant ... it's having a nice warm bath and putting on a big fur coat and sitting in front of the fire and feeling really good physically, like having your back rubbed.*

6.5: A mixed experience of drug use

Chris's history demonstrates that during their drug-taking careers, many people experience both the pleasure and pathology which may accompany drug use. At our first interview, Chris was 31 and he had been using heroin since he was 18. He had previously been dependent and had undergone several courses of treatment. At the time of interview he was injecting heroin twice a week and his use was associated with pleasure:

> *with heroin ... you get such a good feeling of well-being, 'cos ...it feels like your nerve-ends have been cut off or they have been dampened like putting rubber fingers on all your hands or something ... see, you feel like you've got a friend with you all the time ... you don't feel lonely ... you just walking around and you feel like as if you've got someone with you, you're in a group ... it's the same sort of feeling it gives ... sort of secure.*

Between interviews, Chris's heroin use had escalated again. During this time, heroin was no longer associated with pleasure, but with pathology:

> *[It] got to a point where I didn't care, I just wanted to die. I bought 0.5 gram (of heroin), which I knew was the sort of stuff that two people had OD'd on that week ... Everyone I knew was using, using in toilets, gutters, I just didn't care. I was just going to go to the cemetery and kill myself. I rang someone I knew [now partner] to say "goodbye." She knew something was up and she said come over, so I did.*

By the time of the second interview, Chris had recommenced methadone and had not used heroin for 10 months.

Both the positive and negative health aspects of drug use were taken into consideration as I looked to see if there had been any significant changes in health between interviews and then attempted to ascertain what factors might have led to these changes.

6.6: Overview of the presentation of the findings

The findings derived from the OTI physical, psychological and social domains are augmented by the results of the qualitative and quantitative data obtained from the questionnaire I developed. After presenting the total scores for each OTI domain, I also briefly discuss the individual questions. These results are interwoven with my other findings and are included in the tables in Appendix 19 where I indicate which questions were gleaned from the OTI.

No significant differences were found between those who were interviewed only once and their opposite subset (definitions of the subsets are included in Table 2 in Appendix 4) in any of the OTI physical or psychological data obtained at the first interview and only one difference related to social health was found. Some researchers have found

gender differences in both the physical and psychological health of people who use illegal drugs. I also found some gender differences in these realms and there were also differences, some over time, between the Oswaldian subsets and their opposite subsets. These are discussed in the text and where differences were found between subsets, these results are also included with the other tables in Appendix 19.

I begin by presenting my findings on physical health before moving on to psychological, then social health.

6.7: General physical health

The OTI physical health section consists of a checklist of 51 symptoms within 8 subcategories (Appendix 10:390-392) for which there range of possible scores from 0 (best) to 51 for women and 49 for men (worst). The questions are mainly confined to symptoms experienced during the month prior to interview.

Figure 6.1 shows the distribution of the health scores at the two interviews. The median score at the first interview was 11 and at the second interview it had dropped to 10 (Z -2.847, $p < 0.005$). This indicates an improvement in health between interviews.

Figure 6.1: Distribution of OTI health scores at first and second interview

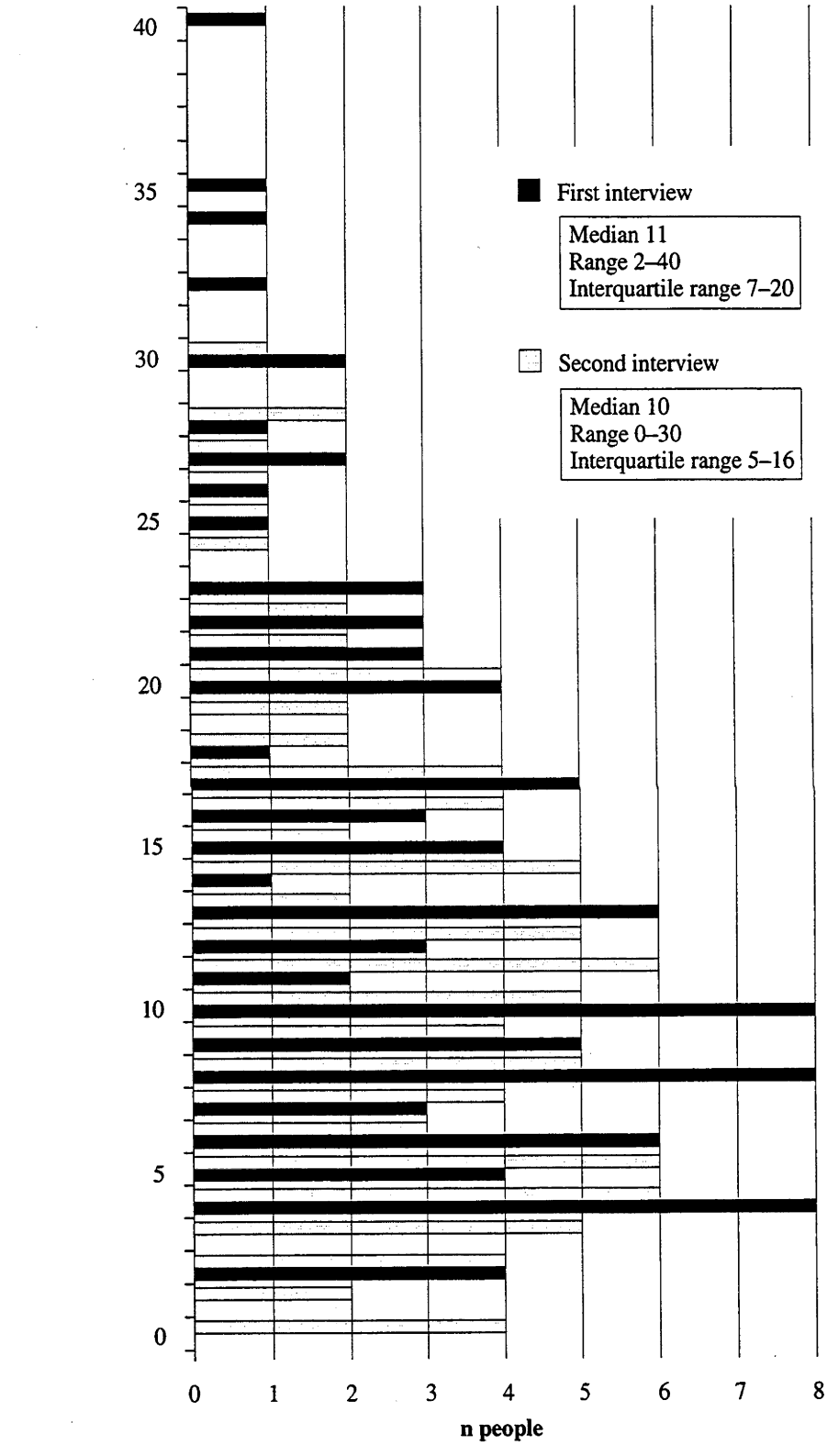


Table 6.1 shows the distribution of the OTI physical health score for IDUs, treatment entrants and subsets. The median health score among the IDUs I interviewed was slightly lower at both interviews than the mean of 12.6 found by Darke and colleagues among the IDUs they interviewed (1991a). Following their longitudinal survey of clients receiving methadone maintenance, Macleod and colleagues report that the mean score for clients at treatment entry was 19. After 6 six months of treatment, there was a significant reduction to 10 (1996). I found no significant difference between interviews in the people who had entered methadone treatment. Whilst women's health had improved more than men's there was no significant difference within either subset at either interview. Nor did any of the differences between the other subsets approach significance at either interview. Between interviews, however, the changes in the non-Oswaldian and Remainder subsets was significant whilst that in their opposite subsets was not.

Table 6.1: OTI total health physical score for IDUs, treatment entrants and subsets

	Median	Range	Interquartile range
IDUs 1st interview	11	2-40	6-21
IDUs 2nd interview	11	0-30	5-17
		Significance	
		Z -2.264	
		p = 0.0438	
	Median	Range	Interquartile range
Not in treatment 1st interview	11	2-35	8-21.8
Methadone treatment 2nd interview	10	0-27	5.3-16.5
		Significance	
		Z -1.289	
		p = 0.1980	
	Median	Range	Interquartile range
Women 1st interview	14	2-40	9-22
Women 2nd interview	11	0-30	6-17
		Significance	
		Z -2.2927	
		p = 0.0219	
	Median	Range	Interquartile range
Men 1st interview	10	2-34	6-16
Men 2nd interview	10	0-28	5-15
		Significance	
		Z -2.0343	
		p = 0.0419	

(cont.)

Table 6.1 continued: OTI total health physical score for IDUs, treatment entrants and subsets

	Median	Range	Interquartile range
Oswaldians 1st interview	10	2-40	8-15
Oswaldians 2nd interview	11	0-28	5.5-16.5
		Significance	
		Z -0.738	
		p = 0.4592	
	Median	Range	Interquartile range
non-Oswaldians 1st interview	12	2-34	6.3-21
non-Oswaldians 2nd interview	9	0-30	5-16
		Significance	
		Z -3.172	
		p < 0.01	
	Median	Range	Interquartile range
Core-Oswaldians 1st interview	8.5	2-40	5-14
Core-Oswaldians 2nd interview	9.5	0-26	3-15
		Significance	
		Z -0.773	
		p = 0.4412	
	Median	Range	Interquartile range
Remainder 1st interview	13	2-34	8-20
Remainder 2nd interview	11	0-30	5-17
		Significance	
		Z -2.92	
		p < 0.01	

At the first interview, 57 people (60%) had an OTI physical health score considered to be average or below (Table 1, Appendix 19). At the second interview, the picture was similar with 61 people (64.2%) having an average or below average score, but considerably more people had a low score than at the first interview, and fewer people had one that was high.

A greater proportion of women than men fell into the high level of dysfunction category at the first interview and there were correspondingly smaller proportions of women than men in the low and below average levels of dysfunction (Z -2.479, p = 0.0132) (Table 1, Appendix 19). By the second interview, the gender proportions were fairly similar in all categories except for there being a greater proportion of men than women with a low score and the gender difference no longer approached significance. When the levels of dysfunction were compared over time, there was a significant improvement for the non-Oswaldians (Z -2.881, p < 0.01) (Table 2, Appendix 19) and the improvement

approached significance for the Remainder (Z -2.42, p = 0.0156) (Table 3, Appendix 19).

In order to better explore these differences, I broke the total health scores into their sub-categories and also analysed the subsets separately. These results (apart from those associated with IDU, and genital and reproductive symptoms, which are included in the tables accompanying Chapter 7) are attached as Tables 4-18 in Appendix 19. In the text below, I mention the significant differences found between interviews, as well as those which approached significance. Table 6.2 summarises these differences, includes the results of the significance tests, and identifies the tables where the numerical results are documented.

There were reductions in most general health symptoms at the second interview for the total population of respondents and a corresponding reduction in the median scores. The change between interviews approached significance for women. There were significantly fewer reports of these problems from both the non-Oswaldian and Remainder subsets. The median score for cardio-respiratory problems was 2 at both interviews but the slight reductions in the ranges and interquartile ranges resulted in a significant difference. The reduction in these problems for the non-Oswaldian and Remainder subsets approached significance. The high incidence of "Forgetting things" (Table 15, Appendix 19) was similar at both interviews and is of some concern in this cohort of, mostly young, people. Cannabis use is known to lead to cognitive impairment (Australian Bureau of Criminal Intelligence, 1996) and since the majority of respondents used it, it was probably the major cause of this symptom. The reduction in neurological problems for the non-Oswaldians was very nearly significant.

Table 6.2: Significant changes and those approaching significance found between interviews in sub-categories of the OTI health domain

Sample/subset	Subcategory	Table number in Appendix 19	Significance
Total sample	General health	4	Z -.2,79 p < 0.01
Women	General health	4	Z -2.507 p = 0.0120
non-Oswaldians	General health	5	Z -3.257 p < 0.001
Remainder	General health	6	Z -2.729 p < 0.01
Total sample	Cardio-respiratory	7	Z -2.45 p = 0.0142
non-Oswaldians	Cardio-respiratory	8	Z -2.461 p = 0.0138
Remainder	Cardio-respiratory	9	Z -2.34 p = 0.0192
non-Oswaldians	Neurological	14	Z -2.552 p = 0.0108

At the first interview, women had a total median score of 2 for gastro-intestinal problems compared to 1 for men (Z -2.495, p 0.0124) (Table 16, Appendix 19). The median scores were the same for both genders at the second interview.

In the previous chapter, I reported that several people related their treatment and drug use consumption transition to their health. Some people also went on to talk about the positive and/or negative effects of these changes on their health. The effects on general physical health are discussed below.

6.7.i: Positive effects of treatment on general physical health

The people interviewed by Dale and colleagues reported several positive physical health effects of methadone including that it "stops sickness" and "keeps me healthier" (1992:57). Thirteen people I interviewed also discussed the positive changes in their health due to their methadone treatment (Table 19, Appendix 19). Most people made general comments such as Jade's: "We're pretty healthy and we've cleaned up our act", or they mentioned an improvement in their diet. Boy Wonder, for example, said "We now have more money for food." Four people said they were no longer suffering from withdrawal. Sebastian had re-entered NA and said: "My libido has increased, I'm less tired, I've started exercising and I'm fitter."

6.7.ii: Negative effects of methadone treatment on general physical health

Eighteen physical health symptoms were attributed to methadone. Most were mentioned by only one or two people and none were reported by more than five (Table 20, Appendix 19). One of these was a loss or diminishing of libido, which was only reported by men. Other researchers have also found sexual dysfunction to be experienced frequently by men receiving methadone (Rosenbaum and Murphy, 1987). Like the consumers surveyed by Dale and colleagues (1992), the people I interviewed also reported poor dental health, increased perspiration, constipation and nausea.

Patrick was among several treatment entrants who mentioned a range of symptoms:

> *It slowed my body metabolism down so much, it's incredible. I found it difficult to believe, it's so radical ... I'm just so much more tired and lazy. It's so much harder to exercise and harder to create an interest, or a belief that I can get and feel healthy, just because my body is behaving so differently to how* it did *... I've also gone, this past twelve months I've gone to almost losing my libido completely. It's worse than with the heavy use of heroin [and] I've lost another tooth.*

According to Kreek, many of the side effects of methadone are observed only in the first few months of treatment (1978). Since most of the people I interviewed had been in treatment for a relatively short period, it may be hoped that the adverse effects will lessen over time.

6.7.iii: Positive effects of changes in drug use on physical health

There were 26 comments about the positive effects of drug use changes on health (Table 21, Appendix 19). Three came from people who said their recommencement or increased use of particular drugs had beneficial effects on their health. Brenda's recommencement of marijuana use had helped relieve her stomach cramps (which she had attributed to her methadone treatment) and Alison said her increased use of amphetamine had given her the energy to work. Jacqui's increased marijuana use had improved her previously poor appetite. Maggie also referred to her improved appetite when she stopped smoking. This was especially important for her and her expected baby because she had previously suffered from morning sickness which her smoking had exacerbated. André's heroin use had fluctuated and his temporary non-use had led to him eating better at that time.

Erin and Brenda, two people who had decreased their tobacco consumption, Sara, who had stopped smoking tobacco, and Sam, who had decreased her marijuana use, all talked about having fewer respiratory symptoms. Erin also said he was getting fewer headaches because he was smoking less tobacco and Katie said she was now "less

addicted" to tobacco. Rob made a similar comment when he said of his decreased heroin use "I like not being addicted ... I feel stronger."

Most of the other comments about decreased or non-use of a drug were general. For example, as Boy Wonder, who had decreased his amphetamine use, said: "I feel a little bit healthier." James-2 was pleased that he was getting into fewer fights because he was drinking less and Rosetta, who had also reduced her alcohol consumption, was happy that she was "not putting on as much weight."

6.7.iv: Negative effects of changes in drug use on physical health

There were 32 comments related to the negative physical health aspects of changes in drug use (Table 22, Appendix 19). Thirteen were made by people who had commenced use of a drug. Three very different health complaints were related to opium use. Lorelei said she got constipated when she used it frequently, Mr X did not like the nausea associated with his two uses, and David's heavier use led him to say: "When I was using a lot I got achey and couldn't sleep for two and a half nights, and I don't want to go through that again."

Bert, who had only used amphetamine twice, said: "I felt terrible the next day, headache, tired, brain dead. Neither time has made me want to take it again – at least not in the near future."

Rosetta had also only used amphetamine once. She said "I don't really like the thought of having it healthwise, all the stuff in it." Annabel and Jessie had used their first ecstasy. Annabel said that it had given her a headache and Jessie complained about the "comedown." Alison had a similar comment about her new cocaine use. Greg's use of Tofranil had given him palpitations and he had only taken it a couple of times, and Eggplant said the "ice" he had taken by accident "made me very ill." Mr X (who had used heroin only twice) was concerned about becoming dependent. Although Jacqui acknowledged that her newly prescribed Stelazine was beneficial, she also said that it made her "very sleepy."

Jeff had enjoyed his recommencement of "trips", but he also said "I find myself worn out by trips these days," and of his increased heroin use he said:

> *There were one or two nights at the peak of the binge, when I was using every second day, if I stopped for a few days I'd have a bit of trouble sleeping.*

Phil (whose use of heroin had increased), Morgan (whose use of heroin had fluctuated) and Alison's increased use of amphetamine had also led to feelings of

withdrawal. Snork said his increased use of "trips" had led to him: " ... getting lots of headaches."

Two people (one of whom had increased then decreased his use) said they had more respiratory symptoms due to their increased use of marijuana and Marcus said his temporary increased amphetamine use had not only made him "more susceptible to colds" but he had also lost a lot of weight because he was not "eating properly." Georges made a similar comment about his increased alcohol use: "My digestive system isn't functioning, I often sacrifice food for alcohol."

The other comments about increased use were of a disparate nature. Brigid simply said of her increased alcohol use: "It's become detrimental to my health." Lisa said that when her heroin use increased "My skin got bad." Following a period of heavy use Jessie's "veins just dropped and I couldn't do it" and Boy Wonder's increased marijuana use had made him "lethargic."

Although Marsha was generally pleased about her non-use of amphetamine she laughingly mentioned her weight gain as a negative side-effect. Tim had not used Prothiaden for 4 months and he said he had been generally physically ill when he discontinued it.

6.7.v: Discussion of physical health

There were fewer reports of most physical health symptoms at the second interview than at the first, which led to a significant reduction in the total OTI health score.

Women were in poorer physical health than men at the first interview, but fewer gender differences were found at the second. Based on a review of the literature, Mondanaro reports findings from several studies which show that women who use illegal drugs have worse physical health than their male counterparts (1981). She later identified several cofactors that increase a woman heroin user's health risks; anorexia, bulimia, anaemia, and STDs are more common in women and she believes this may exacerbate the poor nutrition associated with heroin use. Mondanaro maintains that, even during treatment, women continue to experience more problems than men (1987). When investigating a sample of 1668 (mostly Hispanic) IDUs in the USA who had not received formal drug treatment for at least 6 months, Singh and colleagues found that the average self-report for health within the past 6 months was "closer to 'fair'" for women whilst men's was "closer to 'good'" (1994:279).

Results such as these are not restricted to women who use drugs. Several general population studies have demonstrated that women report more illnesses than men

(Wadsworth et al, 1971; Wingard, 1984). Broom examined findings from the 1983 Australian Health Survey and found that in 17 of the 24 most frequently reported illnesses (which excluded disorders of female reproduction), women's rates exceeded those of men's (1990).

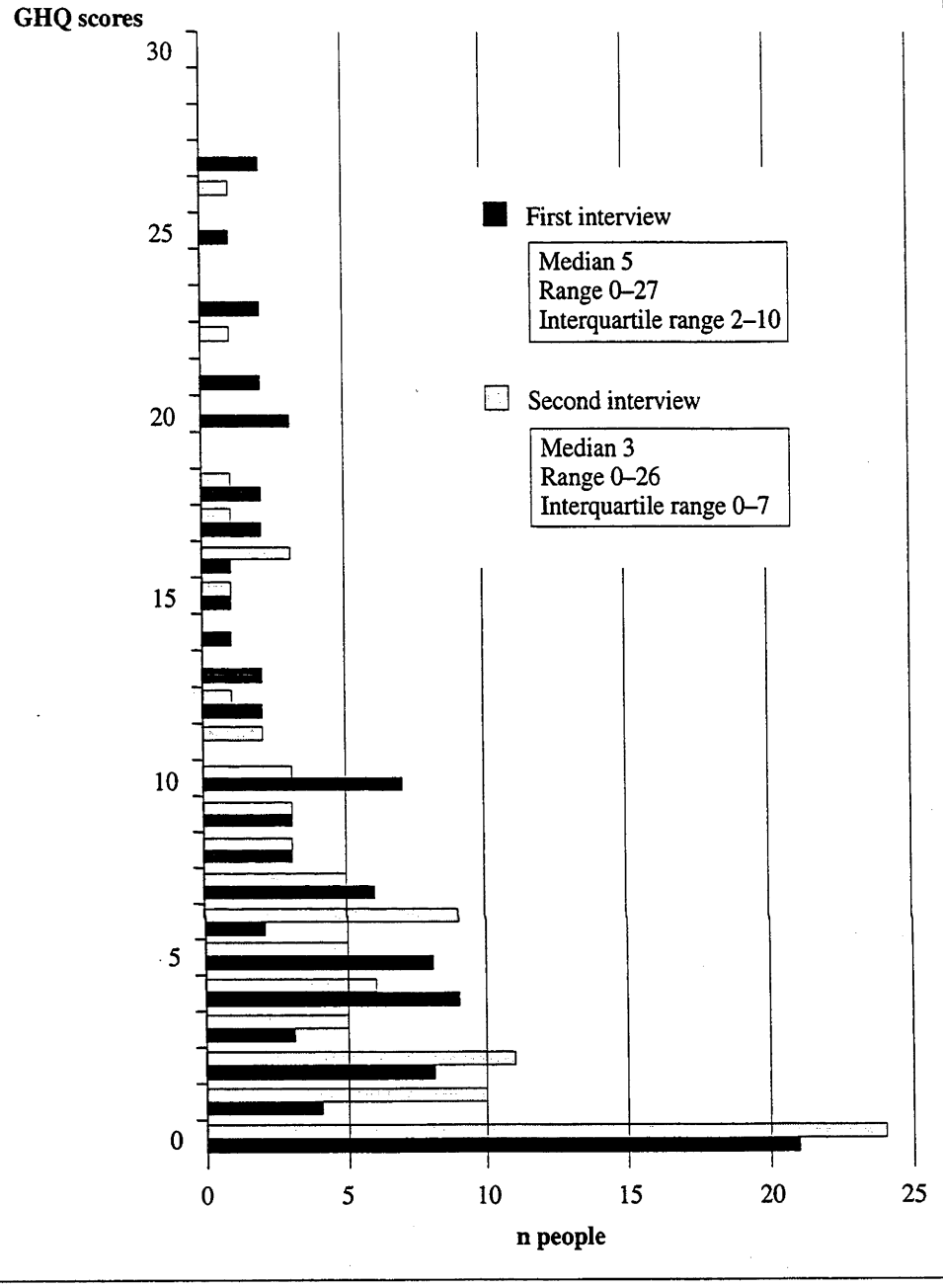
Given these findings, it was not surprising that the women in my sample were in poorer health than men at the first interview. Schneider, Laury and Hughes found the women college students they surveyed reported more willingness to talk about psychopathology than male students (1980). Corney has suggested that women find it easier than men to divulge personal information (1990). This hypothesis might account for the gender difference found at the first interview but does not account for the findings at the second, where the frequency of men and women's reports of physical health symptoms were not significantly different.

6.8: Psychological health

This section begins with changes gleaned from the GHQ (included in the OTI, Appendix 10:393-395) before going on to discuss the findings from the qualitative data on effects of changes in drug use on psychological health. Goldberg and Hillier advise that scores of 0 to 4 should be regarded as low scores and those between 5 to 28 should be regarded as high scores (1979).

At the first interview, the median GHQ score was 5; at the second it was down to 3 (Figure 6.2). The change was very nearly significant (Z -2.754, $p = 0.0104$) and indicates a general improvement between interviews.

Figure 6.2: Distribution of GHQ scores at first and second interview



The GHQ findings from both interviews for IDUs, methadone treatment entrants and subsets are shown in Table 6.3 which also records the significance of changes between interviews. At the first interview, the subset of IDUs had the same median score as the total sample and at the second they had a similar fall in the median score. Darke and colleagues found a rather higher mean GHQ score of 8.6 among the IDUs they interviewed for the OTI (1991a). The lower score in my sample may be due to the fact that some IDUs I interviewed were not in treatment, and higher rates of current depression have been found among methadone clients than among opioid users not in treatment (Rounsaville and Kleber, 1985). In addition, some of the IDUs I interviewed were injecting at quite low levels. Other research has found more psychological problems in people with greater levels of drug use (Robbins, 1989).

Macleod and colleagues report that the 114 methadone maintenance clients they studied had a mean GHQ score of 12 at their first assessment. There was a highly significant fall to 4 following 6 months of treatment (1996). The people I interviewed who entered or re-entered methadone treatment between interviews had no significant change, nor was any significant difference found at either interview between these people and the non-treatment entrants.

At the first interview, women had a higher median score than men. Both men's and women's median scores had dropped to 3 at the second interview. Darke and colleagues found that the GHQ scores among the women they surveyed during the formulation of the OTI were significantly higher than those of men (1992c). Similarly, Corney found higher GHQ scores among women than men in a sample of general practitioner clients (1990).

The fall in the non-Oswaldians score was almost significant whilst that in the Remainder subset was significant.

Table 6.3: GHQ score at each interview for IDUs, treatment entrants and subsets

Sample/subset	First interview	Second interview	Significance
IDUs	Median 5 Range 0-27 Interquartile range 1-10	Median 2.5 Range 0-26 Interquartile range 0-7	Z -2.443 p = 0.0350
Methadone treatment entry between interviews, still in treatment	Median 7 Range 0-27 Interquartile range 1-10	Median 6 Range 0-27 Interquartile range 0.3 15.3	Z -1.128 p = 0.2564
Women	Median 7 Range 0-27 Interquartile range 2-13	Median 3 Range 0-22 Interquartile range 0-8	Z -2.187 p = 0.0286
Men	Median 4 Range 0-27 Interquartile range 0-9	Median 3 Range 0-26 Interquartile range 1-6	Z -1.597 p = 0.1096
Oswaldians	Median 5 Range 0-27 Interquartile range 0.5-10	Median 5 Range 0-26 Interquartile range 1-7.5	Z -1.007 p = 0.3124
non-Oswaldians	Median 5 Range 0-25 Interquartile range 1.3-10	Median 2 Range 0-16 Interquartile range 0-6	Z -2. 543 p = 0.0110
core-Oswaldians	Median 3.5 Range 0-27 Interquartile range 0-8	Median 3 Range 0-26 Interquartile range 0-7	Z -.0.244 p = 0.8104
Remainder	Median 5 Range 0-25 Interquartile range 2-10.5	Median 3 Range 0-22 Interquartile range 0.75-6.3	Z -2.822 p < 0.005

Table 23 in Appendix 19 shows the levels of psychological dysfunction as determined by Darke and colleagues (Darke et al, 1991a). At both interviews, most people had a score considered to be average or below, and there were more people in these categories at the second interview than at the first (Z -2.754, $p < 0.01$); much of this change occurred in women for whom the difference approached significance (Z -2.491, p 0.0128).

There was a significant difference over time for the non-Oswaldians, more of whom had a lower score at the second than at the first interview (Z -2.967, $p < 0.01$) (Table 24, Appendix 19); there was also a significant improvement in the Remainder subset (Z -2.945, $p < 0.005$) (Table 25, Appendix 19).

As explained more fully in Chapter 2, Section 4, items in the GHQ-28 are divided into a somatic symptoms area, an anxiety area, a social dysfunctional area and a depression area. I found reductions in the median scores in the somatic symptoms, anxiety and social dysfunctional areas for the total sample (Table 26, Appendix 19). The reduction in the somatic symptoms approached significance (Z -2.36, $p = 0.0192$). There was a median depression subscale of 0 at both interviews, but reductions in the ranges and

interquartile ranges between interviews led to a significant improvement (Z -3.4, $p < 0.005$).

Most of the reduction in the depression subscale was due to women's scores (Z -2.781, $p < 0.01$) (Table 26, Appendix 19). At both interviews, there was a median score of 0 in the depression subscale for the Oswaldians (Table 27, Appendix 19) but the reductions in the ranges, as well as a reduction in the interquartile range, led to this change approaching significance (Z -2.518, $p = 0.0120$). At the first interview, there was a median score of 1 in the somatic symptom subscale for the non-Oswaldians and at the second the median score had dropped to 0 (Z -3.14, $p < 0.01$). The Remainder subset had a median somatic symptoms score of 1 at the first interview which had fallen to 0 at the second interview (Z 2.963, $p < 0.005$) (Table 28, Appendix 19). There was a median score of 1 for this subset in the depression subscale at the first interview and a drop to 0 by the second (Z 2.949, $p < 0.005$).

I also tabulated my scores to compare them with those compiled by Goldberg and Hillier from 200 patients during their formulation of the GHQ-28 (1979). My sample was fairly evenly divided at the first interview, since there were 45 people (47.4%) with a low score and 50 people (52.6%) with a high score (Table 29, Appendix 19). The number with a low score had increased to 56 (58.9%) at the second interview, and those with high score had decreased to 39 (41.0%). The number of people with the highest score (12-28) fell from 21 (22.1%) at the first interview to 9 (9.5%) at the second. The findings at the second interview were similar to Mugford and Cohen's results from their study of "recreational" cocaine users where 64 per cent were found to have a low score (1989).

At the first interview 15 women (40.5%) and 30 men (51.7%) had a low score (Table 29, Appendix 19). The scores for men approximated the group determined by Goldberg and Hillier to be subclinical whilst that for women fell between subclinical and mild cases. By the second interview, 23 women (62.2%) and 33 men (56.9%) had a low score. The picture for both genders was similar to the group determined to be subclinical by Goldberg and Hillier (1979).

Table 30 in Appendix 19 compares the Oswaldians with non-Oswaldians and Table 31 compares the core-Oswaldians and Remainder. There were only marginal differences between subsets.

6.8.i: Positive effects of treatment on psychological health

This section on psychological health continues with some of the findings from the qualitative data, beginning with those from treatment entrants. The people interviewed by Dale and colleagues reported several positive physiological health effects of methadone, including that it helped them to relax (1992). Four of the people I interviewed made comments of a similar nature (Table 32, Appendix 19). Boy Wonder, for example, said: "Life is a lot more relaxed, it's just about right now." Amelia and Alexander simply said they were "happier", Kerry said her self-esteem had improved and Brett said, "I feel reasonably better off mentally. I have stresses and depression, but I'm optimistic most of the time."

Damien made a similar comment about his NA treatment:

> *I've turned the full circle from being a pessimist to being an optimist Basically, while I was using drugs I was always very unkind to myself. And now I always make an effort to be good to myself. And I no longer feel like a worthless person and the thought of living with absolutely no hope or faith I find terrifying.*

Greg's counselling had enabled him to stop his methadone treatment. He said: "It was probably the most empowering thing I've ever done in my life."

6.8.ii: Negative effects of methadone treatment on psychological health

There were also 12 negative comments about the effects methadone treatment on psychological health (Table 33, Appendix 19). Most people referred to diminished cognitive ability, or the way treatment had negatively affected their self-esteem.

6.8.iii: Positive effects of changes in drug use on psychological health

There were 20 comments about the positive effects of changes in drug use on psychological health (Table 34, Appendix 19). Although Mr X was concerned about his two uses of heroin, he also said he found the drug "pretty relaxing." Otto had no qualms about his commencement of heroin use: "it was the best – great fun." Jacqui was pleased to be no longer "hearing voices" after commencing prescribed Stelazine and Barry's recommencement of Surmontil meant: "Things are fine."

Brenda's recommencement of marijuana use had cheered her since it made her laugh a lot. Greg's increased marijuana use had an unusual effect which he found beneficial, but, as he often did, he added a proviso:

> *Now if I have a smoke in the morning I'll have a cry, which is good, but having a smoke to bring it on is not necessarily good.*

Jessie said her recommencement of opium was "good" since it put her in a "dreamlike state", and Boy Wonder reported that his increased marijuana use had made him "a bit more relaxed." Seven people who had decreased or stopped the use of drugs also said they felt more relaxed or less stressed because of these transitions.

Most of the other comments were related to better self-esteem. Greta is a case in point. She had not used heroin for more than 12 months and had stopped without treatment. She said: "I've got more motivation ... I love myself again, I'm really happy."

6.8.iv: Negative effects of changes in drug use on psychological health

Fifteen people talked about the negative aspects of the changes they had made on their psychological health (Table 35, Appendix 19). The two women who had injected heroin for the first time found the experience frightening. Maggie (who later stopped her use) said: "I blacked out twice, I was really scared." In spite of having a bad experience Elke still had an open mind about using it again:

> *one of the guys dropped and needed mouth to mouth, and I can remember feeling nothing. And it really spun me out later that this guy who'd had the same amount as me had dropped and it could have been me. I reckon I'd prefer really good heads [of marijuana] to that, I might and might not use again, but can't really see the right situation coming.*

Two people whose use of heroin had fluctuated mentioned negative psychological aspects associated with their period of heavy use. Drew-1 said "I was quite depressed" and Sinead talked about her poor self-esteem. James-1's increased alcohol use had also negatively affected his self image.

As well as mentioning a positive psychological aspect of her recommenced opium use (described above), Jessie also felt the drug was "bad because it can cut out feelings." Alison was very concerned about her increased amphetamine use:

> *There's been a couple of times when you have more than three hits in a day, and we've had really bad arguments. We both went mad and I got really scared. I was convinced I was going to be killed ... I can really plot my feelings. I know that if I have some, the next day I'm going to be feeling depressed.*

Four people who had increased their marijuana use (one temporarily) talked about being "less in control", and feeling vague and paranoid. In addition to mentioning several negative physical side-effects of stopping Prothiaden, Tim also said that when he stopped he felt anxious, teary, short tempered, depressed, irrational and he suffered from amnesia and loss of confidence.

6..8.v: Discussion on psychological health

As with physical health, the findings for psychological health show an overall improvement between interviews. It has long been known that there is a link between physical and psychological health (Phillips and Segal, 1969:63). The similarity of my findings in these two domains is not, therefore, remarkable. Much of the improvement over time had occurred among women and the non-Oswaldian subsets.

At the first interview, women were in poorer psychological health than men, but by the second there were fewer differences. This mirrors the findings for general physical health. Similarly, women's psychological health has been found to be worse than that of men's; following a study of a US sample of 1282 women and 749 men Mirowsky and Ross concluded that women "genuinely suffer more distress than men" (1995).

Studies of people who use illegal drugs have found women report significantly higher levels of psychopathology than their male counterparts (Reed, 1981; Lipsitz et al, 1994; Booth et al, 1995). Mondanaro postulates several reasons for this difference such as women having responsibility for childcare, living alone, having lower incomes, lower levels of education, having partners who are most likely to use drugs, more dysfunction and pathology in the family of origin, higher levels of depression and anxiety, and lower levels of self-esteem (1987).

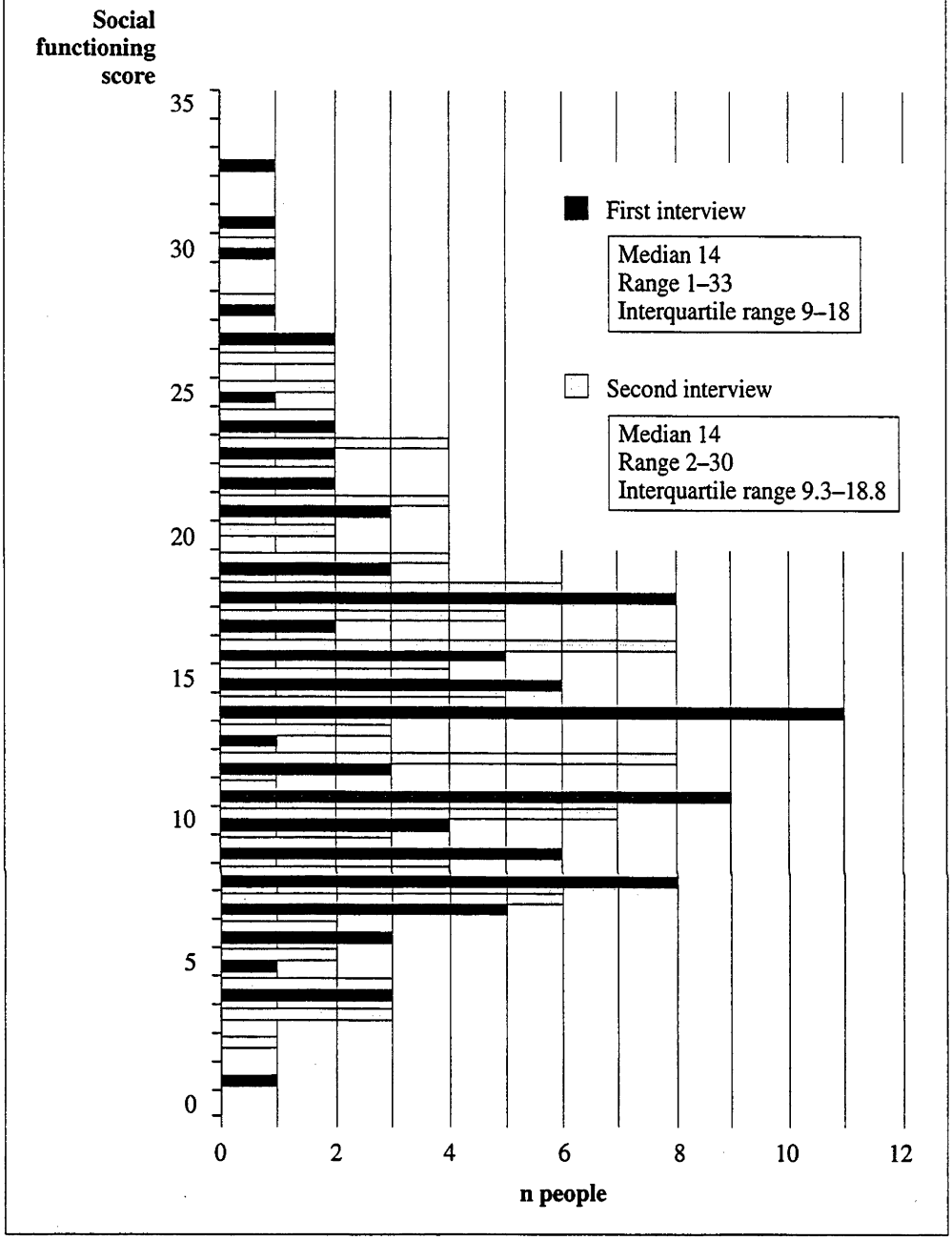
6.9: Social health

Other researchers have noted the social costs of drug use: the expense involved may lead to the user not spending money on everyday essentials such as rent, food and other living expenses: "a situation that often exacerbates relationship problems" (Lintzeris and Spry-Bailey, 1998:236). This section looks at some of the dimensions of social health related to employment status, income, living situations and relationships with significant others. I first outline the changes in the total results of the OTI Social Functioning Scale, then amplify the findings from the individual questions within the domain. Interspersed with these latter are the additional findings from the questions developed in my own interview guide.

6.9.i: OTI Social Functioning Scale

The OTI Social Functioning domain contains 12 questions which measure employment, residential stability, interpersonal conflict and the involvement of the respondent in the drug-use subculture (Appendix 10:384-386). The 5 possible responses to each question are scored from 0 to 4 giving a possible total score of 0 (best) to 48 (worst) for this domain. Figure 6.3 shows that the median score at both interviews was 14.

Figure 6.3: Distribution of OTI social functioning scores at first and second interview



These median scores were lower than the mean of 20.5 reported by Darke and colleagues from their research with IDUs during the development of the OTI (Darke 1991a). At their first interview, the 74 current IDUs I interviewed had the same social functioning median score and range as the total population interviewed and only a minor difference in the interquartile range (10-18). At the second interview the median score for the then 77 current IDUs was 16 (range 3-30, interquartile range 10-19). This was only marginally higher than that found in the total population I interviewed.

Macleod and colleagues also used the OTI in a longitudinal study in Scotland, reporting a Social Functioning score of 21 at their first assessment. Following 6 months of treatment there was a significant reduction in the mean score to 17 (1996). The people I interviewed who entered or re-entered treatment between interviews (and who were still in treatment) had a median Social Functioning score of 16 at both interviews, and there was no significant difference at either interview between these people and those who were not in treatment.

At both interviews, the majority of people had an OTI social score considered to be either low or below average and very few people had a high score (Table 36, Appendix 19). The number of people with an above average score increased between interviews.

6.9.ii: Employment

The only significant difference in either physical, psychological or social health found at the first interview between those who were interviewed only once and their opposite subset was in employment status. There were 33 tertiary students among those who went on to present for the second interview (34.0%) compared to 3 among those interviewed only once (7.1%) (Chi^2 at 1 df = 11.0, $p < 0.001$). The subset of people who went on to present for the second interview included 9 secondary students (9.3%) whilst the subset of those who were only interviewed once contained 12 (26.6%) (Chi^2 at 1 df = 8.5, $p < 0.005$). These differences are interrelated and can be largely attributed to the fact that those who were interviewed twice were significantly older at the first interview than those who were interviewed once. This, in turn, can be attributed to my lack of success in relocating the people from secondary school and the young people from the "squat."

At the first interview, 29.2 per cent of respondents were unemployed (n=26). This proportion had increased to an even higher 42.7 per cent at the second interview (n=41) (Table 37, Appendix 19) (Chi^2 at 1 df = 9, $p < 0.01$). Two of the OTI questions were related to employment and the responses validate these findings (Tables 38 and 39). Much of the increase in unemployment was due to people transferring from another form of Government benefit to unemployment benefits.

These unemployment rates are considerably higher than the overall ACT rate for the year 1991–92 which, at 7.1 per cent, was lower than elsewhere in Australia (Jacobs, 1993). For younger age groups the ACT rate was, however, somewhat higher. Those aged 20 to 24 had an unemployment rate of 9.9 per cent and those aged 15 to 19 had an even higher rate of 20 per cent (Jacobs, 1993).

The high rate of unemployment among the people I interviewed is comparable to that found in some other studies of Australian people who use illegal drugs. Among the ANAIDUS respondents, 24.2 per cent were unemployed (1991). A Western Australian survey of IDUs found 30.3 per cent were unemployed (Lenton and Tan-Quigley, 1997) At 74.1 per cent, unemployment among the ASHIDU respondents (Loxley et al, 1995). was notably higher than that at either of the interviews I conducted.

Nine women (28.1%) and 17 men (30.3%) were unemployed at the first interview; by the second interview the number of unemployed women increased to 16 (43.2 %) and the number of men to 25 (42.4%). The gender proportions at both interviews were thus very similar. This finding adds to the divergent results of other Australian studies of people who use illegal drugs where occupational gender differences have also been examined. The ANAIDUS researchers found that women were more likely to be employed than men (1991) and Loxley and colleagues found this difference to be significant among ASHIDU respondents (1995). Stevens and Wardlaw reported the reverse to be true for their ACT DIP study where a greater proportion of men than women were in paid employment (1994). Because the questions from these surveys were each approached in different ways from mine, drawing conclusions from these comparisons is not possible.

Five people at the first interview and seven at the second said that they were receiving a Social Security benefit because of problems associated with illegal drug use. As seen in the previous chapter, a few people, including tertiary students, tied their changes in drug use to their employment. The wide range of occupations for those who did have paid employment included artist, computing professional, educator, labourer and public servant.

Although there was a significant reduction in the numbers of drugs used between interviews, more people were unemployed at the second interview than at the first. Several researchers have looked at the complicated association between drug use and unemployment. A study of school-leavers in Scotland found more involvement in illegal drug use amongst those who were unemployed than among those who were working or full-time students (Plant et al, 1985). Pearson's study of heroin users in England led him to suggest that a close relationship existed between heroin misuse and environmental levels of social problems (1987). Young asserts that drug use is appealing to those who are unemployed (1971). A study conducted among young unemployed people in Sydney gives support to this belief since it found that there was a relationship between long-term unemployment and an increase in both legal and illegal drug use (Turtle and Ridley, 1984). Waldorf found that "the single most interesting finding" in his study of abstentions in heroin users was the high percentage who worked

while abstaining (1970:233). Maddux found full-time employment in heroin abstainers to be more than double that of daily users (1981).

6.9.iii: Income

The high levels of unemployment resulted in a low median annual income of $8000 at the first interview and a slightly increased $9000 at the second interview (Z -2.646, $p < 0.01$) (Table 40, Appendix 19). By comparison, in 1992 when the first interviews took place, average weekly earnings for the ACT were around $562 (Jacobs, 1993). Judging from the median incomes and from the numbers of people within each of the employment categories listed in Table 40, it appears that much of the difference seen at the second interview was due to the increased number of people who received unemployment benefits during the previous 12 months. This was a contributory factor to the finding of a higher median income.

At the first interview the non-Oswaldians had a median income of $7000 (range $0-45 000, interquartile range $5-13 000) compared to a median of $9000 at the second interview (range $3-45 000, interquartile range $7-13 000) (Z 2.523, $p = 0.0118$). The difference for the Remainder was significant. Their results were the same as the non-Oswaldians at the first interview. At the second interview, their median and range were also the same, but there was an increase in the lower end of the interquartile range to $8-14 000 (Z -2.964, $p < 0.0005$). There were no significant differences over time in any individual income category.

The low level of income begs the question of how the people I interviewed were able to pay for their drugs but, as reported in the previous chapter, many people used illegal drugs only occasionally. At the time of first interview, several of those experiencing heroin dependency were going without food in order to pay for their drugs. Twelve people said that poor finances had led to them seeking methadone treatment and there were a further 43 instances of a decrease in use or non-use of a drug partly or wholly explained as being due to lack of finance (also reported in the previous chapter). Goldstein also found that the opioid users he studied had very little income and he pointed out that it is part of the "'dope fiend' myth" that narcotic users have high incomes (1981:67).

Fourteen people whose drug use behaviours had changed talked about the positive effects this had wrought on their finances (Table 41, Appendix 19). Most comments came from eleven of the people who had entered into methadone treatment. Gazoo, for example, who had commenced his first treatment, said that it meant that he and his partner were:

> *better off, we've worked out our finances and we can catch up ... we've got a spare twenty dollars to buy things. It's amazing what you can buy for twenty dollars, we've bought books, seen a few movies and gone out to dinner. That's made a hell of a lot of difference to us. In general, we're having a better time.*

One man who had decreased his alcohol use and the two people who had decreased their heroin use said they now had "more money" (Table 41, Appendix 19). Five people who had either commenced or increased the use of a drug, or whose drug use had fluctuated, discussed the negative effects these transitions had on their finances (Table 42, Appendix 19). Marcus was typical of these people. His amphetamine use had fluctuated and when he had been using heavily he had "spent the rent money on drugs and I didn't have money for food."

6.9.iv: Living situations

In this section, I examine findings related to residential stability, changes in those whom respondents were living with, and the proportion of time spent living with IDUs during the 6 months prior to each interview.

A majority of 68 people (70.1%) had lived in the ACT all the time between interviews (Table 43, Appendix 19). Thirteen had lived in one other place, 13 in two to five other places, and 3 in six or more places. This finding of residential stability was validated by the OTI findings (Table 44, Appendix 19) and accords with the finding (reported in Chapter 3) that this was a fairly stable population in terms of residential mobility. At the second interview, people tended to have even more residential stability than at the first interview (Z -2.903, $p < 0.01$). As will be shown below, significantly more people were in a relationship at the second interview. This may have impacted on residential stability.

At both interviews, most people reported living with friends or a partner (Table 45, Appendix 19). In general, many young people choose to live with their friends which ties in with the finding (described in the previous chapter) that friends often influenced changes in drug use. Ten more people at the second interview were living with a partner and 9 fewer were living with a parent. Given the passing of time between interviews, and the tendency for young people to leave home as they mature, this change is not unexpected. At both interviews, only a small proportion of people lived alone.

At the first interview, 76.9 per cent of core-Oswaldians lived with friends (n=20) compared to 33.8 per cent of the Remainder (n=24) (Chi^2 at 1 df = 14.3, $p < 0.001$). At the second interview, there were only minor changes in these proportions: 69.2 per cent of core-Oswaldians lived with friends (n=18) compared to 32.4 per cent of the Remainder (n=23) (Chi^2 at 1 df = 10.6, $p < 0.005$). These results confirm my ethnographic work where I observed that most of the core-Oswaldians were living with fellow Oswaldians.

The only significant differences in any of these responses over time was that a greater proportion of men lived with other family at the first interview (16.9%, n=10) than at the second (5.1%, n=3) (Chi^2 at 1 df = 7, $p < 0.01$).

At both interviews, a minority of people had lived all the time with heroin users (Table 46, Appendix 19). Respondents in the ASHIDU survey were asked a similar question and approximately 40 per cent responded "All of the time" and approximately 32 per cent responded "None of the time" leaving only small proportions in the other 3 categories (Loxley et al, 1995:106). Because the differences found in my survey may have been due to some people I interviewed being non-IDUs and/or non-heroin users, I analysed the responses from these people separately: the findings were similar to those for the total population.

6.9.v: Relationships with significant others

I turn now to a discussion of respondents' relationships with their partners, children, other family and friends. The discussion includes the effects of their transitions in drug use on these significant others.

6.9.v.a: Partners

At the first interview, a small majority of 52 respondents (53.6%) were not in a relationship (Table 47, Appendix 19). Excluding 4 people who said they had never been in a relationship, there was a short median period of 3 months (range 1 month-10 years, interquartile range 2-12 months) for being single. Of the 45 people (46.4%) who were in a relationship, 38 (39.2%) had a partner, or a boy/girl friend, and a further 7 (9.4%) were either married or in a *de facto* relationship. There was a median duration of 12 months (range 1 month-10 years, interquartile range 3-38 months) for these relationships.

By the second interview, the number of people in a relationship had increased to 60 (61.9%) (Chi^2 at 1 df = 7.3, $p < 0.01$). There is a tendency for people to have more stable relationships as they mature and the increased number of people in relationships at the second interview may simply be another effect of the passage of time.

Nineteen women (50%) and 26 men (44.1%) were in a relationship at the first interview. At the second interview the number of women in a relationship had increased to 29 (76.3%) (Chi^2 at 1 df = 7.1, $p < 0.01$) and there was a smaller increase to 31 in the number of men (52.5%) in a relationship. The gender difference at this time approached significance (Chi^2 at 1 df = 5.5, $p = 0.0186$).

It is known that being in a relationship is a positive predictor of health (Hu and Goldman, 1990; Goldman et al, 1991; Umberson, 1992). As reported above, women's health had improved even more than men's between interviews. It is, therefore, possible that the improvement in health and relationship status were inter-related.

My finding for the second interview is similar to that of Loxley and colleagues who found that among respondents interviewed for the ASHIDU project, significantly more men than women were single (1995). The overall finding at the first interview is comparable to some other Australian studies. Mugford and Cohen found that 45 per cent of their sample were in a *de facto* relationship (1989). Lenton and Tan-Quigley found a similar rate of 44.3 per cent who were living with a sexual partner (1997). The ASHIDU researchers found a lower proportion of 32.6 per cent who were "married or cohabiting" (Loxley et al, 1995:20). The proportion of people in a relationship at the second interview I conducted was higher than that found in any of these studies, but this may be due to the fact that I also considered those with boy/girlfriends as being in a relationship whereas other studies may not have done so.

There were 13 core-Oswaldians in a relationship at both interviews, but the number in a relationship in the Remainder subset increased from 32 to 47 between interviews (Chi^2 at 1 df = 9.8, $p < 0.01$) (Table 48, Appendix 19). The changes in this subset occurred in the cases of 10 women (38.5%) and 5 men (11.1%).

The median length for relationships at the second interview was 14 months (range 1 month - 11.5 years, interquartile range 7-23 months). This was longer than that found at the first interview, but for some people this increase was due to the continuation of a relationship from the first interview. Consequently, I did not perform a comparative test on these results. One man had still never been in a relationship, two of the remaining single people were separated or divorced. At the time of the second interview 37 people were single. The median length of time that they had been single was 10.5 months (range 1 month to 20 years, interquartile range 3.5 months to 1.9 years). Most people had functional relationships with their partners (Table 49, Appendix 19). At both interviews, only a few people reported conflict "Often" or "Very often."

I looked to see what effects either being in a relationship or entering a relationship between interviews might have had on the number of drugs used. There were no significant differences between people either in a relationship, or who had entered a relationship, and those either not in a relationship, or who had no change in relationship status between interviews. As seen in the previous chapter, however, the qualitative data showed that 9 people had entered treatment because of the influence of a partner and there were 34 instances of a change in drug use behaviour which were also due to a partner. Most of these changes were a decrease in use or non-use of a drug.

Seven people commented on the positive effects their drug use transitions had brought to their relationships (Table 50, Appendix 19). Five comments came from people receiving methadone, one from someone who had decreased their heroin use, and one from someone who had stopped using heroin. Everyone said their partners were happy with these changes.

There were also three comments about the negative effects of increases in drug use on relationships with partners (Table 51, Appendix 19). Two came from Alison, who had commenced cocaine use and increased her amphetamine use. She said these changes had led to "bad arguments." She was also concerned about her partner's heavy use of these drugs. James-1 had re-entered methadone treatment and said:

> *But my partner still wanted to use, she wasn't on methadone and I didn't want to use, so all these new things came into play when I went on methadone ... When I first got on methadone I got really unreasonable, I just didn't want to deal with stoned people, it wasn't rational, but my using it isn't rational anyway.*

6.9.v.b: Children

Eighteen people (18.6%) at the first interview were parents. The gender proportions were almost identical (18.4% of women, n=7; 18.6% of men, n=11). Seven Oswaldians (5.7%) and 11 non-Oswaldians (19.4%) were parents. Only one core-Oswaldian was a parent (3.8%). Eleven people had one child, five had two children and two had three children. All but one of the children was under 16.

A slight majority of 11 parents (61.1% of parents, 11.3 per cent of the total sample) said that their children were partially or totally dependent on them. Six were women and five were men. Eight people shared the child care with their child's biological parent, who in most cases was also their partner. Two women had sole responsibility for parenthood. Two men did not know the whereabouts of their children. One woman's child was in foster care.

By the second interview, the number of parents had increased by 2 to 20 (20.6%) (as reported in Chapter 5, another 3 women were pregnant for the first time and one man's wife was expecting their first baby). There were only a few other parenthood changes at the second interview. One woman who had previously had total responsibility for her two children had entered a *de facto* relationship with another respondent. He assumed shared responsibility for her children's care and also continued shared responsibility with the other biological parent (also a respondent) of his son.

The percentages of parents at the interviews I conducted are smaller than the 33.4 per cent found among ANAIDUS respondents (1991). They are also smaller than the ACT DIP where "about 40 per cent" of the sample had children under the age of 18 (Stevens and Wardlaw, 1994:26). At their first interview, the people I interviewed were relatively younger than those in some other samples and this may explain some of the difference. Given a little more time, the difference between my sample and others may diminish.

The proportion of those with dependent children in my sample (11.3%) is similar to the 13.3 per cent found by the ANAIDUS researchers. The ANAIDUS project differed from mine in its finding that slightly fewer women (7.4%) than men (8.3%) had children who were financially dependent on them (1991). My finding is more consistent with of the ACT DIP which found significantly more women (37%) than men (25%) had children living with them. As Stevens and Wardlaw go on to point out, this is a reflection of what occurs in the wider community (1994).

As seen in the previous chapter, all the new and expectant parents had modified their drug use between interviews. Three women who had re-entered methadone treatment mentioned the positive effects of this on their relationships with their children (Table 52, Appendix 19). Julie and Theresa both said that their relationships with their children had improved and Jacqui (who was the only parent with a child in foster care) said: "I'm seeing a lot more of my son. I now see him three times a week instead of two." Lisa discussed the negative impact of her increased heroin use on her relationship with her son:

> *I realised I had a lot of friends who were very concerned about me. They told me it was affecting my relationship with my son, and I hadn't taken any notice of that myself.*

6.9.v.c: Other family

At both interviews, very few people reported no contact with their family and only small numbers reported conflict with their relatives "Often" or "Very often." This indicates that most people had functional family relationships (Table 53, Appendix 19).

Only a few people mentioned other family when they discussed their reasons for changing their drug use behaviours (reported in the previous chapter). Similarly, only a few people talked about the effects the changes had on their relationships with other family (Table 54, Appendix 19). Two men who had entered methadone treatment said that their relationships with their family had improved and Deirdre, who had stopped heroin use, had previously seen her parents infrequently but was now seeing them every week. This change was also related to her parents wanting contact with their new grandchild.

6.9.v.d: Friends

At both interviews, the majority of respondents reported that they "Never" or "Rarely" had conflict with their friends and only a few reported they had no friends (Table 55 , Appendix 19). Most people had good friendship support since almost three quarters had "Four or more" close friends (Table 56, Appendix 19). A variation of this question was included in the ASHIDU study and the results are comparable since these people reported a median number of 5 close friends (Loxley et al, 1995:105).

The majority of respondents at both interviews were either "Very satisfied", or "Satisfied" with the support that they got from their friends when they were having problems (Table 57, Appendix 19). This finding is also similar to the ASHIDU survey where respondents were asked an almost identical question and three quarters responded that they were "at least reasonably satisfied" (Loxley et al, 1995:106).

At both interviews, only small numbers of people saw their friends only "Rarely" and no one reported "Never" seeing their friends (Table 58, Appendix 19). By the second interview, a markedly smaller proportion of people saw their friends "Very often" (Z -2.683, $p < 0.01$).

At the first interview, 42.1 per cent of the people the respondents had "hung around with" had been known to them for more than 6 months (Table 59, Appendix 19). By the second interview, this proportion had increased to 52.6 per cent. Some of the increase may simply be due to the passage of time between interviews when those already known at the first interview and still "hung around with" at the second would have been known for a longer period. The ASHIDU survey had a similar question but respondents were asked to quantify rather than apportion the number of close friends known for more than six months. These respondents gave a median number of 5 people (Loxley et al, 1995:105).

Most respondents spent at least some of the time with "users" (Table 60, Appendix 19). Very few reported these were the only people they spent time with. Only 5.3 per cent of

people at the first interview said that they did not spend any time with "users" This proportion had increased to 18.9 per cent by the second interview. The proportion of people at the second interview who said that less than half the people with whom they spent time were "users" had also decreased. A similar question asked of respondents in the ASHIDU survey carried the proviso that those whom respondents lived with should be excluded (Loxley et al, 1995:21). The findings from this sample were comparable to mine.

As reported in the previous chapter, friends were often influential in changing drug use behaviours. Only a few people, however, discussed the effects that these changes had brought to their friendships. Three people who had entered methadone treatment and one man who had increased his alcohol use all said they were now seeing more of their friends (Table 61, Appendix 19).

James-1 had recommenced methadone treatment and was trying not to use heroin. He said: "A friend I've made in the past six months is always asking me to score with him and it really gives me the shits" (Table 62, Appendix 19). Two of the other seven negative comments about the effect of a change in drug use were related to worries about a friend's use of the same drug, and one was related to friends being worried about the respondent's use. Annabel's decreased alcohol intake had led to her friends thinking she was "weird" and 3 people said that the changes they had made meant they saw less of their friends.

6.9.vi: General lifestyle effects of changes in drug use and treatment

In addition to the one man who said he had gone into methadone treatment because of the general detrimental effects of his heroin use on his relationships with other people, 3 people talked about the general positive effects of the changes on their relationships (Table 63, Appendix 19). Damien (who had recommenced NA) said: "... now I always make an effort to be good to other people." Otto's commencement of heroin use led him to say: "Before, I just didn't like heroin users, now I don't mind heroin users, it's just junkie scumbags I don't like." André's heroin use had fluctuated and he said of his period of non-use: "I was thinking more of other people."

In addition to comments made by the 7 people who had entered methadone treatment and the 89 instances of other changes in drug use behaviour due to lifestyle, some people commented about the effects their changes in drug use had brought to their lifestyle: 24 were positive (Table 64, Appendix 19). Seven of these were made by people who had received methadone treatment and one was made by Damien (who had recommenced NA). All the comments were of a general nature indicating an overall lifestyle

improvement, such as Damien's: "I'm happy to be alive now and I appreciate life. ... it's a much nicer way to live."

Steve had increased his alcohol consumption and Jeff had increased both his alcohol and heroin use. Both found these changes positive since they helped relieve tension associated with their new jobs. Cliff had decreased his alcohol consumption and said he was now "able to get more done" and Marcus was pleased that his decreased alcohol consumption enabled him to drive more. James-2 said of his reduced alcohol consumption:

> *Now I stay home and play cards and backgammon and stuff ... staying home calms me down. I've been a right goodie two shoes lately – I stay at home so then I don't go out and fight.*

Rob had decreased his heroin use and said:

> *I now see people running around [after heroin] and I'm glad I'm not like that. I like not being addicted, not having to run around chasing drugs, just using occasionally is less hassle ... [I've got] more time, I'm able to do casual work.*

Similar comments were made by people who had stopped their heroin, amphetamine and alcohol use, from one person who had temporarily stopped the use of heroin and from one person who decreased his marijuana use after a period of heavy use.

Eight people made negative comments about the lifestyle effects of their changes in drug use (Table 65, Appendix 19): 3 comments came from people who were in methadone treatment and they were of a general nature, as Brigid's statement: "the lifestyle is no good." For Deirdre, "the loss of lifestyle was difficult" when she stopped her heroin use, and André (who had stopped using heroin for a while) made a similar comment, which was also reminiscent of those made by heroin users interviewed by Preble and Casey (1969):

> *The first few months of stopping felt terrible, taking it every day is very life-affirming, you get up every day and you're a businessman, getting heroin.*

The other comments were very mixed. Jeff believed his work had suffered because of his increased alcohol intake, Lisa did not like "having to deal with the people that I was dealing with" when her heroin use increased, and Ruari's temporary increase of marijuana led to him being unable to "participate in discussions."

6.9.vii: Discussion of social health

Most people's scores on the OTI Social Functioning Scores were average or below at both interviews indicating a low incidence of social pathology. Although there was no significant difference in the total OTI Social Functioning Scores at the two interviews, there were a few significant differences between the two interviews in some of the individual variables in this domain. Much of this difference was due to the time lapse between interviews.

Whilst there is a perception that people who use illegal drugs have unstable lives, including residential mobility, most of the people I interviewed were fairly stable in this respect. The results from both the ASHIDU project and my study also challenge the stereotypically held view that people who use illegal drugs have poor social support networks since both studies found that respondents had contact with their family and friends and also had quite good relationships with their significant others. In addition, significantly more of the people I interviewed were with partners by the second interview.

Given the high unemployment among the people I interviewed, as well as those found in other samples of people who use illegal drugs, it would obviously be a worthwhile harm minimisation strategy to put efforts in to finding paid employment for both current drug users and those who wish to abstain from drug use. I return to this point in Chapter 9.

6.10: Conclusion

A mixed image of the people I interviewed emerges from these results. There were many positive findings which challenge stereotypical notions of people who use illegal drugs, but there were also negative factors such as the high level of unemployment and low income. For some people, their drug use was associated with pathology, for others only with pleasure. Some respondents weighed up both the costs and benefits of their changes in drug use on their physical, social and psychological health. By the second interview, there had been an improvement in health for the total sample. Many previous studies (some of which are reviewed above in Section 6.3) have indicated that people who use illegal drugs are at increased risk of physical, psychological and social morbidity. As documented in Chapter 5, there had been a significant reduction in the number of drugs used, reductions in the levels of consumption of several drugs and a significant increase in the number of people with a history of treatment. Many of the reductions in drug use were due to people entering methadone treatment (also reported in Chapter 5). Other authors have demonstrated a link between entering methadone treatment and improved health (also reported in Chapter 5). I suggest the positive changes in drug use consumption patterns and treatment entry had a bearing on the improvement in health between interviews.

There were very few other differences between either of the Oswaldian subsets when compared to their opposite subsets. My original hypothesis was that there would be health differences between Oswaldians and non-Oswaldians. This hypothesis is not supported by the majority of the findings discussed in this chapter. Between interviews, the health of the non-Oswaldians and Remainder had improved more than that of, respectively, the Oswaldians and the core-Oswaldians (the definitions of these subsets are included as Appendix 4). I can offer no plausible explanation for these differentials.

Judging from the total health score and the levels of dysfunction at the first interview, it appears that at that time women were in poorer health than men. Fewer gender differences were found in the second interview than at the first, indicating that the women's health had improved more than that of their male counterparts. Dorothy Broom deconstructs the question of which gender suffers more from drug and alcohol use noting that the kinds of suffering may be qualitatively different. She gives as an example the fact that though more men drink, women are damaged more quickly by excessive alcohol consumption (1994). According to a report from the NDS, studies from people who are dependent on opioids indicate gender differences in the types of psychopathology suffered: women are more likely to be diagnosed with an anxiety disorder and men are more likely to be diagnosed with an antisocial disorder (1993). Conclusions such as these indicate that gender specific needs should be taken into account when developing harm minimisation strategies for people who use illegal drugs.

CHAPTER 7: BEHAVIOURS RELATED TO INJECTING DRUG USE AND SEXUAL AND GENITAL HEALTH

7.1: Introduction

The advent of HIV/AIDS and the spread BBVs and STDs among the illegal drug using community has led to efforts to prevent further spread of these diseases. I wanted to ascertain how prevalent these diseases were among the people I interviewed and see what changes in injecting and sexual behaviours occurred over time. In addition, I hoped to be able to evaluate existing harm minimisation strategies and possibly make further recommendations.

I begin the chapter with an overview of the way the findings are presented. As general background information, I then present an overview of the prevalence of IDU in Australia and the ACT. I move on to a presentation of the brief histories of HIV/AIDS, HBV and HCV as they apply to people who use illegal drugs. These histories include some of the Australian harm minimisation strategies which have been implemented to try and curb the spread of these diseases. Each of these histories is followed by a discussion of the way each virus affected the people I interviewed. I then report the findings on the relationship between changes in drug use and BBVs before discussing the implications of the findings related to BBVs. The results of the analyses of respondents' current injecting behaviours are then described and discussed. This section includes some information on reports of accidental needle sharing. The chapter continues with a discussion of findings relevant to sexual and genital health.

7.2: Presentation of the findings

Some findings are derived from the HRBS section of the OTI and they are indicated as such in Appendix 20. These results are supplemented with both quantitative and qualitative findings from the questionnaire I developed. I restricted the analyses on needle use to people who had injected during the 12 months prior to the first interview and to those who had commenced or recommenced injecting between interviews. When collecting qualitative data on needle use behaviours at the second interview, I did not ask these questions of people who said they had "stopped" their needle use because I had found at the first interview that the process of talking about injecting often prompted people to feel a need to inject. I did not want to instil this feeling in people who were trying to stop their needle use.

No significant differences were found at the first interview between those who were interviewed only once and their opposite subset (definitions of the subsets are included in Table 2 in Appendix 4). I did find some gender differences and a few significant

differences were found between the other subsets. I also found some changes in IDU and sexual health between interviews.

7.3: Prevalence of injecting in Australia

As long as IDU remains an illegal activity, it will never be possible to calculate accurately how many people are involved in this behaviour. According to the 1994 NDS general population household survey, two per cent of Australians over the age of 14 had ever injected illegal drugs; about one third of them had injected in the 12 months prior to the NDS interview. Among males aged 14 to 24, 4 per cent had ever injected. For both women and men aged 25 to 34, 4 per cent had ever injected (1994). There were approximately 14 709 000 Australians over the age of 14 in the middle of 1992 (Jacobs, 1993). Two per cent of this number gives us around 294 180 Australians who had ever injected and about 98 000 people who had injected in the previous 12 months. The 1994 NDS survey percentages were based on only 62 people who admitted to injecting (1994). The same caveats documented in Chapter 4 regarding the problems of household surveys also apply here.

A somewhat larger estimate of Australians who had ever injected was given by The Panel on Intravenous Drug Use and HIV. According to that report "Witnesses at almost every meeting told the Panel that up to 500 000 Australians have at some stage in their life used drugs intravenously" (Baume et al, 1989:2). The CDCSH estimates that there are between 90 and 130 000 people presently injecting (1990). The lower end of the range is, therefore, similar to the estimate based on the NDS household survey.

7.4: Prevalence of injecting in the ACT

I also made extrapolations from the NDS percentages against the 227 792 ACT residents who were over 14 in 1992 (Jacobs, 1993) and arrived at figures of around 4556 people in the ACT who had ever injected and 1500 who had injected in the 12 months prior to interview.

Larson and colleagues calculated there were around 1250 heroin users who could be candidates for a heroin trial in the ACT (1994). Since this calculation was derived from data collected for the ACT DIP during 1988-89 where "Over 90 per cent of heroin users reported injecting it" (Stevens and Wardlaw, 1994:33), it would be safe to assume that this population consists largely of IDUs. In making their calculation, Larson and colleagues were interested only in "the arrest-vulnerable and treatment/counselling seeking population of heroin users ... [but] certainly not all heroin users or even all dependent users" (1994:830). Their estimate is only a little smaller than the estimate for all present IDUs calculated from the NDS results, and

considered only some heroin users. The number could be expected to be much greater if all heroin users and amphetamine users were also included. Apart from an assessment presented in a report prepared by DRIC, where a figure of 5000 to 7000 current IDUs was presented (Whyte et al, 1987), there has been no documented calculation of the number of IDUs in the ACT. If we allow for those other IDUs not accounted for by Larson and colleagues, the DRIC estimate may well be reasonable and the calculation based on the 1994 NDS would seem to be too low.

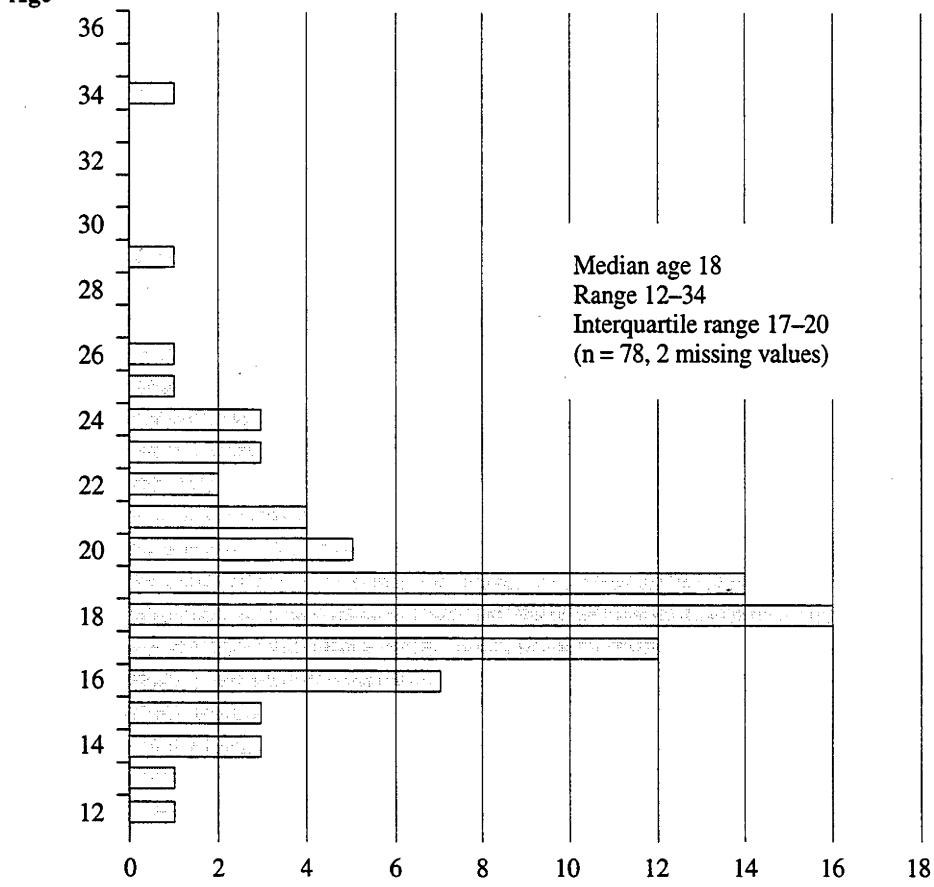
7.5: Injecting histories of respondents

In this section, I present the injecting histories of the people I interviewed, including their age at first injection, some discussion of gender differences, and transitions in injecting frequency between interviews. At the end of the section I discuss the implications of the findings.

Eighty participants in the study (82.5%) had a history of IDU. Equal numbers had first injected heroin and amphetamine (Table 1, Appendix 20). Similarly, the ASHIDU study found almost equal numbers of IDUs had first injected these drugs (Loxley et al, 1995).

There was a median age of 18 for first IDU for the people I interviewed (Figure 7.1). This is similar to the mean age of 18.4 reported in the ANAIDUS sample (1991) and also to an international survey where the mean age of first IDU ranged from 17.5 to 21.7 across the 13 cities which participated in the research (WHO Collaborative Study Group, 1993).

Figure 7.1: Age first IDU



For women, the median age of first IDU was 17.5 (range 12-26, interquartile range 16-19.5) and for men 18.0 (range 13-34, interquartile range 17-20). This difference was not statistically significant and there is some age approximation for first injection since age was rounded off to the nearest year. There may, in addition, be some recall bias. The finding does, however, correspond with the finding that women were younger than men when they commenced illegal drug use and also with the finding of a Milan study where the researchers found a "tendency" for women to start injecting earlier than men (Nicolosi et al, 1991:98).

There was a median period of 5 years of injecting (range 1-30, interquartile range 3-8, n=74: 2 missing values) for current IDUs at the first interview: 83.7% of women (n=28) and 81.4% of men (n=48) were current IDUs. Between interviews, the number of current IDUs increased slightly from 76 to 79 (Table 2, Appendix 20).

The data obtained from the interview guide I developed showed that no one had injected every day during the period between interviews, whereas at the first interview

there were 7 people who had injected every day in the preceding 12 months (Table 3, Appendix 20). Nine people at the second interview said they had "stopped" injecting. The reasons given for stopping IDU corresponded with the reasons given for stopping amphetamine and heroin use (reported in the previous chapter).

The results for changes in injecting frequency for the month prior to interview (Table 4, Appendix 20) were obtained from the HRBS. The median total HRBS score fell from 2 to 1 between interviews. The number of IDUs who had not injected in the month prior to the second interview increased from 14 to 25 and the number who had injected at least once a day decreased during this period from 23 to 5 (Z -3.543, $p < 0.001$).

7.5.i: Discussion of findings related to injecting histories

Although the findings were not statistically significant, reports from the two very different environments of the ACT and Milan indicate women are younger than men when they start IDU. These findings may be especially important in the light of studies showing that the first few years of injecting are a time of high-risk for the transmission of BBVs (Crofts, 1993; Fennema et al, 1997). It is known that adolescent women mature earlier, both physically and socially, than their male counterparts (Tanner, 1978). This earlier maturity may include a younger age of initiation into IDU. In addition, as part of this earlier maturing, young women's male partners are often older than they are. In a rare study which examined gender differences in initiation into IDU, Crofts and colleagues found that women were significantly more likely to have received their first injection from a partner or a lover than were men (1996).

I suggest that there is a need for more research to further examine gender differences into initiation into IDU so that appropriate gender specific harm minimisation strategies may be implemented for young people who may commence IDU.

The findings for injecting frequency at both interviews are quite different from the WHO Collaborative Study Group's research which found that over 80 per cent of the IDUs in their samples had injected daily in the 6 months prior to interview (1993). The ANAIDUS researchers found that the median number of times their respondents had injected in "the most recent typical drug using month was 28" (1991:23).

The IDUs I studied injected less frequently than the IDUs in these other samples. The difference in my finding may indicate that I had some partial success in accessing "hidden" users. There was less injecting at the second interview than at the first. Though this could be an artefact of the longer timeframe (since levels of use are more

likely to fluctuate over the generally longer period covered at the second interview) this change is a reflection of decreases in drug consumption patterns reported in Chapter 5. Some of this was brought about by treatment entry. As Ward and colleagues conclude, there is abundant evidence to suggest that IDUs in methadone treatment reduce their frequency of IDU (1992).

7.6: Human Immuno-deficiency Virus/Acquired Immuno-Deficiency Syndrome

In 1983, French researchers announced that in the search for the cause of a recently recognised immuno-deficiency disease they had discovered a new human retrovirus (CDCSH, 1988b). It was soon established that this virus, now known as HIV, is the causative organism for AIDS. This syndrome was first observed between 1979 and 1981 in the United States of America when 11 cases of *Pneumocystis carinii* pneumonia (PCP)[1] occurred among previously healthy young men who were either drug users or homosexuals (Masur et al, 1981 [1987 edition]). A later review showed that the first evidence for HIV/AIDS in IDUs occurred in New York in 1977 among babies born of mothers who injected drugs (Des Jarlais et al, 1989).

Soon after the first cases of AIDS were reported, it became apparent that the sharing of injecting equipment was a very efficient method of transmitting HIV. After men who have sex with men, IDUs now account for the second largest transmission category in the western world (WHO and the Center for Disease Control, 1991 [CDC]; National Centre in HIV Epidemiology and Clinical Research, 1993). Des Jarlais and colleagues cite Ball and colleagues (1994)[2] who report that HIV infection among IDUs has now been reported in 80 of the 118 countries where IDU is known to occur (1996).

In 1985, the first case of HIV in a heterosexual IDU was detected in Australia (Blacker et al, 1986). At the end of June, 1997, 20 706 Australians had been diagnosed as being HIV-positive and 5370 of these people had died of AIDS (National Centre in HIV Epidemiology and Clinical Research, 1997).

There was an HIV prevalence of 50 per cent among IDUs in New York in the early 1980's (Des Jarlais and Friedman, 1990). Soon after the first cases were reported among IDUs in this city, there was recognition of how vast the personal, epidemiological, economic and social costs were going to be (Drucker, 1986).

Concerns about preventing another "New York" occurring in Australia were often expressed when "responses to the threat of an IDU ... epidemic were being developed" (Wodak, 1995:46). In 1984, the Australian Government instituted The National AIDS

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[1] *Pneumocystis carinii* is the major opportunistic infection associated with AIDS (Schoub, 1994).
[2] Not seen: this book appears to be unavailable in Australian public libraries.

Task Force. This has evolved into the Australian National Council on AIDS (Feachem, 1995). The first National AIDS Strategy was developed in 1989 and its community based programs facilitated the formation of drug user groups (Crofts and Herkt, 1995). The ACT IV League was originally formed as a humanitarian charity by a religious group. Its development to a peer-based organisation began with the advent of HIV/AIDS (Crofts and Herkt, 1995). In 1988, a national umbrella user organisation, the Australian IV League (AIVL), had its first meeting (Crofts and Herkt, 1995).

NEPs were set up in Australia in 1987 (Feachem, 1995). Feachem cites an unpublished document by Byers who has calculated that at least 10.3 million needles and syringes were distributed in Australia during 1993-1994 (1995). During the financial year 1995-1996, 360 595 needles and syringes were distributed through the ACT NEP's 18 outlets (an unknown quantity were also distributed through some of the ACT's pharmacies) (Fletcher, P. NEP Program manager, ADDInc, ACT. 1996, December 2, pers comm).

In a report prepared for the CDC (in the USA), Lurie and colleagues concluded that NEPs do not increase the level of drug use and do decrease rates of HIV drug risk behaviour (1993). In a cost effective analysis comparing cities around the world which had introduced needle and syringe exchange programs with those that had not, Hurley, Jolley and Kaldor found that the average HIV seroprevalence in locations where there were NEPs was 6 per cent compared to 21 per cent in locations where there were none. Based on the 6.3 million syringes which were believed to have been distributed in Australia in 1991, they conclude that the operation of NEPs prevented almost 3000 IUDs from contracting HIV during that year (1997).

Though any diagnosis of HIV is a personal tragedy, from an epidemiological standpoint the measures taken by Australia to prevent an epidemic of HIV among IDUs have been successful: in mid 1992, 8.0 per cent of diagnoses of HIV infection for which an exposure category was available were in IDUs. Over one-third of these people were men who also reported homosexual contact (Kaldor et al, 1993). It is now believed that HIV/AIDS among IDUs will not reach the epidemic proportions of New York (Wodak, 1995).

7.6.i: Respondents' histories of HIV testing

Sixty eight respondents (70.1%) had ever been tested for HIV at the time of their first interview (Table 5, Appendix 20). Fifty nine (60.8%) were tested between interviews. Considering the two interviews, 31 women (81.6%) and 47 men (79.7%) had ever been tested. Seventy one of those who had been tested (91.0%) were current or ex-

IDUs. This leaves 10 current IDUs and 2 ex-IDUs who had never been tested. Most who had been tested at all had been tested more than once. At both interviews, the majority of tests had taken place within 12 months prior to interview (Table 6, Appendix 20).

At the first interview, 29 people (43.3% of those tested), had their last test because of unsafe sex (Table 7, Appendix 20). Twenty four of these tests had occurred in the 12 months prior to interview. At the second interview, the number who had a test for this reason was down to 11 (18.6% of those tested) (Chi^2 at 1 df = 14.4, $p < 0.001$). The change largely occurred in women since their change was significant (Chi^2 at 1 df = 9.0, $p < 0.01$) whilst the change among men was not. The Oswaldian (Chi^2 at 1 df = 8.3, $p < 0.01$) and Remainder subsets (Chi^2 at 1 df = 8.9, $p < 0.01$) also showed a significant change whilst their opposite subsets did not.

At the first interview, 19 people (28.4% of those tested) had their last test because of unsafe needle use (16 during the 12 months prior to interview). Between interviews, only 5 people (8.5% of those tested) had a test done because of unsafe needle use (Chi^2 at 1 df = 10.9, $p < 0.001$). Much of the difference occurred in men since their change was significant (Chi^2 at 1 df = 9.0, $p < 0.01$) whilst the change in women was not. The change in the Oswaldian subset was also significant (Chi^2 at 1 df = 8.0, $p < 0.01$) whilst that in the Remainder subset approached significance (Chi^2 at 1 df = 6.2, $p < 0.02 > 0.01$). Some of the differences found between interviews may, however, be an artefact of the timeframe since, for 17 people at the first interview, the latest test was performed more than 12 months prior to interview whilst, for the second interview, the data collection was restricted to the period between interviews, which for some respondents may have been shorter.

Some respondents were tested even though they had not engaged in these risk behaviours. There were 9 people at the first interview, and 6 at the second, who reported neither unsafe sex or unsafe needle use, but who said that they had the test done because they were worried. Most said something along the lines of "I just wanted to know." Some went on to elaborate the reasons for their concern. Rob said: "This guy was going to kill me 'cos I was sleeping with his girlfriend, he told me to have the test. He had a gun." Theresa had the test because "I'd been whoring and using, both safely, but I was worried." James-1 decided to be tested "For peace of mind, before (my baby) was born ." One woman's concern was related to having an abnormal Pap smear which required extensive treatment, and she was aware that invasive cervical cancer is an AIDS defining condition for women who are HIV positive (Kaldor and Hall, 1993).

At the first interview, two people had their last test when they had entered a Detoxification Program, and three had the test when they entered methadone treatment. Reflecting the increase in the number of people in methadone treatment, 10 people had the test done for this reason between interviews.

At the first interview, one IDU knew he was HIV positive (Table 8, Appendix 20). He was a gay man and was adamant that he had never shared needles. Two IDUs who presented only for the first interview were also HIV positive. No one was aware of contracting HIV between interviews.

Based on the percentage of 8.0 per cent of the diagnoses of HIV infection occurring in IDUs (reported above), and given that at the end of 1991, 128 people in the ACT had been diagnosed with HIV (National Centre in HIV Epidemiology and Clinical Research, 1992), at the time of my first round of interviews there would have been fewer than 11[1] IDUs (some of whom who might also have been men who have sex with men) diagnosed with HIV in Canberra. It is, therefore, not surprising that few people who were HIV positive presented for my interviews.

7.7: Hepatitis B virus

A virus now known as HBV was discovered in the serum of an Australian Aborigine in 1965 and for this reason the virus was first known as the Australia antigen. It was soon recognised that the virus is transferred efficiently via sexual and blood contact, as well as by maternal-foetal transmission (Batey and Bollipo, 1996). Although the incidence of HBV in Australia has increased over the past few decades (an estimated 3000 new cases notified each year), Australia is considered to be a low prevalence country since less than one per cent of the population are chronic carriers of the virus. Around 150 000 to 180 000 Australians are infected, of whom about 1200 die each year from sequelae such as cirrhosis and hepatocellular carcinoma (Gust, 1992). It has been estimated that, in Australia, around 5 per cent of deaths from cirrhosis of the liver, and 80 per cent of deaths from primary hepatocellular carcinoma, are secondary to HBV (Antioch et al, 1993).

IDUs are known to have a much higher prevalence of HBV than the general population. Batey and colleagues found evidence of HBV infection in 80 per cent of 356 clients in a Sydney drug and alcohol unit (1987). In a study of 767 people being assessed for entry into methadone programs in New South Wales, Bell Fernandes and Batey found that 87 per cent tested positive for HBV (1990). In a 1995 national survey of 1 005 clients of NEPs, 30 per cent reported a diagnosis of HBV (MacDonald

[1] This figure should be viewed with some caution since it is possible that there has been some mobility of the population.

et al, 1997). Stevens and colleagues cite a personal communication from Dr Keith Powell (at that time Senior Physician of the then Royal Canberra Hospital South, Alcohol and Drug Service) who reported that two recent studies of clients at the ACT Methadone Program showed that between 50 and 70 per cent tested positive for HBV (1992).

A safe vaccine against HBV has been available in most developed countries since the early 1980s (Gust, 1992). In accord with WHO guidelines, the NHMRC has recently recommended universal vaccination (Batey and Bollipo, 1996). Given, that only one third of Australian children aged between 3 months and 6 years have been fully immunised (McLean, 1997), and also taking account of the low rate of HBV immunisation among high risk groups reported above, there is little reason to believe that a new universal immunisation program will be widely accepted by the Australian public.

Earlier, the NHMRC had recommended that the HBV vaccine be offered only to at risk groups, including IDUs (Gust, 1992). As Gust goes on to point out, implementation of this recommendation was problematic for some groups, and he outlines impediments associated particularly with IDUs, such as a possible lack of motivation and problems in attending clinics for the 3 appropriately spaced doses of the vaccine. In a 1991-1992 study of prison inmates, Crofts and colleagues found that only 5.5 per cent of the 1561 known IDUs in the sample had been immunised against HBV (1995). A higher rate of 45 per cent was, however, found by MacDonald and colleagues among the 682 respondents with no history of HBV infection in their national sample of 1005 clients of NEPs (1997).

7.7.i: Respondents' histories of HBV seropositivity

The majority of people I interviewed had been tested for HBV: 11 had tested positive prior to the first interview and a further 3 were diagnosed between interviews (Table 9, Appendix 20). These 14 people were all current IDUs and represent 16.9 per cent of the 83 people who had ever injected.

I did not ask respondents about their HBV immunisation status at the first interview but did so at the second when 19 reported full immunisation, including a post-immunisation blood titre (taken to assure that their immunisation had been successful) (Table 10, Appendix 20). Seventeen of these people were current or ex-IDUs. Both people who had 3 immunisations but no titre were current IDUs, as were two people who had one or two injections. Forty one of the other 53 people who had no immunisation were current IDUs.

7.8: Hepatitis C virus

HCV has been present in IDU populations since "at least the early 1970's" (Crofts, 1994:235) but it was only in 1990 that the viral RNA (Ribose Nucleic Acid) was identified. This demonstrated that the newly termed HCV was the major causative agent for non-A-non-B hepatitis (Choo et al, 1990). It is now known that there are serious ramifications for many people who contract the virus. Follow up studies have found 70 to 83 per cent of people who were HCV-positive were chronic carriers (Esteban et al, 1991; van der Poel et al, 1991). Alter and colleagues report that chronic hepatitis developed in 62 per cent of their patients with HCV (1992). Pooled data from people who were subsequently diagnosed with HCV showed that 20 to 30 per cent developed cirrhosis (van der Poel et al, 1994). HCV is also associated with hepatocellular carcinoma (Tsukuma et al, 1993; Okuda and Ohnishi, 1995).

The virus is predominantly transmitted via exposure to infected blood (Alter et al, 1992; Sladden et al, 1997). In Australia and other developed countries the most common route of transmission is through unsafe needle use (Wodak, 1997). Shortly after a serological test for HCV became available, Australia was alerted to the seriousness of the HCV epidemic among IDUs (Bell et al, 1990). These authors reported results from sera tested from 172 IDUs in methadone treatment in Sydney. Anti-HCV was found in 86 per cent of the population and there was a significant correlation with years of injecting, since two thirds of people who had been injecting for 2 years were seropositive for HCV and 100 per cent who had been injecting for more than 8 years were seropositive. Subsequent research has also demonstrated an association between years of injecting and HCV status (Crofts et al, 1997).

In Australia, the incidence and prevalence of HCV has reached the stage where it has been called "arguably the commonest life-threatening infection" (Wodak, 1997:284). Estimates of the number of IDUs who will be newly infected each year range from 3000 (Locarinini and McAnulty, 1996) to 6000 (Crofts et al, 1997). Crofts and colleagues estimate that around 130 000 current and former IDUs are HCV carriers. After reviewing the available data sources, these authors found that HCV prevalence among Australian IDUs ranges from 60 to 70 per cent (1997). International studies also show that 30 to 90 per cent of both treatment and non-treatment samples of IDUs are HCV positive (Crofts, 1994).

In May 1997, there was a cumulative total of 1391 notified cases of HCV in the ACT (Passaris I. Communicable Diseases Control Program, ACT Department of Health. 1997, May 8, pers comm). Risk factor information was available for 154 cases (76.6% of reported cases) notified over a 6 month period during 1994. IDU accounted for 81 per cent of these cases (Selvey et al, 1996). Notifications should, however, be viewed

with some caution. Andrews and Curran identify a range of problems with HCV surveillance data in Australia including variability in the methodology of data collection by States and Territories, response bias, the presence of duplicates, and the difficulties associated with distinguishing incident cases from prevalent cases (1996).

In Australia, Interferon alpha is the only drug available for treatment of HCV. People who have injected illegal drugs within the previous 12 months are presently excluded from this treatment but the NHMRC recommends that they should be included (1997).

7.8.i: Respondents' histories of HCV seropositivity

I was first aware of an increase in the prevalence of HCV among the people I interviewed during ethnographic work when some Oswaldians asked me for information since they had recently been diagnosed. At the second interview, I found that 14 people in the total sample had tested positive for HCV between interviews (Table 11, Appendix 20). Another 19 had been diagnosed prior to the first interview. These people were all IDUs and represent 39.8 per cent of the 83 people who had ever injected. Eleven of these people were also HBV positive.

7.9: Effects of bloodborne viruses on drug use

Some people who had been diagnosed with HBV or HCV had modified their drug use behaviours. Consumption of alcohol is known to exacerbate the course of both HBV (Okuda and Ohnishi, 1995) and HCV (Wodak and Crofts, 1994b; Okuda and Ohnishi, 1995). Although 4 of the people I interviewed who were HBV and/or HCV positive at the second interview described themselves as having had binges of drinking between interviews, and 7 people with some form of hepatitis were heavy drinkers (consuming between 30-150 alcoholic beverages a week), some people recently diagnosed had reduced their alcohol intake and consumed no more than 20 drinks a week. Many had periods when they did not drink at all. One person had stopped drinking altogether and 5 people who had been diagnosed with a BBV said they had reduced their alcohol consumption because of their diagnosis. Sam, for example, said she had reduced her alcohol intake from an average of 20 drinks a week to one a week because "It really hurts me, the next day I really feel sick."

Mishima was one of two people who had entered methadone treatment between interviews because of his newly diagnosed HCV. He said "My hep' C was worsening and I was losing weight." Mishima had also reduced the number of drugs he consumed from an average of 15 in the 12 months prior to the first interview to an average of 7 between interviews. Three people had stopped their codeine use, one person both amphetamine and heroin use, and another person had temporarily stopped using heroin because of a diagnosis of hepatitis. James-3 had been using heroin 1 to

10 times a day at the first interview and had dropped his use to monthly use because "I was sick with hep' C." He had also stopped the use of all other opioids "because they all make me feel sick."

Five people with a BBV had not injected for 4 months or more at the second interview, and said they had "stopped." The other 43 people with a BBV were all current IDUs. Eighteen people with a BBV were presently in treatment at the second interview, and they had all reduced or stopped their IDU. Chris was the only person with HCV who expressed a desire to commence Interferon. He had recommenced methadone treatment between interviews and had not injected for 10 months. He had also reduced his alcohol consumption, from 10 drinks three times a week, to a very occasional drink because:

> *Nine months ago I was told I had hep' C, so I have to stabilise for 12 months to get on Interferon. With the baby coming ... I've got bad liver problems. I want to stabilise and get rid of my hep' C, that's part of the bad mistake that's all in the past.*

7.10: Discussion and implications of findings on bloodborne viruses

Most people I interviewed were concerned about BBVs since many had recently been tested for HIV and other BBVs. A small number (of the total population I interviewed at the first interview) were HIV positive. This is in keeping with other studies of HIV in Australian IDUs. By comparison, several people were HBV and/or HCV positive. The increase in reports of HCV at the second interview is partly explained by the fact that 9 people diagnosed between interviews had entered treatment and had consequently been tested. Several people had contracted HBV or HCV and, for some, there may be serious health ramifications.

There has been some speculation about the differential spread of BBVs in Australia. Referring to a Commonwealth Serum Laboratories and Merck Sharp and Donne report of 1990, Antioch and colleagues recount that HBV is " ... over 100 times more infectious than the AIDS virus. Unlike the AIDS virus, its relative stability allows it to survive for several days on environmental surfaces" (1993:2).

According to the NHMRC, the variance between the spread of HIV and HCV may be explained by much higher carriage rates of HCV than of HIV in IDU populations. The authors of this report also point out that "in most situations" smaller amounts of blood are necessary to transmit HCV than HIV: " ... the possibility of transmission by means other than the sharing of needles and syringes, such as sharing other equipment or environmental contamination is greater" (1997). Crofts believes that part of the reason for the dissimilarity of the prevalence of HIV and HCV in Australian IDUs may be

that much less behaviour change is necessary to control the spread of a low prevalence virus (HIV) than a high prevalence virus (HCV) (1994). The increasing rate of HCV indicates that hygiene recommendations (such as careful hand washing, particularly if injecting others and use of a personal tourniquet) are still not being adhered to and even greater effort is required to further educate IDUs about ways of minimising the harm associated with their drug use.

As in other surveys of people who use illegal drugs, there was a low rate of immunisation for HBV in the people I interviewed, demonstrating a need for more rigorous efforts to implement the NHMRC recommendation that all IDUs should be fully immunised against this virus.

Until the implementation of the NHMRC recommendation that current IDUs not be excluded from Interferon treatment, more treatment options, including supportive counselling, are needed to assist IDUs with HCV to stop injecting.

There were fewer reports of HBV and HCV among the people I interviewed than in other populations studied. This may be attributed to several factors. Some people may have had these viruses but were unaware of them since they had never been tested. Forty six people (35 of whom were IDUs) had no history of either drug treatment or imprisonment. Both of these interventions are likely to lead to screening tests for BBVs. As a consequence of their young age, many people had a short duration of injecting. As reported above, there is a correlation between duration of IDU and HCV status. Furthermore, by comparison with other samples of IDUs, some respondents had low levels of IDU frequency.

Several people had contracted HBV or HCV and, for some, there may be serious health ramifications. In response to their diagnosis of a BBV some people had stopped injecting and others had reduced their use. The increase in reports of HCV at the second interview is partly explained by the fact that 9 people diagnosed between interviews had entered treatment and had consequently been tested.

In response to their diagnosis of a BBV, some people had stopped injecting and others had reduced their use adding weight to the evidence (reported in Chapter 5) that IDUs do demonstrate a concern for their health.

7.11: Other health problems associated with IDU

In addition to BBVs, there are other health problems associated with IDU. The health domain of the OTI included questions on some of these other problems (Appendix 10:381-382). At the first interview, there was a median score of 1 for these problems and at the second interview it was 0 (Z -3.36, $p < 0.005$) (Table 12, Appendix 20). The reduced frequency of injecting during the month prior to the second interview would largely explain this difference.

At the first interview, 16 female IDUs (53.3%) and 10 male IDUs (20.8%) reported difficulty with injecting (Table 12, Appendix 20) (Chi^2 at 1 df = 8.8, $p < 0.005$). There was also a gender difference with scarring and bruising associated with injecting: 10 men (20.8% of male IDUs) and 14 women IDUs (46.7% of female IDUs) reported this symptom. These differences led to an overall significant gender difference in the total score (Z -3.695, $p < 0.001$).

The number of people who reported individual problems listed in the OTI ("Overdose; Abscesses/Infections; Dirty hit; Prominent scarring/bruising (and) Difficulty injecting") at the second interview was too small to look for significant differences between the subsets. Men had a median score of 0 at both interviews whilst women had a median score of 1 at the first interview and 0 at the second. Most of the improvement in these symptoms, was, therefore, due to changes in women (Z -3.355, $p = 0.0005$). Among women, there were reductions in both difficulty with injecting (Z -3.162, $p < 0.05$) and scarring and bruising (Z -2.496, $p = 0.0124$). There was no significant gender difference at either interview in the number who had injected during the month prior to interview, or in their frequency of injecting. These positive health changes in women mirror the other health improvements reported in Chapter 6.

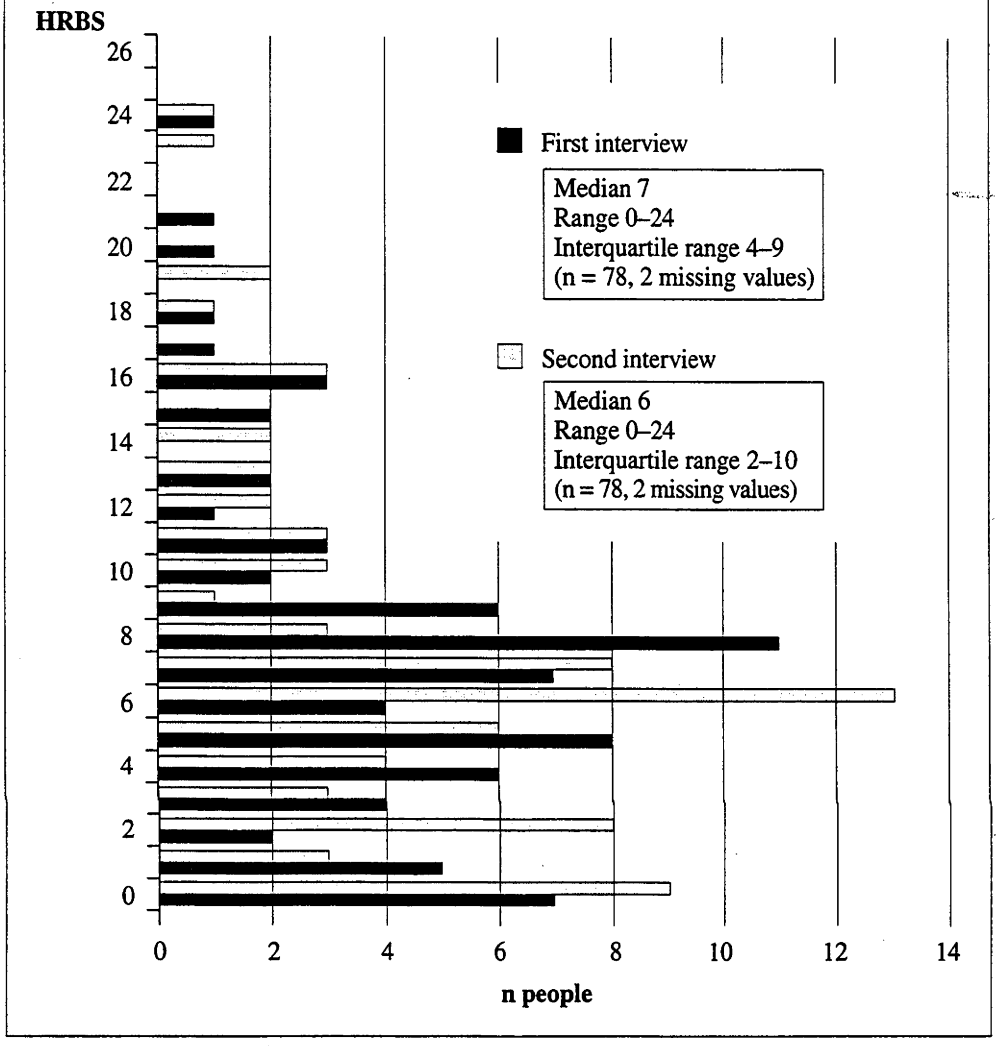
The reduction in injection related problems (Table 13, Appendix 20) approached significance in both the Oswaldian (Z -2.43, $p = 0.0150$) and non-Oswaldian (Z -2.352, $p = 0.0192$) subsets and reached significance in the core-Oswaldian subset (Z -2.912, $p < 0.01$) (Table 14, Appendix 20).

7.12: HIV Risk Behaviour Score

Before going on to discuss changes in individual questions related to needle use and sexual behaviours, I first present the total HRBS (Appendix 10:381-383) for the 78 IDUs for whom scores were available. The HRBS consists of 11 items, each with a possible score of 5 (0 equals best and 55 equals worst). Each item is concerned with risk behaviours in the month prior to interview. There was a median of 7 at the first interview and 6 at the second (Figure 7.2). Both medians are lower than the mean

score of 9 found in the 290 IDUs interviewed by Darke and colleagues during the development of the OTI (1991a).

Figure 7.2: HRBS at first and second interview for IDUs



In their longitudinal survey of 114 clients receiving methadone maintenance, Macleod and colleagues found a mean HRBS of 11 at treatment entry. After 6 months of treatment, there was a significant reduction in the score to 4 (1996). The subset of IDUs I interviewed who entered treatment between interviews had a median HRBS of 8 (range 3-24, interquartile range 5.3-10.8) at the first interview and 7 at the second (range 0-19, interquartile range 3.3-12.8).

At both interviews, most IDUs had an HRBS considered average or below (Table 15, Appendix 20). There were more IDUs with a below average HRBS at the second interview.

7.13: Needle use risk behaviours

Until the introduction of NEPs in 1987, the sharing of injecting equipment was common in the ACT (Whyte et al, 1987; Jardine, 1988). In this section, I look at changes in needle use risk behaviours between interviews using results from individual questions in the HRBS. As reported by Grund and colleagues, in order to properly understand risky needle use behaviours, it is necessary to be aware of the social situations in which these behaviours occur (1992). The quantitative findings are supplemented by those from the qualitative data, including some accounts of accidental needle sharing. I then outline the few reports of the relationship between changes in treatment and drug use on injecting behaviours before describing the few cases of injecting transitions between interviews.

At the first interview the median HRBS score was 2 for IDUs (range 0-18, interquartile range 1-5) out of a possible score of 0 (best) to 30 (worst) for needle use behaviours. At the second interview, the median score had dropped to 1 (range 0-17, interquartile range 0-4.0). In order to further analyse changes between interviews, I looked separately at the score for each question (frequency of injecting is reported in Section 7.5). The incidence of using a needle after someone else in the month prior to interview remained fairly stable: 11 IDUs (13.6%) at the first interview and 9 (11.4%) at the second (Table 16, Appendix 20). These two subsets are, however, largely composed of different individuals. Looking at the findings from both interviews, there were 19 IDUs (24.1%) with a history of using a needle after someone else in the month prior to the two interviews.

Nine of the 11 people who knew that someone had used a needle before them in the month prior to the first interview, had used after one other person (Table 17, Appendix 20). At the second interview, all 9 people had again shared a needle after one other person.

Sara had reduced the number of people she shared needles with between interviews. At the first interview, she was 16 and had left home because of her father's violence. She and others with whom she shared a "squat" with would sometimes also share their needles. Sara explains why she did this:

> *it doesn't really seem to worry me. I know it should, but it doesn't. I don't think I would get anything, I dunno why I think that, but even if I did, if I got AIDS or something by the time it was full-on, I don't think it would matter by then, anyway. It takes a few years for AIDS to become full-on. It can lie dormant for years ... I don't see myself living that long ... I've always felt that ... just can't see myself living... to a very old age.*

Sara was fortunate. By the second interview, she had tested negative for HCV, HBV and HIV, she had moved out of the "squat" and now confined her needle sharing to her boyfriend. Other homeless young people may not have such fortunate outcomes. Referring to a 1991 NCADA national household survey, the NDS reports that 62 per cent of "street kids" had injected drugs (1994:78). A Sydney study showed an association between people who inject drugs in "squats" and high risk behaviours (Caplehorn and Saunders, 1993). Howard's research in Sydney demonstrated that many homeless young people have, like Sara, escaped from abusive homes and also use illegal drugs (1993a and 1993b). Until successful longer-term interventions are devised, the prospects are grim for thousands of homeless young people. I return to this point in the harm minimisation recommendations in Chapter 9.

Twelve people knew that someone had used their needle after them in the month prior to the first interview (Table 18, Appendix 20). Eight had also used a needle after someone else within the same period. Eight people knew that someone had used their needle after them in the month prior to the second interview. Five of these people had also used a needle after someone else within the same period.

Five people who, at the first interview, reported they had used a needle after someone else, knew that they were either HBV or HCV positive and, in the month prior to the second interview, 3 people with one of these BBVs had used a needle after someone else. I have heard anecdotal evidence that, in circumstances where there is only one syringe, and more than one person wishing to inject, people with BBVs believe they should inject last. Although this is altruistic, many people with existing BBVs obviously do not realise that they are susceptible to other strains of the viruses, as well as other blood-borne infections.

At the first interview, James-3 was 18 and was estranged from his family. He had already been diagnosed with HCV and was injecting up to 10 times a day. In the month prior to the first interview he had used a needle after one other person 6-10 times. Between interviews he had been hospitalised because of his hepatitis and had reduced his frequency of injecting. At the second interview, he was no longer estranged from his family and had "Stopped sharing ... I gave up getting heroin with other people and keep it more of a personal affair and just have my own fit."

At the first interview, 3 people who had either HBV or HCV knew that someone had used a needle after them. A further 5 people diagnosed with HCV between interviews had someone use a needle after them in the month prior to the first interview. At the second interview, 6 people who knew they had HCV or HBV knew someone had shared a needle after them.

In addition to the 16 people who knew that someone had shared injecting equipment before or after them in the month prior to interview, another 21 people had shared in the 12 months prior to the first interview. At the second interview, 12 people, in addition to the 11 who had shared in the previous month, had shared between interviews. Eleven people who had shared between interviews had also shared in the 12 months prior to the first interview. As evidence of the validity of these data, everyone who said they had shared a needle when filling in the OTI also discussed their unsafe needle use during the collection of the qualitative data. Other research has demonstrated the consistency of self reported HIV risk behaviour among IDUs (McElrath et al, 1994), and the validity and reliability of such reports (Gibson and Young, 1994).

At both interviews, almost half the sharing had occurred with sexual partners (Table 19, Appendix 20). Most said something along the lines of Sara: "I know he hasn't got anything." At the first interview, Aaron described a rare instance of sharing with his partner:

> *About three months ago I shared one. I didn't have any needles and it was about six o'clock in the morning. It was on my way to work.* [And who did you share with?] *My girlfriend.* [And who went first?] *She did.*

Lyn and Mary were tertiary students in their mid 20's who had been living together for 4 years at their first interviews. At the first interview Lyn said that the last time he had shared a syringe was with Mary:

> *about twelve months ago ... we went to a friend's place for dinner. I'd had some drugs, and I was taking Mary some, which I took made up in a fit ... She went into the toilets at the friend's house ... and had hers. Then later on in the evening I decided I wanted some more, and so I only had that fit there, so I just flushed it with water and used it again.*

In response to a question about his HCV status, Lyn said he had probably got it because "My girlfriend was diagnosed this week." By the second interview, he too had been diagnosed with HCV.

Several people had shared with a friend, as Patrick had done. His is an example of the desperate circumstances which lead people to share:

> *I shared because I'd gone out and hassled round and got enough fuckin' picks, and even got an extra one and there was a lot of fuckin' round, and by the time ... you know, I was hanging out and hadn't had anything for two days. And we got back there and someone had walked off with the extra syringes. And I was just, "My God, fuck it" you know, "Give me some bleach."* [So who did you share with?]. *Um, a friend I hadn't seen for five years. She's been living (elsewhere), been using for ten years ... swears she's clean.* [So who went first?] *She did.*

Other researchers have also found that sharing injecting equipment is rarely random but is done with someone known to the respondent (for example, Barnard, 1993; Gossop et al, 1994; Loxley et al, 1995; Burt and Stimson, nd).

Some people I interviewed did not, however, know whose syringe they had used. Most of these people had done as Snork had done: "I fished them out of the [disposal] bin." Mulch had also taken a syringe out of a disposal bin:

> *I think it was about ... a month-and-a-half ago ... but - it wasn't sharing so much as ... umn ... as kind of like ... there's a box ... of used ones ... and umn ... just - you take one out and ... bleach it basically, so I don't know who I used with - who shared it - I shared with ... . but umn ... I - must have shared with someone.*

These respondents discussed the ease with which they were able to extract the syringes. It would be impossible to design a disposal bin that could not be opened. It is obvious that there needs to be greater access to injecting equipment. This could be achieved by providing vending machines.

I asked respondents about the frequency of cleaning needles before re-using them in the month prior to interview (Table 20, Appendix 20). Most had cleaned their syringes before re-using them. At the first interview, 8 of the 19 people who re-used did so with their own injecting equipment and, at the second interview, 13 of the 20 people re-used their own injecting equipment.

Most people who had re-used a needle had cleaned it with bleach every time (Table 21, Appendix 20). Alison was one who had not. At the first interview she was 17, still at school and living at home. She had used several non-injectable drugs before starting to inject amphetamine shortly prior to interview. At this time, Alison had never shared a needle but said she would even if she could not clean her equipment, if the sharing was "with my boyfriend, [or] with someone that I knew really well." At her second interview, Alison had injected the previous night and had shared a syringe with her boyfriend (a different boyfriend from the first interview) and cleaned the syringe only with water: "Never bleach, never had it there, or placed that much importance on it." Alison had never been tested for any bloodborne viruses.

Marshall Becker has argued that one of the problems of the health promotion movement is frequent reversals of advice (1993). This criticism is relevant to the health promotion message regarding the 2x2x2 method of cleaning. This involved flushing out the syringe twice with cold water, twice with good quality bleach and twice again with clean cold water. In 1988, Australia instituted a national education program to educate IDUs about this procedure if clean equipment was not available

(Wolk et al, 1990). Subsequent experiments by Shapsack and colleagues revealed that it takes 30 seconds or longer to inactivate HIV-1 by undiluted household bleach (1993). According to Wodak, evidence from the USA indicates that those who use bleach are just as likely to become infected as those who do not and he speculates that even if bleach was effective against HIV it is unlikely to be effective against HBC and HCV (1993a).

It is now advocated that if a syringe has to be used again, in an "emergency", it should be first rinsed several times in cold water then filled with fresh high strength bleach and shaken for at least 30 seconds. After repeating this procedure, the syringe should then be finally rinsed with clean water a few times until all the bleach has gone (McPartlan, 1996).

At the second round of interviews, I asked 66 current IDUs if they knew of this new method of cleaning. (In addition to excluding the 12 IDUs who said they had "stopped" injecting, I excluded the man who was HIV positive and who had never shared needles). Twenty three IDUs (34.8%) said they did, indicating only partial dissemination of the information at this time.

The incidence of needle sharing among the people I interviewed is lower than in samples studied earlier. The ANAIDUS findings show that a third of the 2482 IDUs interviewed during 1989 and 1990 had injected with previously used needles and syringes in the past day or week (1991). A later study also showed a higher frequency of sharing than I found. Thirty one per cent of the 1005 clients of NEPs surveyed by MacDonald and colleagues in 1995 reported using a syringe after someone else in the month prior to interview. Those who injected more frequently (defined as "once a day or more, or more than once a week") were significantly more likely to report sharing than those who injected once a week or less (1997:239). One of the differences between my samples and others is that mine included several infrequent injectors.

7.13.i: Accidental needle sharing

The reports of accidental needle sharing from several of the IDUs I interviewed are outlined below and they give some impression of the scenarios which place IDUs in danger of contracting bloodborne infections.

I first became aware of the possibility of accidental needle sharing when Des, one of the first respondents in the first round of interviews, said:

> *I'm in the window period at the moment because of what happened - I had a disaster and I actually used a syringe that I thought was mine - it had blood in it - there was a fifty per cent chance that it wasn't mine and fifty per cent chance that the person who I - could have - used it [with was] seropositive.*

(Des did not present for the second interview but I maintained contact with him for several months and his HIV result was negative.)

Des's comment led me to include the following question in the interview guide: "Have you ever been in a situation where you might have accidentally shared a fit?" Among all IDUs at the first interview (including those who did not present for the second interview), there were 9 definite reports of accidental needle sharing ever occurring. At the second interview, 10 people remembered instances when this occurred between interviews. I could only find two other reports of accidental needle sharing in the literature. McKeganey and Barnard document that "accidental or inadvertent" needle sharing occurred "as a result of confusion arising over the ownership of injection equipment" among some of the IDUs they interviewed in Glasgow (1993:36). Respondents interviewed by Burt and Stimson reported instances when "sharing had occurred without their knowledge" (nd:50). Because of these few reports I make some mention of the possible importance of accidental needle sharing here. (Because questions on accidental needle sharing were included during the piloting, there are 5 missing responses for the first interview.)

Kate-2 vividly described the scenario which had led to her picking up the wrong injecting equipment:

> *Um, well, in a group situation it's kind of hard if everybody has kind of ... everything's on the table sort of thing, and scattered around. I mean, it's a mess.*

Brian remembered a recent instance:

> *a very careless person left her fit near where I had just taken mine out of its plastic, I picked up the wrong one and used it. ... that was well over six months ago, I got an AIDS test as a consequence ... and I've since been informed that person is suffering from ... almost every infectious disease known to the human race.*

Patrick recalled two recent occasions at the first interview:

> *I know two occasions in the last year, once was two weeks ago, where I had a shot ... he had a shot ... I put my needle down in front of me. He said, "I'm going to do up the wash." He mixed up the wash and shot it and then said, "Hey, I just used your needle." "Oh, yeah, you did." ... and then there was another time, you know, nine months ago, where I'd marked my fuckin' pick, because we had a pick each, three of us, and I said, "Look, bastard, this is my syringe. Don't you use it." And he did.*

Julie was a very experienced and educated IDU. During my ethnographic work I had also alerted her to the possibility of accidental needle sharing. At the second interview she said that she might have accidentally shared a syringe with:

> *someone who was HIV-positive. His mother came into the room ... I didn't know whose [syringe] was whose. I went into the toilet to inject. I may have picked up the wrong fit, didn't cross my mind until after I'd hit up.*

Other people made statements such as Mishima's: "I think there's only once that it's been - like - 'Oh my God, whose is it?'" and Steve's:

> *Well, that has happened and it has been realised that it's happened, accidentally, yeah ... but you don't seem to think about ... where you're gonna put it in, 'cos the main thing on your mind is the drug itself.*

At the first interview, a further 18 people thought they might have accidentally shared needles at some time and at the second interview 3 people said this might have occurred between interviews. These people made comments such as: "Yeah, it's possible"; "Yeah ... just thinking of it now, fits everywhere [you'd] maybe pick up ... somebody else's rather than yours"; "maybe ... being a bit ... pissed, I've got mixed up."

I also asked IDUs: "Do you ever use a fit more than once when other people around you are also using?" Some IDUs said they only used alone and some insisted they never would re-use . If the response was "Yes", I then asked: "And how do you know which is your fit?" Sixty of all the IDUs interviewed at the first interview, and 33 at the second, made responses such as: "I just hang on to my fit" (by, for example, putting it in their pocket or handbag). Others used strategies such as marking their syringe with their initials, burning the end of the syringe or biting it. Marking syringes has also been reported among IDUs in the United Kingdom (McKeganey and Barnard, 1993; Burt and Stimson, nd).

I informed respondents that each syringe in brands distributed in the ACT is numbered on the hilt from 1-100 and that this might be another way of ensuring they were not using someone else's syringe. I also wrote a brief report of my findings from the first interview for the ACT IV League Newsletter (Appendix 21).

7.13.ii: Changes in treatment and drug use and effects on injecting behaviours

The reduction in the use of injectable drugs between interviews obviously led to a reduced frequency of injecting. Only Mishima said that a positive effect of his methadone treatment was that he was injecting less. One man and one woman who had commenced methadone treatment were injecting just methadone and Alexander, who had also commenced methadone treatment, had once injected a "cocktail" of methadone and amphetamine. Sinead and Snork (who entered treatment for the first time between interviews before taking themselves off the Program) said that methadone did not "satisfy the craving to inject."

7.13.iii: Injecting transitions

Only 11 people had transitions in modes of administering their drugs between interviews and for all 11 this involved injecting (one of these people had also changed from smoking cannabis to taking it by mouth). Some began injecting while others stopped. Annie had commenced occasional injections of non-prescribed methadone. Katie's amphetamine use had increased between interviews and she had also commenced IDU. One of the reasons she stopped again was because she was concerned about the "power stuff" involved with a male workmate injecting her.

Susie, Robin and Annabel had all occasionally used IV amphetamine at the first interview, and at the second they had used all it only once and had taken it intranasally. Susie was trying to reduce her frequency of use and Robin and Annabel had "stopped" injecting. Annabel said: "It's a hassle when you're out to find somewhere to inject and have to go and get a clean fit." James-2 had reduced his amphetamine use because he felt "really bad coming down" and now usually "snorted" it because he was "trying not to inject." Amelia had stopped injecting codeine at the second interview. Since re-entering methadone treatment, she was, however, one of the people who was injecting methadone. Drew-2 occasionally used "trips" at both interviews. He had injected them once in the 12 months prior to the first interview but now only took them by mouth: "It's a waste of a trip to inject it."

Emma had recently started occasional IV cocaine use at the first interview. At the second interview she had taken it only once and had taken it intranasally because "that's what the others were doing ... I prefer to IV it." She had also injected "trips" for the first time because "I just wanted to try it IV", and Snork had done the same because "I never heard of it before, and someone else was planning to do it that way, so I thought I'd just try it." Alison had previously taken ecstasy only once, by mouth. At the second interview she was having "binges" on it and had occasionally taken it IV:

The first time I really injected a small amount, but it made me really off and I discovered that taking them by mouth is better ... Shooting was really scary ... the hit was such a different thing and you're not ready for it. I took it, and I knew that wasn't normal, and I fought to stay awake. Taking it by mouth just gets rid of that awful first bit.

My findings on risky needle use behaviours are in keeping with research from several countries which have demonstrated that IDUs have made substantial risk behaviour changes in response to the threat of HIV (Stimson, 1992; WHO Collaborative Study Group, 1993). The following section summarises the risky behaviours that were still occurring in the people I interviewed.

7.13.iv: Discussion of needle use behaviours.

Most people I interviewed did not share syringes and most who had remembered specific and rare instances when this had occurred. They then usually followed the harm minimisation message of the time by cleaning their injecting equipment with bleach. Any reports of needle sharing, are, however, of concern; of particular concern were the instances of people using syringes taken from a disposal bin and the reports of accidental needle sharing. It is obvious that the battle to encourage IDUs always to use new injecting equipment has not yet been won. More IDUs need to be aware of the possibility of accidental needle sharing. Some IDUs do re-use their injecting equipment and they need to be educated to always have plenty of equipment available so they do not have to re-use. They should also be educated not to rely on the efficacy of bleach.

7.14: Sexual behaviours

I begin this section on sexual behaviours with an overview of the sexual orientation of the people I interviewed. The results which follow are largely gleaned from the OTI questions on sexual risk behaviours. These are part of the HRBS and there is a possible total score of 25 for these questions (0 equals best and 25 equals worst) (Appendix 10:382-383). Some gender differences were found and these are highlighted in the discussion.

At the first interview, 6 women identified themselves as bisexual, one man as gay and 2 men as bisexual. The only change between interviews was that one young woman who described herself as heterosexual at the first interview now identified as bisexual. When discussing protected sex with respondents, I contextualised it, mainly referring to the use of condoms. In the few instances where it was appropriate, I referred to dental dams[1].

[1] Dental dams, also called "lollyes", were originally developed for use during dental work. They are small latex sheets which may be used to cover the genito-anal area during oral and digital sex.

There was a median sexual risk behaviour score of 3 (range 0-13, interquartile range 0-6) at the first interview. At the second interview it had increased to 4 (range 0-12, interquartile range 2-6). In order to investigate which particular behaviours had contributed to this increase I went on to separately analyse the individual questions in this domain.

Much of the increase was due to more people being sexually active. At the second interview, 9 more people had a sexual partner than at the first (Table 22, Appendix 20). In the month prior to their interviews, identical proportions of heroin users and non-heroin users reported they had sex with other people. The WHO Collaborative Study Group findings also challenge the stereotypically held view that drug users who take depressants (such as opioids) are less sexually active than other people, since their respondents "were at least as sexually active as their peers in the general population of Great Britain and Northern Ireland" (1993:30).

Following a review of the available literature, the US Department of Health and Human Services concludes that " ... latex condoms are highly effective for preventing HIV infection and other STDs when used consistently and correctly" (1993:590). In the month prior to both interviews, very few people of the people I interviewed used a condom every time they had sex with a regular partner. (Table 23, Appendix 20). At the second interview, more people reported having a regular partner, and more reported never using a condom. There was an increase in women's median sexual risk score from 1 at the first interview to 3 at the second (Z -3.502, $p < 0.001$). The increase in the number of people who did not use a condom during the month prior to the second interview is associated with more people being sexually active. This is compatible with the findings (reported in Chapter 6) that more people were in a relationship at this time, and that more women than men had entered into new relationships. At the second interview, 39.5 per cent of women (n=15) compared to 22 per cent of men (n=13) never used condoms with their regular sexual partners (Z -2.705, $p < 0.01$). These women were, therefore, more at risk from their sexual behaviours than the men. Though the proportion of women not using condoms had significantly increased between interviews, significantly fewer women had an HIV test between interviews (reported in Section 7.6.i) because of risky sexual behaviours.

The Oswaldians (Table 24, Appendix 20) tended to use condoms less frequently at the second interview than at the first (Z -2.892, $p < 0.005$).

Eighteen people at the first interview and 17 at the second had sex with a casual partner in the month prior to interview (Table 25, Appendix 20). Only 8 people at the

first interview, and 10 at the second, used condoms all the time with these partners. Few people reported anal sex in the month prior to either interview (Table 26, Appendix 20).

7.14.i: Discussion of sexual behaviours

Several previous studies have shown that unprotected sex remains common among drug users (for example, Darke et al, 1990; ANAIDUS, 1991; Liebman et al, 1992; Howard, 1993b; McKeganey and Barnard, 1993; WHO Collaborative Study Group, 1993; Loxley et al, 1995; Rhodes and Quirk, 1995; Dinwiddie et al, 1996; Quirk and Rhodes, 1996). According to Rhodes and colleagues, most studies of IDUs show levels of condom use to be comparable to the general heterosexual population (1996). Quirk and Rhodes maintain that unprotected sex is still generally seen to be *"normal heterosexual behaviour"* (italics original) especially in long term relationships. These authors' findings also shed some light on why condoms are not used among IDUs. Half their sample of a 1988 survey of 325 "street" IDUs believed that condoms are not completely effective and therefore not worth using (1996:227). Barnard and Frisher also investigated condom use among IDUs. Their respondents saw condoms as a temporary measure associated with one-off sexual encounters, rather than with stable long term relationships (1995).

The number of women infected with HIV through heterosexual intercourse in most Western countries is much greater than the number of men so infected (Gold et al, 1989; Henderson, 1990; Booth and Watters, 1992; Richters, 1993). This may, in part, be attributed to anatomical features, since women's genitalia are more likely than men's to be abraded during heterosexual intercourse. In addition, there are much larger concentrations of HIV in semen than in vaginal and cervical secretions (Segal, 1987). Data from the USA show a much larger proportion of women than men who have contracted HIV via sex with an IDU (WHO and CDC, 1991). There are also important social structural factors to consider. In its White Paper on HIV/AIDS, the CDCSH recognised that there are specific issues affecting women, such as the gender power differential and social stereotyping that impede negotiations for safer sex and safer drug taking (1989).

The low incidence of condom use among the women I interviewed is, therefore, of particular concern. Not only are they at risk of sexually acquiring HIV, they are at risk of other STDs, some of which, if untreated, may lead to infertility; and, if no other contraception is used, women also carry the burden of unplanned pregnancies. Wyn reports a low level of knowledge about STDs and their ramifications as well as poor knowledge about safer sex practices among the 95 young women she surveyed in Melbourne (1994). A society which generally allocates responsibility for

contraception to women, yet labels them if they are seen as being sexually available (in this context, by carrying condoms) places them in a difficult position (McKeganey and Barnard, 1993; Abbott, nd). A woman may resolve this difficulty by using the less obvious contraceptive pill, thus obeying the first part of society's dictum. This contraceptive pill may prevent her from conceiving, and also help protect her from society's approbation, but it will not protect her from HIV and other STDs.

7.15: Commercial sex

The proportion of people who were either paid for sex, or who had paid for sex, was low in my sample. The OTI sexual risk score included a question on condom use for respondents who had been paid for sex in the preceding month. At the first interview, no one had been paid for sex during this timespan, and at the second two women had. Both had always used condoms. The interview guide I developed also included questions, which covered a longer timespan, on whether people had either paid for sex or been paid for sex. Four women (10.5%) had been paid for sex during the 12 months prior to the first interview. One woman had worked legally, and three illegally, as prostitutes. One man described 4 of his sexual partners as people who "pay me regularly with drugs", but at the second interview he did not describe any sexual partners in this way. All 5 of these people were current IDUs (6.6% of current IDUs, 5.2% of the total sample).

Three of these women did not do any sex work between interviews. Another had returned to sex work and another had commenced sex work. Between interviews, one young man had once been coerced into performing oral sex on an older man for money.

In the ANAIDUS research, 8.4 per cent of men and 15.0 per cent of women reported that "these days" they were paid for sex (including "not only money, but "food, drugs or shelter etc") (1991:77). Other researchers have also noted that female IDUs are more likely to be involved in sex work than males (for example, Gossop et al, 1993; Booth et al, 1995).

Six of the men I interviewed (7.5%) had been sex industry clients in the 12 months prior to the first interview. Another man had paid for sex once between interviews. The ANAIDUS survey found that 11.7 per cent of male respondents and 2.7 per cent of female respondents had paid for sex (including payments other than money) (1991).

Both the ANAIDUS study and my study were looking at recent involvement in sex work. Some overseas studies have shown rather higher rates of ever being paid for

sex. Drucker, for example, reports that 50 per cent of women IDUs in New York have at some time been paid for sex (1986).

7.16: Genital health

Before concluding the chapter, I present a brief discussion on the genital health of the people I interviewed. The OTI health domain has 4 questions about genitourinary symptoms experienced by women or men in the month prior to interview (Appendix 10:391). There were an additional two questions for women, related to a history of irregular periods and miscarriages "in the last few months" (Appendix 10:391). The questionnaire I developed included questions on STDs. Both questionnaires yielded information on genital health revealing fairly high numbers of people experiencing some problems.

At the first interview, 26 people (27.4%) had experienced a loss of libido and 21 (22.1%) reported this problem at the second interview (Table 27, Appendix 20). The gender proportions were similar at both interviews. Only small numbers of people had recently experienced any other genitourinary problems.

There is an elevated risk of gynaecological problems for women who use drugs (Mondanoro, 1987), including women in methadone treatment (Rosenbaum and Murphy, 1987). At the first interview, more than half the women (n=20, 54.1%) said they had irregular periods and two (5.4%) had experienced a miscarriage. There was no improvement at the second interview when 18 women (48.6%) reported irregular periods and three women (8.1%) had experienced a miscarriage.

STDs are commonly reported by IDUs (Morlet et al, 1990; Trapido et al, 1990; Ross et al, 1991; Chetwynd et al, 1993; Ross et al, 1993c). If untreated, the ramifications of STDs and genital erosions are damaging enough, but they are also important cofactors in the transmission of HIV (Sparling and Aral, 1991). Twenty two of the people (22.7%) I interviewed believed they had contracted an STD during the 12 months prior to the first interview (15 women, 39.5 per cent; 7 men, 11.9%). At the second interview, 13 people (13.4%) believed they had contracted an STD since the previous interview, (3 men, 5.1%; 10 women, 26.3%). There are, however, reasons to question some of these self reports (see Table 28 in Appendix 20). As a consequence, it is not possible to give a definitive picture of the prevalence of STDs among the people I interviewed. If all questionable reports are discarded, there may have been as few as 6 people (6.2%) who had contracted an STD in the 12 months prior to the first interview and as few as 5 (5.2%) between interviews.

Other Australian researchers have noted that self reports of STDs "must be interpreted cautiously" (Ross et al, 1991:34). Following a later study, however, Ross, Wodak, and Gold reported that their analyses suggest that "Self reports of STDs in IDUs are likely to be relatively reliable" (1993c:148). My experience suggests that self reports of STDs do require careful interpretation[1].

Making comparisons between the reports of STDs in my sample and the national population also posed difficulties since the collection of data on many STDs is not standardised in Australia (Garland et al, 1993; Hargreaves et al, 1995).

Eight women (21.0%) reported an abnormal Pap smear during the 12 months prior to the first interview. Three of these abnormal results resulted in the women needing laser treatment. At the first interview, I asked women only if they had an abnormal Pap smear but at the second interview I also asked if they had had a Pap smear taken. Between interviews, a majority of 31 women (81.6%) had a Pap smear. This is a much higher proportion than in the general ACT population for the financial year 1989-90, when just 44 per cent had the test (Kavanagh, 1994). In addition, as Kavanagh points out, this was a time when the ACT was running a Pap smear campaign which may have led to a higher than usual number of women being tested. Looking only at the age bracket for those ACT women whose ages paralleled those of the women in my sample (17-35) who had a Pap smear, the percentage was somewhat lower for women aged 15-24 (33.%) but higher for those aged 25-34 (54.1%) (Kavanagh, 1994). Some of the women in my sample may have had their Pap smears taken outside of the ACT, but since ACT Pap smear rates appear to be slightly higher than in other States and Territories in Australia (Kavanagh, 1994), this should not influence the finding that the rate of Pap smears among the women in my sample is higher than that in the general population of women.

Most of the women in my sample who had Pap smears between interviews said they were normal, but 8 reported abnormal findings and 3 had also had abnormal results at the first interview. One had required laser treatment, as well as a biopsy and a cone biopsy, between interviews. The other women were advised by their physician to have a repeat test.

According to Shah, "most studies have shown that the Human Papilloma Virus (HPV) is recovered from a majority but not all cases of cervical cancer." Shah goes on to point out that only a small number of women diagnosed with HPV go on to develop invasive carcinoma of the cervix (1992). Three women at the first interview and one

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[1] I am grateful to Dr David Plummer (a venereologist) for checking these self reports of STDs and indicating which were questionable.

at the second named HPV as the causative organism for their abnormal result. Although this virus is known to be a common cause of abnormal cervical cells (Franco, 1992), there are other organisms which may also lead to cervicitis (NHMRC, 1990). There may also be idiosyncratic causes such as that reported by one woman I interviewed who was told her abnormal Pap smear was due to an "hormonal cyst." An "Abnormal Pap smear" is not, therefore, necessarily a diagnosis of HPV.

Despite these qualifications, the incidence of abnormal Pap smears in such a young cohort of women is of concern. As reported in Section 7.14, many women were not practising safe sex. The abnormal Pap smears may also be linked with the high prevalence of tobacco smoking. Many women had been concerned enough about their genital health to have a Pap smear. Health professionals in contact with women at this time might feel it useful to build on this existing concern and spend some time discussing the need to use condoms and strategies of negotiating safe sex.

7.17: Conclusion

Australia has been very successful in preventing an epidemic of HIV among IDUs. As Wodak noted as early as 1990, a major problem of such success, for both IDUs and policymakers, is complacency. We have now reached the situation where both HBV and HCV have become serious public health problems in the IDU community. Future education programs aimed at people who use illegal drugs in particular, and also the wider community, should incorporate the complete armoury of potential hazards of unsafe behaviours. Generally, the potential consequences of HBV and HCV and STDs such as chlamydia and HPV are poorly understood. Educating everyone about these consequences and, therefore, the need to protect themselves against the transmission of such diseases, as well as the transmission of HIV and unplanned pregnancies, may help overcome future problems of complacency.

Several other commentators (for example, Dorus et al, 1991; Wodak, 1993b; Power, 1994; Crofts and Herkt, 1995) have emphasised the importance of education and the ways in which peer groups have been involved in disseminating the information. In order to continue these initiatives, it is essential that peer groups be provided with sufficient funding to continue their work.

CHAPTER 8: CRIMINAL BEHAVIOURS

8.1: Introduction

In contrast to at least 4000 years of people using drugs, legal restrictions have occurred relatively recently, largely during this century (Whitlock, 1975; Carney, 1987). Since these restrictions have been in place, it has been documented clearly from research both overseas (for example, Shaffer et al, 1985; Faupel and Klockars, 1987; Hammersley and Morrison, 1987; Inciardi et al, 1993), and from Australia (for example, Wardlaw, 1978; Lee et al, 1988; Dobinson and Poletti), that a link exists between illegal drug use and other criminal activities. As Wardlaw notes, the problem with many of these studies is that they were based on people who were either in treatment for their drug use, or already incarcerated for their criminal behaviours (1983). Some researchers have found that the people they studied who use illegal drugs were either only marginally involved in other crime. For example, in a study conducted of 223 people who use illegal drugs in an "open drug scene" in Zurich, Fuchs and Grob found that 66 per cent of these people were not involved in any type of other criminal behaviour (1995). Likewise, Zinberg and Jacobson found that none of the "controlled" heroin users they studied were involved with other illegal activities (1976).

The purpose of this chapter is to describe the criminal histories of the people I interviewed and to see how they compared with these other studies. Initially, I had set out to access as many people as possible without a prior history of treatment or imprisonment. To assess if I had been successful, I wanted to examine the criminal careers of the people I interviewed and then ascertain whether any changes occurred between interviews. In addition, when I conducted the 1989 interviews for my Honours Thesis (Dance, 1989), I found that the Oswaldians had a history of non-drug as well as drug-related criminal activity. Both drug and non-drug crime had resulted in a very low penalty rate and I wanted to investigate what happened with the Oswaldians' criminal behaviours over time and see how they compared with other Canberra-based people who use illegal drugs. I also wanted to assess the stereotypically held view that people who use illegal drugs are dangerous and violent.

I begin this penultimate chapter by presenting a brief description of the data collection on criminal behaviours (when I use the terms "crime/criminal behaviours/activities" this means in addition to the crime of using illegal drugs). I then give an overview of the total number of crimes ever committed before discussing individual crimes. I deal briefly with the findings for apprehensions for particular crimes in their relevant sections. At the end of the criminal histories, I also summarise all the findings on apprehensions according to their outcomes. When asking people about their sources

of income, I also asked about illegal income; and I present a brief description of this income before going on to discuss the relationship between criminal behaviours and changes in treatment and drug use.

8.2: Data collection on criminal behaviours

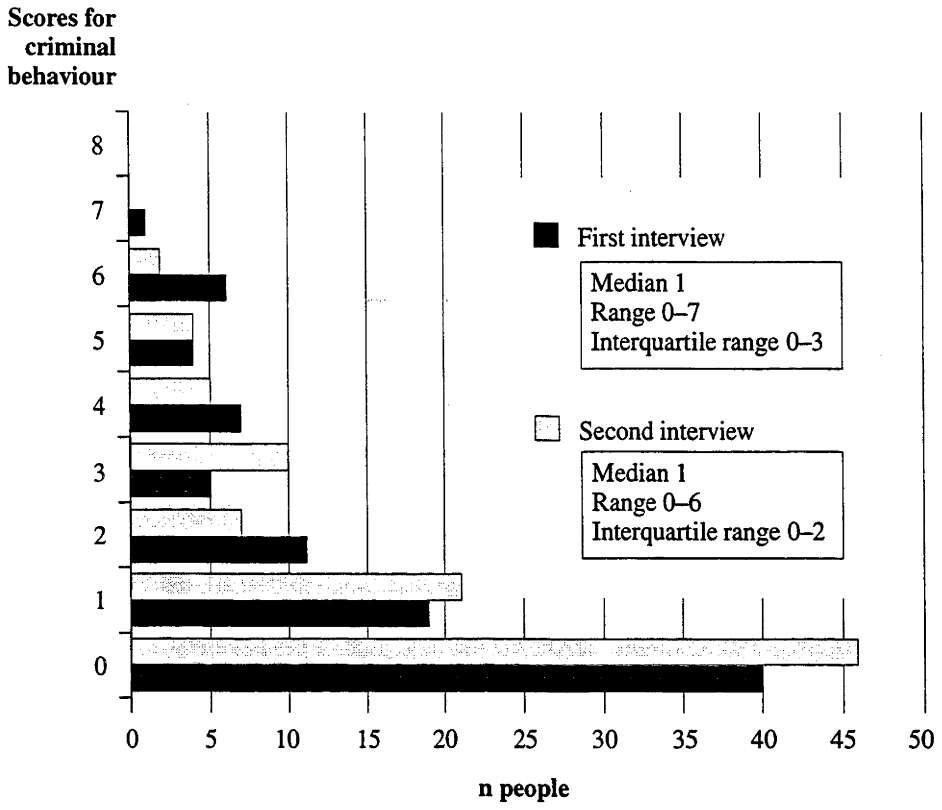
The results for crimes committed in the month prior to interview were obtained from the Criminal Domain in the OTI which contains questions related to property crimes, drug dealing, fraud and crimes involving violence (Appendix 10:387-389). There is a possible range of scores from 0 (best) to 16 (worst). The OTI does not seek to find the raw number of crimes committed but seeks to ascertain a coded frequency and then a total score is obtained for criminal behaviours. These findings are augmented by a fuller history gleaned from the questionnaire I developed. This contained questions on crimes ever committed and current criminal behaviours. I also asked participants if they had ever been apprehended and, if so, what the outcome was. I did not request qualitative data on criminal activities, but a few people volunteered some information and their quotes are interspersed with the quantitative findings.

When asking about drug dealing at the first interview, I asked respondents how many days they had dealt drugs in the previous 12 months and, if they replied "every day", I recorded this as 365. At the second interview, I asked how many days drugs had been dealt between interviews and, if there was a response of "every day", I calculated how many days there had been between interviews and recorded this number. For all other crimes committed, I asked for a raw number. When asked about crimes ever committed, some people said they had perpetrated a particular crime a thousand or more times and I recorded this as ≥1 000. Some of the numbers are, therefore, fairly rough approximations of the numbers of crimes committed. They do, however, give some indication of the criminal behaviours of the people I interviewed.

8.3: OTI score and summary of all criminal behaviours

There was a low median OTI score of 1 at both interviews (Figure 8.1). These medians are the same as the mean of 1 which Darke and colleagues found among the opioid users they interviewed during the development of the OTI (1991a).

Figure 8.1: Distribution of OTI scores for criminal behaviours at first and second interview



I looked separately at the IDUs I interviewed and found they also had a median score of 1 at both interviews with very little deviation in the ranges (0-7 at the first interview and 0-6 at the second interview) and interquartile ranges (0-2.8 at the first interview and 0-2 at the second interview).

Most people had an OTI level of dysfunction score considered to be low or below average in the month prior to both interviews (Table 1, Appendix 22). At the first interview, 38 people (41.8%) had committed no crime in the month prior to interview. Twenty (21.9%) had a high OTI level of dysfunction. At the second interview the number of people who had committed no crime had increased to 45 (49.5%). The number of people with a high score had decreased to 11 (12.1%).

Nearly everyone had, at some time, perpetrated some criminal act (at the first interview n=85, 93.4%, at the second interview n=88, 96.7%) (Table 2, Appendix 22). A median number of 200 other crimes had ever been committed at the first interview. This had increased to 300 by the time of the second interview. In the 12 months before the first interview, 71 people (78.0%) had been involved in crime and a median number of 50 crimes had been perpetrated. Eight fewer people had committed a crime during the period between interviews. This timespan was generally longer (median

18.3 months, range 11-21 months) than the 12 month timespan for which data were collected at the first interview. In addition, a lower median of 38 crimes had been committed between interviews than in the 12 months before the first interview.

8.4: Drug-related crimes

In this section on drug-related crime, I also briefly mention the number of people who had been apprehended for using illegal drugs. Apart from asking about prescription pad fraud in the month prior to interview (as part of the OTI), I did not specifically ask people about other offences related to drug use. Some people did, however, offer information about alcohol-related and miscellaneous drug crimes. Several people who mentioned these crimes had been apprehended. They would probably have had a more vivid recall of their offences than people who had not. I, therefore, only briefly describe them since they are almost certainly underestimations.

8.4.i: Illegal drug dealing

At the first interview, most people (n=70, 76.9%) had ever dealt illegal drugs. (Table 3, Appendix 22). (This includes a few people who had dealt prescription drugs in the month prior to interview but for the sake of convenience I use the term "illegal drugs" rather than "dealing drugs illegally.") Four people had sold illegal drugs for the first time by the second interview, when there were then 74 people who had ever dealt (81.3%). At the first interview, there was a median number of at least 100 days of ever selling illegal drugs. This number had increased to 200 by the second interview.

Fewer people had sold illegal drugs between interviews (n=42, 46.2%) than in the 12 months preceding the first interview (n=55, 60.4%). At both interviews, there were a median of 50 days when people had perpetrated this crime. The majority of respondents had not dealt in the month prior to either interview, and most who had, did so on a less than daily basis.

The OTI contained questions on types of illegal drugs sold during the month prior to interview (Table 4, Appendix 22). At the first interview, heroin was the drug most commonly sold during this timespan (n=20, 22.0%). In the month prior to the second interview, 20 people had sold marijuana and 6 fewer people had sold heroin. At both interviews, only a few people had sold any other illegal drugs.

Among the people they interviewed receiving opioid treatment, Anglin and colleagues found that more men than women had dealt drugs (1987b). My study found a similar gender difference. Twenty five women (69.4%) and 45 men (81.8%) had ever dealt drugs at the first interview. Between interviews, 2 men and 2 women had dealt for the first time resulting in a similar gender differential at the second interview (75% of

women and 85.5% of men) but these differences were not significant. The gender differential for more recent dealing was similar. In the 12 months prior to the first interview 20 women (55.6%) and 35 men (64.8%) had dealt drugs. Between interviews 14 women (38.9%) and 28 men (50.9%) had dealt drugs. There were also no significant gender differences either in the frequency of dealing, or in the types of drugs dealt during the month prior to either interview.

Ten people at the first interview (14.3% of those who had ever dealt) had a history of being apprehended for dealing drugs illegally and 12 people (12.5% of the total sample) had ever been apprehended for illegal drug use. Four apprehensions had resulted in a period of incarceration. Between interviews, two people had once been apprehended for dealing illegal drugs.

8.4.ii: Other drug-related offences

Twelve people at the first interview and 15 at the second said they had ever engaged in an alcohol-related offence (Table 5, Appendix 22; the figures in Table 5 total more than 12 and 15 respectively, because some people committed more than one alcohol-related offence). Most crimes remembered were driving under the influence (DUI) of alcohol: 7 people at the first interview, and 2 different people between interviews had been apprehended for this offence. Trevor and Rafe, two core-Oswaldians, had each been placed in a police cell for a short period of time for being drunk and disorderly. Most of the other people who recalled other alcohol-related offences had also been apprehended.

A few people mentioned miscellaneous drug crimes, mostly related to marijuana, or prescription pad crimes (such as theft or forgery) (Table 6, Appendix 22). As with alcohol-related offences, many of the other people who remembered these crimes had also been apprehended.

8.5: Property crime

Most people had a history of perpetrating property crime (n=69, 72.6% at the first interview; n=71, 74.7% at the second interview) (Table 7, Appendix 22). The median number of property crimes ever committed at the first interview was 20. This slightly increased to 22 with the passing of time between interviews. Fewer people had committed a property crime between interviews (n=31, 32.6%) than in the 12 months prior to the first interview (n=45, 47.4%). A median number of 10 crimes was committed both in the 12 months leading up to the first interview and during the period between interviews.

James-2, who had committed 12 property crimes during the 12 months prior to the first interview, but none between interviews, offered some insight into why he had stopped: "When you've got your own place you realise people have worked hard for their TV. And I didn't want to go to prison."

8.5.i: Shop stealing

Most people who had been involved in property crime had stolen from shops. At the first interview, 51 people (54.3%) reported ever committing this crime and by the second interview this number had increased to 56 (59.6%) (Table 8, Appendix 22). Fourteen fewer people had stolen from shops between interviews than in the 12 months preceding the first interview. This explains much of the reduced overall incidence of property crime at the second interview. Only Theresa commented on why she stole from shops when she said "My children wouldn't have clothes otherwise."

Fifteen people at the first interview had ever been apprehended for stealing from shops and another two people were apprehended between interviews. These charges were all dealt with leniently.

8.5.ii: Breaking, entering and stealing

At both interviews, 19 people (20.2%) had ever been involved with breaking, entering and stealing (BES) and they had committed 1-12 of these crimes (Table 9, Appendix 22). In the 12 months prior to the first interview, 5 people, 3 of whom had been involved with BES during the month prior to interview, had committed between 1 to 3 of these crimes. In the period between interviews, no one had done any BES.

8.5.iii: Robbery

Fifteen people (16.6%) at the first interview and 18 (19.1%) at the second had ever committed an act of robbery (Table 9, Appendix 22). Most had committed 1-50 of these offences. Eight people (8.5%) had robbed in the 12 months prior to the first interview and 3 (4.2%) had robbed in the period between interviews.

8.5.iv: Receiving stolen goods

At the first interview, 17 people (18.1%) had a history of receiving stolen goods (Table 9, Appendix 22). The number had increased to 19 (20.2%) by the time of the second interview. At both interviews, most people gave a history of receiving stolen goods on 10 or less occasions. Nine people had received stolen goods in the 12 months leading up to the first interview. In the period between interviews, the only people who had received stolen goods were the two people who had never done so before.

Eight people at the first interview gave a history of being apprehended for these property crimes (other than stealing from shops) and the sentences ranged from fines to police warnings. No one was apprehended for these crimes between interviews.

8.6: Fraud

The discussion on fraud is brief because I am not confident of the numbers of people involved for types of fraud. This is a fault of my data collection since with 4 people at the first interview, and 7 at the second, I documented only "fraud" rather than the type perpetrated. At the first interview, a minority of 29 people (30.5%) had ever engaged in an act of fraud (Table 10, Appendix 22). By the second interview, 8 people had been involved in fraud for the first time. At both interviews, most people had a history of committing 10 or less frauds. Both in the 12 months preceding the first interview, and in the period between interviews, 19 people (20.0%) had perpetrated an act of fraud. The fraud most frequently reported was Social Security fraud. Twelve people at the first interview (11 of them in the 12 months prior to interview), and 14 at the second, said they had ever committed this type of fraud (Table 11, Appendix 22). The numbers are smaller at the second interview but this may be a fault of my data collection. Three people had ever been apprehended for fraud at the time of the first interview. Another 3 were apprehended between interviews. Everyone had received minor penalties.

8.7: Assaults

Only 8 people (8.4%) (all of whom were men) had a history of committing an assault (Table 12, Appendix 22). At the first interview, 2 men said they had ever committed a "violent crime" and at the second 2 men said they had assaulted someone between interviews. I chose not to pursue what type of violence this involved. At the first interview, another man had been involved in fights, and one had assaulted police at a demonstration. At the second interview, Daryl, who did not want to talk about his history of violent crime at the first interview (and whose history is not included in Table 12) said that he had been involved in "two way domestic violence about 20 times" between interviews. Because he had "been up all night speeding" at the second interview, Daryl was extremely garrulous. This may have led him to be more forthcoming about the assaults he had perpetrated.

Two men, both in the period before the first interview, had been apprehended for assault. One man had been imprisoned and the other man had received a good behaviour bond. It is possible that the numbers of reported assaults is small because people did not wish to talk about such events. I also confess to feeling rather uneasy about asking people, particularly men, about violent crimes when I was alone with them, often in a secluded place late at night. Many of the drugs used by the people I

interviewed, such as opioids and cannabis, have tranquillising properties and research on drugs and violence suggests that there is no pharmacological reason for such drugs to precipitate violence (National Committee on Violence, 1990). Alcohol (Brady, 1983; Miller, 1990; National Committee on Violence, 1990; Homel et al, 1992), amphetamine (Wardlaw, 1978; National Committee on Violence, 1990; Hall and Hando, 1994), volatile substances (National Committee on Violence, 1990) and, particularly in the USA, cocaine (Brody, 1990) and "crack" cocaine (De La Rosa et al, 1990) are, however, known to stimulate acts of violence.

Little has changed since 1978 when Wardlaw wrote: "Reports frequently appear in the media suggesting that drug users are responsible for many crimes of violence." He went on to point out that this belief is not supported by most studies. It is probable, therefore, that the low incidence of assault reported among the people I interviewed is a reality rather than due to them not wishing to disclose this type of crime.

8.8: Miscellaneous crimes

A variety of miscellaneous crimes were reported (Table 13, Appendix 22). Other than requests for information about sex work, I gave no prompts for these crimes. No more than 5 people said they had committed any of these acts. It is probable that this is an under-estimation of the number of people involved. As with the miscellaneous drug crimes listed above, these offences were most often remembered by people who had been apprehended for them. Six people at the first interview and one person between interviews had such a history. Most crimes were dealt with leniently but the traffic offence committed by James-3, who was driving an unregistered car, and who said he was also "really wasted" (that is, on drugs and therefore guilty of dangerous or culpable driving), had resulted in a two day period of detention in a police cell.

8.9: Apprehensions for illegal activities

At the first interview, 46 people (48.9%) had ever been apprehended for illegal activities (Table 14, Appendix 22). Twelve people (12.8%) were apprehended between interviews, 6 for the first time. This is a lower proportion than found in the ACT DIP where in the quarter from July to September 1988, for example, 71.2 per cent of the drug treatment and welfare clients had a prior criminal record. It is, however, a higher proportion than the drug arrestees surveyed in the ACT DIP study where 39.7 per cent had a prior criminal record (Lee et al, 1988).

A greater proportion of men (63.2%, n=36) than women (43.2%, n=16) I interviewed had ever been apprehended by the second interview. Although this difference was not significant, I make some comment in the light of the fact that women had committed similar numbers of crime (median 300, range 3-≥1 000, interquartile range 71.8-≥-.

737.5) to men (median 280, range 1-≥1 000, interquartile range 69-≥1 000). Other Australian research has found a similar discrepancy in arrest rates (Stevens and Wardlaw, 1994). Stevens and Wardlaw go on to discuss possible reasons for this discrepancy including the "chivalry hypothesis." According to this hypothesis, law enforcement officers are reluctant to report and punish women for their crimes (1994:34). As Stevens and Wardlaw go on to point out, this does not work in favour of all women since:

> *Punishment for women is influenced by the behaviour and characteristics of the woman and by the type of misdemeanour or crime. Women who conform to a supposedly feminine stereotype (quiet, cooperative, respectable) are less likely to be charged and punished than women who are loud argumentative, aggressive and violate the standards of 'good' womanhood (1994:35).*

It is possible that the "chivalry hypothesis" may account for the gender differential in the apprehension rates of the people I interviewed but this issue requires further investigation.

Of the 52 people ever apprehended by the time of the second interview, 23 were Oswaldians (57.5% of Oswaldians) and 29 were non-Oswaldians (50.9%). Among the core-Oswaldians, 53.8 per cent (n=14) had been apprehended compared to 53.5% of the Remainder subset (n=38) (definitions of the subsets are included in Table 2 in Appendix 4). Most people who had been apprehended had received minor sentences (Table 15, Appendix 22).

Of major concern is the evidence from other researchers that many IDUs continue to inject in prison and since they do not have access to clean injecting equipment, this environment provides optimal circumstances for the spread of BBVs (for example, Douglas, 1990; Dwyer, 1990; Gaughwin, 1990; Crofts et al, 1995).

Only 9 participants in my study had a history of imprisonment: 8 men and one woman[1] (Table 16, Appendix 22), and this may explain their relatively low rate of HBV and HCV relative to other studies. In addition, most people had been incarcerated for only a short period of time. Six men been incarcerated for 10 days or less. Apart from acknowledging that he had been in prison five times, once for 6 months for a "violent crime", one man did not want to give further details of his

[1] It is possible that the man who chose not to discuss his history of violent crime at the first interview had been imprisoned but, given his professional career at the time, I consider this to be unlikely. There were also 6 missing values (due to inadequate information about whether or not these people had ever been apprehended) and it is possible that some of these people had been imprisoned. Given the outcomes for the other apprehensions for the offences these people had committed (3 illegal drug use, 2 shop stealing, one BES), I also think this is improbable.

incarceration. Six people with a history of incarceration were current IDUs. Four had also spent some time in drug treatment. The woman was one of 4 core-Oswaldians who had been incarcerated. She had been remanded in custody and was obviously embarrassed and concerned about this remand, especially since her partner was still in prison, and she was in the middle of a three year suspended jail sentence. I did not press her for further details.

Only one person had sex with another person whilst imprisoned and they did not have access to condoms. This person was also the only respondent to have injected whilst in prison. No needle sharing had occurred[1].

No one who was reinterviewed had been imprisoned between interviews. It is possible, but not, I believe likely, that the woman who did not want to talk about her criminal history at the second interview had been imprisoned. For some people the reason for non-attendance at the second interview may have been that they were in prison. Only 5 of these people had a history of incarceration. A further 2 were facing charges. I followed the local press but can not confirm that these people, or any of the other people who did not present for the second interview, had been imprisoned. Given the few people who did have such a history, and also given their significantly younger age (in comparison to those who did go on to present for the second interview), it is unlikely that imprisonment offers much of the explanation for the attrition rate at the second interview.

Only 10 per cent of the 80 people who had ever injected at the first interview had a history of incarceration. Other Australian research has shown that between 35.6 to 55.9 per cent of IDUs have a history of incarceration (ANAIDUS, 1991; Dyer et al, 1992; Loxley et al, 1995; Dobinson and Poletti, nd). Crofts and colleagues found that in a 12 month period during 1991-1992, 46 per cent of 3627 prison entrants in Victoria (Australia) had a history of IDU (1995). According to Wodak and Des Jarlais, such high proportions are not restricted to Australia. They believe that "Almost 50 per cent of IDUs in most countries are likely to have spent some time in prison" (1993:48). In an analysis of the ANAIDUS data which examined differences between IDUs never in treatment, presently in treatment and previously in treatment, Ross and colleagues found that those who were never in treatment were less likely to have been imprisoned (1993b). There were several IDUs in my sample without a treatment history and this may explain their low incidence of incarceration.

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[1] Another 2 people who were interviewed only once had also used needles in prison. One woman, who knew she was HIV-positive at that time, had shared a needle with 15 other women and she said "I got bleach from a friendly nurse."

8.10: Illegal income

Previous research has demonstrated a link between the use of illegal drugs and illegally acquired income (Nurco et al, 1981b; Collins et al, 1985). Comparatively few people at either interview said they had obtained money though illegal means. Twenty nine people (29.8%) said they had obtained illegal incomes in the 12 months prior to the first interview (Table 17, Appendix 22). Twenty seven were willing to give details of the sources and amounts of this income. The median illegal income was only $2000. Most people (n=20, 74.1% of people willing to discuss their sources of illegal income) had acquired this illegal income through the selling of illegal drugs. Because people found it difficult to estimate their gross income (that is including the profit they had made which then went on their drug use), I only recorded the net profit, that is the profit made over and above personal drug use. The other incomes recorded are gross profits.

At the second interview, fewer people (n=18, 18.6%) said they had obtained illegal income. Seventeen gave an estimate of the amount. Most people had earned $1-2000. Only Otto, who had substantially increased his marijuana sales since the first interview, had earned a substantial amount ($40 000). As with the first interview, most of the other people had also generated this income by selling illegal drugs.

The only significant difference between any of the subsets in any of the variables discussed in this chapter was found at the second interview when 14 Oswaldians (35.9%) compared to 6 non-Oswaldians had obtained illegal income (Chi^2 at 1 df = 9.0 $p < 0.005$).

8.11: Effects of changes in treatment status and drug use on criminal activities

As reported in Chapter 5, nine people who had entered or re-entered treatment between interviews mentioned a reason related to their criminal activities for doing so. Five of those who had commenced methadone treatment also said they had stopped dealing. Ward and colleagues conclude that people who receive methadone treatment generally reduce their criminal activities (1992). A mean OTI criminal score of 2.7 was found at entry into methadone treatment among the opioid users Macleod and colleagues studied. After 6 months of treatment, there was a significant drop to 0.24 (1996). There was no change among the people I interviewed who had entered or re-entered treatment between interviews. At both interviews, this subset had the same low median score of 1. There was a range of 0-6 at both interviews and only a minor differential in the interquartile range (0-4 at the first interview, 0-3 at the second interview).

Nor was there any significant change in the OTI scores of the 45 people who had stopped or reduced their heroin use at the second interview. Other research has, however, shown a reduction in criminal activities during periods of heroin abstinence (Rounsaville et al, 1987).

There was a generally low OTI score at the first interview for the total sample of people I interviewed and also among the subsets discussed immediately above. Consequently, little improvement could be anticipated.

I also used the OTI to compare criminal behaviours of the heroin users who had gone into treatment (and who were still in treatment) with those who had not. The only significant difference found was at the second interview when, inexplicably, a greater proportion of people who had entered or re-entered methadone treatment (66.7%, n=14) had dealt illegal drugs by comparison with the heroin users who had not (26.0%, n=27) (Z -3.0, $p < 0.001$) (Table 18, Appendix 22). I also used the OTI to compare the criminal activities at the two interviews between those who had entered or re-entered treatment (and who were still in treatment) with those who had not. No significant differences were found.

As reported in Chapter 5, some treatment entrants linked their commencement or recommencement of treatment with their criminal behaviours, and some people also associated their drug use transitions with crime. Usually, these changes were linked with dealing illegal drugs. This accords with the finding that dealing was the most prevalent crime. Only 4 people mentioned the effects of their drug use changes on criminal activity. Rob, for example, who had decreased his heroin use, said he was happy not to be "selling any more" and Sara, who had increased her heroin use, had also started dealing it.

8.12: Discussion

The low OTI crime score at both interviews indicate that the people I interviewed were only minimally involved in criminal behaviours in the month prior to the two interviews. A more detailed history revealed, however, that most people had, at some time, engaged in criminal activities. Only small numbers of people had perpetrated illegal acts other than drug dealing, stealing from shops and fraud. The high incidence of stealing from shops may have had more to do with the low incomes earned by most people (a median of $8000 in the 12 months prior to the first interview and a median of $9000 in the 12 months prior to the second interview) than with their illegal drug use.

Particularly among older respondents, there may have been recall bias for crimes ever committed (such as stealing from shops as adolescents). There may also have been intentional under-reporting of some crimes, particularly those involving violence. My findings of such low rates of assault and high rates of stealing from shops do, however, support an earlier review of the literature where McBride concluded that "illicit drug users, particularly narcotic users, are more likely to commit property crimes than crimes against person" (1981:119). The findings also support an Australian-based study which found that 61 per cent of 378 apprehended heroin users had committed a property crime compared to 7 per cent who had committed an assault (Wardlaw, 1978). Reuband recently conducted a study of the connection between illegal drug use and crime in Germany and found that acts of robbery and burglary were uncommon in people who used illegal drugs. He concluded that "The imputation of a strong drug-crime relationship seems more to reflect a dramatisation of evil than a real-world phenomenon" (1992:342).

Although more than half of the people I studied had been apprehended, these were usually for minor crimes that were dealt with leniently. Compared to other studies of IDUs, very few IDUs I interviewed had been imprisoned. The different results from my research could indicate that I was successful in accessing some people who were different from IDUs usually studied. Most apprehensions occurred in the ACT and it may also be that the ACT law enforcement agencies and courts deal with people who use illegal drugs more leniently than other jurisdictions. According to Terry Buddin, the ACT's former Director of Public Prosecutions, this is how the ACT law enforcement agencies and courts are perceived. In an interview reported in *The Canberra Times*, shortly after departing his role as Director of Public Prosecutions, he is paraphrased as saying:

> *The ACT has been left vulnerable to targeting by organised crime networks because of the widespread perception that its courts were the most lenient in Australia ... there was ... a view outside Canberra that sentences imposed by its courts were the lowest in the country ... this was how some criminals, particularly drug traffickers from Sydney perceived the situation" (Campbell, 1998:12).*

8.13: Conclusion

As in other findings reported in the previous chapters, there was little evidence to support my original hypothesis that the Oswaldians would be different from other people I studied who used illegal drugs.

My findings are in accord with those of other researchers who have found a connection between illegal drug use and other criminal activities. Most crimes committed by the

people I interviewed were either associated with the illegality of the drug (mostly drug dealing) or were minor in nature (mostly stealing from shops). Very few people I interviewed had been involved in more serious crime, bringing into question the stereotypical image of people who use illegal drugs. There is a possibility of under-reporting, and it may also be that those who were involved in criminal activities of a more serious nature would not have presented for interview because of a fear of their crimes being uncovered. My findings do, however, support those of other researchers who have found that most crimes perpetrated by people who use illegal drugs were generally not serious.

Fewer people were involved in criminal activities between interviews than in the 12 months leading up to the first interview. Though none of the differences were statistically significant the changes reported in this chapter support findings previously reported which indicate an overall improvement in respondents' well-being between interviews.

CHAPTER 9: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

9.1: Introduction

I had hypothesised that I would find differences between Oswaldians and non-Oswaldians (definitions of the subsets are included in Table 2 in Appendix 4) and had also hypothesised that the Oswaldians who used heroin would be able to maintain their heroin use at a non-dependent level. As the research evolved, I began to question official ratios of dependent and non-dependent heroin users and also ratios of treatment and non treatment ratios of heroin users. The central philosophy guiding my research and writing has been a commitment to harm minimisation. In addition to my interest in comparing Oswaldians with non-Oswaldians, I was interested in gender differences and questioning stereotypes of people who use illegal drugs.

I used both quantitative and qualitative data, including ethnography, to obtain the findings discussed in this thesis. I begin this concluding chapter by summarising the main findings from the total sample of people who were interviewed twice. I then go on to highlight the differences found between this subset and those who presented for only the first interview before describing the differences found over time and the differences found between the subsets. I then make some suggestions for further research and further harm minimisation strategies. In the penultimate section, I discuss the limitations of my findings before drawing the thesis to a close. In the context of talking about research on AIDS, Drucker makes a salient point which is relevant for other researchers in the health field. He notes how researchers "disaggregate data" by separating variables such as age and gender. In so doing they lose sight not only of the bigger picture in which health risk behaviours occur but also the everyday lives of the people concerned. Drucker goes on to say that it is necessary to "reaggregate" the data to get a complete picture back (1990:9). As I conclude the thesis, I "reaggregate" the data by returning to the people who first inspired me to conduct this research as I present an up-to-date picture of the Oswaldians who have continued to privilege me by allowing me into their everyday lives.

9.2: Findings from the total sample

At the first interview, most respondents were long term Canberra residents, and the majority also lived in the ACT all the time between interviews. As with other studies of people who use illegal drugs, more men than women presented for interview but there was a slightly higher proportion of women in my sample than has been found in most other samples. At the first interview, this was a younger sample than most other studies, but there was less difference as these people matured between interviews.

A majority of respondents had completed their secondary education by attaining their HSC. This finding was different from most other samples studied. Many people also had some tertiary education. This higher level of education did not, however, lead to a greater proportion of people being in the workforce and there was, as in other studies of people who use illegal drugs, a high unemployment rate. The median income was low at both interviews.

Around one fifth of respondents were parents, fewer than in other samples. At both interviews, the majority of people had an OTI social score considered to be either low or below average which demonstrated that most people had functional relationships with their partners, other family and friends.

The data collection revealed extensive polydrug use. Considering their young median age, respondents had been involved with illegal drug use for a long period (median 8 years at the first interview) and there was a low median age (14) for first use of illegal drugs. I had attempted to access as many people as possible who were not in treatment and was partially successful in this; around two thirds of the sample had no such history. Although some people had drunk alcohol at above the highest safe level, most people at both interviews were drinking below levels deemed to be harmful. Most people, however, were heavy smokers.

At the first interview, 80 participants reported that they had injected at some time. The average age of first injection (18) was similar to that reported in other studies. The 76 current IDUs at the first interview had been injecting for an average of 5 years. The frequency of injecting at both interviews was lower than that found in other samples.

The majority of respondents had an OTI health and GHQ score considered to be average or below indicating that they were in fairly good health. In keeping with the low rate of HIV among Australian IDUs, none of the IDUs who presented for both interviews were known to have contracted HIV through unsafe needle use. Only about one fifth of respondents had been fully immunised against HBV; 11 IDUs had been diagnosed as being positive for this virus before the first interview, and 3 were diagnosed positive between interviews. Nineteen IDUs were diagnosed with HCV before the first interview and a further 14 tested positive between interviews; which is also consistent with findings that the rate of HCV is increasing among IDUs. The proportions of people with either HBV or HCV were, however, lower than in most other IDU populations that have been studied.

The OTI HRBS scores for IDUs were low at both interviews indicating a general low level of risky behaviours. Some people were, however, still sharing injecting

equipment. Most of this sharing occurred with sexual partners or with friends, but some people did not know who had used a syringe before them since they had taken used syringes out of disposal bins. In addition, there were several reports of accidental needle sharing.

Most participants were heterosexual. Consistent with other reports, both from the general population and studies of people who use illegal drugs, unprotected sex was common. Only a few people were involved in commercial sex. A majority of women had Pap smears taken between interviews and there was a high incidence of abnormal results for such a young sample.

Most people had an OTI crime level of dysfunction score considered to be low or below average. But nearly everyone had at some time committed a crime (in addition to using illegal drugs). Most people had been involved in selling illegal drugs, and most had also committed minor property crime, generally shop stealing. During their criminal careers around one fifth of respondents had perpetrated BES and/or robbery and/or receiving stolen goods. Approximately one third of respondents had engaged in an act of fraud. The fraud most frequently reported was Social Security fraud. Eight men said they had committed a violent crime.

A small majority of people had been apprehended by law enforcement agencies for their criminal activities. Most of these apprehensions had been dealt with leniently, and very few people (n=9) had ever been incarcerated, most for only a short period. These findings support those of other researchers who have reported a connection between illegal drug use and other criminal activities. Previous research has likewise demonstrated that most crimes perpetrated by people who use illegal drugs were those of a less serious nature. Other studies have, however, found much larger proportions of people with a history of incarceration.

9.3: Differences between the people who presented only for the first interview and those who presented for both

Those interviewed twice had lived in Canberra for a significantly longer period than the 42 people who presented only for the first interview. They were also significantly older, and significantly more had completed a HSC. There were also significantly more tertiary students and fewer secondary students among those interviewed twice.

Those who went on to present for the second interview tended to have used illegal drugs for a longer period than those interviewed only once. There were few other differences related to drug use: those who were interviewed once were using hallucinogens significantly more; they were significantly younger when they first used "trips"; and

they injected stimulants significantly less frequently. A smaller proportion of those interviewed only once were current "homebake" users than those interviewed twice. A greater proportion of people who went on to present for the second interview had a history of treatment.

These differences are mostly related to the significant age difference found between the two subsets. This can largely be attributed to my lack of success with re-contacting the people from the snowball into a secondary school and the young people from a "squat." I found a significant relationship between treatment status and both age and duration of heroin use. Such relationships have also been found by researchers who analysed some of the ANAIDUS data (Ross et al, 1993b). These findings lead me to suggest that the younger subset of people who did not present for the second interview may, as their drug using careers mature, encounter similar problems to those found in that older subset of people who presented for both interviews.

9.4: Changes between interviews

The data collection at the second interview was largely concerned with documenting changes that had occurred between interviews, particularly reasons for change in drug consumption patterns. In this section, I discuss the major changes that occurred between interviews. I was also interested in applying the prospective data from an Australian drug using population to the models of "maturing out" and "drug using careers". Below, I also synthesise some of the reasons given by respondents for modifications in their drug use behaviour.

There was a highly significant reduction in the number of drugs used, in the number of classes used, and in the OTI polydrug score. Stopping the use of one drug often led to a cascade effect of stopping or reducing other drugs. There were significant reductions in the number of types of drugs used in the cannabis, opioids, and benzodiazepine classes and marked reductions in the number of people using hallucinogens, benzodiazepine and inhalants. Stimulants were being used less frequently. In terms of individual drugs, there were significantly fewer people using hashish, cocaine, Doloxene, codeine, "homebake", poppies, "trips", psychedelic mushrooms and diazepam. There were fairly substantial reductions in the number of people who had used hashish oil, amphetamine, amyl nitrite and "other" stimulants, opioids, hallucinogens, benzodiazepines, and inhalants. The number of current heroin users slightly increased between interviews but several people (n=12) said they had "stopped" their use, and many had reduced their consumption (n=33).

I asked people to explain the changes in their drug use consumption. Almost half of the 840 changes occurred in drugs that were not used between interviews. Methadone was the only drug used by significantly more people at the second interview. Most methadone was prescribed. One of the biggest "scene" changes which impacted on drug use behaviours between interviews was the increase in the number of people receiving methadone in the ACT; only 4 of the 26 people in methadone treatment at the second interview had been in this treatment at the first. This was related to an expansion of places in the ACT Methadone Program, which in turn was related to calls from NCADA for an Australian-wide increase in the number of methadone places.

Some people had also experienced other forms of treatment between interviews. The change in treatment status was highly significant for the total population of respondents and, with the exception of the core-Oswaldians (where it approached significance), there were also significant changes among all the subsets.

The qualitative data shed some light on why the people I interviewed "matured out" of drug use, or made changes to their drug using "careers". The multitude of reasons given by respondents for changes in their drug use consumption patterns lead me to suggest that whilst these terms are useful umbrella terms, the rationale for changes are more complex than suggested by the terminology. All but one person mentioned the negative effects of their increased heroin use as a reason for entering treatment. These reasons were similar to those cited by other researchers except that a majority of people I interviewed mentioned health concerns. Everyone who had gone into treatment between interviews, and who was still in treatment at the time of their second interview, had stopped or reduced their heroin use. There were 71 reports of a drug not being used and 31 reports of a decrease in drug use attributed to methadone treatment. Other opioids were most frequently mentioned in this context.

Of the 51 people who had not had any treatment by the time of the second interview, 30 had used heroin between interviews. Most were low level users but there were still some who were experiencing problems due to their heroin use. Those heroin users who had a history of treatment for opioid use at the second interview were significantly older and had been using heroin for significantly longer than heroin users without a treatment history. This demonstrates a correlation between treatment seeking and both older age and longer duration of heroin use. The theory of "maturing out" in terms both of age and period of using may be appropriate to both abstinence and to treatment entry.

Apart from the effect of treatment on drug use, several other themes for changes in drug uses emerged from the qualitative data. Drug availability constituted the largest category of all the changes (n=212). Health emerged as the second major theme (n=192).

Individual users may experience either desirable or undesirable effects of a drug and for many people, the effect of a drug *per se* (either positive or negative) provided sufficient reason to change consumption patterns. Other drugs were frequently cited in conjunction with a change; those mentioned most were heroin and one of the benzodiazepines. The influence of significant others, particularly friends, was also important. Lifestyle events and finances were mentioned by several people. Only a few people mentioned experimental use, drug quality and criminal or legal reasons as being influential.

My study uncovered no evidence of coercion into drug use by people who sold drugs and only two people said they had been coerced by friends to try a drug for the first time. I did not ask respondents if they knew anyone who had overdosed but, either during ethnographic work or at the second interview, a few people volunteered the information that they knew someone who had recently died due to a heroin overdose and most talked about the impact this had on reducing their drug use.

As other researchers have found, there was an inverse relationship between alcohol and heroin use but I found this to be so in only a small number of people. In addition, only a few people (n=4) who went into methadone treatment between interviews had increased their alcohol use. When examining the people who had decreased or stopped their heroin use, I found a significant reduction in the number of drugs used. This supports findings from other researchers who have demonstrated that there is not necessarily an inverse relationship between the use of heroin and other drugs.

No one had injected every day between interviews whereas at the first interview 7 people had done so at least once a day in the preceding year. Several people (n=9) at the second interview also said they had "stopped" injecting. The frequency of IDU was significantly less in the month prior to the second interview than in the month prior to the first interview. There were also significantly fewer reports of problems associated with injecting at that time. Between interviews, there was a significant reduction in the number of people who had an HIV test because of unsafe needle use.

I found an improvement in health between interviews as measured by the OTI and GHQ. Significantly fewer people had their latest HIV test because of unsafe sex. The average sexual risk score increased, mainly due to a significant increase in the number of people in a relationship. These people were not only having sex more frequently, they tended not to use condoms with people perceived as longterm partners.

There were quite solid reductions in the number of people who reported having sold illegal drugs, stolen from shops and obtained income by illegal means.

Legal income had significantly increased, but it would seem that much of the difference lay in the increased number of people who received unemployment benefits, since more people were unemployed at the second interview than at the first. In other domains, however, the findings demonstrate that, between interviews, there were improvements for the majority of respondents in many aspects of their lives. There is a vast literature (some of which I reviewed at the beginning of Chapter 5) demonstrating that people who use illegal drugs are at increased risk of physical, psychological and social harms. I suggest that the improvements among the people I interviewed are connected with the highly significant reduction in the number of drugs used between interviews.

9.5: Differences between Oswaldians and non-Oswaldians

I compared the Oswaldians with other people who used illegal drugs, who were similar in terms of the proportions of IDUs and the proportions of people with a history of treatment for drug problems. I had hypothesised that I would find differences between the Oswaldians and non-Oswaldians in other variables but generally found the subsets were similar. In this section, I draw together the few differences I detected.

At the first interview, the Oswaldians had a history of using significantly more classes of drugs than the non-Oswaldians. Also, more Oswaldians had used hashish oil and more had a history of benzodiazepine use. By the second interview there was only one significant difference found: the Oswaldians were greater alcohol consumers than non-Oswaldians.

There were a few differences over time in health. Between interviews the non-Oswaldians experienced a significant improvement in physical health as measured by the OTI; their overall improvement in the GHQ score approached significance. The improvement in the somatic symptom GHQ subscale was significant. The Oswaldians scored similarly at each interview on the total OTI physical and GHQ scores but there was an improvement in the GHQ depression subscale at the second interview.

A few other disparate differences were found over time. The non-Oswaldians had an almost significant increase in legal income; the Oswaldians tended to use condoms less frequently at the second interview than at the first; significantly more Oswaldians than non-Oswaldians obtained illegal income between interviews; and the reduction in the proportion of Oswaldians who had an HIV test because of unsafe needle use or unsafe sex was significant whilst that for non-Oswaldians was not.

There is, therefore, little evidence to support my hypothesis that the Oswaldians would be different from other people I studied who used illegal drugs.

9.6: Differences between core-Oswaldians and the Remainder

Because the Oswaldian group also contains transient and peripheral members, I had originally expected to see even greater differences between the core-Oswaldians and the Remainder.

At the first interview fewer core-Oswaldians than the Remainder had used methadone and there was a similar significant difference in treatment history. These differences had disappeared by the second interview.

At both interviews, the core-Oswaldians were currently significantly heavier drinkers than the Remainder. Current hallucinogen users among the core-Oswaldians had used fewer types than the Remainder at the first interview; this difference had also disappeared by the second interview. Between interviews, a significantly greater proportion of core-Oswaldians than the Remainder had used diazepam.

Much of the increase in income between interviews occurred in the Remainder subset. Their increase was significant while the core-Oswaldians' was not. Most of the increase in the number of people in a relationship was also due to the Remainder subset. Their change in relationship status was significant whilst the proportion of core-Oswaldians in a relationship was the same at both interviews. In tandem with this finding, at both interviews, significantly more core-Oswaldians lived with friends.

There was little change in the OTI health or GHQ score for the core-Oswaldians at the second interview but there was a significant improvement in the Remainder in both domains. Most of the improvement in health between interviews, therefore, occurred in non-Oswaldians and the Remainder.

There was a reduction in the proportion of the Remainder who had an HIV test because of unsafe needle use or unsafe sex between interviews, but not in the core-Oswaldians. There was also a reduction in injection related problems among the core-Oswaldians but not among the Remainder.

Although there were a few more differences between the core-Oswaldians and the Remainder than found between the Oswaldian and non-Oswaldians, some of these differences had dissipated over time. I have to conclude again that there is very little evidence to substantiate my hypothesis.

9.7: Gender differences

Women tended to be younger than men which accords with findings from several other studies. Based on the data obtained at the first interview, men had used more drugs over their drug-taking careers than women. They also had a longer history of illegal drug use. This could be associated with the younger age of women, but women tended to have been younger than men when they started both illegal drug use and IDU.

Men were slightly older than women when they first used heroin and diazepam. At the time of the first interview, men had used more hallucinogens than women, although there was no significant difference in the number currently used at either interview. A greater proportion of women had ingested poppy extract. At both interviews, there were proportionately more men than women in treatment.

The change in relationship status between interviews occurred significantly more frequently in women than men. A greater proportion of men lived with other family at the first interview than at the second. The significant improvement in physical health between interviews was also largely due to an improvement in women's health. As measured by the OTI, their health was worse than men's at the first interview; at the second interview, the women's median score had improved significantly whilst men's had not. Much of the improvement in the GHQ score also occurred among women. Their psychological health was worse than men's at the first interview, but their median scores were the same at the second interview. Much of the reduction in the number of people who had an HIV test for unsafe sex also occurred in women; their change was significant whilst men's was not. Despite this finding, more women than men were practising unsafe sex since women's sexual risk score worsened significantly between interviews. This was due to more of an increase among women with partners and also to them using condoms significantly less frequently.

Similar proportions of men and women reported illegal activities but the apprehension rate was higher for men.

These findings demonstrate a few differences between men and women. Some indicate directions for future research and these are included in the discussion below.

9.8: Suggestions for future research

The significant changes in treatment status between interviews, and particularly the changes among the Oswaldians who described themselves as "recreational" users when I first met them, leads me to question whether there are, over time, more dependent than non-dependent heroin users. In addition, I found a significant relationship between treatment status and both age and duration of heroin use. My study sample was small.

As there is bound to be in any longitudinal study, there was also some attrition of respondents by the time of the second interview. In order to obtain a clearer picture of what happens to heroin use patterns over time, I suggest that a longitudinal study of a larger sample of heroin users is required. This would provide a fuller understanding of the present ratios of dependent and non-dependent heroin use. The Australia-wide increase in the number of people in methadone treatment may also have affected the ratios of dependent heroin users in and out of treatment. A longitudinal study containing larger numbers of heroin users would also have the ability to better determine ratios of treatment and non-treatment samples. In addition, such a study would be able to help determine how generalisable my findings were.

I found some gender differences in age at first use of drugs and also age and IDU. As indicated in Chapter 7, the early years of injecting are associated with increased risk behaviours. In order to better implement appropriate harm minimisation strategies for young people, there is a need for further research to examine more fully the relationship between gender and initiation into illegal drug use.

Several people reported accidental needle sharing but it is not known how prevalent this is. Since it is very likely to be a way of people contracting BBVs, I would like to see future research on IDU risk behaviours include questions and education on this aspect of risky needle use.

During a period when heroin quality improved, and also when there was discussion of a possibility of the controlled availability of heroin (NCEPH, 1991), more than half of the heroin users had either "stopped" or reduced their heroin consumption. Some of this change was due to people entering treatment but several other reasons also emerged. There were also several heroin-related overdoses during this period. Future research could tease out the complicated nexus between heroin using patterns and changes in both heroin quality and heroin-related overdoses.

9.9: Suggestions for further harm minimisation

This section draws upon both my research and that of other researchers to make some suggestions for possible further harm minimisation strategies.

9.9.i: Minimising the harm of the interview

I would have been better equipped to assist people who talked about their physical, sexual and emotional abuse if I had undergone a short course on relevant counselling and referral prior to commencing the interviews. Research which has found a connection between childhood abuse and suicidal tendencies (Bayatpour et al, 1992), and between childhood abuse and HIV risk behaviours (Allers et al, 1993), further

demonstrates the importance of including these sorts of questions. But asking can create problems for the interviewer and fail to mobilise an opportunity for constructive intervention if interviewers are poorly equipped to respond to disclosure.

Harm minimisation recommendation 1

That attendance by prospective interviewers at a course which covers issues of sexual and physical abuse be a pre-requisite for any funding of projects which involve interviewing people who use illegal drugs.

To minimise the danger of prosecution for respondents who are asked to discuss their illegal activities either at interview or during ethnographic work, it would be helpful if these data were protected by a Confidentiality Act such as the Commonwealth Epidemiological Studies (Confidentiality) Act of 1981 or the ACT's Epidemiological Studies (Confidentiality) Act of 1992 (Appendix 10). Having prior protection would have greatly facilitated my research process. In addition, I believe researchers would have better access to a greater variety of people who use illegal drugs if it was known that their data were better protected.

Harm minimisation recommendation 2

That relevant institutions take measures to ensure that all work which involves collecting data of a sensitive nature is protected by a Confidentiality Act and that they make approaches to the Commonwealth and State Governments to expedite this process.

9.9.ii: Harm minimisation related to IDU

A minority of IDUs I interviewed were still sharing injecting equipment. Much of this sharing was with sexual partners, or people known to the respondent. Some people were, however, using syringes after taking them out of a disposal bin.

Harm minimisation recommendation 3

IDUs need even better access to sterile needles and syringes. As other researchers have indicated (Wodak and Crofts, 1994a; Dodding and Gaughwin, 1995), *this could be accomplished through vending machines.*

Other research has shown an association between homeless young people and high risk behaviours (Caplehorn and Saunders, 1993). Some Australian research has shown that many homeless young people have escaped from abusive homes (Howard, 1993a and 1993b).

Harm minimisation recommendation 4

Peer outreach workers could attempt to access those not currently in contact with service providers. Special efforts should be made to access homeless youth.

My research made me concerned about the potential harm of accidental needle sharing. This led me to write a small article for the ACT IDU population (Appendix 21).

Harm minimisation recommendation 5

Education about ways of avoiding accidental needle sharing could be included in programs which educate IDUs about safer drug use and it could also be included in peer magazines.

There is a high prevalence of HBV among Australian IDUs and some people I interviewed were diagnosed with this virus between interviews.

Harm minimisation recommendation 6

More stringent efforts are required to persuade IDUs and their sexual partners to be immunised against HBV.

Some of the people I interviewed reported that friends had died of a heroin-related overdose. There is an increasing number of young Australians dying in this way.

Harm minimisation recommendation 7.1

As indicated by other researchers (Strang et al, 1996; Zador et al, 1996), *some heroin-related overdoses might be prevented if users were given access to Narcan. Consideration should be given to this proposal.*

Harm minimisation recommendation 7.2

Consideration should also be given to the suggestion made by Bammer and Sengoz that people working in organisations which operate as advocates for people who use illegal drugs could be trained (and given appropriate back-up) to investigate and disseminate to their clients the causes of clusters of heroin-related deaths (Bammer and Sengoz, 1995).

Several of the people I interviewed had tested positive for HBV and HCV. Other researchers have noted that it is imperative to educate IDUs about the need to be taught that all equipment used for preparing and administering injectable drugs is a potential source of transmitting BBVs (Wodak and Des Jarlais, 1993). Research has demonstrated that it takes bleach at least 30 seconds to inactivate HIV-1 (Shapsack et al, 1993) and Wodak believes that bleach is unlikely to be effective against HBC and HCV (Wodak, 1993a). Not only is it necessary for IDUs to always use sterile injecting equipment it is, therefore, also necessary for them to take the following precautions:

- Careful hand washing, particularly if injecting others
- Ensuring surfaces used for preparation of injectable drugs are clean
- Using a personal tourniquet
- Taking greater care with the solution and the equipment used to mix drugs.

Harm minimisation recommendation 8

The increasing rate of HCV indicates that hygiene recommendations are still not being followed and even greater effort needs to be put into IDU education.

At present, current IDUs are excluded from Interferon treatment[12]. Greater access to services is required to enable these people to stop injecting and to also ensure they have supportive counselling.

Harm minimisation recommendation 9

The exclusion of IDUs from Interferon treatment is inequitable. More effort needs to be made to attend to the physical and psychological health needs of IDUs with HCV, including non-judgmental ways to help them stop injecting.

9.9.iii: Safer drug use

Several commentators have noted how damaging current prohibition is for the health of people who use illegal drugs (for example, Nadelmann, 1988; Drucker, 1991). Until there is quality control of currently illegal drugs the people who use them will continue to die at rates above those of non-users. The IDUs I have contact with have all expressed their great disappointment that the Federal Government did not allow the ACT "heroin trial" to proceed.

1

2 Addendum, February 1999: the NHMRC recommendation that IDUs should not be excluded from Interferon treatment has recently been implemented.

Harm minimisation recommendation 10

Consideration should be given to reinstating a Feasibility Study into the Controlled Availability of Opioids.

Many respondents had some involvement in tertiary education. A similar finding has been observed in other studies.

Harm minimisation recommendation 11

That tertiary institutions be targeted as venues for teaching safer drug use.

9.9.iv: Sexual health

Few respondents were aware of the potential ramifications of STDs, such as HPV and chlamydia, or of the possibility that HCV and HBV are often precursors for liver cancer. The low rate of condom use with regular partners in my sample is similar to other studies. A smaller proportion of women than men used condoms. Clearly, innovative campaigns are needed to increase the rate of condom use, particularly among women. A majority of women had Pap smears, which indicates a concern on their part.

Harm minimisation recommendation 12

There is a need for gender specific educational strategies regarding genital and sexual health. This education must cover the complete armoury of the potential hazards of unsafe sexual behaviours. Since so many women had been concerned enough about their genital health to have a Pap smear, this concern could be utilised by health professionals who, at the time of testing, could spend some time educating women about the need to use condoms and to also teach them ways of negotiating safe sex.

9.9.v: Social health

My study and other studies of illegal drug users have consistently reported high unemployment rates. Overseas studies have found employment to be positively associated with periods of prolonged abstinence from heroin (Waldorf, 1970; Maddux, 1981; Simpson and Marsh, 1986). As a harm minimisation strategy, a program in The Netherlands offers people who use illegal drugs paid work on a daily basis (de Groot, 1995). It would be worthwhile to examine the feasibility of implementing similar programs in Australia.

Harm minimisation recommendation 13

In order to bring about periods of prolonged or total abstinence for those who wish to maintain the reduction in their drug use consumption, and to also assist those who choose to continue to use drugs, more stringent efforts should be put into providing people who use illegal drugs with worthwhile paid employment.

9.9.vi. Peer education

Several other researchers have remarked upon the importance of continuing with peer education to disseminate harm minimisation strategies (Dorus et al, 1991; Wodak, 1993b; Power, 1994; Crofts and Herkt, 1995). Australian user organisations have been especially recognised: "They have been a key element in Australian efforts" (Friedman and Ward, 1993:186). In recognition of this vital role, AIVL was awarded the national Rolleston award at the 1996 *7th International Conference on the Reduction of Drug Related Harm,* in Hobart. Programs which provided education to young IDUs about safer drug use have been run in the ACT by the ACT IV League (Byrne, 1996). Similar programs could be implemented for IDUs of all ages throughout Australia. ADDInc has recently called for urgent measures to be taken to assist the increasing numbers of young people accessing their treatment settings and needle exchange outlets (1996). For example, during 1995-1996, 48 per cent of the clients of the ACT's NEP were below the age of 25 (Fletcher, P. NEP Program manager, ADDINC, ACT. 1996, December 2, pers comm).

Harm minimisation recommendation 14

In order to best implement most of the suggestions I have made, those made by other people which I have endorsed, and to also continue with existing harm minimisation strategies, there needs to be increased funding to user organisations.

9.10: Limitations of the findings

The people with whom I conducted ethnographic work became friends. There are negative implications of this. I did not have the same magnitude of rapport with everyone I interviewed. This may be reflected in my research findings.

No sample of people who engage in illegal activities can be representative and this study is no exception. I had attempted to access as many people as possible who did not have a history of treatment or incarceration. Some of my findings, particularly those which are different from other studies, may be attributed to my sampling.

Respondents were provided with an honorarium of $40.00 for each interview. This, perhaps, biased my sampling since it might have led to an oversampling of the unwaged, the unemployed, low income workers and students. All such people are more likely to fit in younger age brackets.

My major concern was investigating what happened to the Oswaldians over time. As shown in Table 2.2 (Page 14), only four Oswaldians (2 core-Oswaldians and 2 peripheral group members) interviewed at the first interview did not present for the second interview. This small attrition is unlikely to have affected the findings reported from this subset. Thirty eight people from their opposite subset were lost to attrition and this may have had an impact on the findings from the non-Oswaldians.

9.11: Conclusion

Whilst there were some similarities between the total population I interviewed and samples of other people who use illegal drugs, there were also some differences such as a high proportion of people with their HSC and a low rate of incarceration. Most people were in reasonably good physical and psychological health and most had functional relationships with their significant others. Findings such as these may indicate that I had some partial success in reaching "hidden users." They may also help change stereotypical images of illegal drug users which are portrayed so frequently in the media.

Profound changes in drug use consumption patterns occurred between interviews. Some, such as the increase in the number of people in methadone, and changes in availability of drugs were due to "scene" changes. Other were due to a variety of life experiences. This prospective data collection demonstrated the complexity and dynamics of drug use behaviours over time and illuminated some of the reasons for changing consumption patterns.

On the sort of information I obtained in 1989, I could not predict which of the Oswaldians were going to have problems with their heroin use. Much of my reasoning for hypothesising that they would be different from other drug users I studied was based on my close contact with a group of people who were mostly in the early stage of their drug using careers and also on their idiosyncratic invention of a "Patron Saint" of drug use. When comparing the Oswaldians with other people who use illegal drugs over time, and at later stages in their careers, there was little evidence to support my hypothesis.

My research with the Oswaldians began at a time when they associated drug use with pleasure. I would like to have been able to report no changes in this but, as I have shown throughout the thesis, a variety of transitions in drug use have occurred since my

first contact with the group. Very few Oswaldians were able to maintain all their drug use, particularly their heroin use, at a non-dependent level. For some Oswaldians, the problems associated with their increase in heroin use led them to seek their first treatment. Oswaldian group-members who stopped their heroin use, the few who managed to maintain their use at a non-dependent level, and those who reduced their illegal drug consumption demonstrate a concern for friends who have experienced problems with their heroin use.

Many Oswaldians have entered into longterm relationships, have become parents for the first time or re-entered tertiary education. Despite the substantial changes in these realms most Oswaldians, whatever their level of drug use, still interact at social occasions. The last "Saint Oswald's Day" ceremony was held in 1995 and, from conversations held in 1998 with some core-Oswaldians, I gather that it is unlikely that this celebration will be resurrected. Increasingly, Oswaldian gatherings are becoming more mainstream, being occasions such as dinner parties, weddings, engagement or birthday parties. Thus, though the reasons for celebrations have changed, the friendship links within the group have largely been maintained during the ten years since I first made contact with these people, who invited me into their everyday lives.

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