8

Drug-induced psychoses and mental illness

8.1 The co-occurrence of drug use and mental illness is referred to as a 'dual diagnosis' or 'comorbidity', including where the illness is a consequence of illicit drug use.

8.2 Dual diagnosis represents further challenges for families by intensifying the range of concerning behaviours they have to cope with, some of which may be physically threatening. In addition to assuming an increased burden of care, families may also be affected by increased stress and worry about their family member's ability to function and have any expectation of recovery.

8.3 In a clinical sense, 'dual diagnosis' or 'comorbidity' can refer to the co-occurrence of any two mental disorders in an individual. Indeed, under many diagnostic classifications, illicit drug addiction is categorised as a type of mental disorder alongside diagnoses such as anxiety, depression, personality disorders and psychotic disorders. 'Comorbidity' commonly refers, however, to drug use co-occurring with another or several mental health issues, and it is in this sense that it is used here.[1]

Prevalence of dual diagnosis

8.4 Illicit drugs are associated with a range of mental disorders including:

- depression;

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1 Teesson M and Proudfoot H, eds, National Drug and Alcohol Research Centre, *Comorbid mental disorders and substance use disorders: Epidemiology, prevention and treatment* (2003), p 10.

- anxiety disorders (including panic disorder, agoraphobia, social phobia and obsessive compulsive disorder);
- drug-induced psychoses and longer term chronic psychotic illnesses, including schizophrenia and bipolar affective disorder;
- eating disorders; and
- mania.

8.5 In the public mind the group of mental disorders most commonly associated with illicit drugs is schizophrenia and other psychoses. Psychosis has a clearly debilitating impact on drug users, and places enormous demands on frontline workers, families and the public health system. There is also public concern about rising levels of crystal methamphetamine or ice use in Australia, a potent drug associated with violent psychosis.[2] It is worth noting, however, that in terms of rates of prevalence, anxiety and depression are the disorders most reported by users of illicit drugs.[3]

8.6 Unlike in the United States, where large scale population surveys have been conducted, there is no definitive data set in Australia to tell us how prevalent co-occurring illicit drug use and mental disorders really are.[4] This is because diagnoses can vary, where users are diagnosed at all, and treatment services are rarely integrated and can differ between states and territories. There are also some definitional issues about what qualifies as 'comorbidity'. The National Youth Affairs Research Scheme identified in 2004 that:

> …the frequent use of different terminologies, such as 'mental health disorder', 'mental illness', 'mental health problem' and 'mental health issue' to explain a range of conditions, also serves to exacerbate confusion as to what exactly is defined as a valid mental health condition that can then be diagnosed as comorbidity when placed alongside problematic substance use.[5]

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2 Australian National Council on Drugs, *Methamphetamines: Position paper* (2006), p 4.

3 Hall W, 'Comorbidity: A different picture', *Of Substance* (2006), vol 4, no 2, p 2; Teesson M and Proudfoot H (eds), National Drug and Alcohol Research Centre, *Comorbid mental disorders and substance use disorders: Epidemiology, prevention and treatment* (2003), p 143; Murphy T, transcript, 14 March 2007, p 1.

4 Australian Institute of Health and Welfare, *National Comorbidity Initiative: A review of data collections relating to people with coexisting substance use and mental health disorders* (2005), cat no PHE 60, p 46.

5 Szirom T et al, National Youth Affairs Research Scheme for the Australian Government Department of Family and Community Services, *Barriers to service provision for young people with presenting substance misuse and mental health problems* (2004); Australian Institute of Health

8.7 Nevertheless, a range of data sources suggests that dual diagnosis is a problem for a significant proportion of illicit drug users and their families. These include self-reporting on mental health by drug users through the National Drug Strategy Household Surveys and Illicit Drugs Reporting System; national morbidity, mental health and hospital data; and reporting by service providers on clinical populations. The committee has also received a substantial number of submissions from families with experience of caring for someone with a dual diagnosis.

8.8 In 2004, 9.1 per cent of Australians were diagnosed or treated for a mental illness in the last 12 months, inclusive of depression, anxiety, bipolar disorder, an eating disorder, schizophrenia, and other forms of psychosis. Of those who had used an illicit drug in the last month, this figure was substantially higher: 16.0 per cent for ecstasy users, 16.5 per cent for cannabis users, 19.8 per cent for meth / amphetamine users, and 50.1 per cent for heroin users.[6]

8.9 Those who had used illicit drugs in the last month reported double the rate of high or very high levels of psychological distress compared to the general population.[7] Most notably, 31.1 per cent of recent users of methamphetamines and 64.9 per cent of recent heroin users reported high or very high levels of psychological distress, as against 9.9 per cent of the general population.[8]

8.10 In a 2006 survey of 914 injecting drug users, 38 per cent reported experiencing a mental health problem other than drug dependence in the six months preceding interview. The most commonly reported mental health problems were depression (27 per cent of the sample) and anxiety (14 per cent). Twenty-seven per cent of the sample reported using antidepressants in the previous six months, against approximately five per cent of the general population.[9] Drug-induced psychosis, schizophrenia,

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and Welfare, *National Comorbidity Initiative: A review of data collections relating to people with coexisting substance use and mental health disorders* (2005), cat no PHE 60, p 62.

6 Australian Institute of Health and Welfare, *2004 National Drug Strategy Household Survey*: *Detailed findings* (2005), cat no PHE 66, p 99.

7 Australian Institute of Health and Welfare, *2004 National Drug Strategy Household Survey*: *Detailed findings* (2005), cat no PHE 66, pp 100–101.

8 Australian Institute of Health and Welfare, *2004 National Drug Strategy Household Survey*: *Detailed findings* (2005), cat no PHE 66, pp 100–101.

9 Australian Bureau of Statistics, *National Health Survey: Summary of Results Australia, 2004-05* (2006), cat no 4364.0.

panic, manic depression, paranoia, obsessive compulsive disorder and phobia were each reported by 5 per cent or less of the national sample.[10]

8.11 Counselling, treatment and service providers confirmed to the committee that there is a sizeable level of dual diagnosis amongst their clients. Theo Chang, a counsellor with Family Drug Support, reported that, 'a significant amount of families who access [our] services are dealing with the coexistence of drug use and mental disorders'.[11]

8.12 King Edward Memorial Hospital for Women in Perth also said that they were dealing with women with dual diagnoses, and that, 'evidence now suggests that substance use among patients with mental disorders must be considered as usual rather than exceptional.'[12] The Australian Psychological Society reiterated this point, stating that, 'we need to accept that co-occurring disorders are the expectation, rather than the exception amongst substance users'.

8.13 Prevalence rates of drug use involvement in mental health settings have been consistently reported at between 30 and 80 per cent (inclusive of alcoholism).[13] A range of similar estimates exist in the literature and in the evidence provided to the committee:

- The Australian Psychological Society estimated that the proportion of people in each clinical population with comorbid mental health and drug use disorders ranged from 50 to 90 per cent.[14]
- Dawe, Harnett and Frye reported that co-occurring mental disorders, in particular depression, were high, with rates of 40 to 70 per cent of drug-using populations.[15]
- NSW Health reported in 2000 that depending on the population sample, 30 to 80 per cent of people with mental disorders had a coexisting drug use disorder.[16]

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10 O'Brien S et al, National Drug and Alcohol Research Centre, *Australian drug trends 2006: Findings from the Illicit Drug Reporting System (IRDS)* (2007), pp 140, 151.

11 Chang T, submission 28, p 5.

12 King Edward Memorial Hospital for Women, submission 19, p 5.

13 Hegarty M, Mental Health Co-ordinating Council (NSW) and the Department of Community Services (NSW), *Mind the gap: The National Illicit Drug Strategy (NIDS) project to improve support for children from families where there are mental illness and substance abuse (MISA) issues - Literature review* (2004), Australian Government Department of Family and Community Services, p 2.

14 Australian Psychological Society, submission 131, p 9.

15 Dawe S et al, submission 80, p 3.

16 NSW Health, *The management of people with a co-existing mental health and substance use disorder: Discussion paper* (2000), p 1.

- The National Youth Affairs Research Scheme in 2004 suggested even higher rates of comorbidity, from 10 to 40 per cent for some services to 70 to 90 per cent in others.[17]

8.14 There is some evidence that women drug users are more at risk of mental illness than male drug users.[18] A national study of women drug users conducted by Swift, Copeland and Hall in 1996 found that 27 per cent had previously been hospitalised for a psychological problem; 48 per cent had received counselling for problems such as depression and anxiety; 56 per cent had experienced eating disorders, 26 per cent had engaged in self-harm behaviours; and 44 per cent had attempted suicide, an average of 2.4 times.[19]

8.15 Given the data gaps that currently exist and the variation in reported rates of dual diagnosis, it is difficult to tell whether they are increasing over time. NSW Health, in the report mentioned above, cited a 'worrying trend' of increasing prevalence of dual diagnosis. Speculative reasons advanced for this included the fact that de-institutionalisation had brought many mental health patients into contact with drug cultures on the streets; that rates of mental illness were increasing in Australian society, with a corresponding increasing risk for drug use; and that clinicians were more aware of the issue and were possibly diagnosing it more often.[20]

8.16 As many as half of the submissions to this inquiry from individuals mention the association between mental illness and the illicit drug use of a family member or their own drug use.[21] Half of these again refer to cases of psychosis, from direct drug-induced psychoses to the development of schizophrenic or bipolar disorders.[22] Many others refer to depression and anxiety in conjunction with illicit drug use.[23]

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17 Szirom T et al, National Youth Affairs Research Scheme for the Australian Government Department of Family and Community Services, *Barriers to service provision for young people with presenting substance misuse and mental health problems* (2004), p 2.

18 Dawe S et al, Australian National Council on Drugs, *Drug use in the family: Impacts and implications for children* (2007), p 46.

19 Swift W et al, 'Characteristics of women with alcohol and drug problems: Findings from an Australian national survey', Addiction (1996), vol 91, pp 1141-1150, cited in Dawe S et al, Australian National Council on Drugs, *Drug use in the family: Impacts and implications for children* (2007), p 47.

20 NSW Health, *The management of people with a co-existing mental health and substance use disorder: Discussion paper* (2000), p 6.

21 See for example Name withheld, submission 106, p 2; Toughlove Victoria, submission 112, p 3; Hersee P, submission 48, p 2; Chang T, submission 28, p 5; Bowman D, submission 38, p 1; Ravesi-Pasche A, submission 47, p 5; Morrissey J, submission 12, p 1.

22 See for example Name withheld, submission 2, p 1; Lowy S and M, submission 11, p 1; Toughlove Victoria, submission 112, p 4; Name withheld, submission 162, p 1; Ryan W and P,

8.17 This is not, of course, representative of all drug users or all families affected by drug use, and the committee prompted comment on psychosis through this inquiry's terms of reference. The high number of mentions of mental illness in families' stories, however, is likely to indicate that comorbidity is not uncommon, and that where it does occur, the family bears significant additional costs.

Connections between illicit drug use and mental illness

8.18 While there is near universal scientific consensus that there are strong connections between illicit drug use and mental illness, the causality in these connections is still a matter of contention.

8.19 There are a number of general theories advanced about the relationship between illicit drug use and mental illness:

- illicit drug use and mental illness are not necessarily causally related at all; rather, their presence together is rendered more likely by confounding variables or common risk factors and life pathways.[24] For example, evidence suggests that factors such as social disadvantage, parental psychiatric illness, family dysfunction and alcohol and tobacco use increase the likelihood of both illicit drug use and mental illness;[25]
- drug users have pre-existing mental health issues that they 'self-medicate' with drugs – that is, that mental illness is pre-existing and drug use is a consequence rather than a contributory factor. Users may continue to 'self-medicate' even when the chosen 'medicine' is not efficacious. In many cases, illicit drug use will exacerbate pre-existing symptoms;
- illicit drug use causes or contributes to mental illness in individuals with a genetic vulnerability. For example, in those with a family history

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submission 43, p 1; Name withheld, submission 3, p 1; Nikolaidis D, attachment to Australian Drug Treatment and Rehabilitation Programme, submission 132, p 32.

23 See for example Name withheld, submission 145, p 14; Hidden R, attachment to Australian Drug Treatment and Rehabilitation Programme, submission 132, p 4; Name withheld, submission 161, p 1.

24 Hall W and Deghenhardt L, 'What are the policy implications of the evidence on cannabis and psychosis?' *Canadian Journal of Psychiatry* (2006), vol 51, no 9, p 566.

25 Teesson M and Proudfoot H, eds, National Drug and Alcohol Research Centre, *Comorbid mental disorders and substance use disorders: Epidemiology, prevention and treatment* (2003), pp 18-19.

of mental health problems, it may contribute to an early onset, increase the severity of the disease or prolong the duration of symptoms; or alternatively

- illicit drug use directly causes and contributes to mental illness that would not have occurred in the absence of drug use.[26]

8.20 The 'self-medication' hypothesis was invoked by a number of service providers and individuals who gave evidence to the inquiry.[27] Evidence for this hypothesis is not strong, however. The Parliamentary Library, considering the evidence on cannabis and mental illness, concluded that most research which has specifically examined the self-medication hypothesis is weak.[28] Rey and Tennant of the University of Sydney found that although the number of studies examining cannabis and mental illness was small, they 'provide little support for the belief that the association between marijuana use and mental health problems is largely due to self-medication'.[29] Degenhardt, Hall, and Lynskey observed that there was 'less than compelling evidence' that drug users used specific drugs to ameliorate specific characteristics of their mental illness; rather, that patterns of drug use amongst the mentally ill were similar to those found in the general population.[30]

8.21 There is stronger support for the theory that drugs exacerbate pre-existing mental conditions, or precipitate illness in vulnerable individuals.[31] That is, 'while the majority of cannabis users will not develop mental illnesses as a consequence of their cannabis use, a vulnerable minority appear to be at risk of experiencing harmful outcomes'.[32] A person may be vulnerable

26 Buckmaster L and Thomas M, Parliamentary Library, *Research note - Does cannabis lead to mental-health problems?: Findings from the research* (2007), no 21, p 1.

27 Ravesi-Pasche A, submission 47, pp 5–6; Glastonbury Child and Family Services , submission 74, p 8; The Sydney Women's Counselling Centre, submission 36, p 4; McIntyre R, submission 81, p 2.

28 Buckmaster L and Thomas M, Parliamentary Library, *Research note - Does cannabis lead to mental-health problems? Findings from the research* (2007), no 21, p 2.

29 Rey J and Tennant C, 'Editorial - Cannabis and mental health: more evidence establishes clear link between use of cannabis and psychiatric illness', *British Medical Journal* (2002), no 325, p 1183.

30 Degenhardt L et al, 'What is comorbidity and why does it occur?' in Teesson M and Proudfoot H, eds, National Drug and Alcohol Research Centre, *Comorbid mental disorders and substance use disorders: Epidemiology, prevention and treatment* (2003), p 15.

31 Buckmaster L and Thomas M, Parliamentary Library, *Research note - Does cannabis lead to mental-health problems?: Findings from the research* (2007), no 21, p 2; Jorm A and Lubman D, 'Promoting community awareness of the link between illicit drugs and mental disorders', *Medical Journal of Australia* (2007), no 186, p 5.

32 Buckmaster L and Thomas M, Parliamentary Library, *Research note - Does cannabis lead to mental-health problems?: Findings from the research* (2007), no 21, p 3.

because of their genetic history. There is particular evidence that cannabis use precipitates schizophrenia in people who have a family history of that illness.[33] In a person already showing symptoms of a mental illness, illicit drug use will invariably worsen those symptoms.[34]

8.22 Ryan Hidden, a former drug user who gave evidence to the committee, felt that he was predisposed to depression and anxiety, but that illicit drugs exacerbated the severity of his symptoms and their impact on his ability to function:

> While I had exhibited behaviours that could be diagnosed as a mental illness in the past, such as depression and anxiety and of course violence, it was nothing in comparison to how I ended up. With nothing to do besides smoke marijuana and use other drugs, as by this time I had progressed on to MDMA and methamphetamine… I quickly deteriorated into social phobia and was verging on agoraphobia.[35]

8.23 Similarly, a mother wrote that:

> Our eldest son began experimenting with marijuana when he was about 15. For the past two years he has been suffering from mild to moderate psychosis which while there is no evidence that it is drug-induced, it has been amplified by drug use.[36]

8.24 Finally, illicit drugs may induce mental illnesses that may not otherwise have been present. Much of the research on links between illicit drugs and mental illness examines cannabis and psychosis specifically.[37] Neurological research, revealing the short and long-term effects of illicit drugs on the brain's mood, behaviour and cognition systems, suggests that the direct causal hypothesis is biologically plausible.

8.25 Recent evidence suggests that the timing of drug exposure may be critical, with one study finding, for example, that cannabis increased the risk of later psychosis if consumed in adolescence.[38] Those users who were the

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33 Mental Health Council of Australia, *Where there's smoke…: Cannabis and mental health* (2006), p 7.

34 Mental Health Council of Australia, *Where there's smoke…: Cannabis and mental health* (2006), p 11, p 29.

35 Hidden R, attachment to Australian Drug Treatment and Rehabilitation Programme, submission 132, p 2.

36 Toughlove Victoria, submission 112, p 4.

37 Fergusson D et al, 'Cannabis and psychosis', *British Medical Journal* (2006), no 332, pp 172.

38 Jorm A and Lubman D, 'Promoting community awareness of the link between illicit drugs and mental disorders', *Medical Journal of Australia* (2007), no 186, p 5.

earliest, together with heavy users, are considered at greatest risk of later mental disorders.[39] Adolescence is a critical period of vulnerability, and neurobiological research is now suggesting that brain structure and function continue to mature until the mid-twenties. The 'remodelling' of brain tissues in adolescence is thought to be especially pronounced in brain regions associated with regulating our emotions and behaviours, so disruption of this process may have implications for mental health.[40]

Box 8.1 What is psychosis?

Psychosis is a condition in which a person loses contact with reality. Symptoms of psychosis include seeing or hearing things or people that are not there (hallucinations), feeling everyone is against them (paranoia), and having beliefs that are not based on reality (delusions).

Many people can experience a single psychotic episode, perhaps in response to a traumatic event, and recover fully. Others may develop a chronic psychotic illness.

Drug-induced psychosis refers to psychotic symptoms associated with the use or withdrawal from drugs. Usually, the symptoms will resolve as the effects of the drugs wear off.

The two major psychoses are schizophrenia and bipolar disorder.

Schizophrenia is a mental illness characterised by a disintegration of the process of thinking, of contact with reality, and of emotional responsiveness. Schizophrenia is diagnosed only if symptoms persist for a period of time. The illness can spontaneously remit, run a course with infrequent or frequent relapses, or become chronic.

Bipolar disorder, which used to be known as manic depression, is characterised by both periods of depression (feeling low) and mania (high). People with bipolar disorder experience extreme moods that can change regularly and may not relate to what is happening in their lives, although their mood swings may be triggered by certain events.

Source *Parliamentary Library, Oxford Reference Online, Early Psychosis Prevention and Intervention Centre, Beyondblue, SANE Australia.*

39 Jorm A and Lubman D, 'Promoting community awareness of the link between illicit drugs and mental disorders', *Medical Journal of Australia* (2007), no 186, p 5.

40 Lubman D and Yücel M, 'Drugs and adolescent development: Insights from neuroscience', *Of Substance* (2006), vol 4, no 2, pp 18–19.

Mental disorders commonly associated with illicit drugs

8.26 Illicit drugs are associated with a range of mental disorders. This section examines the disorders associated specifically with cannabis, meth/amphetamines and ecstasy - the three most commonly used illicit drugs in Australia.[41]

Cannabis

8.27 As noted previously, cannabis has long been promoted as a benign drug by drug industry elites in Australia and internationally. The committee notes, however, an increasing number of cannabis users seeking drug treatment and was extremely concerned by the evidence received about the risks of cannabis use. Changing community attitudes towards the drug may in part reflect increasing awareness of the links between cannabis and mental illness.[42]

8.28 In the short term, cannabis use induces mood changes, which may include feelings of panic, anxiety, mild paranoia and hallucinations, particularly in heavy users.[43] Some people may experience acute transient psychotic symptoms such as hearing voices and unwarranted feelings of persecution.[44] There is increasing evidence, as well, that cannabis contributes to psychoses (including schizophrenia), depression and anxiety in the longer term, although this area of research is still in development.[45]

Cannabis and psychosis

8.29 There is a strong association between cannabis and psychosis. The Mental Health Council of Australia reports that among people with mental illness, particularly psychosis, the rates of cannabis dependence are significantly higher than the general community.

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41 Australian Institute of Health and Welfare, *2004 National Drug Strategy Household Survey: Detailed findings* (2005), cat no PHE 66, pp 33–34.

42 Pfizer Australia, with the National Drug and Alcohol Research Centre, *Australians and cannabis* (2007), Health Report no 33.

43 SANE Australia, 'Cannabis and psychotic illness: Fact sheet' (2007), viewed on 28 June 2007 at http://www.sane.org/information/factsheets/cannabis_and_psychotic_illness.html.

44 Australian Medical Association, 'Position statement: Cannabis' (2006), viewed on 30 May 2007 at http://www.ama.com.au/web.nsf/doc/WEEN-6WP6MH.

45 Buckmaster L and Thomas M, Parliamentary Library, *Research note - Does cannabis lead to mental-health problems?: Findings from the research* (2007), no 21, p 1.

8.30 In an Australian study conducted in 2000, Jablensky and others found that 24 per cent of people with psychotic disorders in contact with treatment services had used cannabis at least weekly for the past six months.[46] This study showed weekly cannabis use to be 3.3 times more prevalent among people with psychosis than among the general population.[47]

8.31 The committee received a number of submissions referring to psychosis deriving from cannabis use, three of which are quoted below:

- My son's drug use began in university and continued for about five-six years. I believe his drugs of choice were marijuana and alcohol. The innocent marijuana, the soft social drug. The drug that is legal in some countries eventually caused psychosis in my son.[48]
- June is in her forties and she is caring for an elderly mother. About 12 months ago her 19 year old son Sam, who was living with his father, experienced a drug-induced psychosis. He had become paranoid and believed his father was leading a campaign against him, involving police and spy agencies. He also reported feeling disconnected from his body as though his mind was floating freely. He was hospitalised until stabilised on medication. June knew he had been using marijuana but did not know that he was smoking up to four times per day.[49]
- A family whom I have known most of my life includes two sons, now around 50 years old, who have used drugs on a long-term basis and now have symptoms indistinguishable from schizophrenia. They have been unemployed for nearly 20 years, as a result of dabbling in a multitude of drugs and especially from their long-term use of marijuana. Both receive disability pensions. One is loud but usually gentle. The other is aggressive, capable of violence and speaks in a number of voices when disturbed, some of which are reminiscent of the character in *The Exorcist*.[50]

8.32 There is an ongoing debate about causality, however. Studies are usually unable to rule out the possibility that cannabis use was a result of emerging schizophrenia rather than the cause of it, given that

46 Raphael B and Wooding S, 'Comorbidity: cannabis and complexity', *Of Substance* (2004), vol 2, no 1, p 8.

47 Mental Health Council of Australia, *Where there's smoke…: Cannabis and mental health* (2006), p 7.

48 Name withheld, submission 2, p 1.

49 Centrelink, submission 128, p 5.

50 Morrissey J, submission 12, p 1.

schizophrenia is usually preceded by psychological and behavioural changes in the years before diagnosis.[51]

8.33 The link between cannabis use and psychosis is biologically sound given what we know about the operation of the active ingredient in cannabis, tetra-hydro-cannabinol (THC). THC interferes with the body's dopamine neurotransmitter systems, the disturbance of which is associated with psychotic disorders.[52] Researchers from the Institute of Psychiatry in London also found that in tests on human volunteers given THC, there was significantly reduced activity in the frontal lobe, the part of the brain responsible for coordination and emotional behaviour.[53]

8.34 Recent studies have produced results in favour of cannabis as a causal factor in schizophrenia and other psychotic disorders. Raphael and Wooding, writing in *Of Substance* in 2004, refer to a:

> …clinical consensus among mental health professionals that cannabis worsens symptoms and outcomes, probably precipitates and can cause episodes of mental illness such as depression, anxiety and psychosis.[54]

8.35 The writers cited:

> Recent research [that] found that cannabis use increased the risk of both the incidence of psychosis in psychosis-free persons and a poor prognosis for those with an established vulnerability to psychotic disorders. In this study, length of exposure to use of cannabis predicted the severity of the psychosis, which was not explained by other drugs. Participants who showed psychotic symptoms at baseline and used cannabis had a worse outcome, implying an additive effect.
>
> Another recent study by Zammit and others reported that 'cannabis use [was] associated with an increased risk of developing schizophrenia, consistent with a causal relation'. In this study, cannabis was associated with an increased risk of developing schizophrenia in a dose dependent fashion both for

51 Australian Medical Association, 'Position statement: Cannabis' (2006), viewed on 30 May 2007 at http://www.ama.com.au/web.nsf/doc/WEEN-6WP6MH.

52 Raphael B and Wooding S, 'Comorbidity: cannabis and complexity', *Of Substance* (2004), vol 2, no 1, p 10; also Fergusson D et al, 'Cannabis and psychosis', *British Medical Journal* (2006), no 332, pp 172.

53 Owen J and Goodchild S, 'Simple DIY kit will show mental health dangers of cannabis', *The Independent*, 21 May 2007.

54 Raphael B and Wooding S, 'Comorbidity: Cannabis and complexity', *Of Substance*, vol 2, no 1, p 8.

> subjects who had ever used cannabis, and for subjects who had only used cannabis and no other drugs. The finding was most significant for the group who had used only cannabis more than 50 times.[55]

8.36 A recent Dutch study of 4,815 individuals, followed up after three years, found that the use of cannabis at baseline increased the risk of mania, with subsequent risk for development of bipolar disorder. This remained true even after adjustment for age, sex, educational level, ethnicity, single marital status, neuroticism, use of other drugs, depressive symptoms and manic symptoms at baseline.[56]

8.37 Most recently, *The Lancet* published a comprehensive meta-analysis of the available evidence on cannabis and psychosis, and found that there was an increased risk of psychosis in individuals who had used cannabis, independently of confounding factors and transient intoxication effects (box 8.2).[57]

Box 8.2 *The Lancet* **recants its earlier position on cannabis**

As recently as 1995, *The Lancet* editorial had begun with the words 'The smoking of cannabis, even long term, is not harmful to health'. In 2007, the editors recanted this statement, saying that research published in the interim had led them to conclude that cannabis *did* increase the risk of psychotic illness, and that governments 'would do well to invest in sustained and effective education campaigns on the risks to health of taking cannabis'.

Source *'Editorial'*, The Lancet *(2007), vol 370, 28 July, p 292.*

8.38 The committee finds, in contrast, a reluctance amongst members of the drug industry elite in Australia to admit that attitudes have shifted and cannabis can no longer be considered a benign drug. Dr Alex Wodak, for example, a doctor in a position of leadership in the drug industry elite, did not appear to accept that the evidence on cannabis and psychosis is increasingly conclusive, even for users without a prior history of mental illness. Dr Wodak told the committee:

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55 Raphael B and Wooding S, 'Comorbidity: cannabis and complexity', *Of Substance* (2004), vol 2, no 1, p 10.

56 Henquet C et al, 'Cannabis use and expression of mania in the general population', *Journal of Affective Disorders* (2006), vol 95, no 1-3, pp 103–110.

57 Moore T et al, 'Cannabis use and risk of psychotic or affective mental health outcomes: A systematic review', *The Lancet* (2007), vol 370, p 319.

> In relation to cannabis and psychosis, it is an important question… Two propositions are generally made: firstly that cannabis, when taken by people who have no history of mental illness, can develop a psychosis. The second proposition is that people with an established history of psychosis or severe mental illness can be adversely affected by taking cannabis. I think the majority view on both questions is that the first question is negative, that is, that the cannabis probably does not precipitate severe mental illness in people who have not been previously mentally ill. But there is probably now a majority in favour of the second proposition. Let me say two things about this question. The first is that, in medicine, we commonly argue about the toxicity of drugs for decades before we work out what is really going on… The debate may continue for some decades about cannabis and psychosis.[58]

8.39 Dr Wodak then suggested that should cannabis psychosis be found to exist, it would be best controlled by a regulated system of taxation and distribution similar to that applied to tobacco.[59]

8.40 In another example, a fact sheet on cannabis and psychosis produced by the Australian Drug Foundation has a noticeably less compelling tone than the recent editorial in *The Lancet*:

> It has been suggested that heavy cannabis use can cause mental illness such as schizophrenia, but despite significant increases in cannabis use in Australia during the past 30 years, levels of schizophrenia in the population have not increased. There is mounting evidence that regular cannabis use increases the likelihood of psychotic symptoms occurring in an individual who is vulnerable due to a personal or family history of mental illness… People with a family or personal history of psychotic illness should avoid using cannabis.[60]

8.41 Given that such misinformation is being distributed in Australia by many with medical credentials and positions of power in public institutions and non-profit organisations, the committee agrees that public information campaigns about the dangers of cannabis are vital, as recommended in chapter five.

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58 Wodak A, transcript, 3 April 2007, p 91.

59 Australian Drug Law Reform Foundation, submission 39, p 26; Wodak A, transcript, 3 April 2007, p 91.

60 Australian Drug Foundation DrugInfo website, 'Cannabis and mental health: The facts', viewed on 26 August 2007 at http://druginfo.adf.org.au/article.asp?ContentID=cannabismentalhealth.

Cannabis and depression

8.42 The relationships between cannabis and depression and anxiety are less documented than those for cannabis and psychosis.[61] As with psychosis, the association is generally accepted, but the nature of the interaction is still being explored in research.

8.43 An American study that followed up 1,920 participants showed that the use of cannabis increased the risk of major depression by fourfold, and that cannabis use was particularly associated with suicidal thoughts and anhedonia (an inability to experience pleasure from normally pleasurable life events).[62] Similarly, a New Zealand study found that young people who had used cannabis three times or more by the age of 18 were more likely to have a depressive disorder at age of 26.[63]

8.44 A prospective cohort study of 1,601 Victorian school students, published in the *British Medical Journal* in 2002, found that frequent cannabis use in students aged 14-15 predicted later depression and anxiety at age 20, with daily users carrying the highest risk. Daily use in young women, particularly, was associated with a fivefold increase in the odds of reporting later anxiety or depression, although other studies have not found sex differences.[64] Weekly or more frequent use incurred an approximately twofold increase in risk for later depression and anxiety.[65]

8.45 The Australian Medical Association has suggested that the relationship between cannabis and depression can partly be explained by confounding factors such as family and personality factors and other drug use.[66] That is, cannabis use and depression may have no inherent relationship but be predicated by similar factors such as a background of social adversity, and use of cigarettes, alcohol and other illicit drugs. The study cited above,

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61 Moore T et al., 'Cannabis use and risk of psychotic or affective mental health outcomes: A systematic review', *The Lancet* (2007), vol 370, p 319; Australian Medical Association, 'Position statement: Cannabis' (2006), viewed on 30 May 2007 at http://www.ama.com.au/web.nsf/doc/WEEN-6WP6MH.

62 Bovasso G, 'Cannabis abuse as a risk factor for depressive symptoms', *American Journal of Psychiatry* (2001), vol 158, pp 2033–2037.

63 Arseneault L et al, 'Cannabis use in adolescence and risk for adult psychosis: Longitudinal prospective study', *British Medical Journal* (2002), vol 325, pp 1195–1198.

64 Rey J and Tennant C, 'Editorial - Cannabis and mental health: more evidence establishes clear link between use of cannabis and psychiatric illness', *British Medical Journal* (2002), no 325, p 1183.

65 Patton G et al, 'Cannabis use and mental health in young people: Cohort study', *British Medical Journal* (2002), no 325, p 1195.

66 Australian Medical Association, 'Position statement: Cannabis' (2006), viewed on 30 May 2007 at http://www.ama.com.au/web.nsf/doc/WEEN-6WP6MH.

however, found that the association of depression and anxiety with cannabis use persisted after the results had been adjusted for concurrent use of alcohol, tobacco and other illicit drugs as well as indices of family disadvantage.

8.46 Support for the 'self-medication' hypothesis, which would suggest that teenagers were using cannabis in order to medicate pre-existing problems with depression and anxiety, was weak. While earlier cannabis use did predict later depression and anxiety, depression and anxiety at the ages of 14 and 15 did not predict cannabis use at the age of 20, as one would expect if cannabis use developed to cope with emerging mental health problems. In summary, the study concluded:

> The persistence of associations in the multivariate models and the evidence for a prospective dose-response relation are consistent with a view that frequent use of cannabis in young people increases the risk of later depression and anxiety… These findings contribute to evidence that frequent cannabis use may have a deleterious effect on mental health beyond a risk for psychotic symptoms.[67]

8.47 This evidence is corroborated by a number of submissions received by the committee from people who had observed family members who were chronic users of cannabis struggle with depression and other mood disorders. These quotes are from two mothers, for example:

> While using marijuana [from age 18-20 years] my son's mental performance was at his worst; he became paranoid bordering on delusional, moody, deeply depressed and sometimes physically aggressive. The strange part was many people thought they were helping my son's addiction problem by encouraging him to use marijuana or alcohol instead; they associate heroin with overdose and marijuana and alcohol as being harmless. While chronically smoking bongs everyday I witnessed my son becoming increasingly depressed to the point of suicidal thoughts and actions; during that time my son was the least motivated that I had ever seen him; he stayed in bed with this curtains closed the entire day until nightfall then did nothing except eat junk food while watching TV alone in his bedroom.[68]

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67 Patton G et al, 'Cannabis use and mental health in young people: Cohort study', *British Medical Journal* (2002), no 325, p 1196.

68 Name withheld, submission 145, p 14.

> My son started using cannabis at around 14 years of age - 11 years ago. Over the following three to four years his usage increased. He became moody, depressed, unmotivated, aggressive and out of control.[69]

8.48 Festival of Light recounted a comparable story:

> By the time he reached his twenties he had become very depressed. 'He was talking suicide', his parents said. 'We became very alarmed and hid all our guns. We couldn't get through to him. Finally his sister managed to persuade him to give up the marijuana. Now, six months later, he is back to normal. He can now see what it was doing to him - but he couldn't see it at the time'.[70]

Meth/amphetamines

8.49 Meth / amphetamines, including speed, amphetamine, base and crystal methamphetamine or ice are associated with a number of mental health problems, including:

- psychosis (both transient and chronic), characterised by delusions, feelings of persecution and hallucinations;[71]
- paranoia;
- depression;
- anxiety disorders;
- panic attacks;
- personality disorders;
- formication (sensation of bugs crawling under the skin);[72] and
- hostility, aggression and violence.[73]

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69 Name withheld, submission 161, p 1.

70 Festival of Light, submission 85, pp 1–2.

71 McKetin R, McLaren J and Kelly E, National Drug and Alcohol Research Centre, University of New South Wales, with funding from the National Drug Law Enforcement Research Fund, *The Sydney methamphetamine market: Patterns of supply, use, personal harms and social consequences* (2005), pp 109-111.

72 Bryan M, 'On deeper palpation', *Medical Observer Weekly* (2006), 1 December, p 23.

73 Australian National Council on Drugs, *Methamphetamines: Position paper* (undated), p 11; National Drug and Alcohol Research Centre, 'Amphetamines: Fact sheet' (undated).

8.50 A 2005 study of Sydney's methamphetamine market by the National Drug and Alcohol Research Centre found that:

> Poor mental health among methamphetamine users was particularly pronounced, with two thirds experiencing some degree of mental health disability and one in five suffering severe disability in their mental health functioning.
>
> Common psychological problems experienced by methamphetamine users included increased aggression, agitation, depression, poor motivation, impaired concentration and memory, and symptoms of psychosis. Self-reported diagnosis of mental disorders also suggested elevated levels of depressive and psychotic disorders among this population.[74]

8.51 There has been greater awareness of methamphetamine psychosis in recent years in Australia, as the increasing use of high purity methamphetamines like ice and base has resulted in a rise in hospital admissions.[75] A study published in the *Medical Journal of Australia* in 2007 found that the number of hospital separations with drug-induced psychoses as the primary problem increased from 55.5 per million population in 1993-1994 to 253.1 per million population in 2003-2004. Amphetamines accounted for the largest proportion of these, ranging from 41 per cent in 1999-2000 to 55 per cent in 2003-2004.[76]

8.52 The 2005 Sydney study found that psychosis among regular methamphetamine users was eleven times more likely than amongst the general population, and was not restricted to those who have a history of mental health.[77] As with cannabis, having a history of schizophrenia was a very strong risk factor for experiencing psychosis, but one in five methamphetamine users *without* a history of schizophrenia had experienced clinically significant psychotic symptoms in the last year.[78]

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74 McKetin R et al, National Drug and Alcohol Research Centre, *The Sydney methamphetamine market: Patterns of supply, use, personal harms and social consequences* (2005), p xvii.

75 McKetin R et al, National Drug and Alcohol Research Centre, *The Sydney methamphetamine market: Patterns of supply, use, personal harms and social consequences* (2005), p 111.

76 Separations among those aged 10-49 years. Degenhardt L et al, 'Hospital separations for cannabis- and methamphetamine-related psychotic episodes in Australia', *Medical Journal of Australia* (2007), vol 186, no 7, p 343.

77 Alcohol and Other Drugs Council of Australia, 'Drug use and mental health fact sheet for Drug Action Week 2007', viewed on 25 June 2007 at http://drugactionweek.org.au/Drug_use_and_mental_health.html.

78 McKetin R et al, National Drug and Alcohol Research Centre, *The Sydney methamphetamine market: Patterns of supply, use, personal harms and social consequences* (2005), p 109.

8.53 Psychotic episodes were strongly related to dependent use. A 2006 study found that even after excluding participants with a history of a psychotic disorder, the prevalence of psychosis among dependent methamphetamine users was 27 per cent, compared with 8 per cent among non-dependent users.[79]

8.54 For many methamphetamine users, psychosis will be a transient, albeit severe side effect of heavy use. Symptoms of methamphetamine psychosis usually only last up to two to three hours, but sometimes symptoms become more severe and can last for days.[80]

8.55 Methamphetamine psychosis appears to leave a person with an ongoing vulnerability to further episodes of psychosis, even when they re-use with only small quantities of the drug. In some cases, psychosis appears to be retriggered by stress, even when the person is not using methamphetamines anymore.[81] This is possibly due to sensitisation to the effects of the drug caused by its neurotoxic effects on the brain. Studies have shown that heavy use of methamphetamine can permanently damage dopamine neurons and can reduce brain tissue volume.[82]

8.56 Observational studies in humans and animals also tell us that methamphetamine use leads to violent behaviour, particularly in acute doses or in a chronic pattern of use. A 1996 study found that almost half of the methamphetamine users surveyed reported violent behaviour. Identification of the neurobiological pathway between methamphetamine use and aggression is still speculative at this stage.[83] However, a 2006 study found that chronic methamphetamine users were found to have higher levels of aggression than people who did not use drugs and decreased levels of serotonin in areas of the brain involved in regulation of aggression.[84]

8.57 A former drug user described to the committee his 'taunting, scary and life threatening' journey into mental illness, which included elements of

79 McKetin R et al, 'The prevalence of psychotic symptoms among methamphetamine users', *Addiction* (2006), vol 101, no 10, pp 1473–1478.

80 National Drug and Alcohol Research Centre, 'Methamphetamine psychosis: Fact sheet' (undated).

81 National Drug and Alcohol Research Centre, 'Amphetamines: Fact sheet' (undated); Dore G and Sweeting M, 'Drug-induced psychosis associated with crystal methamphetamine', *Australasian Psychiatry* (2006), vol 14, no 1, p 87.

82 Bryan M, 'On deeper palpation', *Medical Observer Weekly* (2006), 1 December, p 23.

83 McKetin R et al, National Drug and Alcohol Research Centre, 'The relationship between methamphetamine use and violent behaviour', *Crime and justice bulletin* (2006), no 97, p 4.

84 McKetin R et al, National Drug and Alcohol Research Centre, 'The relationship between methamphetamine use and violent behaviour', *Crime and justice bulletin* (2006), no 97, p 4.

psychosis, paranoia and aggression. He had smoked cannabis from the age of 14 and in adult life had become dependent on amphetamines and ice:

> After having speed every day and night, I started to begin to accuse my wife of having affairs, people watching me, people crawling in the roofs, police surveillance. Pretty clear I had developed a sickness known as psychosis. My wife was now pregnant with our third child, I had beliefs that this was not my child and began to doubt if the kids that I already had were mine. So I had this plan set out to catch my wife thinking she was having an affair, I had beliefs that she was meeting someone in our home whilst I would be sleeping, so I would take massive amounts of speed to stay up every night and day to pursue this idea that I had developed as a result of abusing the speed on an obscene level.[85]

8.58 The use of both amphetamines and cannabis is not uncommon. A Victorian dual diagnosis service, Northern NEXUS, reported that of a sample of clients experiencing problems with cannabis use and mental illness, 40 per cent concurrently used amphetamines and cannabis. The most common psychiatric diagnosis in this group was schizophrenia.[86]

Ecstasy

8.59 Although marketed as a drug of euphoria, ecstasy is also associated with depression and anxiety disorders. The submission from Beyondblue notes the 'depression' or 'coming down' effects that users often refer to as 'Eccy Monday' and 'Suicide Tuesday' that can arise from ecstasy use.[87] Panic disorders, 'flashbacks' and delusions have also been related to ecstasy use. The risks appear to increase after a day or two of excessive use, or repeated use at high doses over a period of months. A family or personal history of psychiatric disorders may also be relevant.[88]

8.60 There is some ambivalence over whether ecstasy use can lead to persistent clinical depression. A recent Victorian study of current and active ecstasy and related drugs (ERD) users found that:

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85 Nikolaidis D, attachment to Australian Drug Treatment and Rehabilitation Programme, submission 132, p 32.

86 Cole M and Ryan K, 'Agency snapshot: Psychosis and drug use', *Of Substance* (2006), vol 4, no 2, p 21.

87 Beyondblue, submission 151, p 3.

88 National Centre for Education and Training on Addiction Consortium, for the Australian Government Department of Health and Ageing, *Alcohol and other drugs: A handbook for health professionals* (2004), pp 97, 99.

> Very few interviewees raised issues around any lingering or enduring depression in relation to their personal use of ERDs. Whilst some spoke of being on antidepressants at different times, very few linked this clinical depression to their drug use, though naturally this was impossible to confirm or disconfirm. Nevertheless, few of the interviewees were prepared to make this link themselves, suggesting more work needs to be done in relation to mental health issues for ERDs users. Certainly all interviewees spoke to some extent of feeling down or moody in the two or three days after using ecstasy, but this was almost always dismissed as an inevitable part of the comedown rather than as a depressive episode.[89]

8.61 On the other hand, the regular ecstasy users interviewed as part of the Party Drugs Initiative (now the Ecstasy and Related Drugs Reporting System) in 2005 typically nominated mental health problems, in particular depression, as one of the risks associated with taking ecstasy.[90]

8.62 A recent inquiry into synthetic drugs conducted by the Parliamentary Joint Committee on the Australian Crime Commission attracted a large number of anonymous submissions from adolescents and young adults through the ABC's Triple J radio station. While many reported positive experiences with ecstasy, a number also wished to draw attention to the mental health risks of ecstasy use, three of which are reproduced below:

> I used to use ecstasy and speed on occasion… from about 18 years of age until maybe a year ago (I'm almost 26). The last few experiences made me consciously weigh up the benefits of using these drugs and whether it was worth the come down. I would become quite depressed and often contemplated hurting myself which is completely against character.[91]

> I have suffered anxiety disorders, as has my girlfriend who may be on medication permanently to cope with this disorder. Medical advice has suggested that previous synthetic drug use may be responsible for the serotonin imbalances believed to cause this condition, despite a period of years having passed since drug use.

89 Duff C et al, Premier's Drug Prevention Council, Victorian Government, *Dropping, connecting, playing and partying: Exploring the social and cultural contexts of ecstasy and related drug use in Victoria* (2007), p vi.

90 Stafford J et al, National Drug and Alcohol Research Centre, *Australian trends in ecstasy and related drug markets 2005: Findings from the Party Drugs Initiative (PDI)* (2006), pp 38, 39, 44.

91 ABC Triple J Hack program, submission 28, Parliamentary Joint Committee on the Australian Crime Commission, *Inquiry into the manufacture, importation and use of amphetamines and other synthetic drugs in Australia* (2007), p 9.

> I find this element of damage to be lacking in the education I have seen.[92]
>
> At home with my partner, my cousin and his partner (both regular users) we all took the same pills and they had a ball and I never recovered. I was really lucky to be left with a long list of 'disorders' rather than something worse. I have a severe panic disorder, post traumatic stress disorder, clinical depression and a decent list of phobias. Before the ecstasy, I had never experienced real anxiety. The x I took was tested in front of me and it was pure MDMA.[93]

8.63 Vuong Van Nguyen, a family and youth worker at UnitingCare Burnside-Cabramatta Multicultural Family Centre, confirmed that many young people were embarking on 'binges' of ecstasy or amphetamine-type stimulants in clubs or at dance parties without awareness of the mental health risks. 'They probably just think they are coming for fun', he said, 'but they have no idea that coming down from a high can have an effect on their mental health'.[94]

Impacts of dual diagnosis on families

8.64 While chapters seven and nine describe in detail the impacts that illicit drug use has on families, the following section acknowledges the additional or magnified difficulties faced by families who are dealing with a drug-using family member with a co-occurring mental health issue. Impacts on the dependent children of such drug users were examined separately in chapter three.

Risk of physical abuse

8.65 As already noted in chapter seven, many family members of drug users live with the fear of physical harm. Drug-related mental illnesses, particularly drug-induced psychoses, can further threaten the physical safety of family members. As the Australian Drug Foundation notes, the

92 ABC Triple J Hack program, submission 28, Parliamentary Joint Committee on the Australian Crime Commission, *Inquiry into the manufacture, importation and use of amphetamines and other synthetic drugs in Australia* (2007), p 22.

93 ABC Triple J Hack program, submission 28, Parliamentary Joint Committee on the Australian Crime Commission, *Inquiry into the manufacture, importation and use of amphetamines and other synthetic drugs in Australia* (2007), p 24.

94 Van Nyugen V, UnitingCare Burnside, transcript, 2 April 2007, pp 6–7.

feelings of persecution and the potential subsequent defensive aggression that typify a drug-induced psychotic episode can be directed at family members.[95]

8.66 The National Drug and Alcohol Research Centre describes the following as behavioural symptoms of methamphetamine psychosis:

- alert, agitated, jumpy behaviour;
- rapid incessant speech and confused thought processes;
- irrational and unpredictable behaviour, like talking to people who are not there, and arguing with and yelling at people for no apparent reason; and
- signs of methamphetamine intoxication, such as dilated pupils, widened eyes and sweating.[96]

8.67 Recent media coverage of the 'ice epidemic' has focused on the dangers that such behaviours represent to frontline health workers in emergency departments and ambulances, and to police.[97] A 2005 survey of police officers in Sydney reported in summary that:

> People suffering from methamphetamine psychosis who exhibited aggressive behaviour were very dangerous because they were unpredictable, impulsive and irrational as well as being extremely hostile. They exhibited a high level of sustained energy and were hyper-alert, which made forced restraint extremely difficult and risky.[98]

8.68 It is important to acknowledge the increased occupational health and safety risk that frontline workers face as a result of the increase in the use of crystal methamphetamine. Less publicised, however, has been the impact on families, who receive no guidance on how to react to such challenging behaviours and are much more emotionally implicated in the management of an 'offender'.

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95 Australian Drug Foundation, submission 118, p 6.

96 National Drug and Alcohol Research Centre, 'Methamphetamine psychosis: Fact sheet' (undated).

97 For example, 'Ice linked to NSW mental health crisis', *ABC Online*, 8 January 2007; Catalano C, 'Ice abuse leads to rise in psychotic episodes', *The Age*, 2 April 2007; Keene N, 'Epidemic's cold reality: Ice use worse than data suggests', *The Daily Telegraph*, 1 May 2007; Hart C, 'Hospitals snowed under by an ice storm', *The Australian*, 2 April 2007.

98 McKetin R et al, National Drug and Alcohol Research Centre, *The Sydney methamphetamine market: Patterns of supply, use, personal harms and social consequences* (2005), p 133.

8.69 As Rhett Morris of Teen Challenge NSW told the committee:

> Family members are not trained in or aware of how to deal with the erratic and often violent nature that stems from drug-induced psychosis. Family life moves from incredible highs to incredible lows with basically threats of violence and self-harm between those times.[99]

8.70 A woman described her family's experience with her brother, who had been diagnosed with drug-related paranoid schizophrenia:

> The family has experienced violent rages and assaults from my brother. I witnessed my father being beaten up by my brother (resulting in the need for stitches), my mother was punched on this occasion and I was kicked hard enough to cause me back problems until this day.[100]

8.71 A mother described how the physical threat posed by her son's psychosis frequently resulted in giving him money for drugs:

> When you have a six foot psychotic standing over you, you help in any way you can.[101]

99 Morris R, Teen Challenge NSW, transcript, 3 April 2007, p 106.

100 Name withheld, submission 70, p 2.

101 Name withheld, submission 2, p 2.

Box 8.2 A mother's story of drug-induced psychosis

Due to my husband's substance abuse he developed symptoms of drug-induced psychosis causing him to experience paranoia and hallucinations. This caused him to see, hear and feel things which were not there, he also feared that others wanted to hurt him. He had set traps on the roof and all over the house and had put grease on the fence line so as he would know if someone was entering into our house. He became hostile and aggressive, violent for no reason, agitated, manipulative and his behaviour was irrational and frightening.

I feared for my life and my children's as he would continuously yell at us, lock us in the house for hours, take my house and car keys away from me, be extremely violent and abusive towards me mentally, physically and emotionally, destroy my belongings and turn all the power and lights off for hours at a time.

[After returning home from several months of psychiatric treatment] he was still visiting with the psychiatrist which was really pointless as he wasn't dealing with his emotional issues. So eventually he turned back to drugs and alcohol and became hostile and aggressive again. The kids were frightened so we moved to my sister's house where they could feel safe. After a week he was apologetic and promised he would continue to see his doctor and that things would improve.

I returned back home as it was difficult for me staying at my sister's with four kids, even though they didn't want me to leave as they were afraid. The abuse was less than before, so I battled and kept on going for the sake of my children. Until one day I woke up and he was cutting a chunk of hair from my head with a knife, this was extremely scary and I phoned his aunty who lived down the road to come immediately.

I once again moved, this time to his aunt's house where we stayed for a week. His uncle stayed with him in order to ensure that he was taking his medication and going to his appointment with his psychiatrist. Once again things had calmed down and we moved back home. They remained calm for the next three months.

But once again we were on the same rollercoaster ride, the kids were crying every night. My husband was always on the roof setting up sensor lights and cameras around the place or putting bugs everywhere. If he wasn't there he would take off and most often he would lock us in the house while he was gone. At night he would keep all the windows open so he could hear any noises, we were cold and afraid. The mental and physical abuse was happening on a regular basis and the kids were afraid and would constantly be by my side.

Source Nikolaidis D, attachment to Australian Drug Treatment and Rehabilitation Programme, submission 132, pp 23–26.

Grief and stress for the future

8.72 The altered states exhibited by drug users with a dual diagnosis compound the grief of family members who can no longer recognise the person that they know and love, nor rationalise their behaviour:

> We use to feel like we were walking on egg shells. It is just horrible and frightening to see someone you love acting like they are a monster while under the control of a drug. You literally are dealing with a split personality. The one YOU know is a gentle and sensitive person and then when the drug, in our son's case it was ICE, is in control you are dealing with a very angry, aggressive and foul-mouthed stranger.[102]

8.73 The distress of families is made worse by the fact that they may not know whether the mental health of their loved one will ever be fully recovered. Three families noted that:

> [Our son] no longer uses and is currently studying at university and is coping so far, but under high levels of stress tends to digress to an agitated, sometimes psychotic, state.[103]

> My brother has recently been diagnosed as paranoid schizophrenic with brain damage (not sure if permanent or not at this stage) from drug use.[104]

> [My son] claims to have medically diagnosed depression and drug-induced psychosis. He also claims he has only a few years left of a 'normal life' and then his mental problems will impair his activities.[105]

8.74 In their submission, the parents of an ex-user of cannabis and amphetamines noted that the mental health effects of illicit drug use could persist after the drug use itself had ceased, and even when the prognosis for recovery was good:

> We now know the depression was a direct result of his marijuana use and takes at least 12 - 18 months to subside completely. It has now been two years since Ryan has been clean but it has really only been the last six months that he hasn't suffered some level of depression, anxiety or paranoia.[106]

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102 Name withheld, submission 135, p 2.

103 Toughlove Victoria, submission 112, p 4.

104 Name withheld, submission 70, p 2.

105 Name withheld, submission 106, p 2.

106 Hidden P and N, attachment to Australian Drug Treatment and Rehabilitation Programme,

8.75 Other families, however, cannot see the way forward so clearly. A mother said that although her son did not appear to have any long-term mental health effects from his addiction to heroin and cannabis, her sister's child had not been so lucky:

> Her lovely sweet talented 34 year old daughter has been left with a life-long mental illness. Constant injections to keep her stable. After constant cannabis misuse from a young age (16-17) her life is empty — no friends, no relationships, no interests etc.[107]

8.76 A permanent loss of the ability to lead a normal life represents a great worry for families who try to focus on hope for recovery. Centrelink noted amongst its client base that, 'parents talk of the difficulty in dealing with their children's long-term effects of drug use, such as ongoing mental health problems and the loss of intellectual ability'.[108]

8.77 The committee commends the publication *In my life*, a collection of personal stories about families affected by co-occurring illicit drug use and mental illness published in 2006 by the Department of Health and Ageing as part of the National Comorbidity Initiative. A mother featured in the book witnesses the damage wreaked on her daughter's mind by methamphetamines and can only hope for recovery at some point in the future:

> She started doing ice and the effect of the psychotic drugs over the past three years has been devastating. Paranoia, delusions, madness. I wasn't living too far from the Cross then and I'd be waking in the street and there would be my daughter, my daughter in this crazy out of her head state digging in a park. With a shovel digging for buried treasure… At the moment, if you saw her you'd think she was pretty much an ordinary young girl… It's hard to know whether she has a little bit of selective madness or whether her mind has been permanently affected by the amphetamines. She's been taking it so long however I believe that my daughter's mind is recoverable. I believe that.[109]

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submission 132, p 9.

107 Hersee P, submission 48, p 2.

108 Centrelink, submission 128, p 2.

109 Sayer-Jones M, Australian Government Department of Health and Ageing, *In my life* (2006), pp 48, 50.

Increased burden of care due to treatment difficulties

8.78 Dual diagnosis presents many difficulties in treatment and rehabilitation that distress families and frustrate drug users who genuinely desire to change their lifestyle.

8.79 Treatment can be complicated by:

- a potential reduction in the accuracy of diagnoses (symptoms of mental illness may be obscured by drug use, or the effects of drug use may lead clinicians to misdiagnose a mental illness);
- increased behavioural problems;
- low or erratic compliance with medication;
- heightened side-effects of medication or unknown interactions between medications and illicit drugs; and
- a higher risk for suicide attempts and suicide.[110]

8.80 The biggest issue reported to the committee, however, was the lack of integrated care. Many psychiatric clinics will not treat people until they have stopped using drugs, and some drug clinics will not treat people until they have resolved their mental health issues. In many people, of course, the problems are entwined.

8.81 The Western Australian Department of Community Development confirmed that:

> The complexity of working with people with a dual diagnosis of drug addiction and mental illness is heightened by a lack of willingness by services to engage clients, using either the mental illness or the drug use as an exclusionary criterion for service entry.[111]

8.82 King Edward Memorial Hospital for Women also reported similar problems for its clients:

> Women with mental health issues have difficulties accessing available treatment. In women with comorbidity this poses further difficulties in accessing substance counselling. Both of these issues

110 Department of Community Services (NSW) and the Mental Health Coordinating Council (NSW), for the Australian Government Department of Family and Community Services, 'The National Illicit Drug Strategy NIDS MISA Project: Improving Support for Children in Families where there are Mental Illness and Substance Abuse Issues', *Project brief* (2003), p 4.

111 Western Australian Government Department for Community Development, submission 134, p 2.

> are compounded by services placing exclusion criteria on mental health illness or substance abuse use [sic] problems. Community mental health services often insist that these women address their substance use issues prior to accepting them into their service.[112]

8.83 It was reported that outside of the drug treatment workforce, a stigma was attached to illicit drug use that obscured opportunities for progress on mental health outcomes:

> Our son suffered periods of depression which I believe predated his [heroin] addiction. However many of the health professionals he consulted treated him as a second class citizen and especially in the early times refused to consider his mental health needs.[113]

8.84 Psychiatrist Dr Christopher Walsh suggested to the committee that the shifting back and forth of responsibility between mental health and drug and alcohol services ultimately put an added burden of care on families.[114]

8.85 A professional working in the drug treatment sector, who had also experienced the drug use of her partner, brother and cousin, agreed, writing that:

> There are few drug rehabilitation programs willing to accept people with a serious mental illness. Clients are often turned away from psychiatric facilities and are told to wait until they become psychotic before being admitted (and even then this does not guarantee them a bed) and in many thousands of cases it is the tired, exhausted and often aging families left to pick up the pieces.[115]

Government responses to dual diagnosis

8.86 The committee acknowledges and welcomes increased federal funding for mental health in recent years and for co-occurring drug use and mental health problems in particular.

8.87 Under the National Comorbidity Initiative, the Australian Government allocated $9.7 million over five years from 2003-04 to 2007-08 to improve

112 King Edward Memorial Hospital for Women, submission 19, p 5.

113 Corrigan R, submission 52, p 1.

114 Walsh C, submission 84, p 3.

115 Ravesi-Pasche A, submission 47, p 6.

service coordination and treatment outcomes for people with dual diagnoses.

8.88 The Initiative aims to improve service coordination and treatment outcomes for people with coexisting mental health and drug use disorders. It focuses on the following priority areas:

- facilitating resources and information for consumers;
- providing support to general practitioners and other health workers to improve treatment outcomes for comorbid clients;
- improving data systems and collection methods within the mental health and alcohol and other drugs sectors to manage comorbidity more effectively; and
- raising awareness of comorbidity among clinicians / health workers and promoting examples of good practice resources / models.[116]

8.89 On 5 April 2006, the Prime Minister announced new Commonwealth funding of $1.9 billion over five years as part of the Council of Australian Governments (COAG) package on mental health. The COAG National Action Plan on Mental Health 2006–2011, released on 14 July 2006, included:

- $73.9 million for improved services for people with drug and alcohol problems and mental illness for the non-government drug and alcohol sector, including identification of best practice models for clients and workforce training; and
- $21.6 million for alerting the community to links between illicit drugs and mental illness, and to encourage individuals and families to seek help or treatment.[117]

8.90 Also of relevance is the Australian Government's $50 million commitment to the establishment of *headspace* – the national youth mental health foundation which will address issues relating to both mental health and alcohol and other drug use for people aged 15-25 years.

116 Australian Government Department of Health and Ageing website, 'National Comorbidity Initiative', viewed on 25 July 2007 at http://www.health.gov.au/internet/wcms/Publishing.nsf/Content/health-pubhlth-strateg-comorbidity-index.htm#project7.

117 Council of Australian Governments, *National Action Plan on Mental Health 2006-2011* (2006), pp 9–10.

Conclusion

8.91 As Jorm and Lubman of the University of Melbourne said recently:

> The issue becomes whether we can afford to wait and see if increasing early use of illicit drugs actually does lead to a rise in the incidence of mental disorders.[118]

8.92 Reported rising prevalence of crystal methamphetamine use is of particular concern given its demonstrated association with psychosis and violent behaviour, with consequent dangers for police, emergency workers, medical staff and families.

8.93 So too is the accumulating evidence about cannabis and mental health. As Raphael and Wooding write in *Of Substance*:

> Of primary importance is the fact that cannabis use does have a number of significant association harms… It is not a soft or a safe option and its notable comorbidity with psychotic and non-psychotic illnesses make it a significant and growing health issue – a fact increasingly reflected in both the national and international scientific literature.[119]

8.94 It is encouraging that the proportion of population who are recent cannabis smokers is declining, particularly amongst teenagers, and that there are signs of hardening community attitudes towards cannabis.[120] It remains, however, our most commonly used illicit drug, and evidence about its potential mental health impacts needs to be better publicised in the community. As the authors of the recent article in *The Lancet* stated, 'There is now sufficient evidence to warn young people that using cannabis could increase their risk of developing a psychotic illness later in life'.[121]

8.95 The committee believes that given the high numbers of Australians using illicit drugs, the available evidence on the connections between illicit drug use and mental illness is deeply concerning. It agrees with the assessment of the national depression and anxiety initiative, Beyondblue, that although further research needs to be done, the known mental health risks

118 Form A and Lubman D, 'Promoting community awareness of the link between illicit drugs and mental disorders', *Medical Journal of Australia* (2007), no 186, p 5.

119 Raphael B and Wooding S, 'Comorbidity: cannabis and complexity', *Of Substance* (2004), vol 2, no 1, p 8.

120 See chapter two.

121 Moore T et al, 'Cannabis use and risk of psychotic or affective mental health outcomes: A systematic review', *The Lancet* (2007), vol 370, 28 July, p 319.

presented by illicit drug use mean that there can be no safe level of personal use:

> Beyondblue has a role in highlighting the extent to which there is no predictably safe level of illicit drug use and its implications for mental health, particularly anxiety and depression.[122]

8.96 Given the reported growing prevalence of co-occurring drug use and mental health disorders and the disproportionately heavy burden borne by families, the recent investments made by governments will need to be maintained and reviewed to ensure that they are adequate.

Recommendation 31

8.97 **The committee notes the prevalence of illicit drug users developing mental illness, and therefore recommends that the Department of Health and Ageing oversee:**

- **the development of more treatment services that treat both drug use and mental illness together, with the aim of making the individual drug free, and to avoid mental illness being treated without knowledge and consideration of illicit drug use;**
- **workforce training for primary health care workers to raise awareness of the connections between illicit drug use and mental illness; and**
- **information and support services for families, including information on how to deal with family members undergoing drug-induced or drug-related psychosis.**

122 Beyondblue, submission 151, pp 2, 4.