

# Drug-related hospital stays in Australia 1993-2005

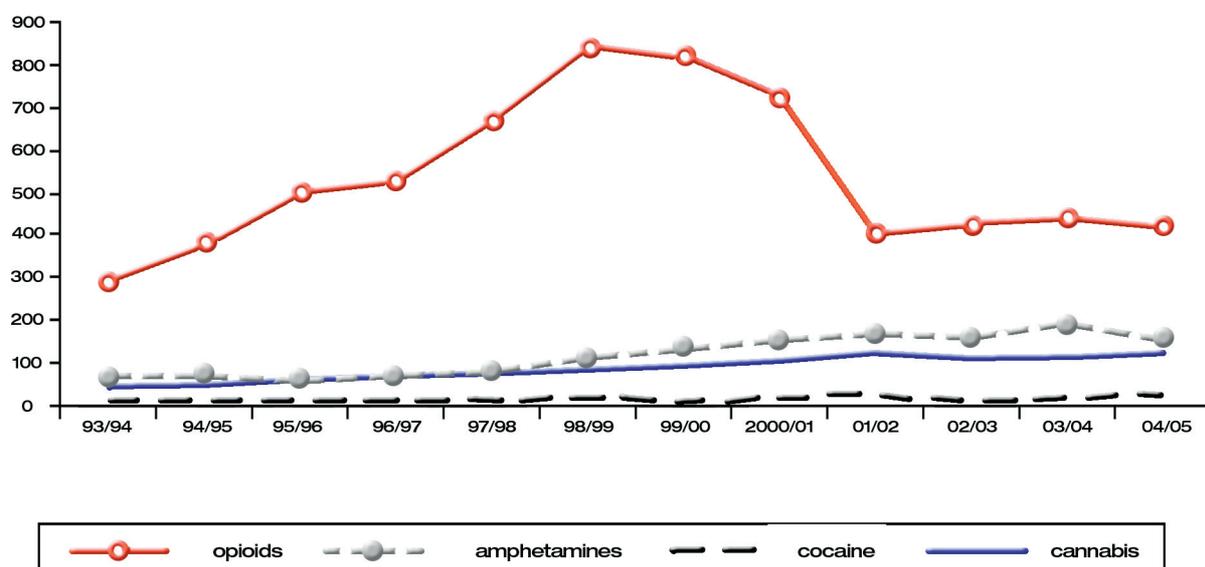


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- ✚ This bulletin presents data on drug-related hospital separations in Australia for the period 1993-2005 for the following drug types: opioids, cocaine, amphetamines and cannabis.
- ✚ A hospital separation is defined as an episode of care for an admitted patient, which may refer to a total hospital stay (from admission to discharge), or a portion of a hospital stay beginning or ending in a change of type of care, or transfer to another hospital.
- ✚ The data presented in this bulletin include hospital separations where the above-mentioned drugs were determined to be the principal reason for the hospital stay. Hospital separations are coded according to the World Health Organization's (WHO) International Statistical Classification of Diseases (ICD) and Related Problems. The ICD 10th revision (ICD 10 AM) (National Centre for Classification in Health, 1998) was used to code data dating from 1999 to the present in South Australia (SA), Western Australia (WA), and Queensland (QLD). The remaining jurisdictions commenced using ICD 10 AM codes in 1998. Prior to this, the ICD 9th revision (ICD 9 CM) (National Coding Centre, 1996) was used to code hospital separations.
- ✚ Rates per million persons of hospital separations are also presented, and these are calculated using the Australian Bureau of Statistics estimated resident population figures as at 30 June each year.
- ✚ The data refer to persons aged between 15 and 54.
- ✚ Figure 1 shows rates per million persons of hospital separations for all four drug types. Rates of separations were highest for opioids compared to the other drug types. Rates for cocaine, amphetamine and cannabis separations were all relatively lower during the twelve-year period.

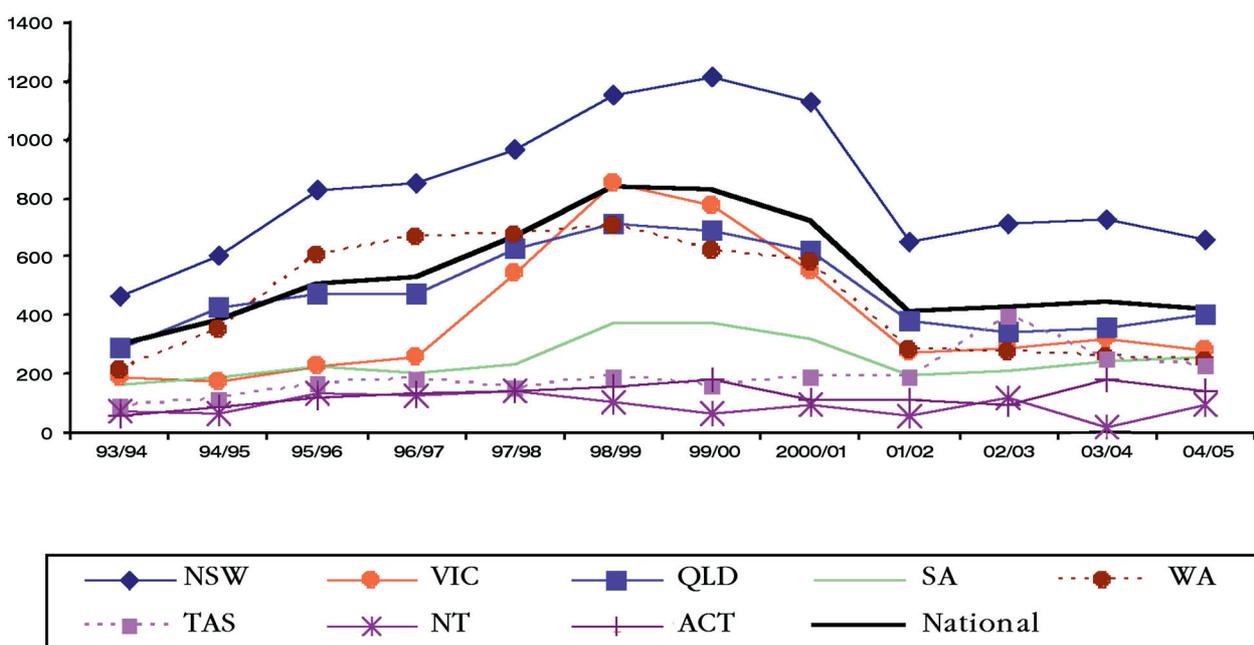
**Figure 1: Rates per million persons of principal drug-related hospital separations in Australia among persons aged 15-54, by drug type, 1993-2005**



## Opioid-related hospital separations

- + Opioid-related hospital separations declined dramatically in 2001/02 (Figure 2), coinciding with the heroin shortage reported at this time. These separations have remained lower since this time. Rates of opioid-related hospital separations were highest in New South Wales (NSW).
- + Separations for opioid dependence accounted for approximately two-thirds of all principal opioid-related separations. Both withdrawal and dependence separations declined dramatically in 2001/02.
- + Research examining the impact of the heroin shortage on patterns of drug use (Degenhardt and Day, 2004) and on presentations for treatment of heroin use in NSW (Degenhardt, Conroy, Day et al., 2005) suggests several reasons for the decline in opioid dependence presentations. First, there may be lower levels of physical dependence among users as a consequence of lower heroin purity at street level being reported during the shortage (Degenhardt et al., 2005). Second, the number of regular heroin users in NSW most likely declined following the shortage (Degenhardt and Day, 2004), resulting in fewer presentations for dependence. Likewise, with lower purity in heroin being reported, many users may have been able to manage withdrawal without presenting to hospital.
- + While there was a dramatic decline in opioid-related separations, they remain the highest across the drug types, and given that they are primarily funded by Australian health care agreements, they are likely to place a continuing burden on the public health system.

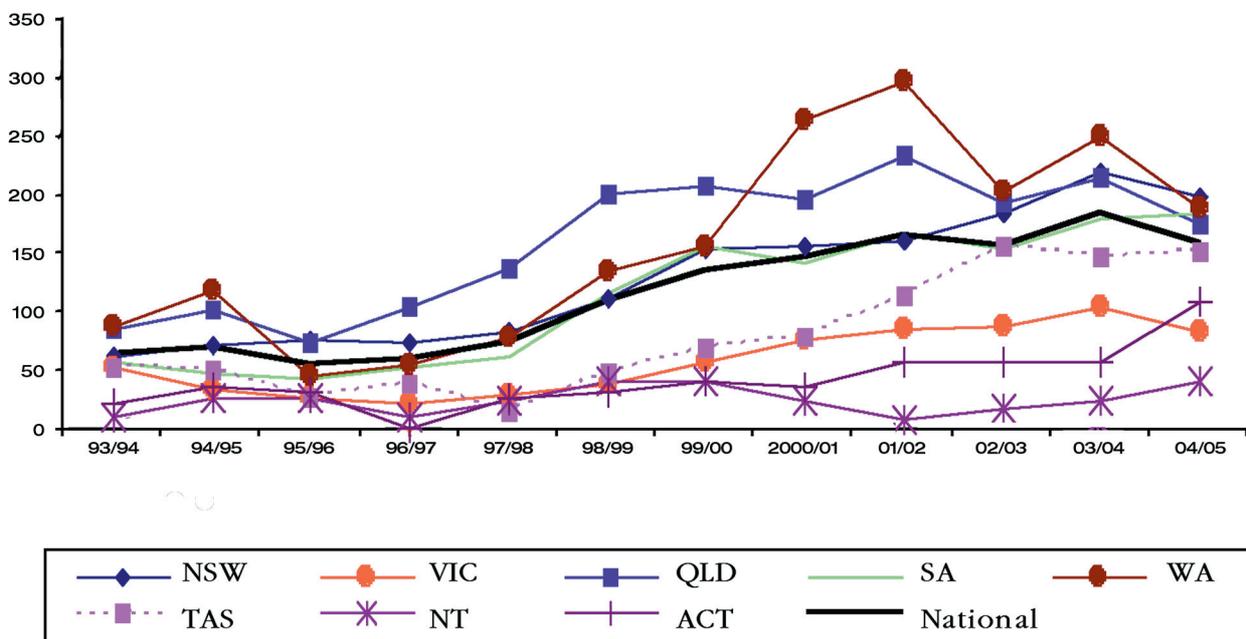
**Figure 2: Rates per million persons of principal opioid-related hospital separations in Australia among persons aged 15-54, 1993-2005**



## Amphetamine-related hospital separations

- +** Numbers of amphetamine-related hospital separations were the next highest among the drug types examined (Figure 3 shows the rates per million persons), and these separations have steadily increased over the twelve-year period. Rates were highest in QLD until 2000/01, when WA surpassed this figure. Rates in QLD increased steadily during the period, and this is consistent with increases in police detections of clandestine laboratories manufacturing methamphetamine (Kinner, Fischer and Lloyd, 2006). QLD recorded the highest number of detections of laboratories in Australia between 1997/98 and 2001/02 (McKetin, McLaren and Kelly, 2005). WA also had relatively high rates of amphetamine-related separations, and sharp increases were evident in 2000/01, the majority of which was due to increases in separations for amphetamine dependence. This increase coincides with the heroin shortage and reports of increased use of methamphetamine among injecting drug users in Australia at this time (Stafford, Degenhardt, Black et al., 2006).
- +** At their peak however, amphetamine-related separations only represented one-quarter of the highest number of opioid-related separations recorded during the twelve-year period.
- +** Amphetamine dependence separations accounted for approximately one-third of all principal amphetamine-related separations.
- +** Numbers of amphetamine dependence separations remain lower than for opioid dependence. This is indicative that fewer methamphetamine users than opioid users present for treatment for problems associated with their methamphetamine use, and that they are more likely to present to health services when they are in crisis. This is consistent with findings of a study conducted in Sydney on the utilisation of health services by regular methamphetamine users (Kelly, McKetin and McLaren, 2005), with only 10% of those interviewed reporting receiving treatment for their methamphetamine use in the past 12 months.
- +** Although amphetamine-related separations only accounted for small numbers of hospital separations, given that they are primarily funded by Australian health care agreements, that they are increasing, and that methamphetamine users tend to present when they are in crisis, these separations are likely to present ongoing challenges to the public health care system.

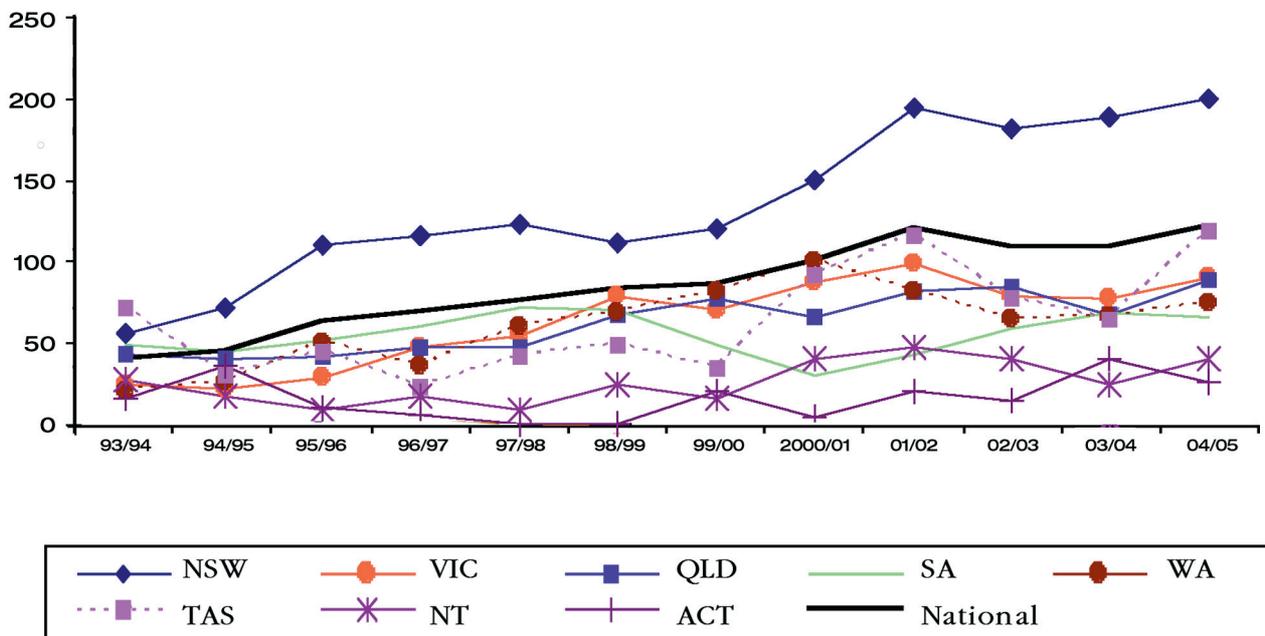
**Figure 3: Rates per million persons of principal amphetamine-related hospital separations in Australia among persons aged 15-54, 1993-2005**



## Cannabis-related hospital separations

- + Cannabis-related separations were the third highest in number across the four drug types during the period, and have remained relatively stable over the past few years following an increasing trend between 1993 and 2002. Rates per million persons were highest in NSW followed by VIC (Figure 4).
- + The percentage of cannabis-related separations that were due to dependence has continued to increase from 1993/94 when they accounted for 42% of principal cannabis-related separations, to accounting for more than two-thirds (70%) of these separations in 2004/05.
- + While cannabis dependence separations have continued to increase since 1998, numbers are still comparatively smaller than those for opioid dependence. This, together with a declining trend in cannabis use being reported among the general population in Australia (Australian Institute of Health and Welfare, 1999, Australian Institute of Health and Welfare, 2002, Australian Institute of Health and Welfare, 2005), indicates that only a small proportion of cannabis users in Australia go on to develop dependence and to experience problems associated with their cannabis use.

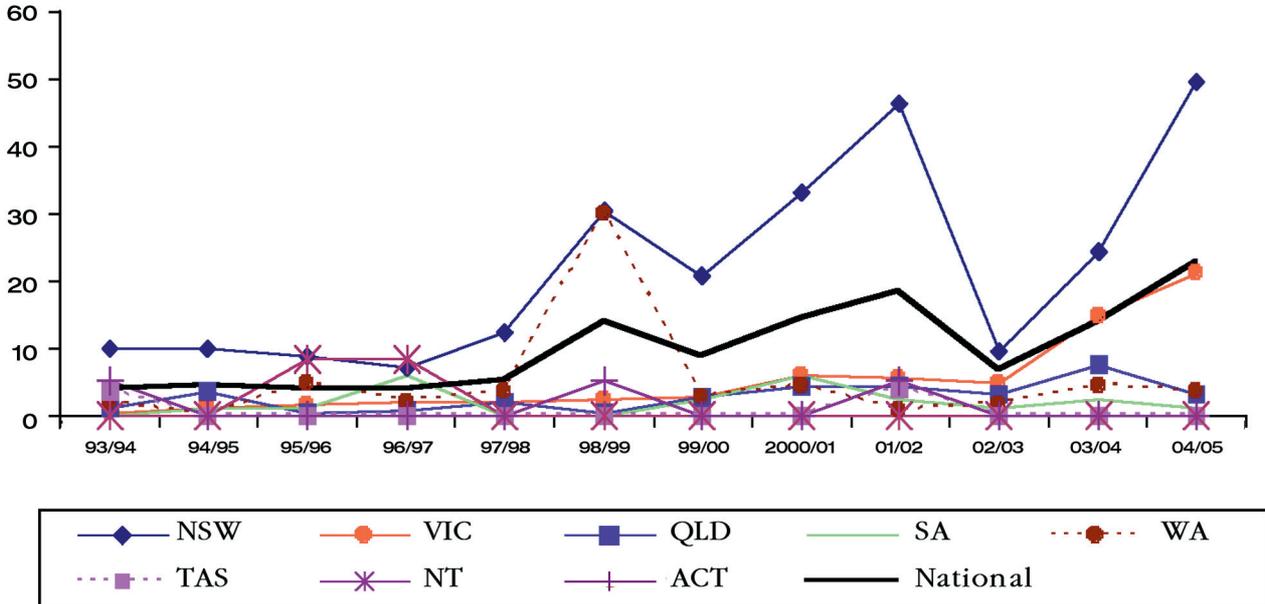
**Figure 4: Rates per million persons of principal cannabis-related hospital separations in Australia among persons aged 15-54, 1993-2005**



## Cocaine-related hospital separations

- + Cocaine-related separations were the lowest across the four drug types and did not exceed 300 per year during the twelve-year period (Figure 5). Rates were highest in NSW, which accounted for the majority of the national total of cocaine-related separations during this period.
- + Increases in cocaine-related separations were recorded in 1998/99 and 2001/02, with the latter coinciding with the heroin shortage and increased reports among injecting drug users about problems associated with cocaine use (Roxburgh, Degenhardt and Breen, 2004, Stafford et al., 2006). A further increase was evident in 2004/05 in NSW, which was predominantly due to an increase in cocaine dependence separations. This increase is consistent with reports of increases in daily use and greater availability of cocaine among injecting drug users in Sydney (Black, Degenhardt and Stafford, 2006).
- + Cocaine dependence separations have remained below 200 per year during the twelve-year period, and accounted for the majority (85% in 1996/97) of all principal cocaine-related separations in the earlier part of the period.

**Figure 5: Rates per million persons of principal cocaine-related hospital separations in Australia among persons aged 15-54, 1993-2005**



## Implications

- + Opioid-related hospital separations remain the highest across the four drug types, and while they have declined dramatically since 2001/02, continued focus on the development of effective treatment programs for opioids, as well as enhancement of existing (such as methadone) treatment programs should remain a priority.
- + Amphetamine-related hospital separations have continued to increase during the twelve-year period, and development of effective treatment programs for methamphetamine users, as well as strategies to engage this group, are crucial, as research suggests that few of these users are accessing health services except when they are in crisis.
- + Cannabis-related hospital separations were comparatively fewer in number, suggesting that only a small proportion of cannabis users go on to develop dependence and problems associated with their use. Education at a preventative level, targeting young people, should address the longer term problems (such as dependence) that may develop, particularly with ongoing daily cannabis use. Information about available treatment programs for problematic cannabis use should also be circulated more broadly within the community in order to target new users, as well as longer term cannabis users.
- + Cocaine-related hospital separations were the lowest across the drug types, at less than 300 per year. This is indicative that the cocaine market in Australia, particularly outside of the metropolitan Sydney area, is relatively small. Nevertheless, given the dramatic increases in cocaine-related harms recorded during the time of the heroin shortage, and again more recently, monitoring of this market (i.e. through the Illicit Drug Reporting System) remains a priority.
- + The National Hospital Morbidity Database is a useful data source for monitoring illicit drug-related harms in Australia. Continued monitoring of this dataset would provide invaluable information about trends in drug-related harms in Australia, as well as the context within which emerging trends can be understood. Finally, analysis of this dataset, in conjunction with other available data sources would provide a reliable framework within which to inform evidence-based drug policy in Australia.

For more detailed analyses of this data, please refer to:

Roxburgh, A. and Degenhardt, L. (2006). *Hospital stays related to illicit drugs in Australia, 1993-2004*. National Drug and Alcohol Research Centre Technical Report Number 261. Sydney: University of New South Wales.

### Acknowledgements

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### Related links:

For more information on NDARC research, go to: <http://ndarc.med.unsw.edu.au/>  
For more information about the AIHW, go to: <http://www.aihw.gov.au>  
For more information on ICD-10, go to: <http://www.who.int/whosis/icd10/>



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