Indicators of drug use, harms and treatment in Australia: Preliminary findings from the National Illicit Drug Indicators Project.

Monitoring patterns of illicit drug use and related harms using comprehensive, timely and reliable information is imperative for informing policymakers and agencies so that timely responses to existing and new drug trends can be made. The Illicit Drug Reporting System (IDRS) is an early warning system designed to identify changes in illicit drug markets using sentinel sites and innovative data collection methods (namely, interviews with regular injecting drug users, key informants and the collation of indicator data).

One of the issues facing the IDRS has been the variation in the type of indicator data collected across jurisdictions. The National Illicit Drug Indicators Project (NIDIP) was developed in direct response to this. NIDIP’s major aims are to: complement the IDRS (by assisting in standardising and evaluating the indicator data collected); provide accurate and timely information on trends in indicator data; and utilise multiple indicator data sources to assist in the interpretation of trends and to overcome the limitations of individual data sources.

This bulletin presents preliminary results from NIDIP. The data are from national data collections and cover four areas: prevalence of use, problems related to use (morbidity), mortality and drug use treatment. Data is reported across four main illicit drug classes: heroin (or opioids), cannabis, cocaine and amphetamines. These findings are compared with alcohol for interest in some cases. Findings across the eight jurisdictions - ACT, NSW, NT, QLD, SA, TAS, VIC and WA - are presented to contrast the patterns across indicators.

Data are presented in rates per million persons aged 15 years and over to adjust for different population sizes across the jurisdictions, unless otherwise indicated. Similarly, data is reported for the 1997-2001 time period.

PREVALENCE OF USE

Prevalence estimates of illicit drug use in this bulletin are drawn from the National Drug Strategy Household Survey (NDSHS), which is managed by the Australian Institute of Health and Welfare (AIHW). Recent prevalence is defined as the number of people that have used the drug in the past 12 months. For the purposes of this report, prevalence of recent use is used, since it provides an indication of current levels of drug use. Only the drugs whose recent use can be most reliably assessed by the NDSHS have been presented.

Figure 1 shows the recent prevalence of amphetamine and cannabis use among those aged 14 years and over in Australia. In 2001 NT had the highest rates for amphetamine and cannabis; with 6.3% and 24.4% respectively. WA had the second highest rates, followed by ACT and then SA. NSW was the fifth highest state regarding recent amphetamine and cannabis use. Alcohol continued to be the most popular drug in Australian society with the national average of recent alcohol use being approximately 85%. Prevalence of current drinking (at least one day per week) was the highest in NT and the ACT (approximately 55%) and lowest in Tasmania (41%).
Treatment statistics in Australia are collected via two central mechanisms: the Methadone Client Statistics (MCS) dataset, managed by Commonwealth Department of Health and Ageing (CDHA); and the Alcohol and Other Drug Treatment Services - National Minimum Dataset (AODTS-NMDS), which is managed by the AIHW. The MCS monitors the number of clients who are registered with a prescriber in each jurisdiction and receiving pharmacotherapy treatment for opioid dependence (i.e., clients collecting doses of methadone or buprenorphine). The AODTS-NMDS aims to provide measures of service utilisation for clients of alcohol and other drug treatment services. It provides ongoing information on the demographics of clients who use these services, the treatment they receive and administrative information about the agencies that provide the treatment.

Figure 2 shows a steady increase in the rate of client registrations for pharmacotherapy treatment for opioid dependence between 1997 and 2001 across jurisdictions. In 2001, NSW had the highest rate of opioid pharmacotherapy treatment, with a rate of 2866 clients per million people aged 15 years and over. The ACT had the second highest rate with 2506 clients per million people. NT had the lowest rate (168) which is not surprising given the limited availability of this treatment in this jurisdiction.

In 2000-01, NT had the highest rate of any drug treatment (excluding pharmacotherapy) in Australia, with 14053 clients per million people aged 15 years and over (Figure 3). Figure 4 shows that the majority of drug treatment in NT was for alcohol. Therefore NT had the highest proportion of alcohol treatment in the country. In contrast, the ACT had the highest proportion of clients (43.5%) in treatment (excluding pharmacotherapy) for heroin, and the second highest rate of client registrations for any drug treatment (10,800 clients per million people). All other jurisdictions had similar rates of any drug treatment, at around 6000 clients per million. In the ACT, NSW and VIC, similar proportions reported alcohol and heroin as their principal drug of concern. Although NSW had a lower rate of treatment (excluding pharmacotherapy), NSW also had the highest proportion of opioid pharmacotherapy treatment (Figure 2). NT and TAS had very low proportions of clients seeking treatment for heroin, with 2.7% and 2.3% respectively.

Figure 4 highlights that in all jurisdictions, apart from the ACT, alcohol was the most commonly reported primary drug of concern (ranging from 29% in VIC to 66% in NT). TAS had the highest proportion of clients seeking treatment for cannabis (23%), closely followed by WA and VIC. WA had the highest proportion of people seeking treatment for amphetamine (21%) with ACT, TAS and SA all approximately 10%.
The proportion of clients seeking treatment for cocaine was negligible. NSW was the highest (0.8%) and the remaining jurisdictions ranged from 0 to 0.3%.

MORBIDITY

Data relating to inpatient hospital admissions is collated within the National Hospital Morbidity Database (NHMD) which is managed by the AIHW. The aim of the NHMD is to monitor health and hospital activity. The NHMD uses the International Classification of Diseases (ICD) for classifying disease states and outcomes. The ICD edition currently used is the 10th edition Australian Modification (ICD-10-AM). This edition has been used since 1998-99 in ACT, NSW, NT and VIC and since 1999-00 in QLD, SA, TAS and WA. Prior to this the ICD ninth edition Clinical Modification (ICD-9-CM) was used. The change in coding systems did not appear to affect the majority of drugs.

Figure 5 suggests that QLD and NSW had higher rates of admission for alcohol related problems across the entire time period, with 2171 and 1904 patient admissions per million people aged 15 years and over in 2000-01, respectively. The ACT had the lowest rates of alcohol admission over the entire period, with 390 patient admissions per million people aged 15 years and over in 2000-01.

Figure 6 highlights a consistent gradual increase in inpatient admissions for amphetamines over the past 5 years. This is consistent with a gradual increase in amphetamine use among sentinel groups of injecting drug users (Topp et al., 2002). In particular high proportions of IDU reported using amphetamines in WA and WA also had the highest rates of inpatient hospital admissions in 2000-2001 (392). QLD, NSW and SA (288, 205 and 203 respectively) were the jurisdictions with the next highest rates of inpatient hospital admissions for amphetamines.

Figure 7 shows that NSW has consistently had the highest rate of inpatient hospital admission for opioids/multiple drugs over the reported time period (with 1108 per million people aged 15 years and over in 2000-01). Rates in QLD and SA have decreased since 1998-99, and VIC and ACT decreased since 1999-00. The ACT had the lowest rate (151) of inpatient hospital admission for this category.

MORTALITY

Data relating to drug related mortality is collated within the Causes of Death (COD) which is managed by the Australian Bureau of Statistics (ABS). The aim of the COD is to monitor the cause of all deaths in Australia.

Until 1999 there were sizeable increases in the rate of opioid overdose deaths for several jurisdictions, with VIC having the highest rate followed by NSW (with 163.5 and 140 respectively). After 1999 there was a decrease in the rate of opioid related deaths in the majority of Australian jurisdictions. The decrease in 2001 is likely to have been partly due to the heroin shortage in Australia. In 2001 the rates of overdose were similar across jurisdictions, with the ACT having the highest opioid mortality rate, followed by the NT and NSW (58.6, 49 and 48 respectively). However, these rates were substantially lower than the previous highest estimates. In addition the ACT rate of opioid related mortality has remained relatively stable over the five year period.

It is important to note that there are very small numbers of deaths in Australia where amphetamine and cocaine were identified as the underlying cause of death. More detailed analyses on the relationship between these drugs and fatal overdoses are currently being conducted.
DISCUSSION

The data presented highlights four key issues to be considered when monitoring drug use, treatment and harms. Firstly, across Australia there are jurisdictional differences. Secondly, higher rates of recent drug use are not necessarily associated with higher rates of treatment seeking or harms. Thirdly, higher rates of treatment may be associated with reduced morbidity, as indicated by inpatient hospital admissions for drug related problems. Finally, it is important to establish rates of problematic use, rather than solely focusing on prevalence estimates, since higher rates of problematic use might be able to explain higher rates of morbidity.

Data on amphetamine use in the NT suggests that high prevalence of recent use is not necessarily associated with the higher rates of treatment seeking or harms. Although NT had the highest rate of recent amphetamine use in 2001, they also had the second lowest proportion of people with amphetamine as their principal drug of concern (2000-01) and the lowest rate of amphetamine-related inpatient hospital admissions (2000-01). One possible explanation for these trends may be that NT had lower rates of problematic amphetamine use despite having the highest proportion of recent users in the general population.

Alcohol trends in the NT and opioid trends in the ACT suggest that higher rates of treatment may be associated with reduced morbidity. NT had one of the largest proportion of current regular drinkers, the highest rate of treatment (excluding pharmacotherapy) combined with the highest proportion of clients seeking treatment for alcohol and one of the lower rates of inpatient hospital admission for alcohol. The ACT had the lowest rate of inpatient hospital admissions for opioids/multiple drugs, with high rates of opioid pharmacotherapy treatment, high rates of treatment (excluding pharmacotherapy) and the largest proportion of people seeking treatment for heroin. Although in 2001 the ACT also had the highest rate of opioid-related mortality this was stable for the ACT over the previous five years, and was lower than the majority of previous mortality estimates. These two examples suggest that higher rates of treatment seeking and or lower rates of problematic use of a drug may be associated with lower rates of harms (such as inpatient hospital admissions).

WA had the second highest prevalence of recent amphetamine use, the largest proportion of people seeking treatment for amphetamines and had the highest rate of amphetamine related inpatient hospital admissions. This may be explained by the fact that WA had a lower rate of treatment (excluding pharmacotherapy), or it could be that the WA had higher rates of problematic amphetamine use. That is, lower rates of treatment seeking and higher rates of problematic use of a drug may be associated with higher rates of harms (such as inpatient hospital admissions).

These two issues, especially the concept of higher rates of problematic use, as opposed to recent use, could also help explain why trends in opioids for NSW did not follow the trend observed in NT and ACT. Although NSW had the highest rate of opioid pharmacotherapy treatment, it had one of the lower rates of treatment (excluding pharmacotherapy), the second highest opioid related mortality rate and the highest rate of opioid related inpatient hospital admissions. This suggests that NSW may have had higher rates of problematic heroin use. This would be in keeping with the finding that in 1997 NSW had the highest proportion of dependent heroin users in Australia (Hall, Ross, Lynskey, Law, & Degenhardt, 2000); which is not surprising given that NSW has had one of the most established heroin markets in Australia.

The multiple indicators utilised in this report suggested that cocaine was associated with low rates of use, treatment seeking and harms. There were no clear jurisdictional trends in cannabis use, treatment and harms.

This bulletin has highlighted some differences between jurisdictions in terms of drug use, treatment and related harms. These differences might be partially explained by the prevalence of ‘problematic users’ within a jurisdiction. General population prevalence information cannot inform on the proportion of problematic users within a jurisdiction, so multiple data sources are needed to provide a more complete picture of drug use. More detailed analyses and interpretation of the significance of the rates will be conducted to further explore trends in these drugs.

REFERENCES


1 The exclusion of persons from dwellings and institutional settings and the difficulty in reaching marginalised persons are likely to have affected estimates. Dependent users may be underrepresented as they may be less likely to be part of a conventional household setting targeted by this survey. Illicit drug use may also not be disclosed due to perceived stigma associated with such use.

2 Recent prevalence of cocaine and heroin use was not presented since some of the jurisdictional estimates were statistically unreliable (Australian Institute of Health and Welfare, 2002).

3 However for both drugs NSW recorded the highest rates of recent use: 1.8% and 0.2% respectively.

4 Treatment utilisation depends on demand and jurisdictional funding. The MCS data only reflects clients in treatment at one point of time in each year (annual census date 30th June).

5 The death data presented refers to accidental opioid overdose deaths where opioids were also involved. For the purposes of this bulletin they have been combined.

6 Rates for cannabis and cocaine related inpatient hospital admissions were not presented as they experienced dramatic change (increased and decreased respectively) coinciding with the introduction of ICD-10-AM. It is not clear what caused these changes. It may be due to the change in coding rather than a change in patterns of harms associated with these drugs.

7 It is likely that the multiple drug admissions involved opioids although other drugs were also involved. For the purposes of this bulletin they have been combined.

8 The death data presented refers to accidental opioid overdose deaths where opioids were considered to be the underlying cause of death. The ICD coding rules, the availability of toxicology results, the inconsistent terminology used by medical examiners and the completeness of data provided within the medical certificate all affect the reliability and validity of the COD data. For drug-related deaths, ICD focuses on the circumstance of death rather than the identity of the drug involved.