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## Key Points

- More than one-third of the 2006 IDU cohort reported experiencing a mental health problem in the six months preceding the interview.
- Affective disorders were the most commonly reported amongst study participants (30%), followed by anxiety disorders (15%) and psychotic disorders (7%). These rates are markedly higher than those reported for the general Australian population.
- Those reporting a recent mental health problem were more likely to be female, less likely to be injecting daily, and more likely to be engaged in some form of alcohol and drug treatment than those who did not report a recent mental health problem.
- Among those reporting a recent mental health problem, one-third had not accessed any treatment for this. This gap in access to mental health treatment was the same regardless of whether an individual was involved in drug treatment or not.
- Of those accessing treatment for mental health, equal proportions presented to general medical practitioners and mental health professionals (such as psychiatrists, psychologists or counsellors).

## Self-reported Mental Health Problems amongst Regular Injecting Drug Users interviewed in the IDRS

### Introduction

Recently, there has been an increasing focus placed on comorbid substance use and mental health disorders. Comorbid disorders are now recognised to be widespread and associated with poorer treatment outcomes, high levels of service utilisation and more severe disability (Teesson & Burns, 2001). As such, major projects such as the National Co-morbidity Initiative have been implemented to enhance co-ordination across services and to reduce existing barriers impacting on assessment and treatment (AIHW, 2005).

There are three main theories regarding the relationship between substance use and mental illness (Teesson & Burns, 2001). Firstly, there is the possibility that substance use may lead to the development of mental health problems, either through biological mechanisms (such as regular methamphetamine use inducing a psychotic illness: McKetin et al, 2006), or through environmental mechanisms (such as increased exposure to stressful situations and a reduced access to coping resources: Kessler, 2004). Secondly, there is the possibility that mental health problems may lead to substance use, through disinhibition, as a means of self-medicating aversive mood states, or as a coping mechanism. Thirdly, there is the possibility that substance use and mental illness may co-occur as a result of shared predisposing genetic and/or family circumstances. Existing evidence suggests that causal pathways may differ in direction across drug types and psychiatric complaints (Jane-Llopis & Matysina, 2006), however, it is clear that the presence of substance use can complicate mental health treatment by, for example, reducing the efficacy of some psychiatric medications or exacerbating existing conditions through neurobiological interactions, as can the presence of mental health problems complicate substance use treatments.

This bulletin aims to provide an overview of the prevalence of self-reported mental health problems, and utilisation of treatment services amongst injecting drug users (IDU) who have participated in the 2006 IDRS study. Details of the methodology and characteristics of participants are described elsewhere (O'Brien et al, 2007); however, briefly, this involved interviews with 914 individuals across Australia selected on the basis of regular (at least once monthly) injection in the preceding six months. It is important to note that participants are

simply asked to specify whether they had experienced any mental health problems in the six months prior to interview, and the types of problems experienced. As such, this is purely self-report and not confirmed by formal diagnosis from a health professional or a psychiatric assessment scale. However, this methodology is similar to that used by the Australian Bureau of Statistics' National Health Survey (ABS, 2006) and can provide useful information on participants' perceptions of their mental health.

## Results

### Prevalence of Self-Reported Mental Health Problems

In 2006, 38% of the IDU cohort in the IDRS study self-reported experiencing some mental health problem in the preceding six months. This rate is very similar to that identified in previous years of the study (Stafford et al, 2006).

Participants were asked the type of mental health problem they had experienced. These were summarised into three groupings consistent with current models of psychiatric nosology: affective disorders (including depression, mania, bipolar disorder), anxiety disorders (including anxiety, phobias, panic disorder and obsessive-compulsive disorder) and psychotic-type disorders (including schizophrenia, drug-induced psychosis, other psychosis, and paranoia).

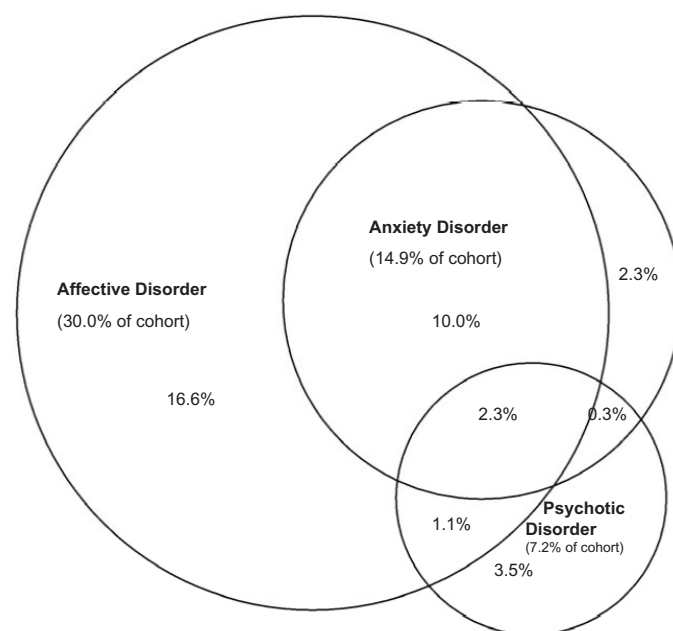
Among the 2006 cohort, 30% reported recent experience of an affective disorder, which was the disorder group most commonly reported (Figure 1). In contrast, in the recent (2004-05) National Health Survey of almost 26,000 individuals across Australia, 5.3% self-reported experiencing a long-term affective disorder. This rate was consistent with that identified in the 1997 Survey of Mental Health and Wellbeing which identified a prevalence of affective disorders in the preceding twelve months of 5.8% in the general community, using a standardised diagnostic process (a modified version of the Comprehensive International Diagnostic Interview, CIDI).

Anxiety disorders were reported by 14.9% of the cohort. Again, this is higher than the level of such self-reports found among the general community in the 2004/05 National Health Survey (4.9%) or that more formally diagnosed in the 1997 Survey of Mental Health and Wellbeing (9.7%). It is noteworthy that, in contrast to the equivalence between CIDI-diagnosis prevalence and self-report prevalence in the two national studies for affective disorders (5.3% and 5.8% respectively), the self-reported rates for anxiety disorders in the National Health Survey were substantially lower than the CIDI-diagnosed rates in the Survey of Mental Health and Well-Being, in largely equivalent cohorts. This may suggest that the self-reported rate of anxiety disorders in this IDU cohort may be an underestimate of the actual prevalence in this sample.

Psychotic-type disorders were reported by 7.2% of the 2006 IDU cohort. By comparison, Jablensky et al. (1999) reported a prevalence rate of psychotic-type disorders in the general Australia community of 0.5%.

Participants were able to name more than one mental health problem that they had recently experienced. Ten percent of the cohort reported recently experiencing both affective and anxiety disorders, 1.1% reported both an affective and psychotic disorder, 0.3% an anxiety and psychotic disorder, and a further 2.3% reported experiencing a disorder from all three classes (Figure 1).

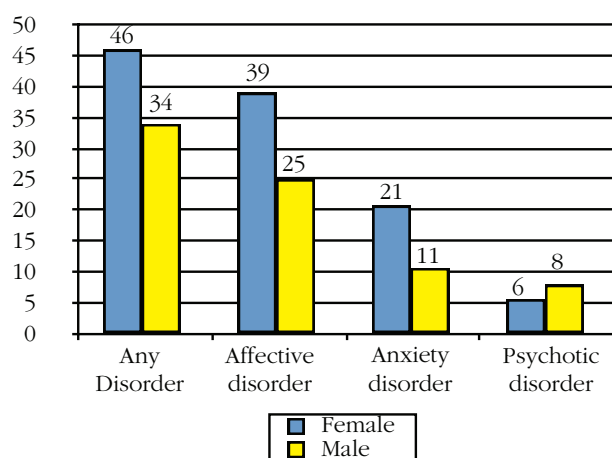
**Figure 1. Prevalence and co-morbidity of self-reported mental health problems amongst the national IDRS IDU cohort, 2006**



Source: IDRS IDU interviews n=914

Participants reporting a recent mental health problem were more likely to be female (46% vs. 34%;  $\chi^2(1, n=907)=11.171, p=0.001$ ) than those that did not (Figure 2). Consistent with established sex differences in prevalence rates (APA, 2000), females were more likely to report recent experience of an affective ( $\chi^2(1, n=907)=18.12, p<0.001$ ) or anxiety disorder ( $\chi^2(1, n=907)=16.62, p<0.001$ ) than males. There were no sex differences in the presence of psychotic disorders.

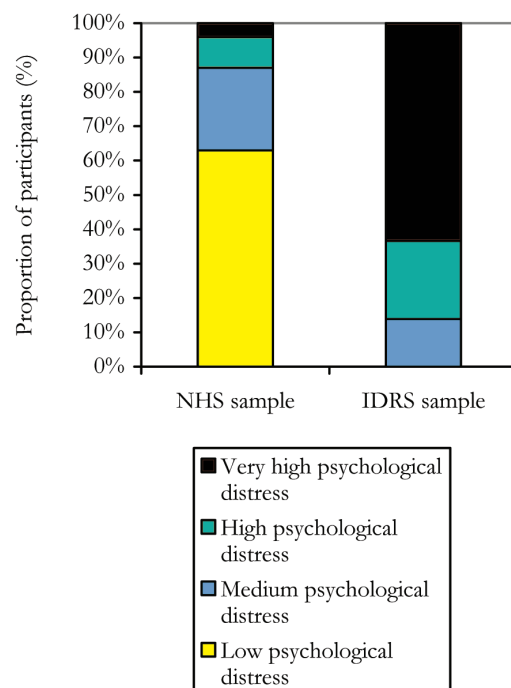
**Figure 2. Proportion of participants reporting a mental health problem by sex**



Source: IDRS IDU interviews

In the 2006 Tasmanian IDRS survey, information regarding psychological distress was collected from IDU participants using the Kessler 10 Scale (K10). This was not conducted nationally in 2006. The K10 examines negative emotional states, with a focus on anxiety and depressive symptoms, in the four weeks preceding the interview. The scores are totalled and grouped into four categories of psychological distress - low, medium, high and very high. Participants who fall into the 'very high' category may require professional help (ABS, 2001). Amongst the Tasmanian IDRS IDU cohort in 2006, two-thirds of all participants (64%) fell into the very high level of psychological distress category (Figure 3). This finding is of particular interest, as just 50% of participants reported a recent mental health problem, implying that rates of mental health problems amongst the Tasmanian cohort may be even greater than the already high level of self-reported problems. These results of the K10 in Tasmania are markedly different to those found in the National Health Survey (2004/05), in which two-thirds of the participants (63%) were classified in the 'low' level of psychological distress, and just 4% were classified in the 'very high' level.

**Figure 3: Responses to the Kessler 10 questionnaire in the National Health Survey\* and IDRS^ studies**



Source: NHS and IDRS IDU interviews. \*NHS study was conducted in 2004/05. ^IDRS data is from the 2006 survey.

### Drug Use Characteristics of IDU Reporting Mental Health Problems

Participants were asked about their drug use in the six months prior to interview (Table 1). Participants reporting a recent mental health problem were less likely to be daily injectors (36% vs. 52%;  $\chi^2(1, n=912)=22.438, p<0.001$ ), and more likely to be currently involved in some form of drug treatment (53% vs. 39%;  $\chi^2(1, n=914)=16.544, p<0.001$ ) than those not reporting a recent mental health problem. However, recent drug use was similar across both participants with and without a self-reported mental health problem, with two exceptions: a slightly lower frequency of heroin use amongst those reporting a mental health problem; and more notably, a higher proportion of those with a mental health problem had recently used benzodiazepines (77% vs. 62%) at a greater median frequency (80 days vs. 25 days of the past 180) in comparison to those without a mental health problem. Benzodiazepine use may comprise part of a treatment program for anxiety disorders or drug dependence; however, amongst the group reporting recent experience of an anxiety disorder, 65% reported use of prescribed benzodiazepines while 42% had used these drugs illicitly in the six months prior to

interview. This, and the higher use of benzodiazepines amongst those experiencing mental health problems in the cohort is of concern, as there is some evidence that benzodiazepine use among IDU may be associated with adverse outcomes such as higher rates of injecting risk behaviour, lower levels of health and social functioning and greater risk of opiate overdose (Darke, Ross & Hall, 1995).

**Table 1: Recent substance use patterns amongst IDRS IDU participants who did and did not report a recent mental health problem, 2006**

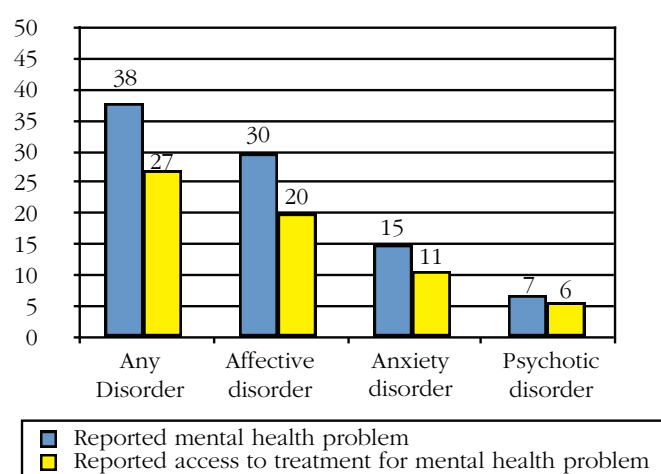
	Participants reporting a recent mental health problem (N=350)		Participants reporting no recent mental health problem (N=564)	
	% used drug	Median days of use	% used drug	Median days of use
Heroin	51	24	59	50
Methamphetamine(any form)*	83	26	77	24
Benzodiazepines	77	80	62	25
Cannabis	84	180	82	180
Alcohol	71	24	67	24

Source: IDRS IDU interviews. \* includes speed powder, base, ice/crystal and liquid methamphetamine.

### Access to Treatment for Mental Health Problems among IDU

IDRS IDU participants that reported experiencing a mental health problem in the preceding six months were asked if they had accessed a health professional for treatment for this. Of those reporting a mental health problem (38% of the sample), one-third (30%) had not accessed any treatment for their mental health (Figure 4). This gap in service access was greatest for the group reporting currently experiencing affective disorders, whereby just 68% were accessing treatment. Amongst the group reporting current anxiety disorders, 77% reported accessing treatment for this, and 82% of the group who reported recent experience of a psychotic disorder reported accessing a health professional for this mental health problem. It is of interest to note that this reflects a greater level of service utilisation for mental health problems than that seen in the general community: the 1997 Survey of Mental Health and Well-Being indicated that just 28% of those with CIDI-diagnosed anxiety disorders and 56% of those with affective disorders were accessing treatment for their mental health issues.

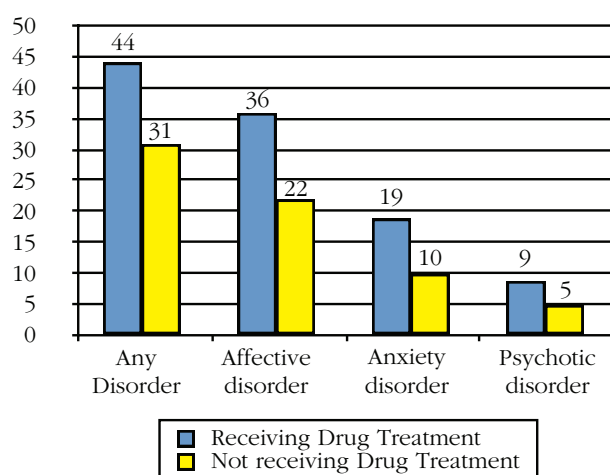
**Figure 4: Proportions of IDRS IDU participants reporting a recent mental health problem, and accessing treatment for this mental health problem, 2006**



Source: IDRS IDU interviews

A further series of analyses investigated the nexus between reported mental health status and drug treatment. Reports of mental health problems were significantly more common amongst those involved in drug treatment than those who were not (44% vs. 31%:  $\chi^2(1_{n=914})=16.93$ ,  $p<0.001$ ). This was consistent for each disorder type (Figure 5: affective:  $\chi^2(1_{n=914})=19.48$ ,  $p<0.001$ ; anxiety:  $\chi^2(1_{n=914})=14.37$ ,  $p<0.001$ ; psychotic:  $\chi^2(1_{n=914})=5.07$ ,  $p=0.024$ ). This may suggest that, among the current cohort, either: a) those experiencing higher levels of psychological distress (either causing or caused by their substance use) presented for drug treatment; b) involvement in drug treatment facilitates the identification of mental health problems; or c) some combination of the two.

**Figure 5: Proportion of IDRS IDU participants reporting affective, anxiety or psychotic-type disorders amongst those receiving and not receiving drug treatment, 2006**

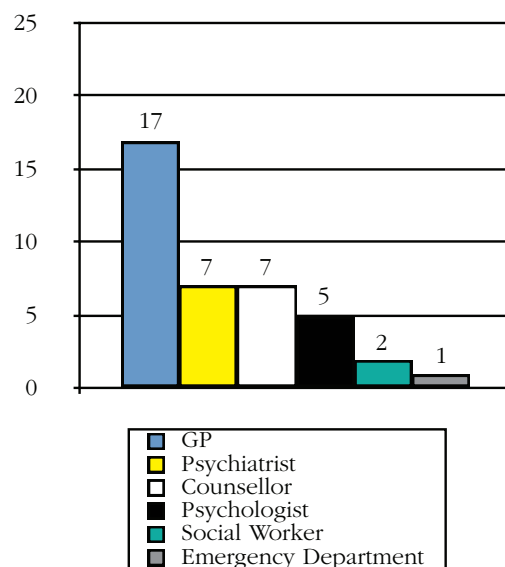


Source: IDRS IDU interviews

If involvement in drug treatment was operating as a gateway to the identification and subsequent treatment of mental health problems among this cohort, it may be expected that, amongst those participants reporting mental health problems, there would be greater proportions receiving mental health treatment amongst those involved in drug treatment than those who were not in drug treatment. This was not the case, as there was no significant differences in the proportions of those reporting a mental health problem receiving treatment for these amongst those involved in drug treatment (72%) and those not (67%). This was consistent for all types of mental health problems (affective: 70% vs. 64%; anxiety 79% vs. 69%; psychotic 80% vs. 85%). This may suggest that the gateways into treatment for mental health problems are open equally as wide for those receiving drug treatment as for those who are not.

Respondents accessing treatment for mental health concerns most commonly presented to general medical practitioners (17% of the sample, two-thirds of those receiving mental health treatment; Figure 6), with smaller proportions accessing support from mental health professionals such as psychiatrists, counsellors or psychologists. Taking into account that participants could have attended multiple health professionals, it is of note that almost an equal proportion presented to general medical practitioners (17%) as presented to a mental health professional (psychiatrist, psychologist, counsellor, mental health nurse, social worker: 16%) overall. This pattern of approximately equal proportions accessing general medical practitioners and mental health professionals was consistent for each of the disorder types.

**Figure 6: Proportion of participants reporting access to specific health professionals for treatment of mental health problems, 2006**



Source: IDRS IDU interviews

## Conclusions

Psychological distress and self-reported mental health problems were experienced at dramatically higher levels among the cohort of IDU participants in the IDRS when compared to the general population. This is consistent with numerous national and international studies using careful clinical diagnoses of participants (Teeson, Hall, Lynskey & Degenhardt, 2000; Kessler, 2004). Indeed, a recent review suggested that rates of mental health problems among substance consuming populations increases with the severity of drug use, with rates of psychiatric comorbidity greater among those using illicit drugs compared with those experiencing alcohol disorders, and greater among those with drug dependence problems as opposed to drug use (Jane-Llopis & Matysina, 2006).

Rates of reported mental health problems were greater amongst those participants that were receiving treatment for their substance use. Involvement in drug treatment may help individuals identify existing obscured mental health concerns or it may be that those with co-morbid problems may be more in need of services than those with pure drug problems as the problems or distress from substance use may be exacerbated by mental health problems. Recent analyses of the US Household Survey on Drug Abuse supported the latter, indicating that the presence of an affective or anxiety disorder was associated with an increased rate of use of drug treatment, and that

the rate of use of drug treatment increased with the number of mental health problems experienced (Wu, Ringwalt & Williams, 2003).

Similarly, while sizeable proportions of the current cohort reporting recent mental health problems had not accessed treatment for this, rates of service utilisation for mental health problems were higher than that reported amongst the general population (Henderson, Andrews & Hall, 2000), a finding that has been previously identified in the Australian National Survey of Mental Health and Well-being (Teesson, Hall, Lynskey & Degenhardt, 2000).

Participants reporting a recent mental health problem reported higher rates and frequency of use of benzodiazepines than the participants not reporting a recent mental health problem, with both prescribed and non-prescribed use common. While longitudinal studies of persons with comorbid severe mental illness and substance use have similarly identified high levels of benzodiazepine use (Brunette et al, 2003), this use may be a complicating factor contributing to poorer outcome for some, given both that benzodiazepine use among IDU has been repeatedly associated with adverse health and social outcomes (e.g. Darke, Ross & Hall, 1995), and that benzodiazepines may exacerbate existing affective disorders (Valenstein et al, 2004), which were highly comorbid with anxiety disorders in this cohort.

### **Implications for service provision**

Comorbid mental health and substance use disorders are common amongst the regularly-injecting consumers taking part in the IDRS, consistent with patterns seen in mental health and drug treatment settings. Clearly, given the repeated evidence of poorer outcomes for those experiencing such comorbidity, these findings stress the importance of improving co-ordination between the alcohol and drug and mental health sectors, particularly those involved in treatment, for individuals already experiencing both mental health and substance use problems.

However, it is equally important that attention is paid to the prevention of mental health problems amongst those who choose to use drugs. These findings suggest that that efforts to enhance the mental health literacy of general health professionals, front line workers and drug and alcohol professionals interacting with IDU – as well as within peers in the substance consuming community – may prove beneficial through earlier identification of emergent problems amongst these high-risk populations.

## **References**

American Psychiatric Association (2000). *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision*. Washington DC: APA.

Australian Bureau of Statistics (2001). *Information Paper: Use of the Kessler Psychological Distress Scale in ABS Health Surveys, Australia, 2001*. Canberra: Australian Bureau of Statistics.

Australian Bureau of Statistics (2006). *2004-05 National Health Survey- Summary of Results*. Canberra: Australian Bureau of Statistics.

Australian Institute of Health and Welfare (2005). *National Comorbidity Initiative: A*

*review of data collections relating to people with coexisting substance use and mental health disorders*. AIHW Cat. No. PHE60 (Drug Statistics Series No. 14). Canberra: AIHW.

Brunette, M.F., Noordsy, D.L., Xie, H. & Drake, R.E. (2003). Benzodiazepine use and abuse among patients with severe mental illness and co-occurring substance use disorders. *Psychiatric Services, 54*, 1395-1401.

Darke, S., Ross, J. & Hall, W. (1995). Benzodiazepine use among injecting drug users. *Medical Journal of Australia, 162*, 645-647.

Henderson, S., Andrews, G. & Hall, W. (2000). Australia's mental health: an overview of the general population survey. *Australian and New Zealand Journal of Psychiatry, 34*, 197-205.

Jablensky, A., McGrath J., Herrman, H., Castle, D., Gureje, O., Morgan, O. & Korten, A. (1999) *People Living with Psychotic Illness: An Australian Study 1997-98*. Canberra: Commonwealth Department of Health and Aged Care.

Jane-Llopis, E., Matysina, I. (2006). Mental health and alcohol, drugs and tobacco: a review of the comorbidity between mental disorders and the use of alcohol, tobacco and illicit drugs. *Drug and Alcohol Review, 25*, 515-36.

Kessler, R.C. (2004). The epidemiology of dual diagnosis. *Biological Psychiatry, 56*, 730-737.

McKetin, R., McLaren, J., Lubman, D. & Hides, L. (2006). The prevalence of psychotic symptoms among methamphetamine users. *Addiction, 101*, 1473-1478.

McLennan, W. (1998). *Mental Health and Wellbeing: Profile of Adults, Australia*. Canberra: Australian Bureau of Statistics.

O'Brien, S., Black, E., Degenhardt, L., Roxburgh, A., Campbell, G., de Graaff, B., Fetherston, J., Jenkinson, R., Kinner, S., Moon, C. & White, N. (2007). *Australian Drug Trends 2006: Findings from the Illicit Drug Reporting System*. National Drug and Alcohol Research Centre Monograph No. 60. Sydney: National Drug and Alcohol Research Centre, University of New South Wales.

Stafford, J., Degenhardt, L., Black, E., Bruno, R., Buckingham, K., Fetherston, J., Jenkinson, R., Kinner, S., Newman, J., Weekly, J. (2006). *Australian Drug Trends: Findings from the Illicit Drug Reporting System, 2005*. National Drug and Alcohol Research Centre Monograph Report No. 59. Sydney: University of New South Wales.

Teesson, M., Hall, W., Lynskey, M. & Degenhardt, L. (2000). Alcohol- and drug- use disorders in Australia: implications of the National Survey of Mental Health and Wellbeing. *Australian and New Zealand Journal of Psychiatry, 34*, 206-213.

Teesson, M. & Burns, L. (2001). *National Comorbidity Project*. Canberra: Department of Health and Ageing.

Valenstein, M., Taylor, K. K., Austin, K., Kales, H. C., McCarthy, J. F. & Blow, F. C. (2004). Benzodiazepine use among depressed patients treated in mental health settings. *American Journal of Psychiatry, 161*, 654-661.

Wu, L-T, Ringwalt, C. L. & Williams, C. E. (2003). Use of substance abuse treatment services by persons with mental health and substance use problems. *Psychiatric Services, 54*, 363-369.