



Texas Commission on
Alcohol and Drug Abuse

Comparison of Patterns of Illicit Drug Use in Australia and the United States

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Introduction

Patterns in substance use and abuse are changing more and more quickly in the US, and they are spreading across the world at a very rapid pace. Part of the speed of these changes is due to increasing supplies of drugs, especially heroin; part is due to new marketing strategies that target more affluent customers; and part is due to increasing use of the Internet, which provides detailed information on new ways to produce and use drugs. As the drug scene has become global, no country is isolated. This paper, which is a summary of the trends reported at the 1995, 1996, and 1997 Community Epidemiology Work Group meetings in the US, along with the results of the 1995 Australian National Drug Household Survey, the 1995 US National Survey on Drug Abuse, the 1996 Australian Drug Trends Report, school surveys, and surveys of adults and juveniles in prison and detention facilities in New South Wales and Texas, shows the similarities between the US and Australia.



While many of the trends seem similar, the reader is cautioned that the surveys differ in methodology, questions asked, drug terms used, populations surveyed, etc., and thus exact comparisons cannot be made. However, even with this limitation, when the data are compared, one can see the overall similarities and differences in the patterns of drug use in the two countries.

In addition, although prevalence statistics on alcohol and tobacco use are presented in the tables, due to the limitation on length of this paper, their patterns of consumption are not discussed, and while prevalence information on inhalant use is included for reference, this topic is not addressed here because inhalant abuse tends to be centered in specific high-risk youth and adult populations, and investigation of this phenomenon is beyond the scope of this paper.

Data Sources

The 1995 US National Household Survey of Drug Abuse¹ employed a multistage area probability sample of 17,747 persons aged 12 and older

interviewed from January through December, 1995. The data collection method was in-person interviews which averaged about an hour and included a combination of interviewer-administered and self-administered questions about lifetime, past year, and past month use.

“ As the drug scene becomes global, no country is isolated. ”

The 1995 Australian National Household Survey² is a face-to-face survey of 3,850 persons aged 14 and over in households, with an oversampling in the smaller states and territories. As with the 1993 national survey, two questionnaires were used in the survey: an interviewer-administered questionnaire which was used in the regular face-to-face part of the interview and self-completion questionnaire which covered the more sensitive questions. The survey collected lifetime,

past year, and past month use, but only lifetime and past year data have been published.

The 1993 Texas prison survey³ collected data from 1,030 newly admitted male inmates at the Texas Department of Criminal Justice, Institutional Division, reception center where all incoming male inmates are held in the reception center until they are classified and assigned to a prison unit.⁴ The survey instrument took one and one-half hours to complete. The questions on prevalence of licit and illicit substance use are based on the US National Household Survey questions, and information was gathered on lifetime, past year, and past month use while the individuals were on the street—prior to incarceration.

The 1990 New South Wales (NSW) jail survey⁵ was based on face-to-face interviews with 182 adult inmates who were received into eight NSW jails over a two-week period in April-May, 1990. Six percent were female. The interview lasted 35 to 40 minutes, and the drug use questions concerned lifetime, past year, and past month use prior to the current imprisonment.

The 1994 Texas survey of youth in detention facilities⁶ involved face-to-face interviews with 1,030 youths who entered Texas Youth Commission reception facilities in 1994. Interviews required a minimum of two hours to complete and the survey questions on use of licit and illicit substances are based on the US National Household Survey questions and measured lifetime, past year, and past month drug use prior to entering detention.

The 1993 New South Wales survey of juvenile justice centers⁷ used face-to-face interviews of 279 youth detained in every juvenile justice centre in New South Wales between December 1992 and April 1993. The duration of the interview was approximately 15 minutes and the questions concerned substance use prior to detention. This

survey only collected lifetime and past-month prevalence information.

Findings from various surveys of secondary students in NSW,⁸ Victoria,⁹ Queensland,¹⁰ Western Australia,¹¹ and Texas¹² are presented. The methodologies vary and comparisons should be viewed with caution.

The *Drug Trends Report 1996* provides additional data on Australia. This Report is a product of the Illicit Drug Reporting System (IDRS), which began in 1989 and has been revised. The 1996 trial in Sydney included four methods: (1) qualitative key informant surveys with professionals working in the drug field and with illicit drug users; (2) quantitative survey of injecting drug users; (3) ethnographic research among heroin users in Southwest Sydney; and (4) examination of other early warning indicators. In 1997 the Illicit Drug Reporting System has been expanded to include Victoria and South Australia.

Epidemiologic Trends in Drug Abuse is a compilation of papers presented at the Community Epidemiology Work Group meetings sponsored by the US National Institute on Drug Abuse. The Work Group is a network of researchers from twenty major metropolitan areas and selected foreign countries, including Australia, which meets semiannually to discuss the current epidemiology of drug abuse. The *Trends* report provides descriptive and analytical information regarding the nature and patterns of drug abuse, emerging trends, characteristics of vulnerable populations, and social and health consequences.

¹ US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. *Preliminary Estimates from the 1995 National Household Survey on Drug Abuse*. Rockville, MD: 1996.

² Commonwealth Department of Health and Family Services. *1995 National Drug Household Survey*. Canberra: Australian Government Publishing Service, 1996.

³ D. Farabee. *Substance Use Among Male Inmates Entering the Texas Department of Criminal Justice-Institutional Division: 1993*. Austin, TX: Texas Commis-

- sion on Alcohol and Drug Abuse, 1994.
- ⁴ See D. Farabee. *Substance Use Among Female Inmates Entering the Texas Department of Criminal Justice - Institutional Division: 1994*. Austin, TX: Texas Commission on Alcohol and Drug Abuse, 1995 for prevalence rates for female inmates.
 - ⁵ H. Stathis, S. Bertram, and S. Eyland. *Patterns of Drug Use Amongst New South Wales Prison Receptions*. Sydney: Department of Corrective Services, 1991.
 - ⁶ E. Fredlund, D. Farabee, L. Blair, and L. Wallisch. *Substance Use and Delinquency Among Youths Entering Texas Youth Commission Facilities: 1994*. Austin, TX: Texas Commission on Alcohol and Drug Abuse, 1995.
 - ⁷ E. Zibert, J. Hando and J. Howard. *Patterns of Drug Use and Indicators of Harm Among Persons Detained in New South Wales Juvenile Justice Centres (1993)*. Sydney: Department of Juvenile Justice, 1994.
 - ⁸ A. Cooney, S. Dobbins and B. Flaherty. *Drug Use By NSW Secondary School Students: 1992 Survey*. Sydney: NSW Health Department, 1993.
 - ⁹ Victorian Drug Strategy Section. *School and Student Drug Use: Summary Report*. Melbourne: Department of Health and Community Services, 1993.
 - ¹⁰ J. Davey, D. Curd and B. Norris. *Substance Use at Schoolies Week*. Brisbane: Queensland Police Service, in press.
 - ¹¹ P. Odgers, S. Houghton and G. Douglas. The Prevalence and Frequency of Drug Use Among Western Australian Metropolitan High School Students," *Addictive Behaviors* 22, 3 (1997): 315-325.
 - ¹² L. Liu, *1996 Texas School Survey Of Substance Abuse: Grades 7-12*. Austin, TX: Texas Commission on Alcohol and Drug Abuse, 1997.

Cannabis

Cannabis is the most popular and widely used illicit substance in Australia and the US, and the lifetime prevalence rates in both countries are 31 percent, although past year use in Australia is higher than in the US (13 v. 8 percent). The 1993 national survey reported 34 percent of the Australian population aged 14 and older had ever used marijuana, as compared to 31 percent in 1995, and 12 percent had used it in the past year in 1993 in Australia, as compared to 13 percent in 1995. In comparison, lifetime use in the US by the general population aged 12 and over was 31 percent in both 1993 and 1995, and past year use was 8.5 percent in 1993 and 8.4 percent in 1995.

In Australia, lifetime use is higher among males than females (37 percent v. 24 percent), and past year use was 18 percent for males and 8 percent for females. Recent use is highest among those aged 14-19 (28 percent have used in the last 12 months) and those aged between 20-34 years (27 percent), dropping off to only 5 percent of those aged 33-54. In 1993, the median age of first use was 17.8 as compared to 17.5 in 1995, and the proportion using before age 16 has increased from 20 percent to 24 percent over that same period of time.

The same trend in youthful marijuana use is found in the US, where the 1995 household survey reported that the past month rate of marijuana use among youths aged 12 to 17 increased from 11.4 percent in 1993 to 14.2 percent in 1995. In 1995, persons aged 18-25 had the highest rate of use (12.0 percent).

The past month use rate for males was 6.2 percent v. 3.3 percent for females. This change in use by race/ethnic groups shows that the percent of Blacks has increased from 4.2 percent in

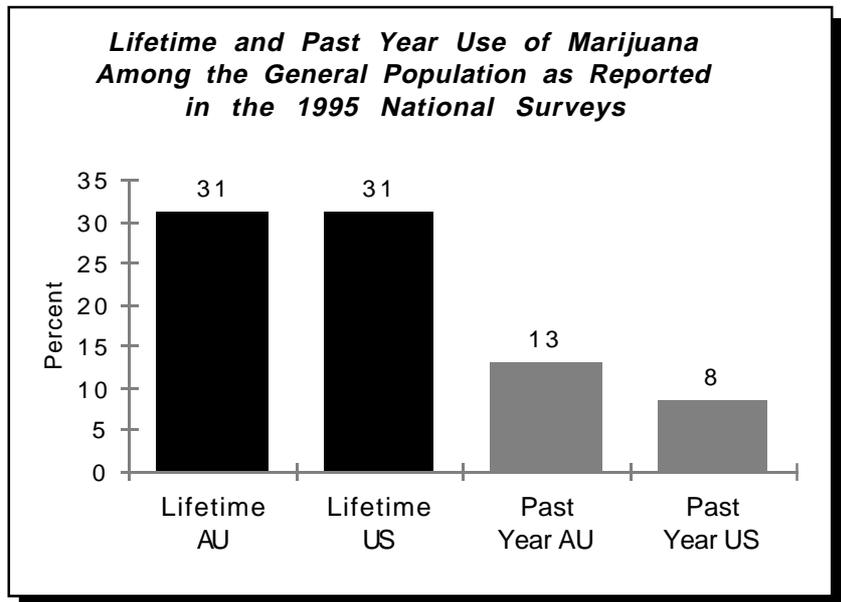
1993 to 5.9 percent in 1995, while the rate for Whites went from 4.9 percent to 4.7 percent and the rate for Hispanics stayed level at 3.9 percent.

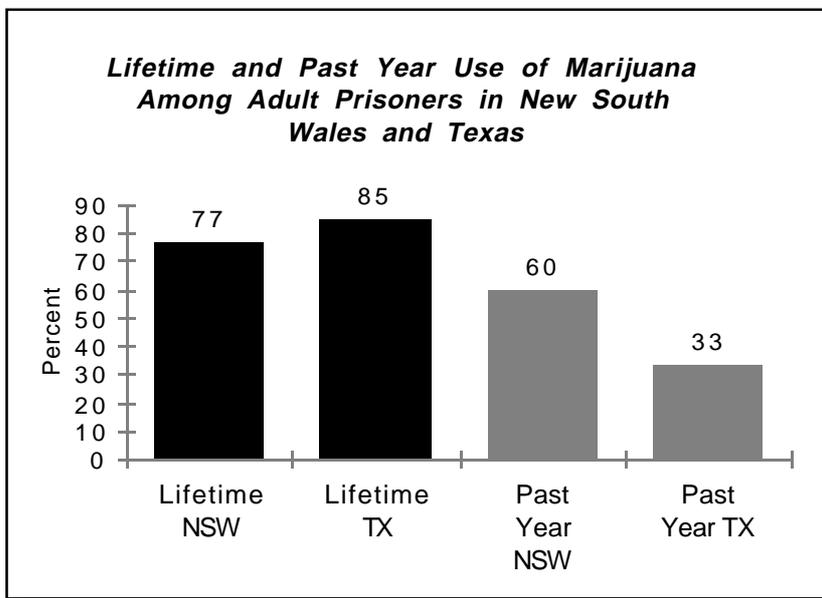
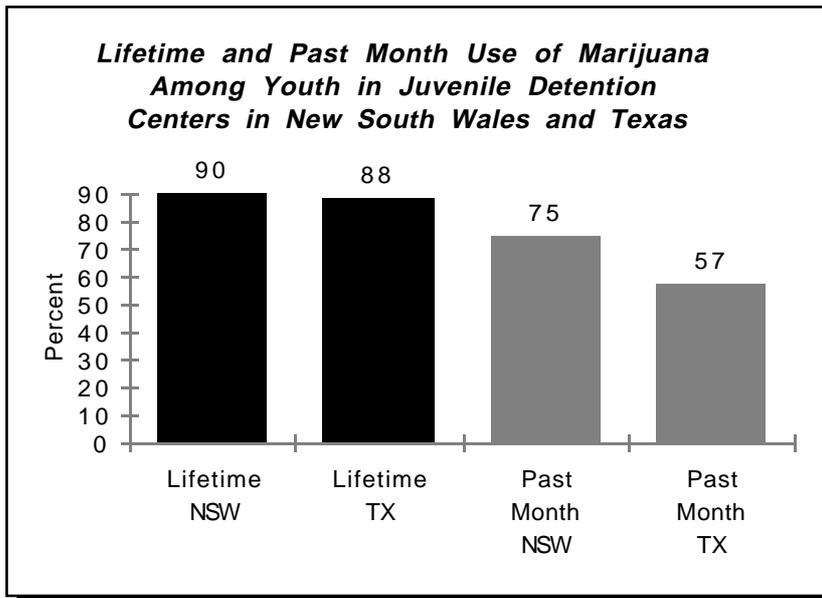
Surveys of special populations not only show use is higher in these groups than among the general population, but they show that while lifetime use among persons in the adult and youth criminal justice systems is fairly similar, current

“ Current use of marijuana is higher among New South Wales justice populations than in Texas criminal justice populations. ”

use of marijuana is higher among the New South Wales justice populations than in Texas criminal justice populations.

For youth in NSW detention facilities, lifetime use was 90 percent, as compared to 88 percent in Texas detention facilities, while past month use was 75 percent for NSW detention youth and 57 percent for Texas youth.





Victoria, and 31 percent in Western Australia. In the biennial Texas Secondary school surveys, lifetime use increased from 20 percent in 1992 to 25 percent in 1994 to 31 percent in 1996. Past month use among New South Wales secondary school students in 1992 was 15 percent as compared to 13 percent among Victoria students. Current use in Western Australia was 24 percent. Past month use in the Texas surveys has increased from 7 percent in 1992 to 12 percent in 1994 to 16 percent in 1996. A 1996 survey of graduating high school students in Australia over the end-of-school-year party time found that over 40 percent of students had used marijuana within the previous twenty-four hour period.

The New South Wales 1992 school survey found that among 12 to 16 year

Among adult prisoners, 77 percent of NSW adult prisoners had ever used cannabis as compared to 85 percent lifetime use among male Texas prison inmates. Past year use prior to entering jail or prison among NSW prisoners was 60 percent as compared to 33 percent for Texas adult male prisoners. Adults in the criminal justice system were more likely to begin use earlier (15.5 years in NSW and 16 years in Texas) as compared to the 17.5 age reported in the Australian national survey.

Among secondary school students in three Australian states, lifetime use was reported at 27 percent in New South Wales, 23 percent in

Victoria, 10 percent of males and 5 percent of females reported weekly use as compared to lifetime use of 30 percent by males and 21 percent by females. In Western Australia, 25 percent of male students and 22 percent of female students were current marijuana users. The 1992 Texas Secondary School Survey reported that of students in grades (years) 9 through 12, 8 percent of males and 6 percent of females had used in the past month.

Marijuana use continues upward in the US according to indicators such as hospital emergency room mentions of marijuana, arrestees testing positive for marijuana, and increasing admissions

of adolescents and adults to treatment due to problems with marijuana. In 1991, 20 percent of Texas adolescent treatment admissions to publicly-funded programs were for a primary problem with marijuana; in 1996, 66 percent were.

There is also a significant increase in clients presenting to drug treatment agencies in New South Wales with primary cannabis problems. These clients tend to fall into two different groups of marijuana users: younger cannabis users who usually had some intermittent experience with amphetamines, Ecstasy, and sometimes cocaine; and older users who smoked marijuana for ten or more years, often with few problems, and who had sometimes experimented with other illicit drugs (excluding heroin) but primarily were regular users of only cannabis.

Marijuana has overtaken cocaine as the most frequently detected drug among adult male arrestees in the US, and the number of marijuana arrests continues to increase in many reporting areas. In Texas, of all the adolescent arrests for drug offenses, the proportion arrested for marijuana has increased from 40 percent in 1991 to 75 percent in 1996.

In Australia, marijuana sells for \$20-\$25 per gram and \$300 to \$650 per ounce, although there are reports in 1997 that the price of some locally grown marijuana may be falling. For example, Western Australian police report that cannabis leaf can be purchased for as low as \$150 per ounce and head for \$300 per ounce. Hybrid forms of marijuana, such as skunk, are now reported across Australia. These hybrids often have a significantly higher THC (the main active ingredient in marijuana) content with levels of 12-13 percent and sell for \$600-\$650, as compared to an average of 5-6 percent in regular marijuana with 5-6 percent THC which sells for \$250-\$350.

In the US, sinsemilla, the most potent form of

marijuana, costs from \$900-\$8,000 a pound and \$100 to \$850 per ounce. A pound of commercial averages \$300 to \$400 and an ounce costs \$40 to \$400. Overall, THC levels in commercial marijuana in the US have gone from 1.06 percent in 1977 to 3.3 percent in 1995; sinsemilla has gone from 3.2 to 6.7 percent THC in the same period.

High quality marijuana is more available due to the increasing availability of hydroponically grown cannabis. The hydroponic equipment has become less expensive and

more easily obtained, which has resulted in a more consistent quality and supply of cannabis.

In Australia, smoking cannabis with a “bong” or water pipe was reported as the most common method of use among regular users in Australia, while a “joint” would be smoked in a more public setting. The 1995 Australian Household Survey found that nearly one and a half times as many Australians used a bong or pipe instead of smoking a joint, but the preference varied by state. In Victoria, joints were preferred, while pipes were used by most South Australian users.

Blunts are a favorite way of smoking marijuana in the US. A blunt is a casing of a cheap cigar such as a Phillie, a Swisher, or a Garcia, with the tobacco removed and replaced with marijuana. Blunts can be laced with crack or PCP or dipped in embalming fluid (formaldehyde). A blunt equals about four joints, sells for \$3 to \$5, and is popular with adolescents and young adults. Blunts have been popularized by T-Shirts with the Phillies

“ The 1995 Australian Household Survey found that nearly one and a half times as many Australians used a bong instead of smoking a joint. ”

Blunt logo and by Rap Music. They are usually smoked while drinking large bottles of cheap beer.

Use of Blunts has been reported in Australia, but due to the higher price of marijuana, use is limited and tends to be in the upper socio-economic groups at this time. However, a cigarette rolling paper sold in Australia has now been renamed “Blunt” and the inside of the package includes an advertisement for a dance party. The practice of “snowconing” (smoking a “bong” filled with cannabis topped with another drug, usually amphetamines, heroin or crushed benzodiazepines) appears to be gaining popularity, particularly among younger users who may be experimenting with substances other than cannabis.

The US rise in marijuana use has been attributed to several different factors:

- Higher potency.
- Use of marijuana mixed with or in combination with other dangerous drugs.
- The reduction in students’ perceived risk of using marijuana and the reduction in their perceived disapproval by friends for using drugs.
- Increased availability and lower prices of marijuana.

Stimulants

Stimulants can be amphetamines or methamphetamines. The Australian national survey queried about amphetamines (e.g., Speed, Goey, Uppers, Ox Blood, MDA, Eve), while the US national survey asked about stimulants, which included amphetamines and methamphetamines. Methamphetamines are still not common in Australia. The Texas adult and juvenile justice surveys asked about “Uppers” including amphetamines or methamphetamines. Both the NSW adult and juvenile justice surveys asked about amphetamines.

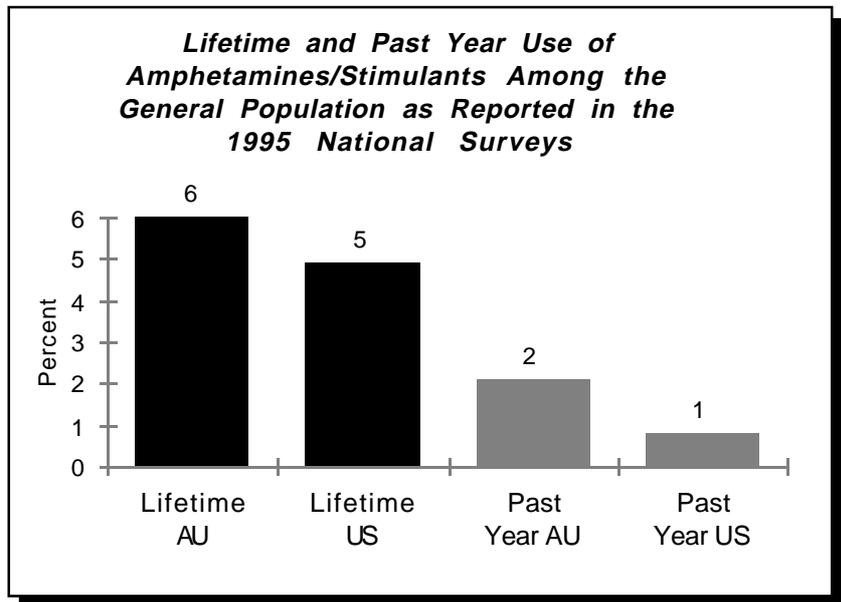
Amphetamines and Methamphetamines

Amphetamines are the most widely used illicit drug after marijuana in Australia, and in comparison to the US, it is clearly the more preferred “upper.” According to the 1995 Australian National Survey, lifetime use of amphetamines for persons aged 14 and older increased from 5 percent in 1993 to 6 percent in 1995 and past year use increased from 1.9 percent to 2.1 percent. In the US, lifetime use of stimulants in 1993 was 4.8 percent and in 1995 it was 4.9 percent. Past year use was 0.7 percent in 1993 and 0.8 percent in 1995.

In Australia, the median age of first use increased from 18.4 in 1993 to 19.6 in 1995, while the proportion trying amphetamines before age 16 dropped from 18 percent in 1993 to 7 percent in 1995. More than twice as many Australian males as females have used amphetamines in the past year (7 percent v. 4 percent), and use is highest among those aged 20-34, with 6 percent reporting past year use. Nearly all recent users are less than 35 years old.

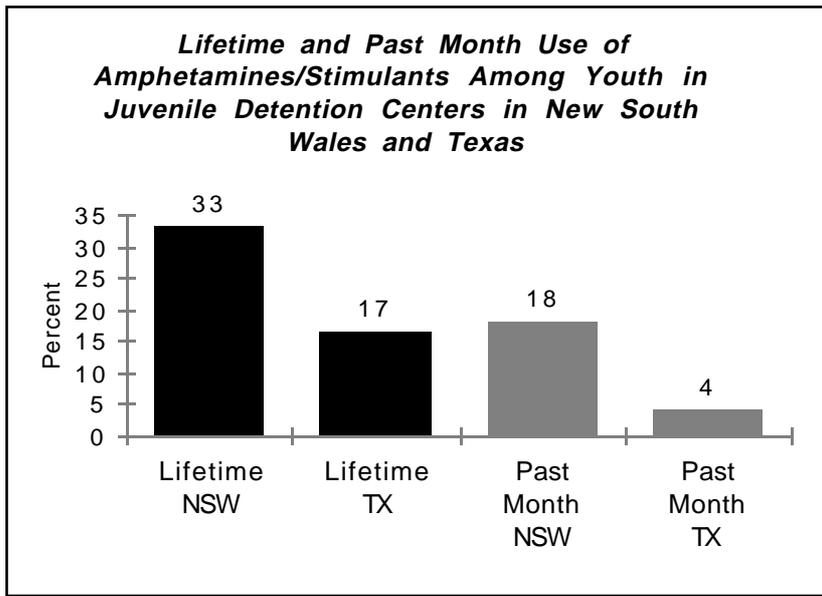
“ Amphetamines are the second most widely used illicit drug in Australia, and in comparison to the US, it is clearly the preferred upper. ”

Use among special populations is higher, especially in Australia. Lifetime use among youth in New South Wales Juvenile Justice Centers in 1993 was reported at 33 percent, while among youth in Texas detention centers, lifetime use was reported at 17 percent. Past month use by the Australian juvenile justice youth was 18 percent as compared to 4 percent for Texas reform school youth.



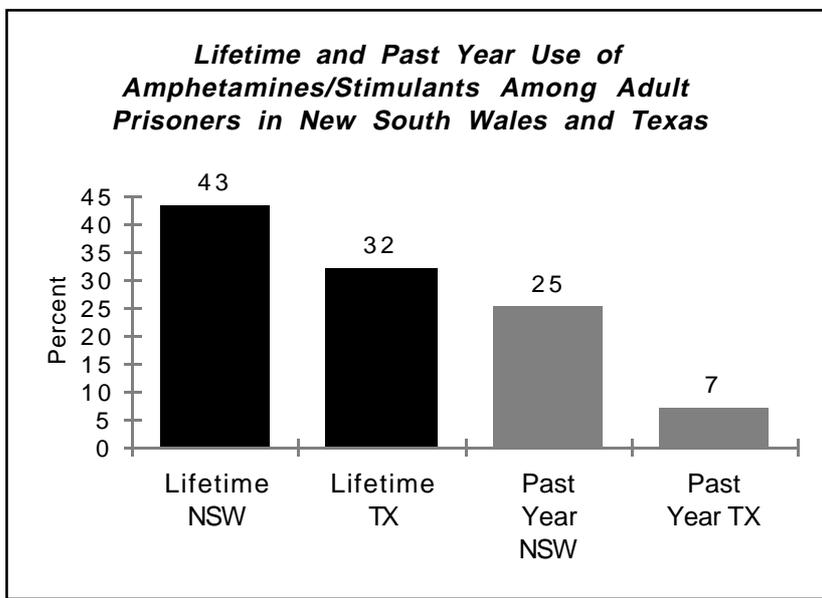
Among adult prisoners in New South Wales in 1990, lifetime use was 43 percent and past year use was 25 percent; among Texas adult male prisoners in 1993, lifetime use was 32 percent and past year use prior to prison was 7 percent.

Among secondary school students, lifetime use of stimulants in Texas was 6.5 percent in 1992 and 8 percent



champagne,” which was seized in both Melbourne and Perth, was identified by the police as having a purity of almost 70 percent.

Prices for amphetamines in Australia have been slowly falling over the last two years. Prices vary from state to state according to supply and quality. Recent local reports indicate a fall in price from \$90 to \$120 per gram six months ago to a current market of \$80 - \$100. Depending on purity ounce rates range from \$600 to \$1,200.



Long-distance truck drivers have traditionally been considered as one of the historical markets for amphetamines in Australia, with reports of 30 to 45 percent lifetime use among this occupational group.¹ More recently, Rave and dance parties have become popular venues for amphetamines.

in 1996, with past month use was 1.8 percent in 1992 and 2.6 percent in 1996. In New South Wales in 1992, lifetime use was 6 percent and past month use was 3 percent; in Victoria, lifetime use was also 6 percent with 2 percent past month use; in Western Australia, lifetime use was 4 percent with 3 percent current use.

Amphetamines are readily available throughout Australia. The quality of the drug varies between states with a low purity level generally recorded between 3 to 8 percent, although higher grade amphetamines occasionally do become available. Amphetamine marketed as “pink

These rave parties start late in the night and operate in large spaces such as warehouses. They can draw from 200 to 2,000 or more patrons. Entertainment is generally centered around “techno” type dance music and continues until early morning.

Injection of amphetamines has increased and there are indications that some amphetamine users are shifting to regular heroin use. The user group is changing with an increase in younger persons, especially juvenile aboriginals. Large scale manufacturing is controlled by motorcycle gangs, and Sudafed, an over the counter cold and flu

“ Stimulant abuse has become an epidemic in some rural midwestern and southeastern areas of the US. ”

medication, is the most common precursor drug used.

Abuse of stimulants, especially methamphetamine, varies

by region in the US. In parts of the West it has become an epidemic and it is a problem in some rural midwestern and southeastern areas. In San Diego, it has replaced cocaine as the leading problem drug and sniffing is the most common route of administration. In San Francisco, use is increasing. It is prevalent on the street and in clubs where it is used by the “ultra fast lane” crowd, and it is a major threat for the spread of HIV because of high sexual activity while on speed and the use of needles to inject. In Denver, injecting and smoking predominate, but rocks of speed or powdered speed are smoked in crack pipes. In Atlanta, it is endemic in the rural areas and is known as “Red Neck Cocaine.” The Northeast rarely reports abuse of stimulants except by long-haul truck drivers. Use of speed is reported up in the UK and “Ice,” a long-lasting methamphetamine, is a major problem in Honolulu, Manila, Korea, Japan, Thailand, and the Northern Marianas.²

Compared to the US, there has been little methamphetamine use in Australia. While still not as common as amphetamine, site reports indicate its increased availability and use. Police in the northern parts of Australia have recently reported increases in availability which may be associated with the north’s geographical closeness and cultural links to South East Asia. The Japanese and Asian tourist market represents one of Queensland’s largest overseas visitor bases and the popularity of Ice in these countries may lead to an

introduction of this form of methamphetamine into Australia. On Queensland’s Gold Coast, which is the center for a large casino operation and international tourist market, the availability of methamphetamine appears to be increasing.

Methamphetamines and amphetamines were usually manufactured and distributed by motorcycle gangs in the US, but with the passage of legislation making precursor chemicals more difficult to obtain, most “cooking” of stimulants is now done in Mexico. The US motorcycle gangs used the phenyl-2-propanone (P2P) process to synthesize methamphetamine, but since 1989, the ephedrine reduction method has been used in over 80 percent of the labs. Mexican nationals are smuggling bulk ephedrine from Mexico into California and setting up processing labs or else they cook the methamphetamine in Mexico and import the finished product into the US. Ephedrine, which is

legally produced in the Czech Republic, Germany, India, and China, has the same molecular composition as methamphetamine with the exception of one molecule of oxygen.

“ Although relatively uncommon in Australia, reports indicate increases in methamphetamine availability and use. ”

In the US, the more potent methamphetamine is cheaper in the West and on the Mexican Border, selling for \$500-\$1,000 per ounce in San Diego and \$1,000-\$1,300 per ounce in Atlanta.

Ephedrine

There is anecdotal evidence of ephedrine use in Australian nightclub and hotel venues although use still appears to be limited. Australians return-

ing from either Asia and the US are bringing in prescription or over-the-counter products which contain ephedrine. In the US, products sold at truck stops for asthma relief, such as Mini-Thins, Go-Power, and some bronchial dilators are used for their psychoactive effects by young adolescents.

Herbal stimulants such as Nature's Nutrition Formula One, which contain ephedrine and caffeine, are marketed for weight loss and extra energy. Some contain natural ma huang (0.5 percent to 2 percent ephedrine), while others contain concentrates (6 percent to 8 percent ephedrine). A major concern is the prevalent use of marketing terms such as "all natural" or "all herbs" and the use of herbal names for ingredients which are not known by the general population and most healthcare professionals to contain active drug ingredients. In addition, some of these products are "spiked" with synthetic ephedrine and caffeine.

In Australia, a National Code of Conduct has been established to protect the diversion of precursor chemicals into illicit production, but use of ephedrine in the cooking of amphetamines continues to be a problem. In the US, after access to bulk

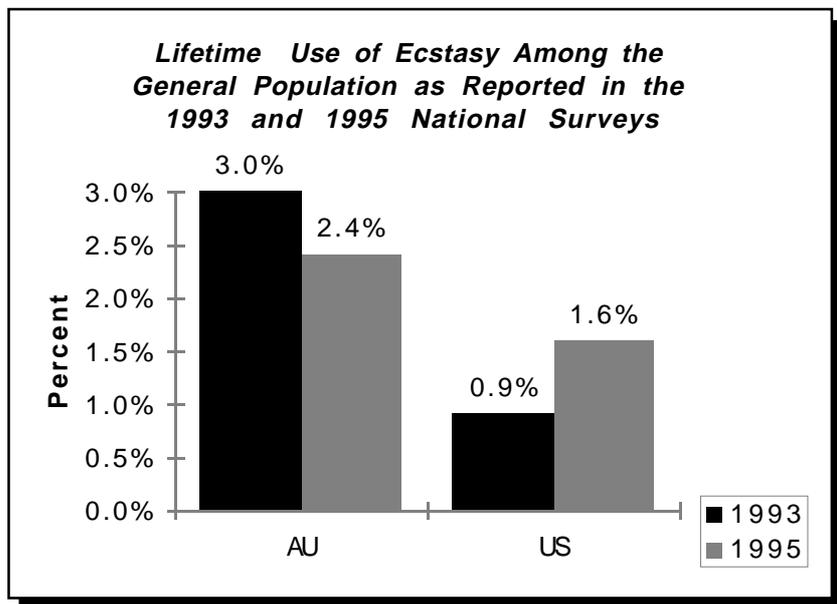
ephedrine was limited through the precursor laws, clandestine laboratory operators began using over-the-counter ephedrine and pseudoephedrine products. Based on the large-scale diversion of over-the-counter ephedrine and pseudoephedrine, the US Drug Enforcement Administration issued regulations in 1996 to limit the sale of more than a 244 day supply of the drug in a single transaction, and in July 1997 the US Food and Drug Administration proposed rules that will prohibit the marketing of dietary supplements containing 8 mg. or more of ephedrine alkaloids, ban labeling which could result in unsafe consumption, and ban combinations of ephedrine with caffeine. Similarly, Australian sources are reporting laboratory

“ After laws in Australia and the US were passed to limit access to bulk ephedrine, lab operators began buying up large quantities of over-the-counter formulations. ”

operators are also buying up large quantities of over-the-counter ephedrine and pseudoephedrine.³

Ecstasy

Ecstasy/MDMA ("XTC," "Adam," "Essence," "Clarity") is a drug which combines the properties of amphetamines and hallucinogens. It was first noticed in Australia in the late 1980's with the "acid house dance parties." Although initially popular in the gay dance



scene, MDMA/Ecstasy use spread to young heterosexual dance users in the inner city areas and availability is increasing. The Australian national surveys showed lifetime use of Ecstasy or designer drugs dropped from 3 percent in 1993 to 2.4 percent in 1995, with past year use dropping from 1.2 percent in 1993 to 0.8 percent in 1995.

The US Household Survey found 0.9 percent lifetime use in 1993 and 1.6 percent in 1995; persons aged 18-25 were the most likely to be past month users (3.5 percent in 1995).

The Texas youth detention survey reported 5 percent lifetime use of Ecstasy and 1 percent past month use. The New South Wales survey of youth in juvenile detention facilities found 13 percent lifetime and 7 percent past month use of Ecstasy.

The 1996 Texas secondary school survey found lifetime use of Ecstasy had gone from 2.6 percent in 1992 to 5 percent in 1996 and past month use had increased from 0.6 percent to 1.5 percent in 1996. The 1992 New South Wales secondary school survey found 4 percent lifetime use, as compared to 3 percent lifetime use in Victoria, and past month use in New South Wales was 2 percent as compared to 1 percent in Victoria.

Median age for first use of Ecstasy in Australia was 20.6 years in 1993, with 15 percent of the population reporting having tried it before age 16; in 1995, median age was 21.4 and only 1 percent reported having tried it before age 16. Males were more likely to have used Ecstasy in the 1995 survey (3 percent) and those aged 20 to 34 were also more likely to have used it (7 percent).

There is some evidence of increasing use of

Ecstasy by injection and one study suggested that LSD and Ecstasy are used almost interchangeably by young users.⁴ Several recent deaths in Australia have been Ecstasy-related. Due to the many different recipes used to manufacture MDMA, often the death has been found to be caused by some other substance inadvertently created during

production, such as PMA (paramethamphetamine). This has been the case in Adelaide which has now had more Ecstasy-related deaths per capita than any other city in the world, with what appears to be a supply of PMA being sold as Ecstasy.

While the prices of Ecstasy continue to vary, the more recent trend for a lower price product appears to continue. Throughout Australia, prices ranged from \$15

per tab to \$100 with a median price of around \$40-\$70 per 50-100 mg. In Queensland, there is a more established supply and slightly falling market prices at \$20 to \$60 per tab with purity levels ranging from 35 percent to 70 percent. Australian prices are still high when compared to \$7-\$30 per tab or \$55-\$150 per milligram in the US.

Law enforcement authorities in Australia are reporting that tablets being sold as Ecstasy often contain impurities and a variety of other substances. Of particular concern is the MDMA being replaced by LSD or strong hallucinogens such as ketamine and tiletamine. Law enforcement authorities also report increases in seizures of Ecstasy, particularly at international border checkpoints. Both law enforcement authorities and health workers are concerned about the recent trend of packaging MDMA in capsules and generic tablets to imitate pharmaceuticals.

Following several deaths at night and dance clubs, the Commonwealth and Industry Associa-

“ In Australia, several Ecstasy-related deaths have occurred due to chemical impurities inadvertently created during the production. ”

tions established a working party and developed harm reduction guidelines and a national code of practice for dance parties and night clubs.

Natural Ecstasy

“Legal” or “natural” versions of Ecstasy are marketed in Australia and the US. These products are labeled as dietary supplements and marketed as being safe and “all natural,” although they may contain 50 to 100 mg. of ephedrine in combination with caffeine. Known as Cloud 9, Herbal Ecstasy, Herbal X, GWM, Herbal Bliss, and Ritual Spirit, they are promoted as containing ma huang and koala nut, but contain ephedrine, pseudo-ephedrine, and caffeine. The ingredients of Cloud 9 fall within the Prohibited Import Regulations in Australia. One US company attempted to market Yohimbix 8, a liquid with an active ingredient called yohimbine, which is an alkaloid extract from the bark of the Corynan, the Yohimbe Schum tree from Cameroon in Africa.

These products contain varying amounts of ephedrine, pseudo-ephedrine, and caffeine which can cause adverse reactions such as cardiac arrhythmias. They are prohibited under Australian law. To bypass these laws the manufacturers have attempted to replace the ephedrine products with other stimulant-like substances. After extensive media publicity, Herbal Ecstasy, which is available through mail-order in Australia, has now replaced the ephedrine with kava.

Ritalin

In the US, high school and college students are reported to be obtaining Ritalin (methylphenidate) illegally and the level of abuse has resulted in an investigation by the DEA. A tablet sells for \$5. Police report that there is a strong demand for this drug in the injecting population and more recently among younger school students. As the use

of Ritalin has increased in Australia for the treatment of attention deficit disorder (ADD), anecdotal evidence indicates that there has been an increased usage of the drug for illicit purposes.

- ¹ J. Davey, “Current Issues in Australia.” *Epidemiologic Trends in Drug Abuse, Proceedings of the Community Epidemiology Work Group June 1996*. Rockville, MD: National Institute on Drug Abuse, 1996.
- ² National Institute on Drug Abuse. *Epidemiologic Trends in Drug Abuse: Volume 1, December 1995*. Rockville, MD: National Institute on Drug Abuse, 1996.
- ³ *Brisbane Courier-Mail*, August 4, 1996.
- ⁴ D. Moore, “Speeding, Eeking and Tripping: Ethnographic Notes from A Small World of Psychostimulant Use.” In D. Burrows, B. Flaherty, M. MacAvoy (eds.), *Illicit Psychostimulant Use in Australia*. Canberra: Australian Government Publishing Service, 1993.

“ The high levels of abuse of Ritalin by high school and college students in the U.S. has resulted in an investigation by the DEA. ”

Cocaine

While amphetamines and methamphetamines are the favorite “upper” in Australia, cocaine is the favorite “upper” in the US. Cocaine has been imported into Australia since the end of the 1880s when it was used in patent medications. By the 1930s, it was banned except under a doctor’s prescription. Since then, there has been a rise in the black market distribution and organized crime involvement. Cocaine is transhipped from South America through the US or Europe into Australia. While crack cocaine dominates the drug scene in most US cities, the crack epidemic never occurred in Australia, primarily because of the scarcity of cocaine.

In the US, crack cocaine, which is powder cocaine mixed with baking soda and cooked into small rocks for smoking in a pipe, is the dominant illicit drug problem, although indicators of use are generally level or declining. Supplies remain abundant and most cocaine users are older, inner-city drug addicts. However, isolated field reports in the US indicate some new populations such as teenagers who smoke crack with marijuana; young members of the club subculture; Hispanics who snort cocaine; suburban and rural cocaine users;

and female crack users in their thirties with no prior drug history.

In Australia, the national surveys found that 2.4 percent of the population had ever used cocaine in

1993, as compared to 3 percent in 1995, with past year use rising from 0.5 percent in 1993 to 0.9 percent in 1995.

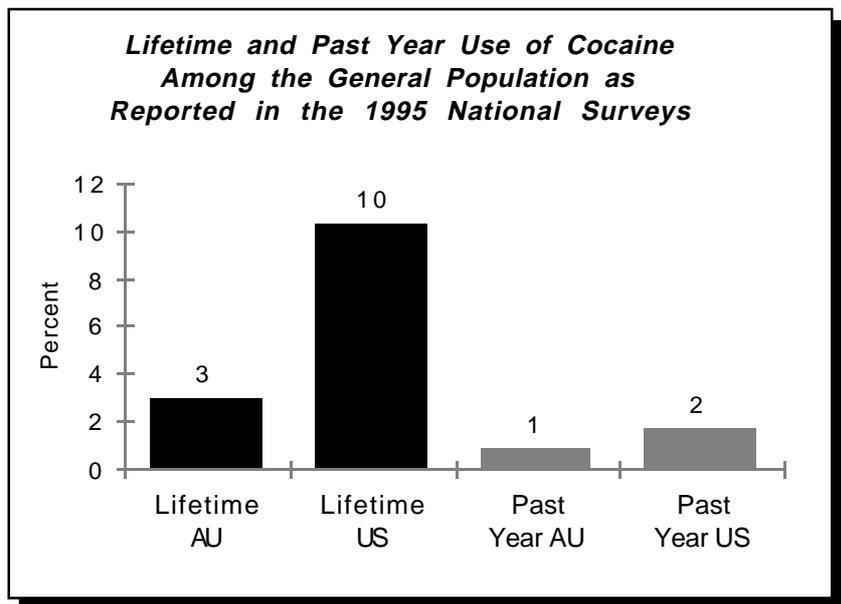
In comparison, in the US, the percent of

lifetime use has dropped from 11.3 percent in 1993 to 10.3 percent in 1995, and past year use has dropped from 1.9 percent to 1.7 percent.

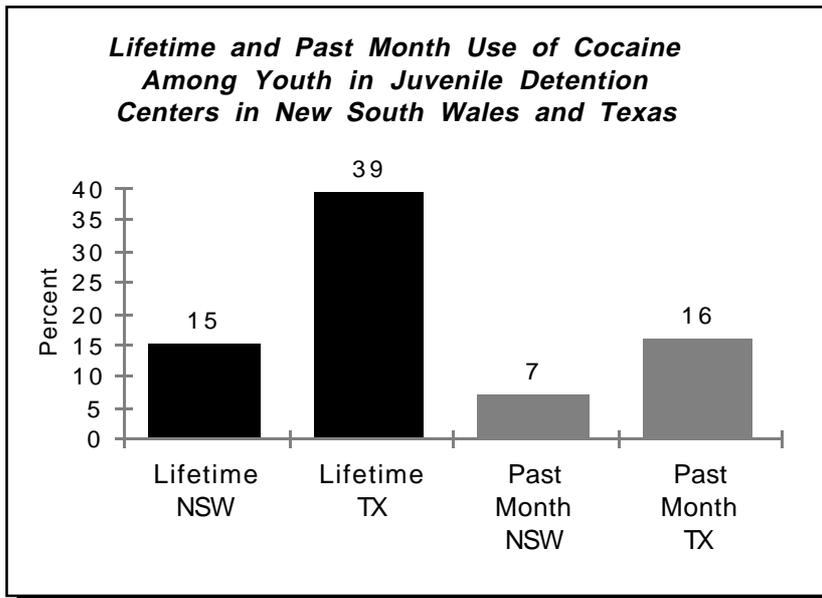
In the US, the rate of past month cocaine use in 1995 was highest among those aged 18-25 (1.3 percent) and those 26-34 (1.2 percent). The past month cocaine use prevalence rate for the 12-17 year old age group increased from 0.4 percent in 1993 to 0.8 percent in 1995, and rates of cocaine use were 1.1 percent for Blacks, 0.7 percent for

“ While amphetamines are the favorite upper in Australia, cocaine is the favorite upper in the US. ”

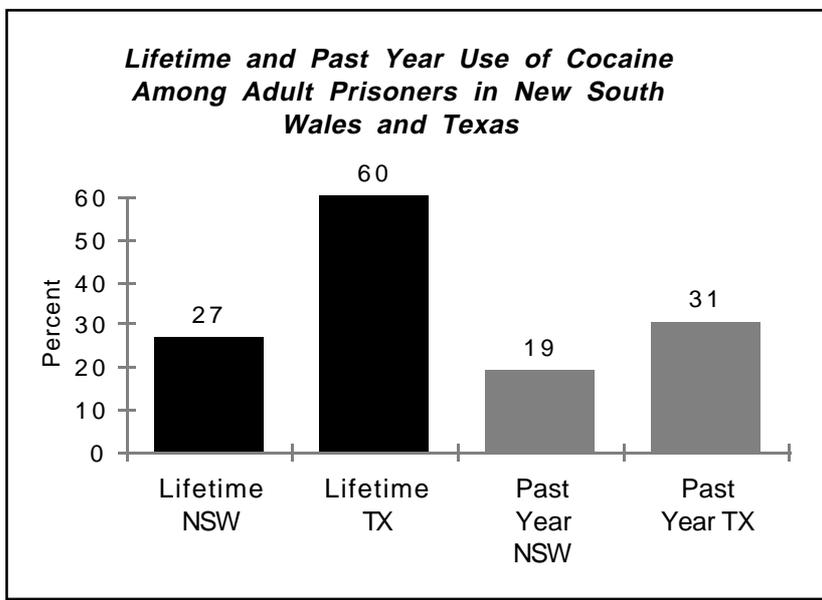
Hispanics, and 0.6 percent for Whites, which is similar to 1994. Rates of use for males was 1.0 percent and for females, use was 0.4 percent.



The 1995 Australian household survey reported that males were slightly more likely to use cocaine than females (4 percent v. 3 percent) and use was more prevalent among those aged 20 to 34 (6 percent). Median age of first use is 20.4 years, according to the survey. In



As with other “hard” drugs, prevalence rates are higher among high-risk groups, although rates are much higher among US groups. Among youth in New South Wales juvenile detention centers, 15 percent reported lifetime cocaine use and 7 percent reported past month use, while among Texas youth in detention centers, lifetime use was 39 percent and past month use was 16 percent.



Among adult prisoners in New South Wales, lifetime use was 27 percent and past year use (prior to jail) was 19 percent as compared to 60 percent lifetime and 31 percent past year use among Texas male prison inmates.

In Australia, cocaine is not readily available and the price is much higher at \$250 to \$350 per gram with 60 to 70 percent purity as compared to \$20 to \$150 per

gram in the US with purity up to 85 percent. A kilogram of cocaine costs \$400,000 in Australia as compared to \$9,000 to \$29,000 in the US. However, price is decreasing and availability increasing. The price of a crack rock in the US is usually \$3 to \$50.

comparison, among adult prisoners, average age of first use in NSW was 20 and in Texas 23.3 years for use of powder cocaine and 27.6 years for use of crack cocaine.

Among secondary school students, lifetime use in New South Wales in 1992 was 5 percent, in Victoria, it was 4 percent, in Western Australia, it was 1.5 percent; past month use was 2 percent in the first two surveys and 0.9 percent in Western Australia. With Texas secondary school students, lifetime use was 5 percent in 1992 but 7.1 percent in 1996, while past month use went from 1.5 percent in 1992 to 2.4 percent in 1996.

Key informants in Sydney identified two main subcultures of use: the casual, recreational high socio-economic status, intranasal user and the more compulsive, serious, long-term, low socio-economic injector. Use by the high socio-economic group was found to be part of the image and

lifestyle associated with social, sexual, and work influences. In the injecting group, cocaine was used for the rush, to cope with problems and to allay drug withdrawal. Among injectors, a history of arrest was common as well as frequent polydrug use. They were more likely to be unemployed and to be involved in illegal activities such as sex work, drug dealing and property crime. The intravenous group was more likely to use in isolation whereas the intranasal group tended to use in a social setting. More cocaine-related health problems and violence are being reported.¹

Smoking crack is the most common route of administration in the US, with 94 percent of admissions in St. Louis, 91 percent in San Francisco, and 73 percent in Texas being crack users. Cocaine abusers entering treatment are most likely to be Black (84 percent in Newark, NJ, and 50 percent in Texas). The proportion of treatment admissions who are female is higher for crack than for other forms of cocaine (41 percent in New York City and 55 percent in Texas).

Youth involvement in the crack scene in most areas is limited primarily to sales and distribution, and more correspondents report that these youth, who are often dealers, “despise” crack addicts. Gang influence and violence continues to grow, particularly as the crack addicts become poorer and sicker and competition for a limited market increases since crack is no longer seen as an attractive drug. Use is limited to a pool of addicts who are increasingly showing up in indicators of treatment and hospital admissions, overdoses, and violence-related crimes.

Female crack addicts have traditionally supported their habits through prostitution, and the literature has now documented that in poor, inner-city neighborhoods, young crack smokers, particularly women who have sex in exchange for money or drugs, are at as high a risk of HIV infection as men who have sex with men.² The high rates of

hepatitis, sexually transmitted diseases, and HIV infection mean that treatment for crack addiction is a direct way of reducing the incidence of HIV infection.³

While Australia does not have high levels of cocaine supply and use, this does not justify complacency, since the current situation is changing. Customs officials report an increasing number of cocaine seizures.⁴ Australia already has well established marijuana, amphetamine, and Ecstasy markets and this user group has shown an increasing interest in cocaine. While injecting polydrug users were one of the traditional users of cocaine in Australia, ethnographic reports indicate a noticeable increase in availability and use within the club and dance scene, especially through non-injecting means of administration. More recently, field reports have indicated a rapid increase in use and availability among the surfer population. Although still comparatively small in number, arrests for cocaine have more than doubled in the past three years to 330 in 1996.⁵ And lastly, the household and secondary school surveys show that recent use of cocaine is higher than recent use of opiates, steroids, barbiturates, or Ecstasy.

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- ¹ J. Hando. *Sydney Key Informant Study on Cocaine*. Sydney: New South Wales Health Department, 1995.
 - ² B. Edlin. “Intersecting Epidemics: Crack Cocaine Use and HIV Infection Among Inner-City Young Adults,” *New England Journal of Medicine* 331, 21, (Nov. 24, 1994): 1422-1428.
 - ³ M.W. Ross, et. al. Crack Cocaine as a Major Risk of HIV Transmission in a Crack House Population. Austin, TX: Texas Commission on Alcohol and Drug Abuse, Research Brief, 1997.
 - ⁴ M. Roche, Deputy Chief Executive Officer, Australian Customs Service. Email to Jane Maxwell, July 15, 1997.
 - ⁵ Australian Bureau of Crime Intelligence. *Australian Illicit Drug Report*. Canberra: Australian Government Publishing Service, 1995.

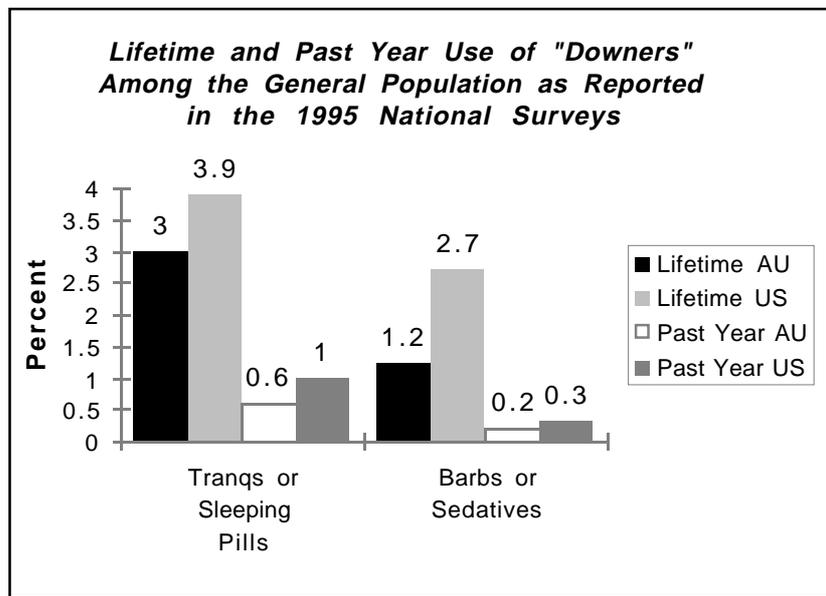
Downers

Questions about “downers” varied by instrument. In the Australian national survey, one set of questions dealt with tranquilizers or sleeping pills such as Valium, Serapax, or Rohypnol, and another set focused on barbiturates such as “barbies,” “reds” or “purple hearts.” In the US national survey, the questions were asked about sedatives, including the barbiturates and Quaaludes, and about tranquilizers such as Valium. The NSW adult prison survey asked separate sets of questions about benzodiazepines and about barbiturates. The Texas prison and reform school

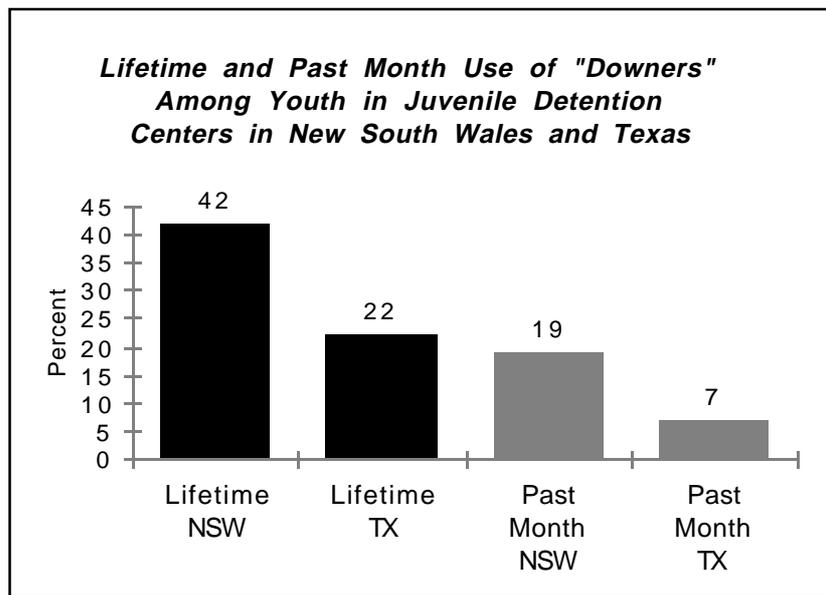
surveys and the NSW juvenile detention survey combined both types of drugs into one category of “downers” in the Texas surveys and “sedatives” in the NSW survey.

The 1995 Australian national survey found that 3 percent of the population aged 14 and older had ever tried tranquilizers or sleeping pills as compared to 3.9 percent in the US, and past year use was 0.6 percent in Australia and 1 percent in the US. Lifetime use of barbiturates/sedatives in Australia was 1.2 percent as compared to 2.7 percent. In the US; past year use was 0.2 percent v. 0.3 percent. Average age of first use in Australia

for barbiturates was 17.7 years and 19.8 years for tranquilizers.



Among the criminal justice population, lifetime, past year, and past month use of “downers,” whether tranquilizers, sedatives, or barbiturates, appears to be higher among the NSW detainees than among the Texas justice population. In the criminal justice surveys, adults in New South Wales detention reported 42 percent lifetime use of benzodiazepines and 27 percent lifetime use of barbiturates. Adult male prisoners in Texas reported 29 percent lifetime use of “downers.”



Youth in the New South Wales juvenile detention survey reports 42 percent lifetime use of sedatives and 19 percent past month use, use, use while juvenile offenders in Texas reported 22

percent lifetime and 7 percent past month use of “downers.”

The Texas secondary survey found lifetime use of downers was 4.5 percent in 1992 and 5.6 percent in 1996, with past month use at 1.2 percent in 1992 and 1.8 percent in 1996. Past month use of sedatives in 1992 in the New South Wales survey was 4 percent as compared to 5 percent in Victoria. In Western Australia, 2.4 percent of secondary students reported ever having used benzodiazepines and 1 percent were current users.

Rohypnol

Abuse of Rohypnol (flunitrazepam) has become a problem in the US, where it is known as “Rowies,” “Roach,” “Rophies,” “Ruffies,” “Roche,” “The Forget Pill,” “Stupefi,” “R-2,” “Rib,” “Rope,” “Run, Trip and Fall,” and to get “Roached.” Flunitrazepam was developed in the late 1970s for the treatment of severe sleep disorders and as a presurgical anaesthetic. It was never available as a legal drug in the US, and it has been with-drawn from New Zealand. In

“Rohypnol has been the fastest growing drug problem in South Florida, and has rapidly spread from Florida and Texas to the rest of the US.”

Australia, Rohypnol is available by prescription and from underground sources, and a tablet sells for \$5.

Rohypnol was first seen in the US in the late 1980’s, but it has now become a drug of choice among youth, where it is usually used with beer. It can be a gateway to harder drugs and other drug combinations. Because it is normally available in the manufacturer’s bubble packaging, it is seen by youth as safe, “legal,” and unadulterated. It has the

reputation as the “date and rape” drug because of its amnesia-like properties. It has been the fastest growing drug problem in South Florida and has rapidly spread from

Florida and Texas to rest of US. It is imported from Latin America and Mexico.

Since March, 1996, Rohypnol can no longer be legally brought into the US but Mexican pharmacies are now selling other drugs, such as clonazepam (Rivotril) and diazepam (Valium), which are still legal to import in 90 day supplies. Treatment programs in Texas are now reporting both adolescents and adults who are seeking treatment because of their addiction to Rohypnol.

During the spring and summer of 1996, the drug’s “date and rape” reputation spread quickly through media and day-time television talk shows. In Australia, publicity was generated by a criminal trial involving Rohypnol and “date rape.” However, this form of abuse appears to be rare at this time.

The most common pattern of abuse has been by heroin users who inject the drug, often as a substitute for their drug of choice, and stimulant users who use it as a “comedown” drug after a binge. Although Rohypnol is often identified by both groups of users as their first preference, the drug has become far more difficult to obtain by prescription due to a concentrated effort by authorities to inform doctors as to its abuse potential. This has resulted in users often turning to other drugs from the benzodiazepine family, such as Valium and normison.

“ In Australia, Rohypnol is available from prescription and underground sources, although prescriptions are harder to obtain. ”

Heroin

The 1995 national Australian survey reported that 1.4 percent of the population had ever used heroin, a decrease from 1.7 percent in 1993. Past year usage, however, increased from 0.2 percent to 0.4 percent. Lifetime use in the US by persons aged 12 and older is about 1.2 percent with 0.2 percent reporting use in the last twelve months. In all surveys of the general population, such prevalence figures should be interpreted with caution, as higher rates will be found in surveys of high risk populations. In addition, these surveys were done before the impact of the much purer heroin was seen in either country.

The average age of first use in Australia went from 19.1 years to 20.0 years between 1993 and 1995, but the proportion of youth using before age 16 increased from 2 percent to 14 percent during this same period, which is a troubling finding.

The secondary school surveys in 1992 found lifetime use of heroin in both New South Wales and Victoria was 4 percent and past month use was 1 percent in each. In Western Australia, lifetime use was 2 percent with 0.7 percent current use. Heroin was not queried in the Texas secondary school survey.

Youth in New South Wales juvenile detention centers in 1993 reported 19 percent lifetime use of opiates, which could include morphine, Percodan, and codeine. Youth in Texas juvenile detention centers reported 8 percent lifetime use of heroin and 9 percent lifetime use of other opiates (17 percent combined). Past month use of opiates by NSW juvenile detainees was 10 percent v. 2 percent use of heroin and 3 percent use of other opiates among Texas juvenile detainees.

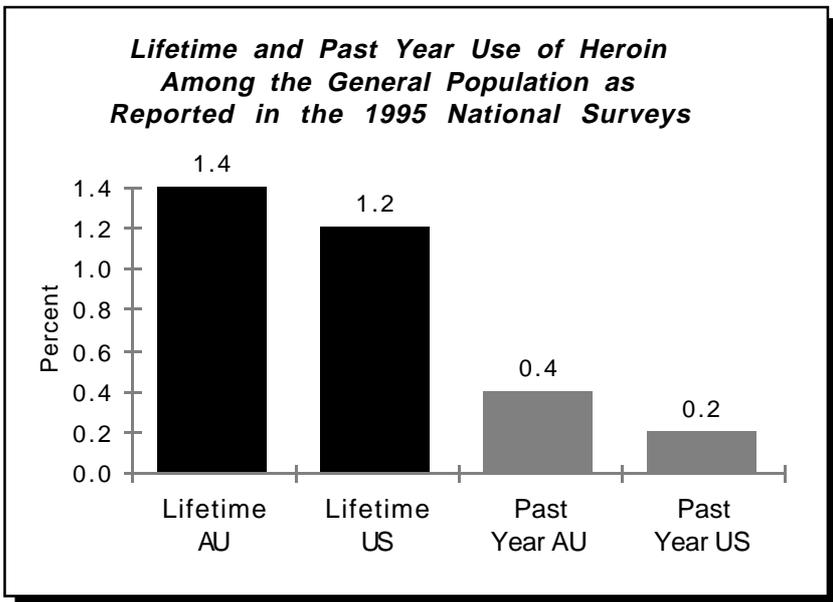
Of adult prisoners in New South Wales in 1991, 40 percent reported lifetime use of heroin and 28

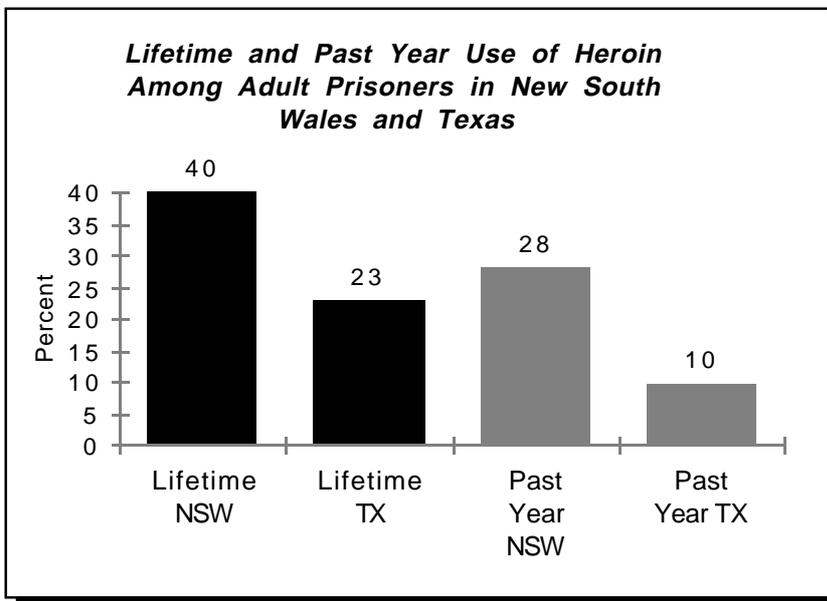
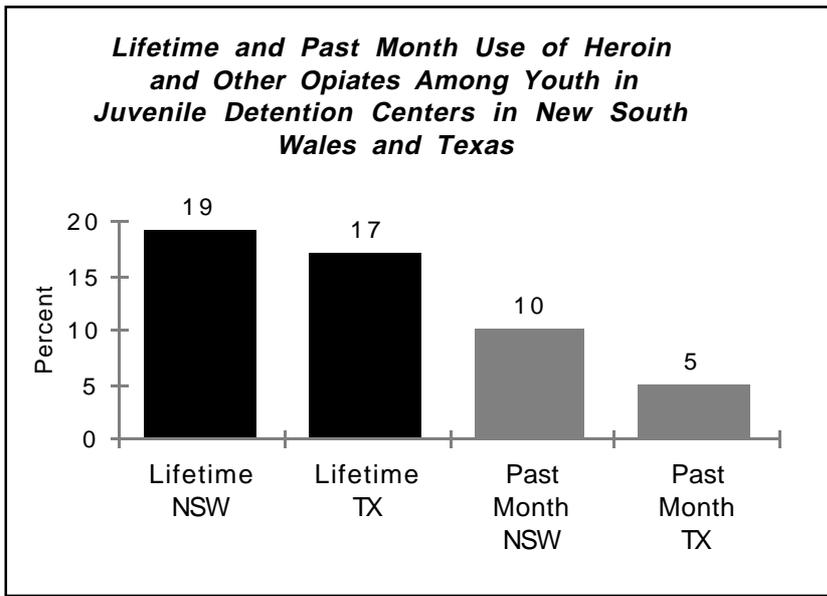
percent reported past year use prior to incarceration, as compared to 23 percent lifetime use and 10 percent past year use among Texas male prisoners in 1993. Adult prisoners in NSW started heroin use at age 18 as compared to 21.9 years for Texas adult prisoners.

“ The national surveys were done before the impact of the much purer heroin was felt in either country. ”

On the US East Coast, heroin addicts have

shifted from injecting to snorting or smoking heroin because of the increasing purity of heroin and the dangers of using needles. Needle exchange programs are not common in the US, and there is a high rate of AIDS among injecting heroin users on the East Coast (46 percent of AIDS cases in New York City are due to injecting drug use). Injecting is the most common route of administration elsewhere in





There have traditionally been three varieties of heroin produced in the world: Southeast Asian (SEA), Southwest Asian (SWA), and Mexican. The white heroin from Asia has been most prevalent in Australia. In the last two to three years, as the demand for cocaine in the US has begun to level off, the Colombians have begun growing poppies and producing a heroin which is very pure.

This heroin is marketed on the US East Coast to traditional heroin users and to a “Yuppie” market, a cohort of new users who are younger and affluent. The dealers of South American heroin, who also control the cocaine market, are undercutting their Asian rivals in terms of both price and purity to drive them out of the US market, which could help explain the recent upswing in

the US. In the western US, the proportion of AIDS cases due to injecting drug use is much lower: 6 percent in San Francisco and 16 percent in Texas. In comparison, in Australia, only 4 percent of AIDS cases are due to injecting drug use.

In Australia, while the majority of users inject heroin, there has been an increase by both Asian and non-Asian populations in southwest Sydney in “Chasing the Dragon,” which is inhaling the smoke of burning heroin. Smoking heroin is becoming more popular on the West Coast in the US, although it remains relatively uncommon.

heroin availability in Australia. Marketing is aggressive with price cutting and new users are being told by dealers it is not addictive to snort heroin.

In New York City, a kilogram of white heroin is now \$65,000; at one time it cost \$250,000. While white Asian heroin is available in the rest of the US, most of the heroin in the West is Mexican, which is less pure and more expensive. In San Diego, Black Tar Mexican heroin sells for \$140-\$20 per gram, while in Texas, Black Tar sells for \$250-\$400 per gram.

“ Since the last half of 1995, there has been a dramatic increase in supplies of cheap, high quality heroin. ”

The increase in heroin purity worldwide is also due to other new supplies. Opium is seen as a cash crop which can help support cash-strapped economies,

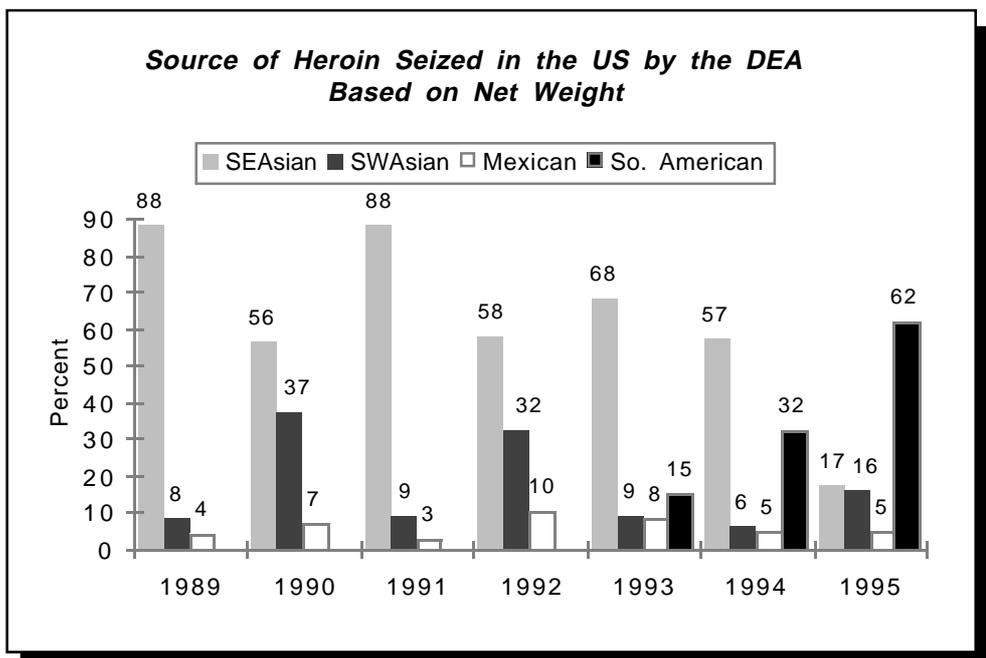
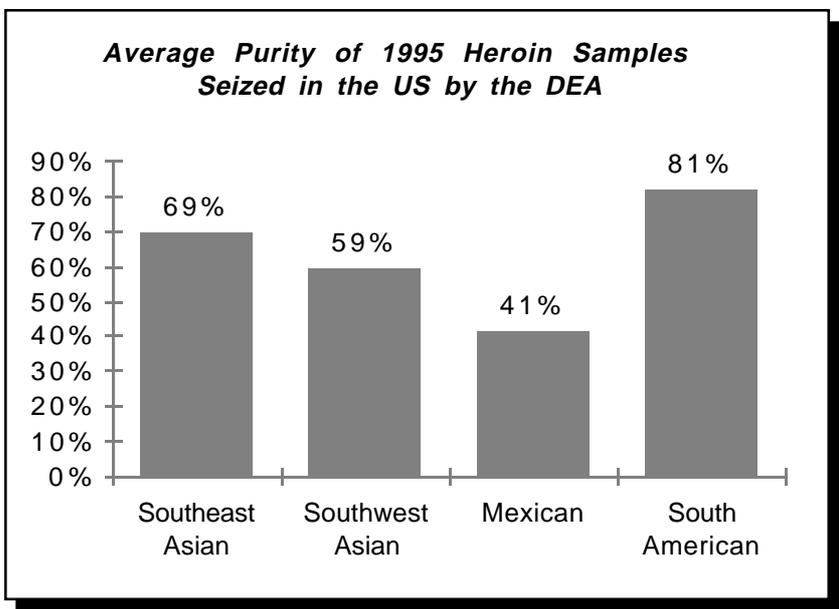
been around 7 to 20 percent with prices varying across the country at between \$100 to \$500 per gram, as compared to \$30 to \$300 per gram in the US.

There has been a recent dramatic increase in the purity of heroin. Since the last half of 1995, cheap high quality heroin has frequently been available: 80 percent pure heroin can be purchased for around \$40 for an “average” hit with “tastes” as low as \$10. Government analytical laboratories in New South Wales found purity of seized heroin

such as Taliban in Afghanistan, North Korea, and some Russian republics.^{1,2}

The primary source of heroin for the Australian market remains Southeast Asian. Prior to 1993, the heroin market was controlled in Australia by the Chinese and Romanians, but since then it has become almost exclusively controlled by the Vietnamese with ties back to the Cabramatta district of Sydney. Increasing numbers of importations from Vietnam have been detected, and Australia’s northern coast provides an extensive area to smuggle in heroin. Customs is reporting increased seizures of heroin in 1997.

Purity in Australia had



“ In the US, a bipolar pattern of heroin use is emerging among traditional aging addicts and recreational users. ”

ranged from 2 to 80 percent, and the price of a gram was \$375, and an ounce was \$7,850. The number of heroin overdose deaths has gone from 79 in 1979 to 550 in 1995

to 620 in 1996, with 700 estimated in 1997.³

As more US cocaine dealers also start selling heroin, the two drugs are more often used in combination. Speedballs (shooting heroin and cocaine together) have been common in the Western US for many years, and inner city populations in Sydney are using more cocaine with their heroin. Crack users in the US are turning to heroin to parachute down from extended cocaine runs.

In the US, Clonopin, Valium, Rohypnol, Ritalin, and Fentanyl patches are used when heroin is not available, and Australian surveys report an increase in the use of benzodiazepines by methadone clients and heroin injectors to regulate heroin withdrawal. In addition, there is an increase in injecting methadone by heroin addicts.

In the US, a bipolar pattern of heroin use is emerging, and with the influx of high-quality Asian heroin into Australia, the same pattern may soon be seen:

- The traditional aging addicts (average age now 35-40) who are or were needle users. They are low income or unemployed, involved in criminal justice system for many years, and also use crack or cocaine.

“ There is also a small but consistent market in home-bake heroin in Australia. ”

- The recreational users who are sniffers and smokers. These are young, White, middle class who dabble in other drugs in the club scene and see heroin use as trendy. Because of their money, heroin dealers, particularly the dealers in South American heroin, are targeting high quality white heroin to this group.

There is also a small but consistent market in home-bake heroin in Australia. Quality is unpredictable and depends on the chemicals and codeine used and the skill of the cook. Home-bake is a mixture of heroin and morphine made from “over the counter” or illegally obtained analgesics containing codeine. Chemicals are added to the codeine to produce morphine. Some reports indicate that batches of approximately 80 percent pure morphine have been available in Brisbane. Home-bake is produced in three forms. The powder, which is usually the most potent, is either injected or smoked with cannabis or tobacco. The liquid, which is the second highest potency, is injected. It is sometimes sold in premixed syringes for about \$20. The “boil up” is the leftover chemical residue after cooking. It is the least desirable and the most harmful if injected. It is usually taken orally.

¹ “Opium Finances Taliban War,” *Sydney Morning Herald*, May 10, 1997.

² “Russia Detects Big Korean Heroin Flow,” *The Guardian*, May 24, 1997.

³ “Bid to See Heroin Antidote in Chemists.” *The Australian*, Sept. 12, 1997.

Club Drugs and Hallucinogens

The national surveys found that 7 percent of Australians and 9.5 percent of US respondents had ever used hallucinogens and psychedelics, while past year use was 2 percent for Australia and 1.6 percent for US. Average age of first use in Australia was 18.6 years and 12 percent of the population had used before age 16. Hallucinogens were tried and most recently used by more than twice as many males as females. Persons aged 20-34 were the most likely to have used hallucinogens (16 percent).

Among juvenile detainees, lifetime use was 34 percent for NSW and 31 percent for Texas, with past month use at 18 percent for NSW and 11 percent for Texas.

For adult prisoners, the lifetime rates were 39 percent for NSW and 33 percent for Texas, with

past year use at 13 percent in NSW and 7 percent in Texas

The secondary school surveys found 9 percent of New South Wales students, 7 percent of Victoria students, and 6 percent of Western Australian students had ever used hallucinogens. Three percent of New South Wales students, 2 percent of Victoria students, and 5 percent of Western Australia students reported past month use. The 1996 Texas Secondary School Survey shows that lifetime use had increased from 4.9 percent in 1992 to 7.4 percent in 1996 and past month use had

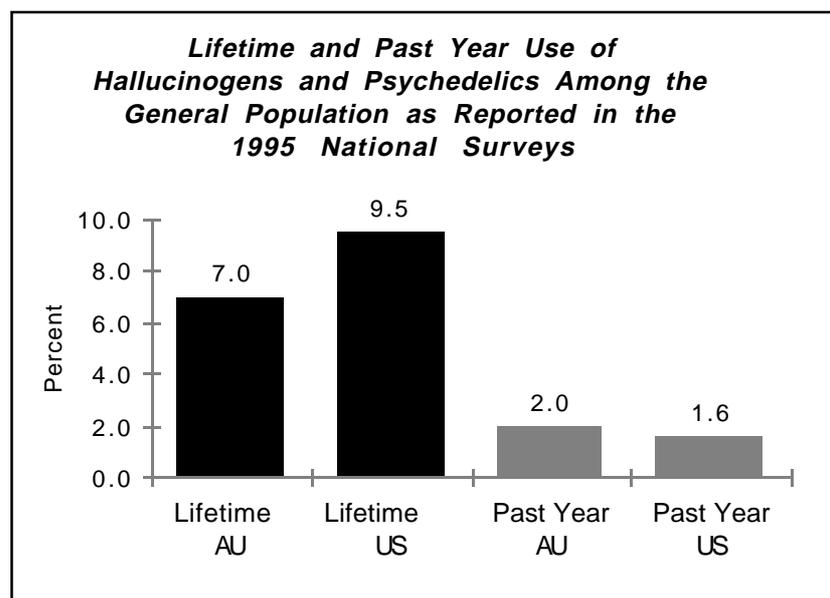
increased from 1.5 percent in 1992 to 2.4 percent in 1996.

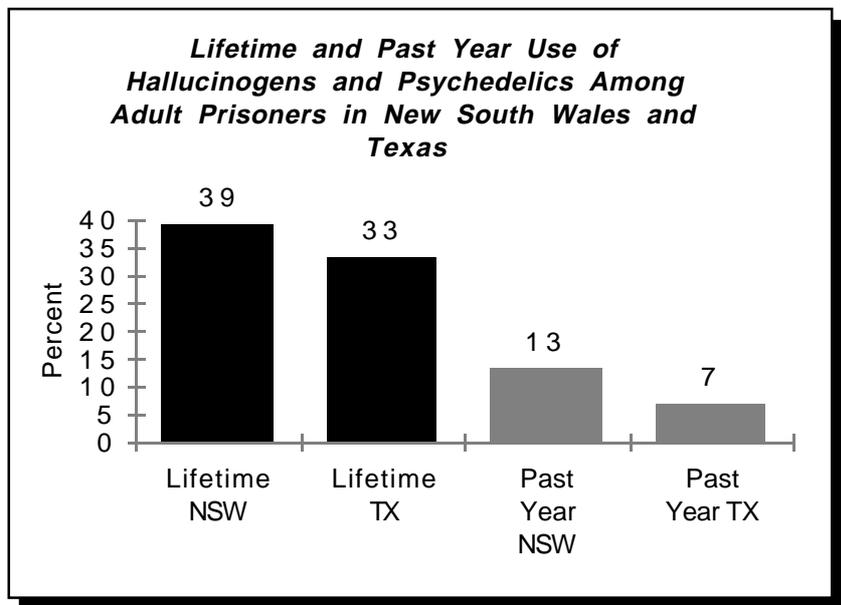
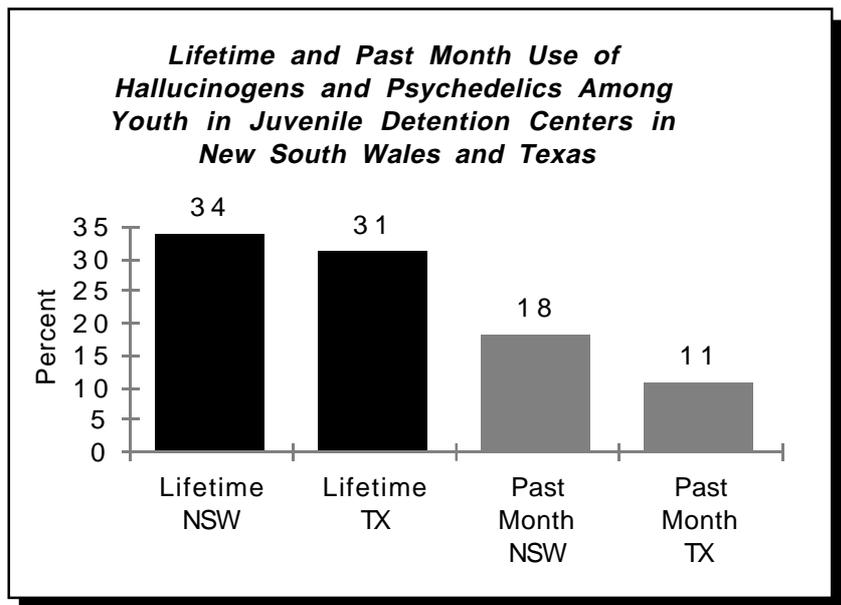
“ The average age of first use in Australia was 18.6 years with 12 percent of the population reporting use of hallucinogens before age 16. ”

LSD

LSD use in both Australia and the US is relatively low, with 5 percent of the Australian population reporting lifetime use and 1.6 percent reporting use in the last year; in the US, 7.5 percent lifetime and 1.0 percent past year use was reported. Median age of first use of LSD in

Australia was 18.6 years in 1993 and 18.4 years in 1995, and nearly all recent users are less than 35 years old. The proportion of the population reporting use before age 16 went from 11 percent in 1993 to 12 percent in 1995. LSD has been tried and recently used by nearly twice as many Australian males as females. In the US, persons in the 18-25 and 26-34 age groups are the most likely to use LSD at rates of 12.0 and 11.7 percent respectively.





Youth admitted to Texas juvenile detention facilities reported 24 percent lifetime and 7 percent past month use of LSD.

Recent reports by police and health workers indicate that the use of LSD is now shifting out of the dance and rave parties to a broader and sometimes younger age group, and potency is increasing. In Melbourne, LSD users tend to be polydrug users who prefer Ecstasy, amphetamines and cannabis compared to heroin.¹

GHB

“GHB” (gamma hydroxybutyrate) is spreading in the US and Australia. Overdoses and seizures have been reported in Queensland and New South Wales. Known as “Grievous Bodily Harm,” “GBH,” “Liquid X,” “Liquid E” or “Fantasy,” it is sold to two different populations: nightclubbers and bodybuilders. In nightclubs, its central nervous system effects produce a high like marijuana or hallucinogens when it is mixed with alcohol, opiates, or sedatives. It is also used as a cutting agent for amphetamines. Bodybuilders use it as a weight control drug for its effect on the normal fat-to-lean tissue ratio as a growth hormone. Data collected on 56 cases reported to two Poison Control Centers in Texas from November 1995 to October 1996 showed the average age was 25.9 years,

and 35 percent were female. Over 200 overdose cases have been reported in Sydney in late 1997. Many of the cases required emergency medical care including intubation to aid in breathing.

Nexus

“Nexus” (4-bromo-2, 5-dimethoxyphenylamine) is known as “Bromo,” “2C-B,” “CB,” “DBMPEA,” “Zenith,” “Toonies,” and “The Smart Drug.” In the US it is often sold in yellow unmarked capsules and its active ingredient is falsely described as brominated cathinone. It has stimulant and hallucinogenic properties that are dose dependent.

dent. It is promoted as a futuristic aphrodisiac and is available in adult bookstores, bars, dance clubs, and at dance parties. A dose of about 10 to 20 mg. is taken orally and the effects of this synthetic hallucinogen last for approximately six hours. The drug has been seized in Australia.

Special K

“Special K,” “Ketamine 9,” “Vitamin K,” “Kitkat,” or “The Big K,” is the anaesthetic ketamine. It is similar to PCP and in some instances PCP may be sold as Special K. Both drugs stimulate heartbeat and respiration and Special K’s popularity may be associated with relatively exact dosing to produce disorienting and psychoactive effects to enhance the dance, music, and flashing lights in the nightclub setting. It can either be injected or snorted. Special K is available in Australia where it has been in the gay nightclub scene since the late 1980s.

Due to problems with dosing, the drug did not become popular until recently when a distinct change in marketing occurred in

“Special K did not become popular until recently when a distinct change in marketing occurred in Australia.”

Australia. Users can now purchase their drug in small glass vials which have measuring spoons in their lids, or even measured “puffers.” These allow for exact dosing, enabling the users to ensure they are using enough of the drug to be effective but not so much as to affect them adversely. These measures are known as “bumps.”

The drug is currently scheduled in Australia, but police report a growing number of seizures and diversion and theft from legitimate suppliers i.e., veterinarians and drug companies. Field reports over the past 18 months indicate increased avail-

ability, particularly in the dance and rave clubs. Continued increase in use is also thought to be associated with the alternative and companion use with LSD and Ecstasy.

Natural Hallucinogens

There is increasing evidence both through the Australian National Household Survey and anecdotal information that more young people are experimenting with naturally occurring hallucinogens. “Magic mushrooms,” mescaline, datura and “DMT,” or “Businessman’s Lunch” appear to be tried by more young people. DMT, or dimethyl-tryptamine, is a powerful hallucinogen originally found in plant seeds. It is now produced synthetically and appears to be becoming more popular, particularly in Sydney. Users have discovered that the substance can be found in the bark of a commonly found tree. This bark is boiled and made into a tea. When this is drunk, the user will experience a very intense “trip” which can last from between 10 to 30 minutes. In the 1995 survey, use of natural hallucinogens was reported at 4 percent lifetime and 0.5 percent in the past year. The average age of the first-time user was 18.6 years, and 12 percent of the users had tried LSD while under age 16.

PCP

PCP (Phencyclidine) is easily obtained in most US cities; lifetime use is 3.2 percent and past month use is 0.2 percent, according to the 1995 survey. The largest group of users are in the 26-34 age group (4.6 percent lifetime). PCP is often sprinkled on marijuana or mint or parsley leaves or blunts or cigarettes are dipped in PCP. Because of its negative reputation in some areas, it is sold under other street names. Some 6 percent of Texas juvenile detainees reported lifetime use of PCP and 2 percent reported past month use.

¹ M. Hamilton, and J. Fitzgerald. *An Exploratory Study of Hallucinogen Use in Melbourne: A Report to the Drug Rehabilitation Research Fund*. Melbourne: University of Melbourne, 1996.

Steroids

The Australian National Drug Strategy Survey indicates lifetime use has risen from 0.3 percent in 1993 to 0.6 percent in 1995, and past year use has risen from 0.1 percent in 1993 to 0.2 percent in 1995. Median age of first use has risen from 16.9 years in 1993 to 18.6 years in 1995, and the proportion starting steroid use before age 16 in Australia has gone from 9 percent in 1993 to 22 percent in 1995, which is a worrisome finding.

In the US survey, steroid use was not shown in the 1995 advance report, but in 1994, lifetime use of steroids was 0.5 percent for persons 12 and over, with past year use at less than 0.1 percent,

The Western Australia survey found that 2 percent of secondary students reported ever having used steroids and 1.2 percent were current users. The Texas School Survey reports that 2 percent of secondary students had ever used steroids and past month use was 0.6 percent in 1996, which is the same level since 1990. Steroid consumption is a male phenomenon, with 3 percent of male students and 1 percent of female students reporting lifetime use. Students who made low marks or grades of C or lower were almost two times more likely to use steroids than those who made high marks or grades of A or B (2.9 percent v. 1.9 percent lifetime and 1.0 percent v. 0.5 percent past month). Students who participated in athletics were more likely to use steroids. Among seniors (grade 12), 3.5 percent of those who had participated in athletics reported lifetime steroid use as compared to only 1.5 percent of seniors who did not.

Information from needle exchange and syringe programs in Australia suggests an increase in prevalence of steroid use and injecting equipment

within the sporting, gay and recreational communities, with some exchanges estimating that at certain times up to 70 percent of their client base are steroid users. Steroid use appears to be more related to body image rather than to improved sports performance. Steroid users are using a range of human, animal and counterfeit products.

“Steroid use appears to be more related to body image rather than improved sports performance.”

A recent study conducted in NSW examining the patterns and experiences of steroid users found 87 percent of those interviewed used veterinary products (67 percent a combination of both human and animal products and 20 percent animal products alone). Other drugs used for training purposes include estrogen antagonists, clenbuterol,

diuretics, growth hormone and insulin. In addition, there is an increase in the number of steroid users reporting the use of opioids and amphetamines. Some users report mixing the substances so as to get a kick or high when injecting.

Law enforcement authorities report an increase in diversion of steroids from veterinary suppliers, with an increase in sale of veterinary testosterone of around 25 percent in rural New South Wales during seasonal periods when there should not be an increase. In Queensland, police suspect that up to 80 percent of sales of liquid testosterone in the southern part of the state may be for illicit purposes.¹

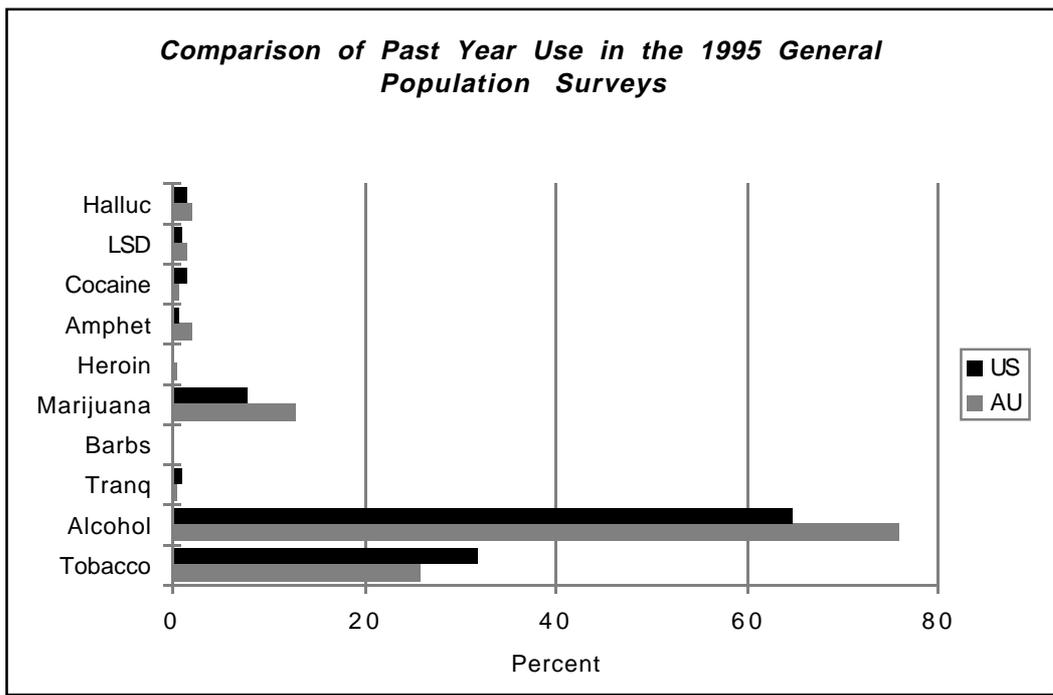
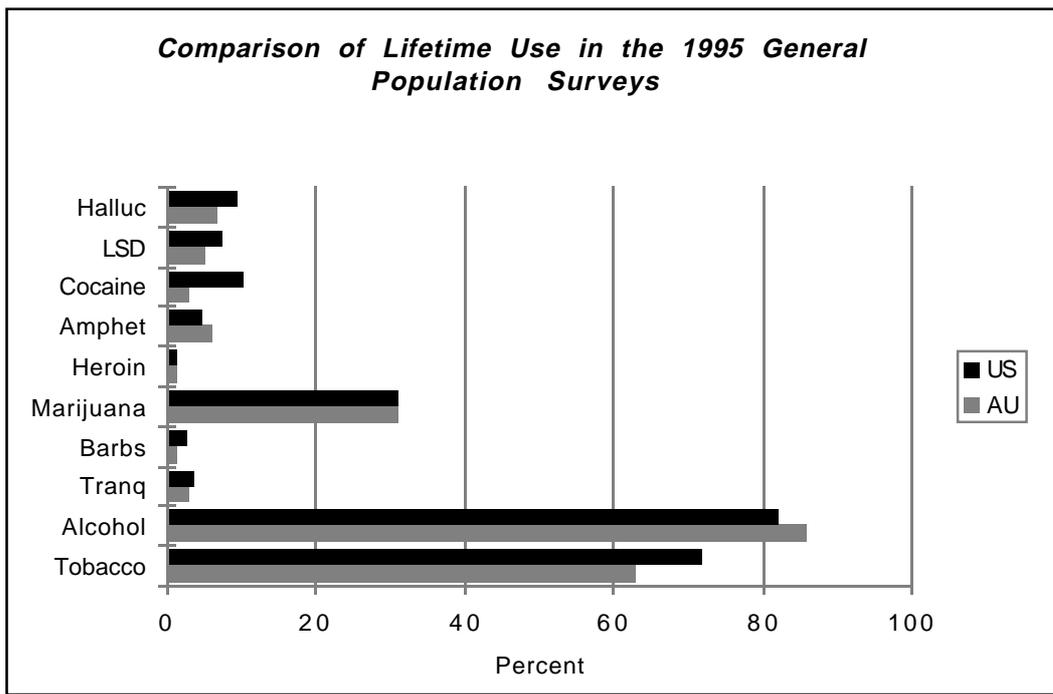
¹ Australian Bureau of Crime Intelligence. *Australian Illicit Drug Report*. Canberra: Australian Government Publishing Service, 1995.

Conclusions

Even though there are some differences in the general populations surveyed (age 12 v. age 14), lifetime use is virtually identical for marijuana and similar for tranquilizers, barbiturates/sedatives, heroin, and amphetamines. The only important difference is that lifetime use of cocaine is more than three times higher in the US than in Australia,

and tobacco is higher in the US with alcohol prevalence higher in Australia. See exhibit 1 for detailed figures.

In terms of past year use, the important difference is that marijuana, amphetamine, and alcohol use is higher among Australians while cocaine and tobacco use is higher in the US. This difference in the illicit drug use patterns in the two



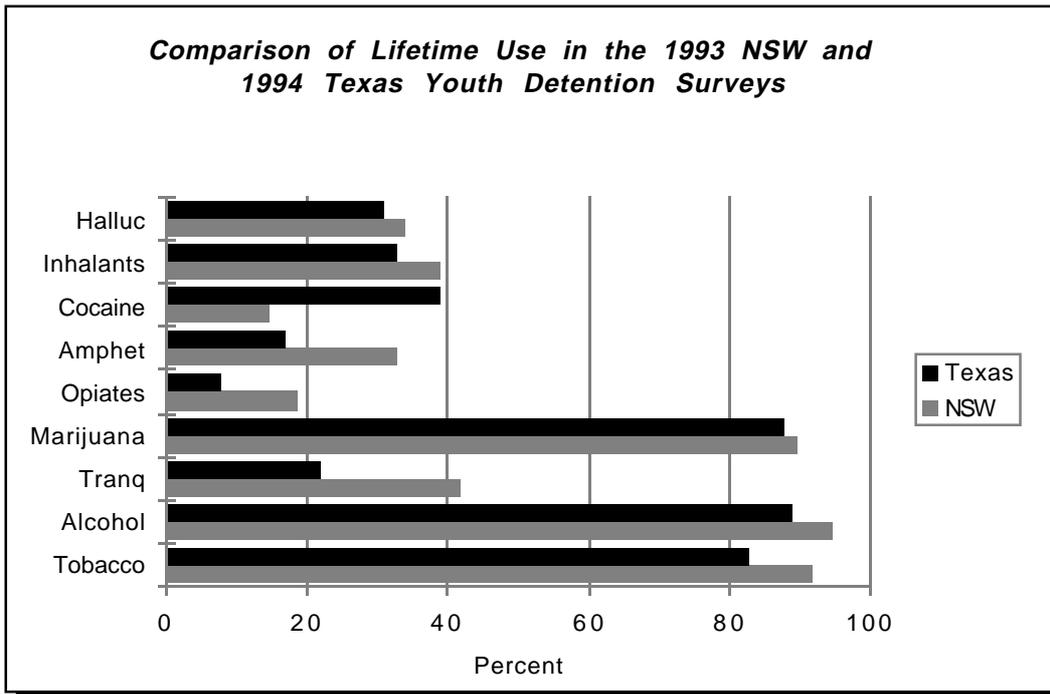
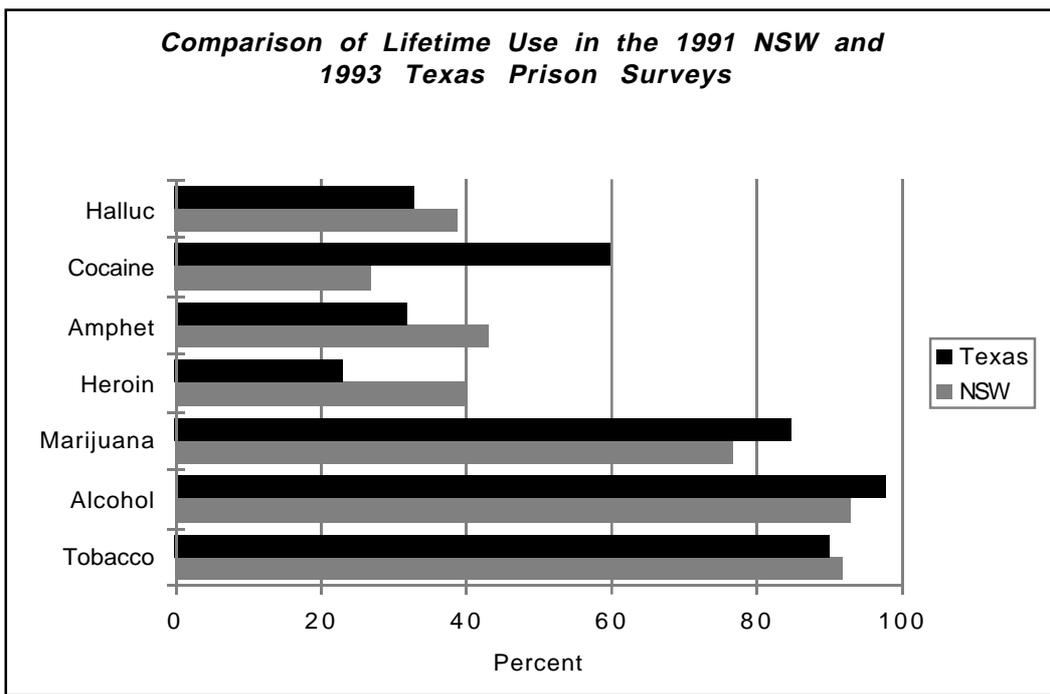
Patterns of Illicit Drug Abuse in Australia and the United States

countries is primarily due to the ready supply of cocaine in the US as compared to its scarcity in Australia, and the use of amphetamines as the favorite “upper” in Australia.

While use of illicit drugs among the general population in both countries is fairly low, use among persons in the criminal justice system is high. Among adults in the NSW and Texas prison

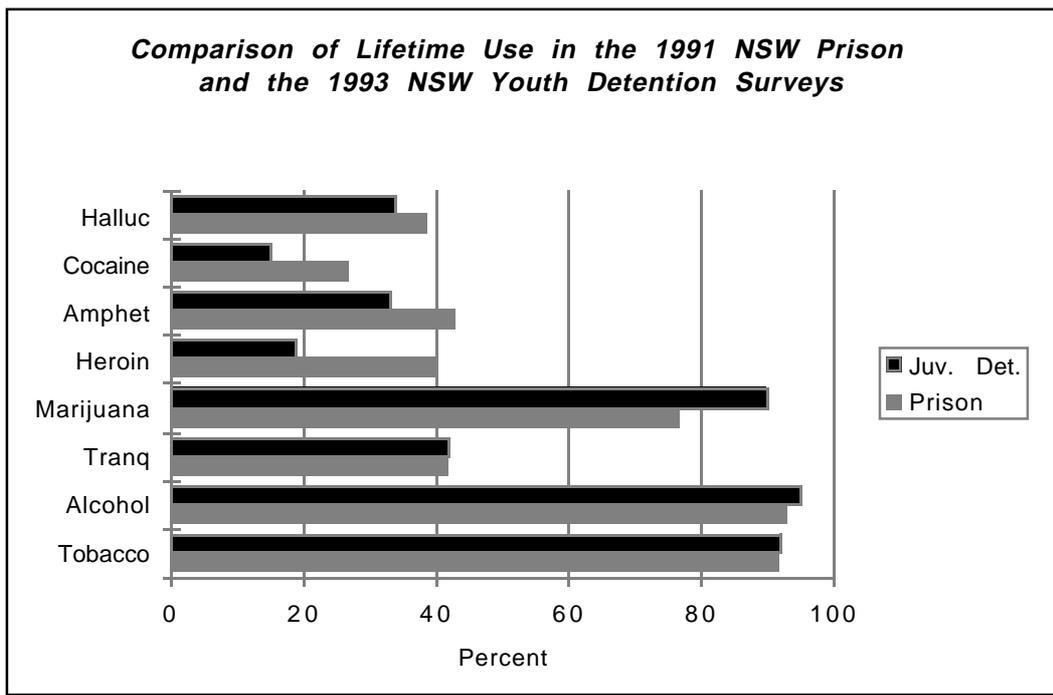
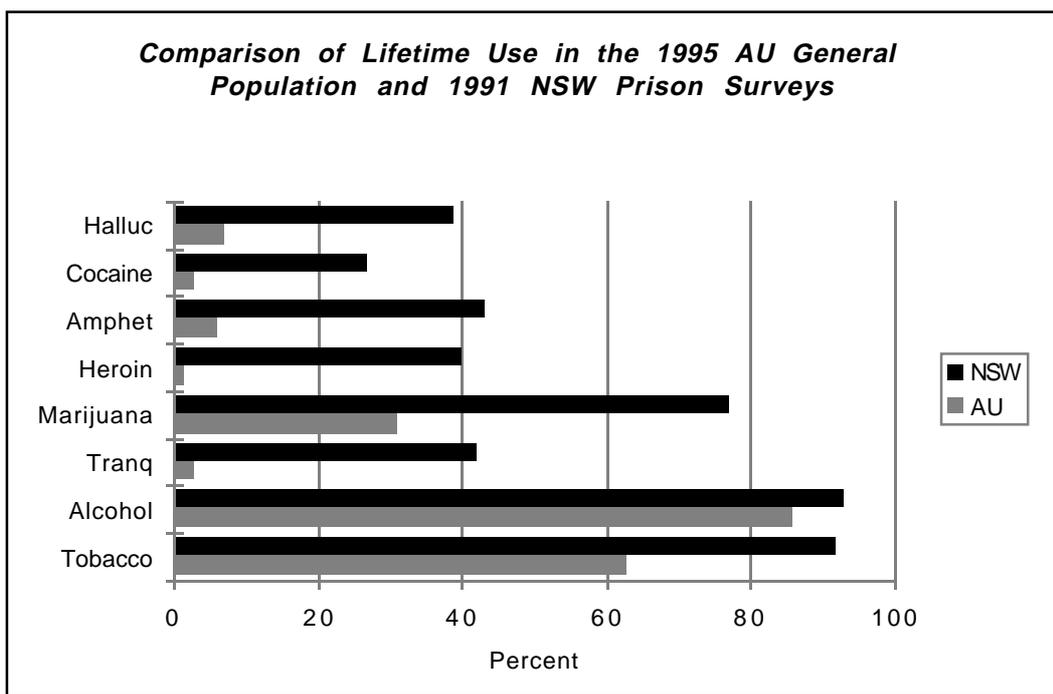
systems, lifetime use is higher in Texas for cocaine and marijuana, while use is higher in NSW for heroin, amphetamines, and hallucinogens. In terms of past year use, however, NSW prisoners had much higher use of all drugs except cocaine.

Among youth detainees, the lifetime use pattern is even more pronounced, with the NSW juvenile detainees reporting higher lifetime use of



all drugs except for cocaine. This same pattern is seen for past month use for all drugs except cocaine and inhalants. This high prevalence among the NSW juvenile population as compared to the Texas population is of particular concern, since the Texas youth are the most hard core users. They have previously been detained in local facilities for crimes and have now been remanded to state correctional facilities for serious offenses.

The greatest concern is the high prevalence of use among the criminal justice population as compared to the general population. Use of licit and illicit substances is far higher among the adult prison population. As an example, lifetime use of heroin is forty times greater in Texas, and similar patterns are seen in the Australian surveys. Based on these data, treatment programs must be provided for these high-risk groups if the relationship



between drugs and crime is to be broken.

Prevalence rates for lifetime use of some drugs are even higher among youth in the juvenile

“ Some prevalence rates for drug use are higher among youth in the juvenile justice system than for the older adult prisoners, although the adults have had much longer periods of time in their lives to have ever tried drugs. In comparison to their adult

justice system than for the older adult prisoners, although the adults have had much longer periods of time in their lives to have ever tried drugs. In comparison to their adult

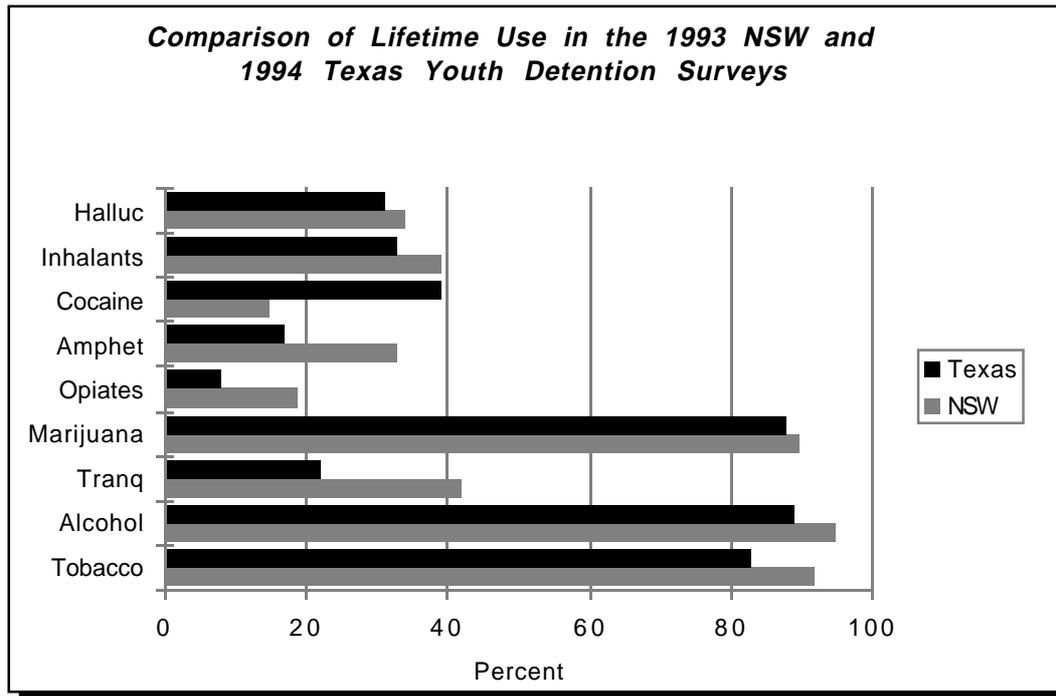
peers, NSW juveniles reported higher use of marijuana, alcohol, and inhalants. Texas juveniles had higher uses of marijuana and inhalants than their older peers in the state prison system.

The patterns of use remain about the same, although prevalence rates decrease for past month use among adult prisoners and juveniles in detention. However, youth report use of amphetamines

at the same rate as adult prisoners and their use of hallucinogens and marijuana exceeds that of the adults on a past month basis. Clearly treatment is needed for juvenile offenders if they are to receive interventions which will halt their further progression into substance abuse and dependence and further involvement in more serious crime.

Another item of concern is the increasing purity of heroin in both countries. With the availability of heroin of this quality, users will become addicted far more quickly, and there will be a demand for treatment in the near future. In the past, the average number of years between year of first heavy use of heroin in Texas and first admission to methadone treatment in Texas was 14 years, but with the purer heroin, a compressed or telescoped period of use is expected, and treatment resources will be needed more quickly.

Over time, the number of methadone treatment slots has not increased proportionately to meet the growing need. In 1990, 109,984 heroin addicts were admitted to publicly-funded methadone maintenance programs in the US; in 1995, 122,727 heroin addicts were in publicly-funded mainte-



nance programs. This increase is not sufficient to meet the demand caused by the more potent heroin that is now on the streets. Neither country is prepared to meet the need to treat new heroin addicts. In addition, as the heroin dealers begin targeting Yuppie users, there will be a need for intervention programs to prevent this group from progressing from snorting heroin to using heroin intravenously. Using a needle to administer heroin not only poses a threat in terms of AIDS and Hepatitis C, but it also is an indication of a more serious pattern of use which can lead to a need for treatment more quickly.

While Australia's harm reduction policy and needle exchange efforts have succeeded in terms of reducing HIV and AIDS among injecting drug users, hepatitis C remains a significant problem in Australia. Harm reduction can prevent harmful side effects from drug use, but it cannot reduce use of drugs. This effort must be expanded from providing needles to providing treatment services to those addicts who have become severely addicted and are seeking detoxification and a drug-free lifestyle. In addition, with the use of a variety of club drugs, persons seeking treatment are often addicted to a number of substances, which means they need medical detoxification, and they are in need of treatment for medical problems related to drug use, such as abscesses, TB, STD, etc. Harm reduction requires that these problems be addressed.

“ Harm reduction can prevent harmful side effects from drug use, but it cannot reduce the use and spread of drugs. ”

In the past, Australia has been lucky, since its island status protected it from the volume of drugs entering the US from Mexico and Latin America. But current data now show that this situation is changing and Australia now equals or exceeds the US in terms of the proportion of persons using illicit drugs and the use of cocaine now surpasses the use of steroids, barbiturates, heroin, and inhalants by the general public. Yet with a growing problem, the 1995 National Survey shows that public support for the expenditure of funds for law enforcement has increased at the expense of education and treatment, and support for treatment for heroin, cocaine, and amphetamines has decreased between 1993 and 1995.

Exhibit 1

Comparison of Prevalence of Use in Australia and US Surveys

Lifetime Use of Substances

	1995 Gen Pop-AU	1995 Gen Pop-US	1991 Prison-NSW	1993 Prison-TX	1993 Youth Det-NSW	1994 Youth Det-TX
Tobacco/ Cigarettes	63	71.8	92	90	92	83
Alcohol	86	82.3	93	98	95	89
Tranquilizers/ Sleeping Pills	3	3.9	42	29*	42**	22*
Barbiturates/ Sedatives	1.2	2.7	27			
Marijuana	31	31	77	85	90	88
Heroin	1.4	1.2	40	23	19***	8
Stimulants/ Amphetamines	6	4.9	43	32	33	17
Cocaine	3	10.3	27	60	15	39
LSD	5	7.5				
Inhalants	2.3	5.7	14	18	39****	33
Hallucinogens	7	9.5	39	33	34	31

Recent Use of Substances

	1995 Gen Pop-AU Past Year	1995 Gen Pop-US Past Year-US	1991 Prison-NSW Past Year	1993 Prison-TX Past Year	1993 Youth Det-NSW Past Month	1994 Youth Det-TX Past Month
Tobacco/ Cigarettes	26	32	85	77.7	81	38.5
Alcohol	76	65	83	76.8	76	51.2
Tranquilizers/ Sleeping Pills	0.6	1	27	7.7*	19**	6.6*
Barbiturates/ Sedatives	0.2	0.3	13			
Marijuana	13	8	60	32.6	75	57
Heroin	0.4	0.2	28	9.6	10***	2.2
Stimulants/ Amphetamines	2.1	0.8	25	6.7	18	4.1
Cocaine	0.9	1.7	19	30.5	7	15.7
LSD	1.6	1				
Inhalants	0.4	1.1	4	1.5	9.3****	11
Hallucinogens	2	1.6	13	7	18	10.8

*Downers

**Sedatives

***All opiates

****Amyl nitrate, nitrous oxide, and other inhalants

References

- Australian Bureau of Crime Intelligence. *Australian Illicit Drug Report*. Canberra: Australian Government Publishing Service, 1995.
- Burrows, D., Flaherty, B., and MacAvoy, M. *Illicit Psychostimulant Use in Australia*. Canberra: Australian Government Publishing Service, 1993.
- Commonwealth Department of Health, Housing, Local Government and Community Services. *1993 National Drug Household Survey*. Canberra: Australian Government Publishing Service, 1993.
- Commonwealth Department of Health and Family Services. *1995 National Drug Household Survey*. Canberra: Australian Government Publishing Service, 1996.
- Commonwealth Department of Human Services and Health. *Statistics on Drug Abuse in Australia, 1994*. Canberra: Australian Government Publishing Service, 1994.
- Cooney, A., Dobbins, S. and Flaherty, B. *Drug Use By NSW Secondary School Students: 1992 Survey*. Drug and Alcohol Directorate, New South Wales Health Department Report Series. No. 93-98. Sydney: NSW Health Department, 1993.
- Darke, S., Cohen, J., Ross, J., Hando, J. and Hall, W. "Transitions Between Routes Of Administration Of Regular Amphetamine Users." *Addiction*, 89 (1994):1077-1083.
- Davey, J. "Drugs In The Sunshine State: An Overview Of Illicit Drug Use In Queensland And Australia." *Epidemiologic Trends In Drug Abuse, Proceedings of the Community Epidemiology Work Group December 1995*. Rockville, MD: National Institute on Drug Abuse, 1996.
- Davey, J. "Current Issues in Australia." *Epidemiologic Trends In Drug Abuse, Proceedings of the Community Epidemiology Work Group June 1996*. Rockville, MD: National Institute on Drug Abuse, 1996.
- Davey, J. "Out of It Down Under: Australian Drug Trends and Patterns." *Epidemiologic Trends In Drug Abuse, Proceedings of the Community Epidemiology Work Group December 1996*. Rockville, MD: National Institute on Drug Abuse, 1997.
- Davey, J. "A Comparison of Australian and US Drug Trends and Patterns." *Epidemiologic Trends In Drug Abuse, Proceedings of the Community Epidemiology Work Group June 1997*. Rockville, MD: National Institute on Drug Abuse, in press.
- Davey, J., Curd, D. and Norris, B. *Substance Use at Schoolies Week*. Brisbane: Queensland Police Service, in press.
- Edlin, B. "Intersecting Epidemics - Crack Cocaine Use And HIV Infection Among Inner-City Young Adults." *New England Journal of Medicine*, 33, 21 (1994): 1422-1428.
- Farabee, D. *Substance Use Among Female Inmates Entering the Texas Department of Criminal Justice-Institutional Division: 1994*. Austin, TX: Texas Commission on Alcohol and Drug Abuse, 1995.
- Farabee, D. *Substance Use Among Male Inmates Entering the Texas Department of Criminal Justice-Institutional Division: 1993*. Austin, TX: Texas Commission on Alcohol and Drug Abuse, 1994.

- Fredlund, E., Farabee, D., Blair, L. and Wallisch, L. *Substance Use and Delinquency Among Youths Entering Texas Youth Commission Facilities: 1994*. Austin, TX: Texas Commission on Alcohol and Drug Abuse, 1995.
- Hamilton, M., and Fitzgerald, J. *An Exploratory Study of Hallucinogen Use in Melbourne: A Report to the Drug Rehabilitation Research Fund*. Melbourne: University of Melbourne, 1996.
- Hando, J., O'Brien, S., Darke, S., Maher, L., and Hall, W. *The Illicit Drug Reporting System (IDRS) Trial: Final Report*. Sydney: National Drug and Alcohol Research Centre, 1997.
- Hando, J. *Sydney Key Informant Study on Cocaine*. Sydney: New South Wales Health Department, 1995.
- Keys, Y. *NSW TAFE Students' Alcohol, Tobacco and Other Drug Use: Report Prepared for TAFE and Community Programs*. Sydney: NSW Department of Technical and Further Education, 1993.
- Liu, L. and Maxwell, J. *1994 Texas School Survey of Substance Use Among Students: Grades 7-12*. Austin, TX: Texas Commission on Alcohol and Drug Abuse, 1995.
- Liu, L. *1996 Texas School Survey Of Substance Use Among Students: Grades 7-12*. Austin, TX: Texas Commission on Alcohol and Drug Abuse, 1997.
- Maxwell, J. "Substance Abuse Trends in Texas." *Epidemiologic Trends in Drug Abuse, Proceedings of the Community Epidemiology Work Group June 1995*. Rockville, MD: National Institute on Drug Abuse, 1995.
- Maxwell, J. "Substance Abuse Trends in Texas." *Epidemiologic Trends in Drug Abuse, Proceedings of the Community Epidemiology Work Group December 1995*. Rockville, MD: National Institute on Drug Abuse, 1996.
- Maxwell, J. "Substance Abuse Trends in Texas." *Epidemiologic Trends in Drug Abuse, Proceedings of the Community Epidemiology Work Group June 1996*. Rockville, MD: National Institute on Drug Abuse, 1996.
- Maxwell, J. "Substance Abuse Trends in Texas." *Epidemiologic Trends in Drug Abuse, Proceedings of the Community Epidemiology Work Group December 1996*. Rockville, MD: National Institute on Drug Abuse, 1997.
- Maxwell, J. "Substance Abuse Trends in Texas." *Epidemiologic Trends in Drug Abuse, Proceedings of the Community Epidemiology Work Group June 1997*. Rockville, MD: National Institute on Drug Abuse, in press.
- Moore, D. "Speeding, Eeking and Tripping: Ethnographic Notes from A Small World of Psychostimulant Use." In Burrows, D., Flaherty B., MacAvoy, M. (eds.) *Illicit Psychostimulant Use in Australia*. Canberra: Australian Government Publishing Service, 1993.
- National Association of State Alcohol and Drug Abuse Directors. *State Resources and Services Related to Alcohol and Other Drug Abuse Problems: Fiscal Year 1990*. Washington, DC: NASADAD, 1990.
- National Association of State Alcohol and Drug Abuse Directors. *State Resources And Services Related to Alcohol and Other Drug Abuse Problems: Fiscal Year 1995*. Washington, DC: NASADAD, 1997.

- National Institute on Drug Abuse. *Epidemiologic Trends in Drug Abuse: Volume 1, December 1995*. Rockville, MD: NIDA, 1996.
- National Institute on Drug Abuse. *Epidemiologic Trends in Drug Abuse: Volume 1, June 1996*. Rockville, MD: NIDA, 1996.
- National Institute on Drug Abuse. *Monitoring The Future Study: Trends In Prevalence Of Various Drugs For 8th-Graders, 10th-Graders, And High School Seniors*. Rockville, MD: NIDA, 1994.
- O'Brien, S., Darke, S., and Hando, J. *Drug Trends: Findings from the Illicit Drug Reporting System*. Sydney: National Drug and Alcohol Research Centre, 1996.
- Odgers, P., Houghton, S., and Douglas, G. "The Prevalence and Frequency of Drug Use Among Western Australian Metropolitan High School Students." *Addictive Behaviors* 22, 3 (1997): 315-325.
- Stathis, H., Bertram, S. and Eyland, S. *Patterns Of Drug Use Amongst New South Wales Prison Receptions*. Sydney: Department of Corrective Services, 1991.
- US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. *Preliminary Estimates from the 1994 National Household Survey on Drug Abuse*. Rockville, MD: SAMHSA, 1995.
- US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. *Preliminary Estimates from the 1995 National Household Survey on Drug Abuse*. Rockville, MD: SAMHSA, 1996.
- Victorian Drug Strategy Section. *School and Student Drug Use: Summary Report*. Melbourne: Department of Health and Community Services, 1993.
- Wignall, J. *On The Street: Drugs Used in Queensland*. Brisbane: Queensland Health, 1995.
- Zibert, E., Hando, J., and Howard, J. *Patterns of Drug Use and Indicators of Harm Among Persons Detained in New South Wales Juvenile Justice Centres (1993)*. Sydney: Department of Juvenile Justice, 1994.