



OVERDOSE DEATHS IN AUSTRALIA

2005 Edition

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COCAINE AND METHAMPHETAMINE RELATED DRUG-INDUCED DEATHS IN AUSTRALIA, 2005

- This bulletin provides data on accidental drug-induced deaths in which methamphetamine and cocaine were mentioned from 1997 to 2005.
- The data included in this bulletin includes deaths where these drugs were determined to be the underlying cause of death - that is, that they were the primary factor responsible for the person's death. It also includes deaths where cocaine or methamphetamine were noted, but where another drug was thought to be primarily responsible. They are coded according to the World Health Organization's (WHO) International Statistical Classification of Diseases and Related Problems, 10th revision (ICD-10).
- The data presented here refer to deaths among those aged 15 to 54 years that were attributed to the following :
 - Accidental deaths due to poisoning by cocaine or methamphetamine (and no other drug from same category was mentioned);
 - Accidental deaths due to cocaine or methamphetamine use (usually dependence); and
 - Accidental drug-induced deaths where cocaine or methamphetamine was mentioned.

Methamphetamine related drug induced deaths

- There was a total of 68 "drug induced" deaths in which methamphetamine was mentioned among those aged 15 to 54 years (Table 1). This represents a slight decrease from 75 methamphetamine-related deaths in 2004.
- The rate of methamphetamine related deaths among those aged 15 to 54 years decreased to 5.9 per million persons in 2005, from 6.6 in 2004.
- Methamphetamine was determined to be the underlying cause of death in 38% (n = 26) of all methamphetamine related deaths in 2005.
- These findings are consistent with indicators of methamphetamine availability in Australia. Australian border detections of crystal methamphetamine have remained stable in the past few years.
- These findings are also consistent with data on drug use from regular drug users and needle and syringe programme (NSP) attendees, where stable rates of use were recorded between 2003-2005 (at a national level) (National Centre in HIV Epidemiology and Clinical Research 2006; Stafford, Degenhardt et al. 2006; Stafford, Degenhardt et al. 2006). Use of crystal methamphetamine increased in 2006 among injecting drug users (O'Brien, Black et al. in press), but this is outside the time period of the data in this bulletin.
- Finally, these data are consistent with other indicators of harms. Hospital stays for methamphetamine have remained relatively stable in recent years, following increases in the late 1990s (Roxburgh and Degenhardt 2006). Finally, numbers receiving treatment for methamphetamine as their principal drug of concern have also remained stable over the past few years (Australian Institute of Health and Welfare 2006).

Cocaine related drug induced deaths

- Fifteen drug related deaths in which cocaine was mentioned occurred among the 15-54 year age group..
- Cocaine was determined to be the underlying cause of death in two thirds (66%) of all cocaine related deaths identified in 2005 (n=10).
- The rate - 1.3 per million persons aged 15-54 years in Australia - of deaths where cocaine was mentioned remained essentially unchanged in 2005 compared to 2004 (where it was 1.7 per million persons; Figure 2).
- These findings are consistent with other indicators of cocaine-related harm. Hospital stays that were primarily for cocaine have remained under 300 per year in Australia since 1993 (Roxburgh and Degenhardt 2006), and very small proportions of completed treatment episodes in Australia are for cocaine (0.3% in the 2004/05 financial year) (Australian Institute of Health and Welfare 2006).
- Small proportions of injecting drug users reported recent cocaine use in Australia (22% in 2005 and 20% in 2006) (Stafford, Degenhardt et al. 2006; O'Brien, Black et al. in press), and use is sporadic. In addition, most of the cocaine use is predominantly in NSW.

Implications

- Methamphetamine-related deaths remained stable in 2005, as did many other indicators of methamphetamine-related harm.
- Although there are users who experience significant harms associated with their methamphetamine use, many more people were estimated to have died primarily due to opioids - in 2005, the rate was 32.5 per million persons aged 15 to 54 years. This context needs to be kept in mind.
- Nonetheless, efforts to develop and disseminate effective interventions for problematic methamphetamine use remain a priority. Continued training of frontline workers (such as police, emergency department, and primary health care workers) to manage the more problematic symptoms associated with methamphetamine use also remains crucial.

Table 1: Number of accidental drug-induced deaths mentioning cocaine or methamphetamine among those aged 15-54 years in Australia, 1997-2005.

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Cocaine - total mentions	20	36	33	27	28	15	15	20	15
Cocaine - underlying cause	0	3	4	3	2	1	5	5	10
Methamphetamine - total mentions	25	48	79	99	51	55	50	75	68
Methamphetamine - underlying cause	4	6	15	15	13	1	17	17	26

Figure 1: Number of accidental drug-induced deaths mentioning cocaine or methamphetamine (total and underlying COD) among those aged 15-54 years in Australia, 1997-2005.

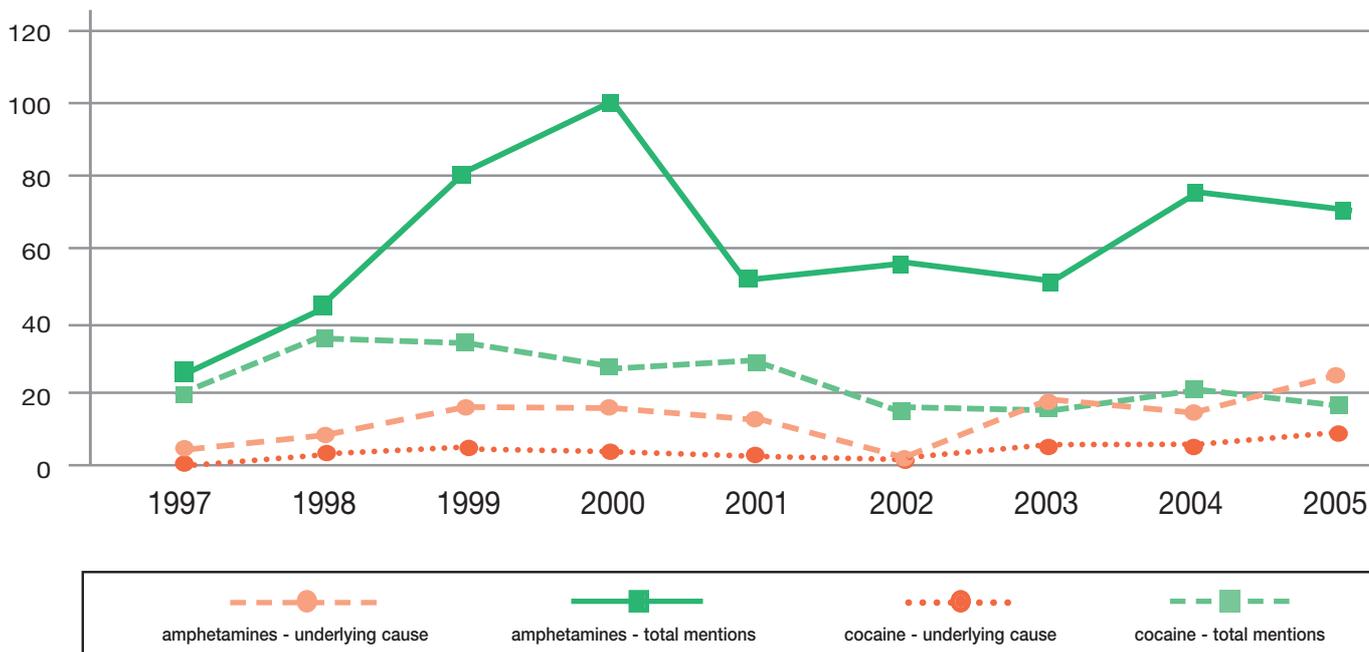
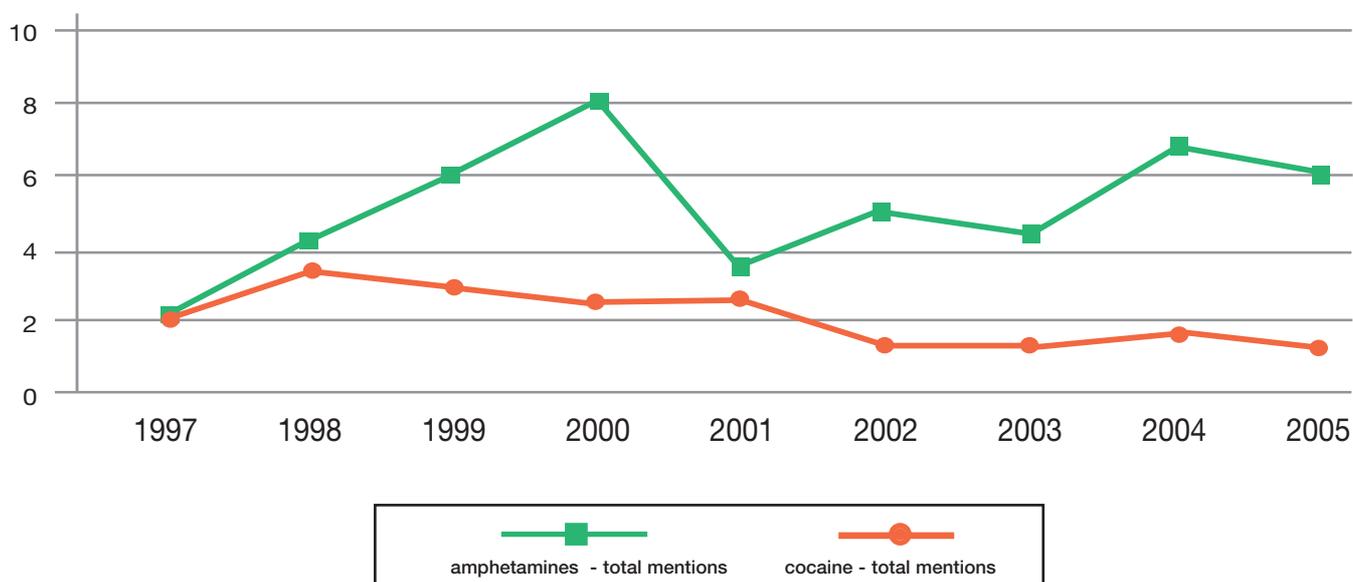


Figure 2: Rate of accidental drug-induced deaths with cocaine or methamphetamine mentions per million population aged 15-54 years, Australia 1997-2005.



APPENDIX: ABS DATA ON COCAINE AND METHAMPHETAMINE MENTIONS IN ACCIDENTAL DRUG-INDUCED DEATHS IN AUSTRALIA

The Australian Bureau of Statistics (ABS) is responsible for collecting data every year on persons who have died across Australia. Data on accidental deaths are collected from the Medical Certificates of Cause of Death submitted to each State or Territory's Registrar of Births, Deaths and Marriages and from the National Coroners Information System.

Death certificates typically state the sequence of events that led to a person's death. The ABS then uses its coding rules to establish the underlying cause of death, that is, "the disease or injury that initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury". The ABS also lists the diseases, injuries and health-related factors that contributed to the death but which were not the main cause of death.

The ABS uses an international classification system for classifying deaths, developed by the World Health Organization (WHO). This is called the International Statistical Classification of Diseases and Related Problems (ICD). The ICD edition currently used is the 10th edition (ICD-10). This edition of the classification system has been used since 1997 and provides more detailed information on accidental drug-induced deaths than previous versions.

All data on in this report refer to accidental drug-induced deaths where the underlying cause of death is drug-related and accidental. There are more deaths each year in which drugs are considered to have contributed to a person's death (e.g. general medical conditions, suicides, traffic accidents, drownings), but these deaths are not included.

In this report, the following ICD-10 codes have been used to examine deaths where amphetamine and cocaine were considered to be the underlying cause of death:

- F14 - Accidental deaths due to cocaine use disorder (including cocaine dependence)
- F15 - Accidental deaths due to methamphetamine use disorder (including methamphetamine dependence)
- X42 with T40.5 - Accidental deaths due to poisoning cross-classified with cocaine poisoning (but excluding any other drug from the X42 category)
- X41 with T43.6 - Accidental deaths due to poisoning cross-classified with methamphetamine poisoning (but excluding any other drug from the X41 category)

The following codes have also been examined to investigate deaths in which cocaine or amphetamines were mentioned as a contributing cause of an accidental drug-induced death, but in which they may not have been the primary cause of death:

- Accidental deaths due to other drug use disorder (F11-F16, F19, F55) cross-classified with cocaine (T40.5 and F14) or methamphetamine (T43.6 and F15); and
- Accidental deaths due to poisoning by another drug (X40-X44) cross-classified with cocaine (T40.5 and F14) or methamphetamine (T43.6 and F15).

Related links:

For more information on NDARC research, go to: <http://ndarc.med.unsw.edu.au>

For more information about the ABS, go to: <http://www.abs.gov.au>

For more information on ICD-10, go to: <http://www.who.int/whosis/icd10/>

References

Darke, S., S. Kaye and J. Duflou (2006). "Systemic disease among cases of fatal opioid toxicity." *Addiction* 101(9): 1299-1305.

Degenhardt, L., C. Day, E. Conroy, S. Gilmour and W. Hall (2005). "Age differentials in the impacts of reduced heroin supply: Effects of a "heroin shortage" in NSW, Australia." *Drug and Alcohol Dependence* 79(3): 397-404.

Roxburgh, A. and L. Degenhardt (2006). *Drug related hospital stays in Australia, 1993-2005*. Sydney, National Drug and Alcohol Research Centre, University of New South Wales.

Roxburgh, A. and L. Degenhardt (2006). *Hospital stays related to illicit drugs in Australia, 1993-2004*. NDARC Technical Report No. 261. Sydney, National Drug and Alcohol Research Centre, University of New South Wales.

Stafford, J., L. Degenhardt, E. Black, R. Bruno, K. Buckingham, J. Fetherston, R. Jenkinson, S. Kinner, J. Newman and J. Weekley (2006). *Australian Drug Trends 2005: Findings from the Illicit Drug Reporting System (IDRS)*. Sydney, National Drug and Alcohol Research Centre, University of New South Wales.

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