



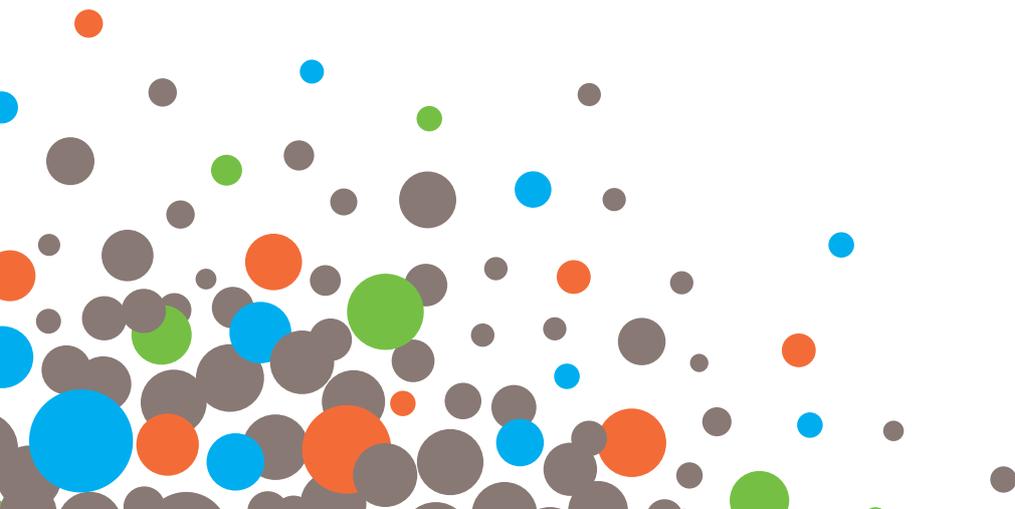
The National Centre of Excellence  
in Youth Mental Health

## Two at a time

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Alcohol and other drug use by young people  
with a mental illness

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# Our Collaborators

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This policy paper was a collaboration between Orygen, The National Centre of Excellence in Youth Mental Health and the NHMRC Centre for Research Excellence in Mental Health and Substance Use, National Drug and Alcohol Research Centre.



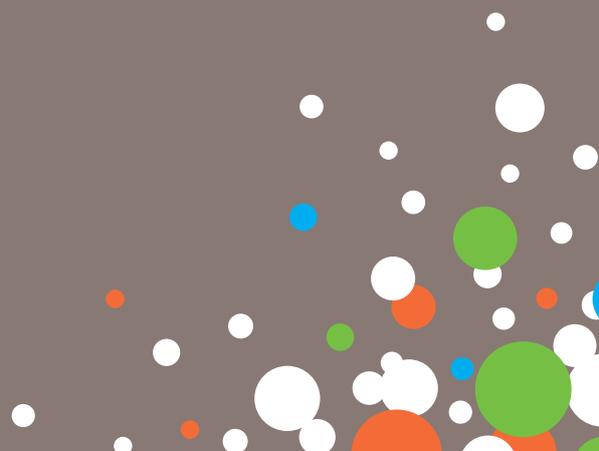


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with a mental illness

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## Abbreviations

<b>AIHW</b>	Australian Institute of Health and Welfare
<b>ACT</b>	Assertive Community Treatment
<b>ATAPS</b>	Access to Allied Psychological Services (program)
<b>AUD</b>	Alcohol Use Disorder
<b>CALD</b>	Culturally and Linguistically Diverse (background)
<b>CBT</b>	Cognitive Behavioural Therapy
<b>CIDI</b>	Composite International Diagnostic Interview
<b>COAG</b>	Council of Australian Governments
<b>DDCAT</b>	Dual Diagnosis Capability in Addiction Treatment (toolkit)
<b>DDCMHT</b>	Dual Diagnosis Capability in Mental Health Treatment (toolkit)
<b>DSM</b>	Diagnostic and Statistical Manual of Mental Disorders
<b>eMHPrac</b>	eMental Health in Practice
<b>GP</b>	General Practitioner
<b>HETI</b>	Health Education and Training Institute (NSW)
<b>iTreAD</b>	A randomised clinical trial of internet-based treatment for binge drinking and depression in young Australians
<b>MBS</b>	Medicare Benefits Schedule
<b>MET</b>	Motivational Enhancement Therapy
<b>MI</b>	Motivational Intervention or Motivational Interviewing
<b>NDARC</b>	National Drug and Alcohol Research Centre
<b>NDSHS</b>	National Drug Strategy Household Survey
<b>NSMHW</b>	National Survey of Mental Health and Wellbeing
<b>SCID</b>	Structured Clinical Interview for DSM Disorders
<b>SES</b>	Socio-economic status
<b>SHADE</b>	Self-Help for Alcohol/other drugs and Depression Program
<b>WASC-Y</b>	Westerman Aboriginal Symptoms Checklist-Youth (mental health and alcohol/other drug use symptoms)

# Executive summary

A peak in the onset of mental illness between the ages of 12 and 25 years coincides with first time exposure to alcohol and other drugs for many young people. The relationship between mental illness and alcohol/other drug use can run both ways. Either illness or issue can lead to or exacerbate the other, and once established, it is difficult to disentangle the two health issues. Young people with a mental illness who use alcohol/other drugs require treatment for both issues.

Young people with a mental illness are more likely to use alcohol and other drugs. The increased health risks of comorbidity underlines the importance of treating both health issues. The longer-term health risks of alcohol/other drug use, in particular tobacco, makes early interventions for young people with a mental illness a policy priority.

However, continued divisions in the health sector between services for mental health and alcohol and other drug use is a barrier to accessing and providing joint treatment. The benefits of treatment for one issue is diminished when the other goes untreated. Systemic and practice divides need to be bridged through integrated treatment as a step towards building a joint treatment model. The Australian government has announced that mental health services for young people are to be better integrated with alcohol and other drug services through Primary Health Networks (PHNs).

The move to coordinated collaboration between mental health and alcohol and other drug services requires leadership, system adaptation and developments in workforce capacity. Models for integrated treatment in an Australian setting have

been developed and audit tools exist for assessing system readiness for (and barriers to) transition. To enable this transition all disciplines working with young people presenting with mental health and/or alcohol and other drug use will need to work together.

The integration of mental health and alcohol/other drug services provides an opportunity to achieve improved services for young people as well as service efficiencies, increasing the value of health funding.

Evidenced-based programs for treating young people with a mental illness and alcohol and other drug use exist. These programs need to be implemented if young people and the community are to benefit. Implementation will be facilitated by the integration and co-location of services. Evidence also exists for the early intervention and treatment of comorbidity using new technologies (mobile and online platforms). Realising the potential of these developments will similarly require expanded real world application.

While the importance of treating both mental illness and alcohol and other drug use is recognised and the ability to do so exists, policy momentum is missing. Gaps in the available data on comorbidity is a factor in this inertia. Momentum would build if the size of the problem was accurately quantified. Improved data collection on the level of alcohol/other drug use among young people with a mental illness is required.

This policy white paper identifies future directions for the integrated delivery of mental health and alcohol and other drug services for young people.

# Future directions

This policy white paper has identified a number of policy opportunities to address continuing gaps in the knowledge, resource requirements and workforce capacity available to implement service delivery changes to improve the health of young

people with a mental illness and co-occurring alcohol and other drug use.

These opportunities fall into three areas: policy, services and data monitoring and research.

## Policy

Opportunity	Mechanism
<p>Progress towards the goal of joint treatment services has been led by the Council of Australian Governments (COAG) with the development of dual diagnosis guidelines for screening and assessment. Integrating treatment of mental ill-health and alcohol and other drug use is the next step. Continued leadership through COAG over the next three years would help achieve the development and implementation of a national framework for integrated treatment.</p>	<p>Council of Australian Governments</p>

## Services

Opportunity	Mechanism
<p>Shortfalls exist in the provision of mental health and alcohol and other drug services for young people. The co-location model used by headspace centres is suited to the implementation of early intervention joint treatment services for young people with mild to moderate comorbid mental ill-health and alcohol/other drug use.</p> <p>An evidenced-informed pilot in selected headspace centres should be trialled over three years. Setting a trial within headspace would help to minimise the encumbrance of 'old habits' and be staffed by health professionals with demonstrable or accredited training in both fields.</p>	<p>Primary Health Networks, headspace</p>

Opportunity	Mechanism
<p>Training in the screening, assessment and initial treatment of mental health symptoms is required for all disciplines working in alcohol and other drug use services and vice versa for professionals working in mental health services. Specific training modules are required for primary health settings and specialist services. This training would provide accreditation for the provision of joint treatment services.</p>	<p>Australian Health Practitioner Regulation Agency, Professional Bodies</p>
<p>The Australian government has announced a packaged care policy for people with a severe or complex mental illness. To increase access to treatment by comorbid young people a targeted Joint Dual Diagnosis Treatment Plan (similar to the Better Access model but with sessions for both illnesses) could be trialled over three years. The selection of trial site(s) could be selected in collaboration with Primary Health Networks to target delivery of services to areas identified as having high service demand but low rates of access. The trial should include an interim review at 18 months (with modifications made if required) followed by a comprehensive evaluation.</p>	<p>Primary Health Networks, Department of Health</p>
<p>Young people can experience medical clinics as unwelcoming and stigmatising. headspace centres have been designed to address the alienating experience of clinic settings. In areas where a headspace centre is not established Primary Health Networks could trial enhancements to make existing primary health clinics more youth-friendly.</p>	<p>Primary Health Networks</p>

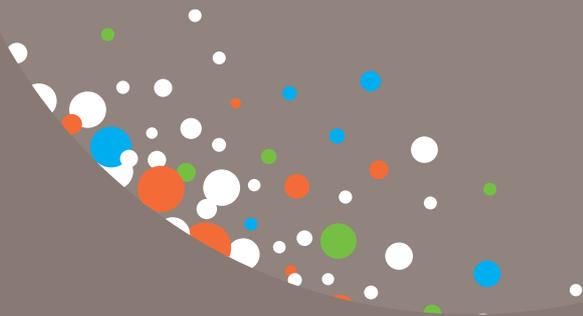
“ Despite the advances in research, there is comparatively little evidence of true integration of care occurring at the coal face.

## Data monitoring and research

Opportunity	Mechanism
<p>There is a lack of data on the incidence of comorbidity in young people, including the age of onset, duration of illnesses and relationship between mental ill-health and incidence of alcohol and other drug use. A longitudinal study is required to follow changes over time for people aged 12–25 years. Two possible options would be to (1) establish a dedicated survey or (2) incorporate a longitudinal follow-up to the next National Survey of Mental Health and Wellbeing.</p>	<p>Australian Institute of Health and Welfare, Australian Bureau of Statistics</p>
<p>eHealth products and services utilising mobile and online platforms are delivering new opportunities for efficiency and improved engagement with young people. This possibility is to be harnessed by the Australian government through a proposed digital gateway to mental health services. The speed with which new programs can be developed demands that measurable outcomes remain a focus. The use of new technologies to deliver ehealth requires a system of evaluation and accreditation.</p>	<p>Orygen, The National Centre of Excellence in Youth Mental Health, National Drug and Alcohol Research Centre</p>
<p>The outcomes, efficacy and cost efficiency of existing and piloted early intervention programs needs to be measured. Comparable measurements of early interventions delivered through online and mobile platforms are also required. A comparative analysis of face-to-face and technology based early interventions should be undertaken over the next three years.</p>	<p>Orygen, The National Centre of Excellence in Youth Mental Health, National Health and Medical Research Council</p>
<p>Gaps remain in the applied evidence for the treatment of alcohol and other drug use among young people with a mental illness. A research agenda for increasing the evidence-base for joint treatment of mental ill-health and alcohol and other drug use in young people would provide a sound base for service development and monitoring.</p>	<p>Orygen, The National Centre of Excellence in Youth Mental Health, National Drug and Alcohol Research Centre, National Health and Medical Research Council</p>
<p>Economic data on the cost of delayed access to health services is needed. Analysis and modelling of the cost of delays in treating young people with a mental illness and co-occurring alcohol and other drug use might include:</p> <ul style="list-style-type: none"> <li>▪ Specific costs for health services federally and at a state/territory level.</li> <li>▪ Comparison with the provision of: <ul style="list-style-type: none"> <li>› early intervention; and</li> <li>› joint treatment.</li> </ul> </li> <li>▪ Modelling of the wider costs on employment, welfare and housing in the short, medium and long-term.</li> </ul>	<p>Treasury, Department of Health</p>

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The physical and psychosocial development that occurs between the age of 12 and 25 years makes the impact of alcohol and other drug use during this time a significant long-term health concern.



# What do we know about mental health and alcohol and other drug use among young people?

Many changes occur during adolescence. Physical, neurological, emotional and sexual development all occurs in the transition to adulthood. There may also be behavioural changes in attitudes towards school, work and life, relationships with friends and family, increasing or emergent levels of risky behaviour, and the use of alcohol or other drugs. In Australia, one in four young people will experience a diagnosable mental disorder in any given year (Australian Bureau of Statistics 2010). The highest rate of onset mental illness also occurs between the ages of 12 and 24 years (Kessler et al. 2005). For many young people, their first experiences with alcohol and other drugs also occurs during this period.

The co-occurrence of mental illness and alcohol/other drug use in young Australians is common. In some cases, one may pre-empt the other; for example, cannabis use and psychosis, or depression and alcohol use. Once both are present, however, it is difficult to separate the two, and each can interact with aspects of a young person's health and affect the other condition. 'Comorbidity' is the term used to describe co-occurring health issues or disorders; in this paper the term is used to describe the co-occurrence of mental ill-health and alcohol/other drug use.

Among young people (aged 15–24 years) mental disorders and alcohol and other drug use disorders together account for 44.9% of the disease burden for men and 38.4% for women (Australian Institute of Health and Welfare 2007). Among Aboriginal and Torres Strait Islander young people, the burden of disease is higher, a disparity attributed to 'high rates of mental disorder, substance use and injury' (Australian Institute of Welfare 2011). The interdependence of mental illness and alcohol/other drug use means joint or integrated treatment is an important way forward in the provision of health services for young people.

Mental ill-health and alcohol/other drug use is classified as mild, moderate or severe depending on the stage of development of a disorder. Early intervention provides important opportunities to treat a person's illness in the early stages, and to decrease the likelihood of long-term disability.

Importantly, mental health and alcohol/other drug use problems do not both have to be present at disorder threshold levels in order for comorbidity to be present, and for the interrelationships between these problems to exert their impact on the young person. For this reason, treating one problem (e.g., mental illness) and not the other increases the risk of relapse.

## Early intervention

Early intervention is the provision of appropriate, evidence-based treatment at the onset of disorder or for those 'at risk' of developing a disorder. The aim of early intervention is to promptly identify symptoms and treat the emerging disorder to prevent the progression of the illness. Limiting the level of illness minimises damage to social, educational, and vocational functioning, allowing for a more complete functional recovery (McGorry and Yung 2003).

## Mental disorders in young people

A national picture of mental ill-health among young people in Australia is provided by the National Survey of Mental Health and Wellbeing (NSMHW) (Australian Bureau of Statistics 2010). Conducted by the Australian Bureau of Statistics in 2007, the survey used three categories of mental disorder. These categories 'were considered to have the highest rates of prevalence in the population and that were able to be identified in an interviewer based household survey'. Although bipolar disorder was included in the survey, schizophrenia, schizophrenia spectrum and personality disorders were not included. The categories of mental disorder were:

- Anxiety disorders (panic disorder, agoraphobia, social phobia, generalised anxiety disorder, obsessive-compulsive disorder and post-traumatic stress disorder).
- Affective (mood) disorders (depressive episode, dysthymia and bipolar disorder).
- Substance use disorders (alcohol harmful use, alcohol dependence and drug use disorders).

More than a quarter of 16–24 years olds (26.4%) were identified as having 'met the criteria for lifetime diagnosis and had symptoms' for a mental disorder in the 12 months prior to interview. Nearly six in ten (58%) young people with past or present symptoms at the time of the survey had an anxiety disorder and 24% had an affective disorder. Almost half (48%) the young people with a mental disorder had a substance use disorder.

Young women were more likely to have a mental disorder (30.1%) compared with young men (22.8%). Anxiety (72%) and affective (28%) disorders were more prevalent among women

with a mental illness than men (41% and 19% respectively), and young men were more than twice as likely to have a substance use disorder (68% compared with 33%).

The Australian Bureau of Statistics has acknowledged that the survey likely 'underestimates the prevalence of mental disorders in the Australian population' (Australian Bureau of Statistics 2008). It is also likely that participants from Aboriginal and Torres Strait Islander backgrounds were under-represented by virtue of the survey methodology. A 2013 review of available evidence for Aboriginal and Torres Strait Islander young people's health found that although the quantity of available data has increased, critical gaps remain (Haswell et al. 2013).

## Alcohol and other drug use in young people

The physical and psychosocial development that occurs between the age of 12 and 25 years makes the impact of alcohol/other drug use during this time a significant long-term health concern. Equally, in the short term, the associated risk of injury or death from high or risky levels of alcohol/other drug use also presents an immediate health risk to young people. Among young people with a mental illness, between 30 and 50% currently use alcohol/other drugs (Australian Bureau of Statistics 2008).

The Australian Institute of Health and Welfare (AIHW) (Australian Institute of Health and Welfare 2015a) has published 2013 data on alcohol and other drug use by Australians. Data for 14–25 year olds was requested for this policy white paper. Just over one in ten (11%) young people were daily users of tobacco, with a higher

### What are 'other drugs'? Mechanisms of action

Substances within the category of alcohol and other drugs can be broadly defined in terms of their mechanisms of action, namely as 'uppers' and 'downers' or hallucinogens. Drugs that have a stimulant effect are commonly referred to as 'uppers', and can include amphetamines, cocaine, nicotine (tobacco), speed and methamphetamines (e.g., ice). 'Uppers' speed up the body's functions. On the other hand, 'downers' serve to slow the body and mind. Typically, 'downers' include alcohol, cannabis, barbiturates, sedatives, LSD, heroin, GHB and addictive prescription medications (tranquilisers, barbiturates, and sedatives). Hallucinogens (i.e., cannabis, inhalants, ecstasy and LSD) alter the body's sense perceptions (Child and Youth Health 2014, Rosie 2015).

rate (23.3%) found for Aboriginal and Torres Strait Islander people<sup>1</sup>. Risky alcohol use, defined as more than two standard drinks per day, was recorded for 15.9% of young people. A lower rate was recorded for Aboriginal and Torres Strait Islander people. The proportion of young people drinking alcohol at a risky level was lower than in 2010. A similar level of recent other (illicit) drug use was found among Aboriginal and Torres Strait Islander young people (25.6%) and non-indigenous 14–25 year olds (23.7%).

A complete picture of other drug use by young people is difficult to draw. In one population-based study, 17% had tried inhalants (petrol, spray paint, glue), and 15% had tried cannabis. Fewer than 3% had tried the following: LSD, amphetamines, ecstasy, steroids (without a prescription), cocaine or heroin, in descending order (Druginfo 2014).

There is some evidence indicating the rate of alcohol and other drug use by young people varies depending on where they live. The AIHW data for 14–25 year olds shows that the rate of daily smoking is 8.9% in major cities, 11.4% in inner regional areas and 25.1% beyond this.

Risky alcohol use is similar in major cities (15.1%) and inner regional areas (14.5%) but increases to 24.3% in outer regional and remote areas of Australia. This data confirms research findings that young people living in rural areas are more likely to drink at high-risk levels (National Rural Health Alliance 2014). Recent use of other (illicit) drugs was 23.7% (cities), 21% inner regional and 28.3% in outer regional and remote areas. The higher rates of alcohol/other drug use in outer regional and remote areas highlights a need for services in these areas.

Treatment services data provide another lens for determining the experiences of alcohol/other drug use by young Australians. This data presents a snapshot of problematic substance use disorders for those seeking treatment, rather than occasional or experimental use.

Table 1 presents the top ten substances reported by young people accessing treatment for alcohol/other drug use in Australia.

TABLE 1: CLOSED EPISODES PROVIDED FOR OWN DRUG USE, BY PRINCIPAL DRUG OF CONCERN BY AGE GROUP, TOP 10; 2012–13; AVERAGE AGE FIRST USED SUBSTANCE PEOPLE AGED 14–24 YEARS (2013).

	10–19 years		20–29 years		Average age first used
	Number	Cumulative %	Number	Cumulative %	Years
<b>Cannabis</b>	10,919	55	13,054	30	16.7
<b>Alcohol</b>	4,594	77	12,875	59	15.7**
<b>Amphetamines</b>	2,050	88	9,151	80	18.6***
<b>Other</b>	787	92	1,111	83	-
<b>Nicotine</b>	586	95	579	84	15.9
<b>Heroin</b>	264	96	3,248	92	16.9
<b>Ecstasy (MDMA)</b>	256	97	641	93	18.2
<b>Other stimulants and hallucinogens</b>	143	98	193	94	18.5****
<b>Benzodiazepines</b>	119	98	473	95	18.2
<b>Not stated</b>	117	99	131	95	-

Source: Table S5.10 (Australian Institute of Health and Welfare 2014a); (Australian Institute of Health and Welfare 2014b).

\*\* First full serve/cigarette.

\*\*\* Meth/amphetamine.

\*\*\*\* Hallucinogens.

<sup>1</sup> The AIHW advises that due to the small sample sizes of Aboriginal and Torres Strait Islander people, estimates should be interpreted with caution.

Table 1 shows that three substances—cannabis, alcohol and amphetamines—account for the principle drug of concern in the treatment of nine out of ten people age 10–19 years and eight out of ten persons aged 20 to 29 years. Tobacco use, however, remains a hidden health issue with high use among young people with a mental illness but low treatment rates.

The high prevalence of cannabis, alcohol, tobacco and amphetamine use make treatment of these drugs obvious candidates for increased treatment services. In developing early interventions for young people, the average age at which people first experience different drugs (see Table 1) will also be important. Despite laws preventing the sale of alcohol and tobacco to people aged under 18 years, the average age of initial use is in the six months prior to their sixteenth birthday.

### Alcohol and other drug use disorders

The American Psychiatric Association defines an alcohol and/or other drug use disorder as 'A problematic pattern of...use leading to clinically significant impairment or distress' (American Psychiatric Association 2013). Diagnosis of a disorder is based on a pathological pattern of behaviours related to use. Behaviours are grouped into the following: impaired control, social impairment, risky use, and pharmacological criteria. Within these groups there are 11 diagnostic criteria. Diagnosis of a disorder requires the manifestation of at least two criteria within a 12-month period. The number of criteria met determines the severity of the disorder at the time of assessment (mild, moderate, or severe).

### Comorbidity

In considering the co-occurrence of mental ill-health and alcohol/other drug use, it is important to recognise that the severity of an illness or level of alcohol/other drug use is not necessarily equal for the concurrent conditions. One illness, for example, may be at a disorder threshold level, while another is sub-threshold or perhaps only just emerging. Age may also influence the respective levels of concurrent illness. For example, the internalising of anxiety among people in their early teens can be a precursor to increased risk of later alcohol use (Kelly et al. 2015).

A survey of almost 3,000 11–17 years olds reported in *The Mental Health of Children and Adolescents* (2015) provides a picture of alcohol/other drug use by young people with a major depressive disorder. Almost a quarter (24.4%) of 13–17 year olds with a major depressive disorder had smoked in the 30 days prior to being surveyed compared with 4.1% on young people with no diagnosed mental disorder. More than a third (34.3%) of 13–17 year olds reporting a major depressive disorder had drunk alcohol over the same period. This was more than double the proportion of younger people with no diagnosed disorder. The rate of cannabis use was more than three times higher (Lawrence et al 2015).

The AIHW has 2013 data on alcohol and other drug use among 18–25 year olds diagnosed or treated for a mental illness<sup>2</sup>. The proportion of daily smokers in this group is 23.1%. On average, 13.8% drink more than two standard alcoholic drinks daily (defined as risky). A similar proportion (13.1%) use risky amounts of alcohol at least weekly (four or more standard drinks). On the other hand, one in ten (9.1%) young people were daily low risk drinkers, averaging less than two standard drinks per day. Almost a quarter (23.7%) had used other (illicit) drugs in the month prior to being surveyed, and a further 19.1% in the previous 12 months. Almost a quarter (23.7%) of 18–25 year olds with a mental illness reported the use of at least one type of substance in the previous month and a further 19.1% in the previous 12 months. The data does not permit an analysis of persons who use multiple substances.

Higher rates of alcohol and other drug use and mental health issues have been reported among lesbian, gay, bisexual, transgender and intersex people. Increased health risks and relatively poorer health outcomes have been attributed to experiences of discrimination and abuse (National Mental Health Commission 2014c). There is evidence of higher rates of alcohol/other drug use among young homosexual/bisexual people (Australian Institute of Health and Welfare 2015a). One in four (24.8%) 14–25 years olds identifying as homosexual/bisexual smoke daily (compared with 10% among young people identifying as heterosexual). Daily risky drinking is also higher (22.6%; 16.1%) as is other drug use (40%; 22.6%).

<sup>2</sup> Includes depression, anxiety disorders, schizophrenia, bipolar disorder, eating disorders and other form of psychosis.

Data on the prevalence of mental ill-health and alcohol and other drug use among young people does not tell us about onset, and comorbidity data does not reveal which illness comes first, limiting the usefulness of data in understanding comorbidity and in developing policies to address the issue.

Opportunity	Mechanism
<p>There is a lack of data on the incidence of comorbidity in young people, including the age of onset, duration of illnesses and relationship between mental ill-health and incidence of alcohol and other drug use. A longitudinal study is required to follow changes over time for people aged 12-25 years. Two possible options would be to (1) establish a dedicated survey or (2) incorporate a longitudinal follow-up to the next National Survey of Mental Health and Wellbeing.</p>	<p>Australian Institute of Health and Welfare, Australian Bureau of Statistics</p>

### Which comes first

Understanding the temporal sequence of comorbid mental ill-health and alcohol/other drug use, that is, which comes first and which follows, is important in developing prevention and early intervention programs, especially under traditional service models of care. There is significant variation in the sequence of different disorders and different types of alcohol/other drug use. The temporal gap between the onset of the initial illness and subsequent disorder(s) is another factor that will shape the development of prevention and early intervention programs.

The available evidence focuses largely on specific illnesses and the relationship with specific substances. The evidence also tends to be across the lifespan rather than specifically for young people. For example, anxiety and mood disorders have been shown to predict subsequent alcohol/other drug use. In particular, alcohol use can be predated by the presence of social anxiety disorders (Wolitzky-Taylor et al. 2012). There is mixed evidence available indicating alcohol/other drug use is a precursor to mood and anxiety

disorders, with the strongest related to alcohol use (Wolitzky-Taylor et al. 2012, Falk et al. 2008). Another study found that where a mood or anxiety disorder (social phobia being the exception) develops before the age of 25, alcohol dependence or abuse emerges more often in adulthood (Falk et al. 2008).

In either case, treatment seeking for mood and anxiety disorders occurs between 8-18 years earlier than it does for alcohol/other drug use, despite comorbidity emerging at around the same age (Chapman et al. 2015, Kay-Lambkin et al. 2014). This evidence suggests that early interventions for mood and anxiety disorders, and for alcohol/other drug use in treatment seeking young people, has the potential to reduce the likelihood and impact of comorbidity.

There is also evidence of the effect cannabis use can have on young people with, or susceptible to, psychosis. Cannabis use can precipitate schizophrenia in people whose personal or family history makes them vulnerable. Further, where present, psychosis can be exacerbated by cannabis use (Hall et al. 2004). Cannabis use can also affect the treatment outcome of first-episode psychosis in young people. One study reported that following treatment, social functioning had significantly improved after 30 months, but this improvement was not evident in young people who used cannabis (González-Blanch et al. 2015). This finding underlines the importance of treating alcohol/other drug use and mental ill-health simultaneously.

There appears to be a central role for a young person's family in determining their likely use of alcohol and other drugs. Young people from families where a parent has an alcohol/other drug use disorder have an increased risk of initiating their own use (Biederman 2000). The presence of a disorder in a parent should trigger early intervention measures for young people living with them. Family can also have a positive influence on alcohol/other drug use by young people.

  
IMPLICATIONS

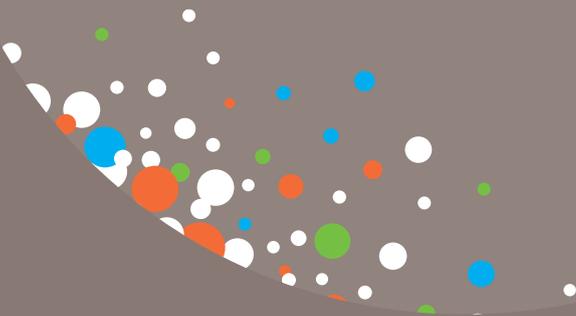
The increased onset of mental illness between the ages of 12 and 25 years coincides with exposure to alcohol and other drugs for many young people. Alcohol and other drug use can both contribute to the onset of mental illness and exacerbate existing symptoms. Once comorbid mental illness and alcohol/other drug use is present it is difficult to disentangle the two health issues. Treatment for both is required.

Higher levels of alcohol and other drug use, including tobacco use among young people with a mental illness, underlines the importance of treating both health issues. Early interventions for alcohol/other drug use is also important considering the longer-term health effects.

There are gaps in the available data describing the mental health and alcohol/other drug use of young people. More detailed research is needed on the onset and interaction of mental illness and alcohol/other drug use. Larger sample sizes are also required for sub-population groups of 12-25 year olds.

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Less than a quarter of young  
Australians (23%) with  
a mental disorder were  
accessing mental health  
services in 2007 (Australian  
Bureau of Statistics 2010).



## Access to services

The possible overlap between onset mental ill-health and a young person's first experiences of alcohol/other drugs makes health monitoring vital at this time. These health risks, and the potential of early intervention, underline the importance of access to health services.

Barriers to services for young people include concerns about confidentiality; embarrassment and discomfort; and to a lesser extent cost and accessibility (Booth et al. 2004). An absence of trust in the health professional or primary care setting can contribute to an experience of stigmatisation.

Young people are almost half as likely to visit a general practitioner (GP) for a mental health related matter compared with the general population. The rate of consultations is lower outside major cities and high SES areas (Australian Institute of Health and Welfare 2011). Lower access in areas of socioeconomic disadvantage adds to the complexity faced by young people requiring treatment for comorbidity in these areas (Leahy et al. 2015). Aboriginal Community Controlled Health Services report the biggest gap in health services provided to Aboriginal and Torres Strait Islander people is for mental health (57%), followed by youth services (52%), with alcohol, tobacco and other drugs (43%) fourth after dental services (Australian Institute of Health and Welfare 2015b).

The lower rate of GP visits for mental ill-health reflects the generally lower access of primary health services by young people in Australia. Young people (aged 15–24 years) on average made only two and a half (2.6) visits<sup>3</sup> to the GP compared with an average of 3.8 visits per person between July 2013 and June 2014. Young women

accounted for more than six out of ten (62.7%) visits in this age group (Australian Bureau of Statistics 2014). During this period there were 417,268 GP attendances by young people in relation to a mental health disorder or for a mental health treatment plan. Mental health visits to the GP represent a fraction (5.2%) of standard consultations with young people (Department of Human Services 2014).

Less than a quarter of young Australians (23%) with a mental disorder were accessing mental health services in 2007 (Australian Bureau of Statistics 2010). This low rate of access was a factor in the establishment of headspace, a youth-specific health initiative in which mental health care is a primary aspect. Access was higher for young people with a severe impairment (50.7%) compared with mild or moderate (17.8%) mental ill-health (Australian Bureau of Statistics 2010). Low rates of access to mental health services by young people has been linked to high rates of alcohol and other drug use, and low rates of help-seeking for this behaviour (Reavley et al. 2010). Available data for access to alcohol and other drug treatment is divided in to two age categories. In 2012–13 the proportion of 10–19 year olds receiving treatment for alcohol/other drug use was 11%, increasing by a factor of nearly three (29%) for 20–29 year olds (Australian Institute of Health and Welfare 2014a).

<sup>3</sup> MBS Item 23: Professional attendance by a general practitioner lasting less than 20 minutes.

Factors contributing to low treatment seeking among young people include (New South Wales Health 2014):

- Services not catering well for comorbid mental illness and alcohol/other drug use in young people;
- Service access designed around the need for young people to come to them, rather than taking services to where young people already are;
- Fear of confidentiality breaches, lack of trust, and embarrassment in discussing personal issues;
- Lack of awareness and knowledge about services and how to access them; and
- A lack of referral to treatment.

## Divided services

The continuing division of treatment services for mental ill-health and alcohol and other drug use contributes to a lack of access. In Canada, the division of services 'can lead to inadequate, inefficient care' (Watson et al. 2014). *The National Review of Mental Health Programmes and Services* has reported that 'a strong silo approach' remains in the delivery of mental health and alcohol/other drug services (National Mental Health Commission 2014b). The Australian government has made integration of services a centre piece of its response to the National Mental Health Commission's review of programmes and services.

## Stigma

Public attitudes or behaviour towards a person or group based on their social characteristics can cause feelings of stigmatisation. Stigma often prevents people from accessing health services. The experience of stigma often leads to isolation and discrimination for young people, which can create a barrier to accessing health care. Mental ill-health has historically been heavily stigmatised. The stigma attached to alcohol and other drug use is mixed. There is a cultural acceptance of alcohol use in Australia, except in changing attitudes to drink driving. Tobacco use is now widely stigmatised, with states and territories increasingly banning smoking in public spaces. The use of illicit drugs carries the greatest stigmatisation, resulting in lower rates of service use and difficulties detecting early use (Deady et al. 2013).

Stigma has a small- to moderate-sized effect on help-seeking for people with a mental illness of all ages. Persons aged under 18 years are more likely to include a sub-theme of 'not normal' in reporting concerns and experiences of stigmatisation (Clement et al. 2015). Young people themselves may be the best placed to help peers overcome this barrier. A study of peer-led educational workshops for at-risk 11-13 year olds suggests improved knowledge and reduced social distance can be achieved in relation to mental health problems (Bulanda et al. 2014). Efforts to reduce stigma have been shown to contribute to the breakdown of barriers in accessing health services and to experiences of social exclusion.

In Australia, awareness campaigns have been successful in raising the public awareness and understanding of mental ill-health. More needs to be done to separate the health and legal aspects of alcohol/other drug use to facilitate a similar de-stigmatisation of use to begin breaking down barriers to health care access.

The provision of guidelines and training for health service providers, together with deliberate changes in organisational approaches and functions has shown some promise for improving the youth-friendliness of primary services (Tylee et al. 2007). The potential role for practice nurses in engaging young people and increasing access through an alternative pathway is another area being explored (Hart et al. 2012), including the feasibility of nurse-led clinics as an alternative to general practice (Hegarty et al. 2013). The evidence points to the need for further development and testing of these approaches.

Opportunity	Mechanism
Young people can experience medical clinics as unwelcoming and stigmatising. headspace centres have been designed to address the alienating experience of clinic settings. In areas where a headspace centre is not established Primary Health Networks could trial enhancements to make existing primary health clinics more youth-friendly.	Primary Health Networks

## Delayed access

Delayed access to treatment for mental ill-health and alcohol and other drug use disorders worsens long-term health outcomes. Untreated comorbidity increases the potential lifetime risk of impairment, injury and decreased future capacity, and results in poorer life expectancy. Delaying treatment may result in an emerging illness or occasional use developing into a disorder. Increased severity requires more involved treatment. Early intervention approaches aim to intervene before a disorder develops, minimising the level of treatment required and disruption to a person's life course.

The average delay in treatment commencement for alcohol use disorder (AUD) in Australia is 18 years after onset—and then only one in three people will seek treatment. Earlier onset of AUD is associated with longer delays for treatment and lower treatment rates overall (Chapman et al. 2015). Two thirds of alcohol dependence, or severe AUD, is diagnosable before the age of 25 years and 15% before 18 years (Hingson et al. 2006). The potential to identify dependence before adulthood reinforces the importance of early intervention.

There is some evidence of a link between comorbid mental health and alcohol/other drug use and shorter delays accessing care. For example, in one Australian study, treatment for alcohol use was sought earlier by persons with both anxiety disorders and alcohol disorders, and where additional drug use was present (Chapman et al. 2015). A study of a rural population in Australia found that people with co-occurring anxiety and alcohol disorders were more likely to seek treatment for the mental health issue (Kay-Lambkin et al. 2014). Although this evidence is for the general population rather than specifically 12–25 year olds, it reveals the potential opportunity for early intervention in comorbid cases, and the possibility of addressing comorbidity in people presenting for mental health treatment.

### Cost of delays

Missed opportunities for prevention and early intervention mean that many young people will not find support until they are admitted to acute care. Such delays often result in a worsening of symptoms and increased likelihood of the development of chronic disorders. In addition to being associated with poorer health and life

outcomes for young people, later intervention may impose economic costs on the wider Australian community. The cost has not been calculated in Australia.

Opportunity	Mechanism
<p>Economic data on the cost of delayed access to health services is needed. Analysis and modelling of the cost of delays in treating young people with a mental illness and co-occurring alcohol and other drug use might include:</p> <ul style="list-style-type: none"> <li>▪ Specific costs for health services federally and at a state/territory level.</li> <li>▪ Comparison with the provision of:               <ul style="list-style-type: none"> <li>› early intervention; and</li> <li>› joint treatment.</li> </ul> </li> <li>▪ Modelling of the wider costs on employment, welfare and housing in the short, medium and long-term.</li> </ul>	Treasury, Department of Health

## Improving access

The Australian government has endeavoured to improve access to mental health treatment through two programs; the 2003 Access to Allied Psychological Services (ATAPS) program and Better Access to Psychiatrists, Psychologists and General Practitioners through the Medicare Benefits Schedule (2006). The ATAPS program provided a single program for increasing access to a range of mental health professionals including psychologists, social workers, mental health nurses, occupational therapists and Aboriginal and Torres Strait Islander health workers with specific mental health qualifications. The Better Access program added new mental health items to the Medicare Benefits Schedule (MBS).

The number of sessions a person is eligible for under either program is capped. The Better Access program provides six sessions, plus a further four on referral from a GP or psychiatrist in a calendar year. In exceptional circumstances, a further six services are available, totalling 16

service occasions. The ATAPS program provides for six initial sessions and with the possibility of extension up to 18 sessions, under the same conditions as for the Better Access program.

The number of sessions available under the ATAPS and Better Access programs needs to be increased for young people with comorbid mental ill-health and alcohol/other drug use due to the need for multiple treatments. Alternatively, a specific program for young people would allow better targeting of services for this group that could take into account the particular needs of young people.

Opportunity	Mechanism
<p>The Australian government has announced a packaged care policy for people with a severe or complex mental illness. To increase access to treatment by comorbid young people a targeted Joint Dual Diagnosis Treatment Plan (similar to the Better Access model but with sessions for both illnesses) could be trialled over three years. The selection of trial site(s) could be selected in collaboration with Primary Health Networks to target delivery of services to areas identified as having high service demand but low rates of access. The trial should include an interim review at 18 months (with modifications made if required) followed by a comprehensive evaluation.</p>	<p>Primary Health Networks, Department of Health</p>

## New technologies

eHealth and new technologies are providing opportunities for improving the reach and impact of both mental health and alcohol and other drug use treatment, particularly to young people. Since the initiation of the National eHealth Strategy in 2008 (Australian Health Ministers' Advisory Council 2008), there has been an increase in the development of internet-delivered programs (Griffiths and Christensen 2007). This reflects a global trend, with the use of ehealth initiatives in

recent years rising worldwide (Andreassen et al. 2007). A strong body of evidence suggests that ehealth programs provide an effective treatment option for a range of mental health and alcohol/other drug use problems, facilitate delivery of evidence-based treatment with high fidelity and consistency, and result in improvements in mental health similar to those achieved by face-to-face therapy (Kay-Lambkin et al. 2009, Titov 2007). eHealth models of service delivery also offer high potential to diminish many of the key barriers to service use reported by young people with mental health and alcohol/other drug use problems (Kiluk et al. 2011).

Treatment can be accessible at times and in locations that suit young people, without the need to schedule appointments or to confront the stigma associated with seeing a therapist. eHealth offers privacy and anonymity, and allows people to work at their own pace, tailoring the provision of information and strategies to what is most salient to the young person at the point of access. Interactive and multimedia options offer the potential for higher levels of engagement than other self-help modalities. Thus, ehealth offers the opportunity for widespread dissemination of treatments, reaching a large audience in a cost-effective and timely manner, and may be particularly important for encouraging help-seeking in young people, who are not being reached with more traditional forms of treatments. The Australian government has announced that a new digital mental health gateway will be established in 2016-17 which will provide information, advice and access to online treatments (Australian Government 2015).

The integration of ehealth into the ATAPS and Better Access pathways should also be considered. For example, an additional four sessions could be provided by existing ehealth programs that have an established evidence-base for comorbid mental health and alcohol/other drug use problems, with follow-up sessions from either mental health or alcohol/other drug services as required. This approach may also serve to engage more young people in traditional treatment, with ehealth approaches demonstrating particular appeal to younger age groups.

  
**IMPLICATIONS**

The historical and largely continuing division between mental health services and alcohol/other drug use services maintains barriers to the combination of services required by young people with comorbid health issues. Receiving treatment for one issue but not the other reduces the likelihood of sustained treatment benefits.

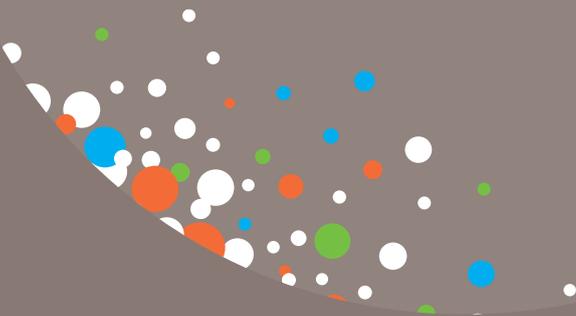
Overcoming systemic and practice barriers in the provision of services requires a new approach to providing access to treatment that promotes access to multiple and overlapping disciplines.

The experience of stigma needs to be addressed if increased access to services is to be achieved.

The potential for treatment via new technologies needs to be tested in expanded real world applications.

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Broad screening and assessment and an integrated approach to treatment of comorbidity among young people is required.



# Seeing the big picture

The diagnosis of a comorbid condition is less likely than a single diagnosis of either a mental health or alcohol/other drug use disorder. The level of each illness, mild, moderate or severe, may influence the likelihood of seeking help, and by extension, diagnosis. Where one illness is more acute, the co-occurring illness may not be diagnosed, or priority may be attributed to the more acute illness. The division in mental health and alcohol/other drug services mean that an initial diagnosis will determine which treatment corridor a person is sent down.

The practice of prioritising one illness over another reflects a historical demarcation in the health system, with health departments and professions divided into specialist services. Further divisions may be found in the physical or geographical location of services, and separate funding of services. Any policy development to increase treatment rates for comorbidity will need to address the internal obstacles within the health system resulting from these divisions.

Where alcohol/other drug use limits or prevents the ability to provide care (e.g., due to intoxication), the prioritisation of this issue first is understandable. In practice, however, subsequent mental health treatment has been unlikely, unless the symptoms were severe or acute (Deady et al. 2014). The prioritising of alcohol/other drug use over mental ill-health (or vice versa) also overlooks the interconnectedness between the two conditions for many young people, and the opportunity for important and effective prevention and early intervention efforts. Once established, the interaction of comorbid conditions becomes one of mutual influence, with each condition maintaining the other.

The traditional approach to managing mental health and alcohol/other drug use separately does not facilitate opportunities for early intervention. Where one illness goes unrecognised or untreated, it will undermine the potential success of any treatment of the diagnosed illness. The risk of relapse into alcohol/other drug use is higher when mental ill-health issues are not treated (Deady et al. 2014). The treatment of alcohol/other drug use without the accompanying treatment of a comorbid mental illness makes the long-term success of any treatment program unlikely (Deady et al. 2014).

To help address the under-identification and under-treatment of comorbidities, a screening tool should be routinely used when people present with either health issue. Screening is the first stage of the screening-assessment-treatment model. This three-step model provides an integrated approach for treating alcohol/other drug use in young people with a mental illness.

## Screening

There is increasing acceptance and implementation of universal screening for co-occurring alcohol/other drug use and mental ill-health. This is evident in terms such as 'no wrong door' and 'seeking help in many places'. This also fits well within the model of increasing access to treatment for young people, by opportunistically offering screening and intervention wherever they present. The development of guidelines for comorbidity and supported training have facilitated acceptance of this clinical approach. Screening for comorbidity can be simple and quick, with checklist-style tools allowing specialist

clinicians working in one field to also screen for possible comorbid health issues with little additional training. Screening can also be quickly, easily and confidentially completed online, underlining the potential of integrating ehealth screening practices in primary and specialised care settings (e.g., in the waiting room). Where system improvements and staff training is supported, improved screening of co-occurring symptoms can be readily achieved. A review of the Victorian Dual Diagnosis Initiative in 2011 found that progress had been made in developing a workforce capable of screening for comorbid mental health and alcohol/drug use (Australian Health Associates 2011).

## Assessment

The implementation of formal assessment of comorbidity is less advanced than for screening. An assessor's experience and specialty informs their ability and confidence to formally assess the presence of comorbid health disorders, and often requires specialist training and experience. Many diagnostic instruments for mental health and alcohol/other drug use disorders are being validated for delivery and interpretation online (e.g., the CIDI, the SCID), suggesting that ehealth approaches have an important role to play in addressing this issue.

The likelihood of varying levels of severity in either disorder adds complexity to the task of assessment. Training in the assessment of both disorders already exists for health professionals working in one or other of these fields. Broadening the skill base of professionals working in either mental health or alcohol/other drug use fields will strengthen the workforce's capacity to screen and assess the presence and severity of comorbidity. The formation of small assessment teams drawn from a multidisciplinary unit will enhance the ability to assess the presence and severity of comorbidity in larger settings.

Continuous professional development is required of all disciplines to ensure health workers engaging young people are aware of the latest approaches to assessing mental health and alcohol/other drug use. Online training modules provide an accessible and affordable form of training that can be readily

updated. The Royal Australian College of General Practitioners, for example, provides a range of online learning modules (along with face-to-face modules) with accreditation points towards the College's quality improvement and continuous professional development program.

## Joint treatment

Joint treatment of comorbid alcohol and other drug use and mental ill-health can take different forms. Treatment can be sequential (occurring one after the other), parallel (mental health and alcohol/drug treatment offered simultaneously by different systems), or integrated (coherent, joint treatment of comorbidity by one practitioner or team). An integrated approach to comorbidity treatment has been identified as best practice by heads of government and health departments in the development of an Australian approach to comorbidity guidelines. Available clinical research evidence also suggests that integrated treatments offer the best method of encouraging the client to better understand the links between their conditions, to make improvements across multiple domains, and is associated with higher levels of engagement and retention.

It was recommended in the *National Review of Mental Health Programmes and Services* (17.11) that:

“ Develop[ing] clear integrated care pathways for people with mental illness and a substance use disorder to bring together the too-often uncoordinated approach between mental health and substance use services.

**National Mental Health Commission 2014b, p. 106**

The form of treatment will inform the degree of workforce collaboration required to deliver treatment. Where new joint treatment systems are established, the model adopted will inform changes to health structures and the development of skills and knowledge within the workforce.

### Sequential treatment

Young people receive treatment for either a mental health disorder or alcohol and other drug use first. After successfully receiving treatment for one disorder, they are believed to be prepared to receive treatment for the other.

Limitations: Difficulties with this approach include delayed treatment, the fact that these conditions are often inter-related and should not be treated in isolation, and clients experience frustration at the to-and-fro between services and may drop out.

### Parallel treatment

Young people receive treatment for both their mental health and substance use disorder at the same time from different services, primarily in isolation from each other, without coordination between clinicians.

Limitations: Treatments are typically delivered in isolation and potentially with differing treatment philosophies. Service providers are unsure of how to effectively collaborate and communicate with each other to ensure effective intervention.

### Integrated treatment

A single treatment plan takes into account both the mental illness and alcohol/other drug use. There are two types of integrated treatment:

- Single-site, specialised concurrent treatment, where the same provider or inter-professional team offers treatment for both mental health and alcohol/other drug use.
- Multi-site integration, where a client receives intervention for their mental health problem and alcohol/other drug use at different sites, with a cohesive treatment approach.

Limitations: Multi-site integrated treatment approaches require collaboration and communication, with well-designed and implemented structures and administrative supports.

Source: Pathways to care for youth with concurrent mental health and substance use disorders (Watson et al. 2014)

## Economic evidence for joint treatment

Economic evaluations of integrated care for young people with co-occurring mental health and alcohol and other drug problems are rare. For this reason, judgements about the potential cost-effectiveness of service responses to the needs of this group need to be inferred from a wider evidence-base. In preparing this report, we chose to examine economic evaluations of:

- Treatments and services for co-occurring mental health and alcohol and other drug problems in the general population.
- Substance use treatments and services for young people.
- Integration between alcohol and other drugs services and other services (e.g., health and justice).

There is evidence or the indication of cost-effectiveness for joint treatment within the general population and for specific groups. One

US study (Clark et al. 1998) concluded that within adequately funded systems, the cost-effectiveness of assertive community treatment (ACT) and standard case management were not significantly different, although the cost-effectiveness of ACT may improve over time. For people with schizophrenia who had alcohol/other drug use problems, a combination of cognitive behavioural therapy (CBT) and a motivational intervention was shown to produce better outcomes for the same cost in a UK study (Haddock et al. 2003). A high probability of onsite group CBT being cost-effective was also found in a study of people with depression who are in residential alcohol/other drug use treatment in the US. The study concluded that although CBT was substantially more expensive it was cost-effective and produced better outcomes (Watkins et al. 2014). A further US study that examined comorbidity treatment among people with HIV found integrated care produced similar costs and outcomes as treatment as usual (Conover et al. 2009). For homeless

individuals, one US cost consequence analysis concluded that a modified therapeutic community approach had the potential to be cost-effective (French et al. 1999).

Economic evidence for joint treatment programs for young people was not identified. An indication of the likely cost-effectiveness can be drawn from studies of alcohol and other drug treatments and services for young people. For 12–18 year olds receiving outpatient care, one US study concluded that the most cost-effective approach was to provide a seven session model of motivational enhancement therapy (MET)/CBT but no assertive continuing care (Godley et al. 2010). Similarly, promising evidence of potential cost-effectiveness of a combined MET/CBT model was found for treating marijuana dependence in 18–25 year olds (Olmstead et al. 2007). For young people presenting to emergency departments, one US study indicated that a brief intervention delivered in the emergency department was highly cost-effective (Neighbors et al. 2010).

Wider evidence is available for the potential cost-effectiveness of providing brief or initial treatment for alcohol/other drug use at first contact with the health system. A number of European studies have reported on the likely cost-effectiveness of primary care delivered screening and brief interventions aimed at reducing alcohol consumption (Angus et al. 2014, Purshouse et al.). In the US benefits for patients and potential cost-effectiveness was found for integrating primary medical care with addiction treatment for patients with alcohol/other drug use related medical conditions (Weisner et al. 2001). The identification and transition of medically hospitalised patients into addiction treatment was also found to be potentially cost-effective (Pecoraro et al. 2012). The task of screening for alcohol use could be more cost-effective through the use of a carbohydrate-deficient transferring test (Kapoor et al. 2009).

In Australia, two NSW based studies concluded that a combination of screening and mailed personalised feedback for alcohol use was likely to be cost-effective for deployment in both primary care (Navarro et al. 2012) and hospital emergency departments (Havard et al. 2012). Previously a 2004 Australian modelling study had suggested that increasing rates of GP intervention in alcohol use might be more cost-effective than increasing rates of GP detection (Doran et al. 2004).

## What is required

Integrated treatment requires a lead clinician or treatment team that has the skills to cover the breadth of conditions and problems that may be present for a comorbid patient. Health professionals need to be supported with sufficient training and resources to perform this role. Previous research has found that while clinicians recognise comorbidity, they have little time or confidence to go beyond their expertise (Deady et al. 2013). A review of changes in Victoria concluded that the move to integrated treatment is dependent on inter-sectoral partnerships (Australian Health Associates 2011). These systemic challenges to the implementation of a joint treatment model for comorbid mental health and alcohol/other drug use remain.

The co-location of existing services provides the most immediate pathway for the establishment of joint treatment. While treatment may continue to be provided in a parallel model the foundation for increased coordination or future integration of services can be facilitated. The establishment of integrated treatment will in turn increase the available workforce capacity to enable further rollout of joint treatment services.

Emerging ehealth options provide another option for expanding the provision of joint treatment. Delegating aspects of screening, assessment and treatment for comorbidity to ehealth programs is a promising approach to extending the reach of a clinician, particularly when expertise or training in comorbidity management is not available or possible.

Broadening treatment beyond single disorders into a joint approach may be more appealing to people requiring treatment. Increased appeal has been attributed to reduced stigma, changes to treatment settings and the potential of reduced resistance to the need to treat alcohol/other drug use (Deady et al. 2013). Improving the attraction of treatment options increases the likelihood of people seeking treatment.

A lack of integration of alcohol and other drug services in primary health care presents a barrier to access for young people. Furthermore, specialist services lack public visibility, reducing the likelihood that a young person would locate a service themselves (Berends and Lubman 2013). Priority needs to be given to co-locating mental health and alcohol/other drug use services for young people. The Australian government

has announced the PHNs will be responsible for integrating mental health services for young people with broader youth services and specifically alcohol/other drug services.

headspace the National Youth Mental Health Foundation is structured around four pillars of support for young people. These are:

1. Mental health;
2. Physical health;
3. Alcohol and other drug use; and
4. Employment, education and training assistance.

Despite the intention to address the health and wellbeing of young people, headspace is popularly perceived and promoted as a mental health project. A review of the federally-funded headspace program (Rickwood 2014) found that only a small percentage (1.7%) of young people presented for alcohol and other drug use. The rates were higher for men aged 16–18 years (3.6%); 18–20 (4.8%) and 21–24 (4.3%). There is the potential to increase the delivery of services for alcohol and other drug use alongside mental health care for young people through headspace centres.

The headspace model co-locates a range of services with the intention of delivering comprehensive support for the health and wellbeing of young people. Greater effort should be made to ensure all headspace centres are providing alcohol/other drug use services as intended.

The indexation of federal funding for alcohol and other drug services provided through flexible funds was paused in the 2014–15 budget over the forward estimates period (Australian Government 2014). The funding pause is intended to achieve budget savings and efficiencies. The integration of mental health and alcohol/other drug provides an opportunity to achieve improved services for young people and service efficiencies.

Opportunity	Mechanism
<p>Shortfalls exist in the provision of mental health and alcohol and other drug services for young people. The co-location model used by headspace centres is suited to the implementation of early intervention joint treatment services for young people with mild to moderate comorbid mental ill-health and alcohol/other drug use.</p> <p>An evidenced-informed pilot in selected headspace centres should be trialled over three years. Setting a trial within headspace would help to minimise the encumbrance of 'old habits' and be staffed by health professionals with demonstrable or accredited training in both fields.</p>	<p>Primary Health Networks, headspace</p>

## Commonwealth leadership

The increase in screening for comorbidity and progress towards greater assessment has been the result of Commonwealth leadership and the development of guidelines over more than 15 years. At each step of the way, the need for improved service coordination has been identified. Implementing improvements will require the removal of existing system segregation and the associated practices and distribution of workforce skills this structure has created.

The National Comorbidity Project was jointly funded from the National Mental Health Strategy and the National Drug Strategy to identify effective treatments of comorbidity. The project, however, remained divided, with the Second National Mental Health Plan (1998–2003) and the National Drug Strategic Framework (1998–99 to 2002–03) developed independently.

This project was followed by the National Comorbidity Initiative 2004–2008. The Initiative was focused on improving service coordination and treatment outcomes for people with comorbid mental health and alcohol/other drug use disorders. During this period, COAG endorsed the National Action Plan for Mental Health 2006–2011. The plan identified alcohol/other drug use as a risk factor for the onset of youth mental ill-health and in preventing long-term recovery. Actions from the plan prioritised improving services for people with comorbid alcohol/other drug use and mental ill-health. This action plan advocated the funding of non-government drug and alcohol services and for peak bodies to identify 'workforce development, training opportunities and service improvement activities.' (Council of Australian Governments 2013).

A National Comorbidity Collaboration 2010–2011 focused on improving coordination, education, and service delivery for both alcohol/other drug use and mental health. The result was state and territory guidelines for comorbidity; an important first step. Comorbidity guidelines provide a clinical framework for the screening, assessment and management of people with co-occurring mental ill-health and alcohol/other drug use issues.

## Victoria

The Victorian government was an early leader in the development of comorbidity guidelines. The ongoing Victorian Dual Diagnosis Initiative, begun in 2001, aims to improve the response of health services to people with comorbid issues. Strategies arising from the initiative have included outreach teams, rural clinicians, education and training, and psychiatrist support (Deady et al. 2014). In addition, funding for dual diagnosis teams was provided, which included resources for youth-specific clinicians who focused on 12–18 year olds (Department of Human Services 2007).

A roadmap for new directions in alcohol and other drug use services in Victoria released in 2012, identified the need to better integrate, wherever possible, youth alcohol/other drug use treatment systems with mental health services (Department of Health 2012). In Victoria, people aged 18–22 years can use either youth or adult services.

## New South Wales

In 2014, NSW Health published a framework for alcohol/other drug use and young people that recognised the potential for comorbid mental health problems (Spooner 2014). Within NSW Health there is a combined Mental Health and Drug and Alcohol Office responsible for high-level coordination and direction of comorbid health policies and services. However, separate mental health and drug and alcohol programs still operate. Child and adolescent mental health services are provided for people aged up to 18 years through local area health district services. The particular specialist services provided for comorbidity vary across local health districts.

## Queensland

In Brisbane, mental health services for persons aged under 18 years are provided through the children's hospital. Services include specialist programs where alcohol/other drug use is present. An extended mental health treatment and rehabilitation program is also available, which uses multidisciplinary teams.

Regionally, the level of integration of mental health and alcohol/other drug use treatment is dependent on the services available in a particular region.

### Western Australia

In 2015 the Drug and Alcohol Office was amalgamated with the Mental Health Commission and a new ten year services plan was released. The plan has a focus on 'improved collaboration and, where relevant, integration' (Western Australian Mental Health Commission 2015). As part of the plan workforce development in support of integration will include the transfer of staff between services by 2017.

A free and confidential treatment and support program to young people with alcohol/other drug use issues in East Perth. The program is open to people aged 12 to 18 years, with some flexibility to extend up to 21 years of age. A range of staff are available, including doctors, nurses, clinical psychologists, drug and alcohol workers, and Aboriginal mentors, which permits a multidisciplinary approach to treatment that can include mental ill-health.

A number of youth mental health programs operate in WA to provide a range of specialist services. The Youth Axis program, which treats young people at high risk of developing psychosis and/or emerging borderline personality disorder includes treatment for alcohol/other drug use.

### South Australia

Specific mental health services for people aged 16–24 years are currently being established in SA (South Australia Health 2015). Services include assessment for alcohol/other drug use and referrals to other services or agencies as appropriate. Access is through local community mental health services.

Specialist services for people aged up to 18 years with significant and severe mental health issues are provided at a dedicated facility with a multidisciplinary approach. Disciplines include psychologists, social workers, speech pathologists, community psychiatric nurses, occupational therapists and teachers.

### Other states and territories

In Tasmania and the Australian Capital Territory, services for young people with mental health and alcohol/other drug use disorders are provided through a range of community health organisations. Services vary and individuals need to find their own way to a relevant service or be assisted by a GP, nurse or welfare officer.

In the ACT, there is a weekday dual diagnosis service that provides individual assessments between the hours of 10 am and 5 pm. The service also provides training in dual diagnosis for health professionals.

In the Northern Territory, a telephone counselling, information and referral service operates for people (or their family and friends) with alcohol/other drug use issues. A mental health crisis service is also available by phone.

Although clinical guidelines for comorbidity have been developed in many states, there has been less progress on the development of treatment services to adapt their service provision efforts to comply. The historical problems for people with comorbidity issues in accessing services persist (Banks and Henderson 2011). Renewed Commonwealth leadership is now required to expedite the development and delivery of joint treatment for comorbidity. The beginnings of this project are evident in some states and territories.

Increasing access to the internet over the last ten years provides more opportunities to deliver some services and treatment online. There is emerging research evidence for the benefits of ehealth programs to address mental health and alcohol/other drug use problems (including comorbidity). Existing guidelines and service planning efforts could benefit from considering how best to integrate these approaches into the clinical pathway for comorbidity.

## Workforce

Ensuring that young people with co-occurring mental ill-health and alcohol and other drug use receive the dual health care they need is reliant upon a workforce that can screen, assess and treat both aspects. Regardless of the point at which a young person connects with the health system, the required care must be available.

A switch to joint treatment requires structural and cultural changes to the health system and adjustments to staff practices and training. In their work across a range of professions and health settings, staff are directed by the structures in which they work. In Canada the importance of leadership from senior management and team leaders has been identified as integral to the establishment of competency to deliver joint treatment (Watson et al. 2014). This leadership is needed in Australia. The training staff receive is shaped by the demands of the structures in which they work, as is the training of future staff.

The transition to joint treatment will require broadening workforce capacity away from narrow specialisation. This change will be required in both mental health and alcohol/other drug services. The need to update knowledge, culture and practice within the existing mental health workforce has previously been identified (Freijser and Brooks 2013). For example, Australian research has shown that in the past GPs, psychologists and mental health professionals have not readily identified co-occurring alcohol use among young people with depression (Lubman et al. 2007). A lack of focus on mental health in alcohol/other drugs services has similarly been identified (National Mental Health Commission 2014b).

Opportunity	Mechanism
Training in the screening, assessment and initial treatment of mental health symptoms is required for all disciplines working in alcohol and other drug use services and vice versa for professionals working in mental health services. Specific training modules are required for primary health settings and specialist services. This training would provide accreditation for the provision of joint treatment services.	Australian Health Practitioner Regulation Agency, Professional Bodies

An analysis of new therapies in a youth mental health setting found that organisational factors were a larger factor than individual staff characteristics in the implementation of evidence-based therapies (Beidas et al. 2015). This finding indicates that implementation of joint treatment approaches to comorbidity should focus on organisation-level strategies. Such a focus will increase the sense of support and shared responsibility health professionals involved in the move to joint treatment will experience.

The National Drug and Alcohol Research Centre has identified a number of workforce-level steps required to improve the delivery of joint treatment in the NSW context (Deady et al. 2014). Briefly, the recommended steps are:

- Orient all staff entering employment to basic comorbidity practices, including the administration of screening tools, preliminary assessment and appropriate pathways for referral within and between services. Develop training/certification standards to provide evidence of achievement of these skills.
- Develop a hierarchy of knowledge and skill levels in their workforce, from baseline capability to advanced comorbidity practice delivering integrated treatment, psychosocial rehabilitation and recovery.
- Provide comorbidity training for senior staff to promote leadership and comorbidity awareness at high clinical and managerial levels.

- Provide training that takes account of the requirements of staff in different service settings (community, residential, acute inpatient/ withdrawal) working with different age groups (young people, adults, aged persons).
- Utilise existing workforce development activities and programs to enhance comorbidity competency.
- Create and/or strengthen career opportunities and academic recognition of education and training in both addiction medicine and mental health treatment.

**Training and education**

Training and education is an integral aspect of developing a workforce capable of providing joint treatment. A coordinated approach will be required to develop the requisite skills and knowledge among existing staff, new staff and students studying a wide range of health disciplines. Continual assessment of training needs and its provision will contribute to improved capacity and staff retention. In Canada, it is recommended that within a year of employment mental health clinicians and addictions counsellors working with young people should be competent to screen for comorbid alcohol/other drug use and mental ill-health (Watson et al. 2014).

Evidence-based toolkits are available [e.g., the Dual Diagnosis Capability in Addiction Treatment Toolkit (DDCAT) and a similar mental health kit (DDCMHT)] to guide existing mental health and alcohol/other drug services through the process of auditing and assessing capability in providing comorbidity treatment. These toolkits also provide low and no-cost options to enhance capability where benchmarks are not being met. The DDCAT/DDCMHT assesses seven domains of service provision (project structure, project milieu, assessment, treatment, staffing, training, continuity of care) according to a 5-point criteria (1=addiction/mental health capable only, 3=dual diagnosis capable, 5=dual diagnosis enhanced). These tools can also be used as quality improvement measures, and are sensitive to changes in capability over time and the life of a service.

Examples of specialised training centres include the Health Education and Training Institute (HETI) in NSW. Such organisations could be used to facilitate the development and implementation of training plans for mental health and alcohol/other drug use workers, preparing them for a role in a

joint treatment program or expansion of existing health services in one or other fields.

Ensuring a future workforce is competent to deliver joint treatment requires working with universities to include mental health and alcohol/ other drug use content in university courses. In Victoria, the need to develop curricula across a range of health disciplines has been identified (Department of Health 2012) and recognised in certain courses (e.g., University of Melbourne, Master of Mental Health Sciences). Such an approach recognises the importance of multidisciplinary teams in joint treatment.

Opportunity	Mechanism
<p>Progress towards the goal of joint treatment services has been led by the Council of Australian Governments (COAG) with the development of dual diagnosis guidelines for screening and assessment. Integrating treatment of mental ill-health and alcohol and other drug use is the next step. Continued leadership through COAG over the next three years would help achieve the development and implementation of a national framework for integrated treatment.</p>	<p>Council of Australian Governments</p>

## Funding

Alongside the need to establish joint treatment services is the persistent need to fund more positions. There is a pre-existing and long-standing shortage of mental health and alcohol/other drug professionals to meet the demands of services. This shortage extends to all disciplines involved in the provision of mental health and substance use services. The breadth of shortages has been identified once again in the *National Review of Mental Health Programmes and Services*. Funding shortfalls are not new. A commissioned review of the National Drug Strategy 2004–2009 identified that ‘staff shortages and turnover, and skill gaps’ had impeded the capacity to implement programs from the strategy (Siggins Miller 2009). To date, most outcome studies have only measured isolated aspects of treatment rather than the overall treatment (Lubman et al. 2014). There is also a lack of evidence on the extent of integration of alcohol/other drug services into the broader health and welfare system.

The historical divide in the delivery of alcohol/other drug use services and mental health services has been maintained by separate funding streams. Federal funding of comorbidity programs have been delivered through the COAG Mental Health Improved Services Initiative. The funds have been provided to alcohol/other drug services to build capacity to manage and treat people with co-occurring alcohol/other drug use and mental illness.

The *National Review of Mental Health Programmes and Services* has identified the separation of funding streams and policy development as a contributing to the exclusion of comorbid patients from services for both alcohol/other drug use and mental health (National Mental Health Commission 2014b).

The historical separation of services and funding needs to be addressed if joint treatment is to be successfully coordinated and delivered. Increasing funding to develop workforce capacity with the necessary skills to screen and assess for comorbid features is the first step in developing a joint treatment workforce. However, in the Australian government’s response to the *Review of Mental Health Programmes and Services* it was stated that there would be no additional funding for mental health services. Instead, funding is to be pooled and PHNs will be responsible for commissioning services. The potential for savings and improved efficiency through the integration of services provides an incentive for PHNs to be proactive in implementing service integration.

The integration of services may take on different forms. In some instances integration may be achieved through the co-location of alcohol/other drug services with mental health services, for example within a headspace centre. Another approach might see the employment of mental health workers within an existing alcohol/other drug use service and vice versa.

It is necessary that services include a focus and capacity to engage and deliver services for young people.

**IMPLICATIONS**

Increased screening of comorbidity and to some extent assessment in the mental health and alcohol/other drug use fields has been achieved through the development and implementation of dual diagnostic guidelines.

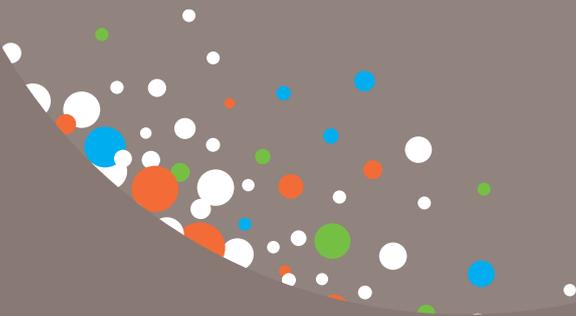
Leadership, system adaptation and workforce capacity is now required to move towards the implementation of joint treatment.

Audit tools exist for assessing system readiness (and barriers) for transition to integrated treatment and models for integrated treatment have been developed.

An expansion in staff knowledge and collaboration is required along with continual education for all disciplines working with young people presenting with mental health and/or alcohol and other drug use.

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The evidence-base suggests that there may be scope to simultaneously improve the quality and the cost-effectiveness of healthcare services provided to young people.



# Developing a joint treatment model

The development of an integrated joint treatment model for comorbidity needs to be based on evidence of what works. Evidenced-based treatments then need to be applied in a clinical setting, along with strategies to evaluate the outcomes of these efforts. Where a program is successfully treating young people for mental ill-health or alcohol/other drug use, these programs need to be examined for possible extension to the other domain. Similarly, successful adult treatment programs for comorbidity need to be evaluated for potential modification to enable treatment of people aged 12–25 years.

## Three levels of evidence

A three-tier hierarchy of available evidence provides a scaling of existing treatment programs and recognition of the extent to which a program might contribute to the development of a joint treatment model for comorbid young people. The hierarchy is:

1. Evaluated outcomes (pilots; research)
2. Consensus (guidance and practice are based on expert consensus, clinical experience)
3. Work to be done.

In analysing available evidence, the level of contribution to development needs to be identified.

The stages of treatment (prevention, early intervention and treatment) also need consideration in the development of a joint treatment model for comorbidity. These stages

are not independent and a joint treatment model will include a degree of overlap. The Australian government has set out a stepped care model that incorporates these stages of treatment. The intention of the stepped care model is to ensure people receive the right amount of care (Australian Government 2015). For example, awareness-raising and education, which form part of a prevention program, will also encourage young people to access care if they suspect there is a problem, thereby providing an opportunity for early intervention. Irrespective of where a young person turns for help there should be a capacity to screen and assess both mental ill-health and alcohol/other drug use and an ability to initiate or refer a person for appropriate treatment for both health issues where present.

Economic evaluations of initiatives to strengthen the capacity of health services to identify and proactively respond to alcohol and other drug problems have found a range of intervention strategies to be cost-effective. For example, a 2004 case study investigated GP detection of at-risk drinking and the rates at which an intervention was offered. The study found that GP interventions are cost-effective and that increased intervention rates would, therefore, be anticipated to achieve greater returns on resource use (Doran et al. 2004). There is also some evidence of the potential cost-effectiveness of substance misuse prevention targeted at adolescents (Guyl et al. 2011). What is needed is analysis of such programs for young people with a mental illness.

The evidence-base suggests that there may be scope to simultaneously improve the quality and the cost-effectiveness of healthcare services

provided to young people through funding interventions and redesigning some provider incentives in order to achieve earlier identification and treatment of problematic alcohol and other drug use.

## Prevention

Prevention does not simply mean stopping an illness or disorder from occurring; it also means preventing such an illness going unnoticed and manifesting as something more serious before treatment is accessed or provided. In the context of comorbidity, it can also mean preventing the development of subsequent alcohol/other drug use disorders in young people with a mental illness. Awareness and education programs form a large part of prevention programs. Such programs aim to increase the general understanding and ability to recognise a health issue among young people, their families and the wider population. Programs that support self-engagement among young people and peer-to-peer awareness of behaviour support this prevention stage. eHealth programs are another important tool with potential application for young people.

Public awareness campaigns, fact sheets, online resources and school programs all form part of the prevention stage of a joint treatment program. A number of organisations (e.g., ReachOut, BeyondBlue, Black Dog, the National Drug and Alcohol Research Centre, and headspace) provide some or all of these prevention tools.

Professionals in contact with young people, such as teachers, need training and support in recognising the signs of co-occurring mental ill-health and alcohol/other drug use. Schools are an ideal context for the delivery of preventive interventions for the majority of young people (12–18 years). For example, a one-day training program for teachers and other school staff in Canada significantly improved a teacher's ability to identify students at risk and connecting them with appropriate services (Wei and Kutcher 2014). An awareness of behavioural changes in a person or particular symptoms among parents and education and health professionals facilitates the prevention stage.

## New technologies

New technologies, such as smartphones and online services are being explored as a means to maintain and expand health services for young

people. The high uptake of new technologies among young people supports the potential of new ways of connecting people with services. However, the quality, effectiveness and evidence for the application of new technologies are not equal. The *National Review of Mental Health Programmes and Services* recommended that cost-effective applications that "build sustained self-help, link to biometric monitoring and provide direct clinical support strategies or enhance the effectiveness of local services" is where the focus on implementation should be focused.

The Australian government has adopted the use of digital technology as the "gateway" to mental health services. The Australian government will need to consider the evidence-base of existing and emerging products and services in the development of the proposed digital gateway.

The 'Climate Schools' online prevention course for high schools students targets harmful alcohol and other drug use. The program has been trialled in 150 schools with over 140,000 students in Australia and the UK. Results have shown Climate Schools to be effective in reducing alcohol use and related harms, cannabis use, intentions to use alcohol, psychological distress and truancy rates, while significantly increasing knowledge about alcohol and other drugs and self-efficacy to resist peer pressure (Vogl et al. 2014, Newton et al. 2009b, Newton et al. 2009a, Newton et al. 2014, Newton et al. 2010, Champion In press). The success of this program is now being tested for comorbid anxiety and depression and alcohol/other drug use in young people.

A National Drugs Campaign mobile application ('app') from the Department of Health provides an example of how new technologies are being used to provide accessible services for young people. The app uses location data to provide information about nearby support services, demonstrating the potential of mobile technology.

The availability of apps targeting mental health, wellbeing or alcohol use has increased rapidly in the last five years. Young people are the largest consumers of these programs, which cover the range of screening, assessment, monitoring and intervening for a range of mental health and alcohol/other drug use issues. Importantly, however, very few of these apps have been systematically evaluated for effectiveness in research trials. Experts have suggested that the quality of mental health apps can be measured on four domains (Hides 2014). These qualities are:

- Engagement: entertainment, interest, customisation, interactivity, appropriateness for target group.
- Functionality: performance, ease of use, navigation, gestural design.
- Aesthetics: layout, graphics, visual appeal.
- Information: accuracy of app description, goals, quality and quantity of information, visual information, credibility, evidence-base.

It has been suggested that a clinician or primary health professional reads descriptions of apps, users' comments and any available evidence-base for apps being considered for use by a patient, and that furthermore, potential apps should be trialled for at least ten minutes to judge their suitability. The practicality of this requirement is doubtful, and a system of accreditation for reference by primary and specialist health professionals would be more efficient and consistent.

The rise in mental health and alcohol/other drug platforms using new technologies has prompted the development of review sites. The National Institute for Mental Health Research at the Australian National University has developed the Beacon website ([beacon.anu.edu.au](http://beacon.anu.edu.au)). The website houses expert reviews and ratings of websites and mobile applications for a range of health issues. The website includes a rating system that indicates the level of evidence available for a website or application, including where something has been found not to work.

An engagement project for GPs and allied health practitioners working with Aboriginal and Torres Strait Islander people is also promoting the benefits of new technologies. The eMHPrac project ([emhprac.org.au](http://emhprac.org.au)) aims to raise awareness and knowledge of available mental health services. The project is working on building referral pathways between primary health care and mental health programs.

The full potential of new technologies is still emerging. For example, a review of online services providing information about mental health and available services did not find an increase in help-seeking by young people (Kauer et al. 2014). Youth-focused online sites need to provide information about self-help resources and connect people to local services, provide peer and professional support and protect the privacy of the user (Wetterlin et al. 2014).

Evidence for the impact of online services and health outcomes needs to be collected. A clear strategy for embedding evidence-based ehealth programs into mental health and alcohol/other drug treatment services needs to be developed and evaluated. An organisation's capacity to integrate ehealth into service provision needs to be considered, in the same way as its comorbidity capacity. The development of audit and enhancement tools, like the DDCAT/DDCMHT for comorbidity, should be undertaken for ehealth, in order to inform the development and refinement of online health services for comorbid young people. A robust evaluation tool for measuring and assessing trials of new technologies needs to be developed.

Independent evaluation of new technologies is required to:

- Measure the health outcomes achieved;
- Identify any unintended negative outcomes; and
- Determine the service gap being filled or compare the new product with other products already being used.

A system of accreditation is required to:

- Assist health professionals in selecting and recommending a program; and
- Provide relevant information for monitoring treatment.

Opportunity	Mechanism
eHealth products and services utilising mobile and online platforms are delivering new opportunities for efficiency and improved engagement with young people. This possibility is to be harnessed by the Australian government through a proposed digital gateway to mental health services. The speed with which new programs can be developed demands that measurable outcomes remain a focus. The use of new technologies to deliver ehealth requires a system of evaluation and accreditation.	Orygen, The National Centre of Excellence in Youth Mental Health, National Drug and Alcohol Research Centre

## Reaching young people

The success of prevention and awareness programs is dependent on reaching young people. If young people can be reached and engaged, they are often open to behavioural changes.

A 2011 review of programs to raise awareness of mental ill-health among young people found that direct contact with people with a mental illness was the most successful model. A lower effect was achieved in the use of video-based contact, such as documentary films. There is strong evidence that education can increase knowledge of health problems, but there was some evidence of a drop-off in knowledge over time (Yamaguchi et al. 2011).

The role of alcohol/other drug use in self-managing mental illness is also informative. While 14.7% of young people reported that they stopped using alcohol/other drugs in an attempt to improve their mental health, almost a quarter (24.7%) of young people used alcohol/other drugs to manage their illness (Australian Bureau of Statistics 2010). This finding underlines the importance of treating alcohol/other drug use in young people with a mental illness. That some young people recognise a possible link with alcohol/other drug use, but that others identified a solution indicates both opportunities and challenges for prevention and early intervention of comorbidity.

The multimedia awareness program 'No Smokes', designed to reduce tobacco smoking among Aboriginal and Torres Strait Islander young people, has been found to have some positive effect. The program incorporated animations, games, video clips and music as well as study guides for teachers and guides for health workers. The program was found to have some effect on opinions and attitudes as well as a desire to reduce or quit smoking (Bell 2012).

## Early intervention

In the past decade, the health applications of early intervention have moved from promising to practice readiness. Evidence for early intervention in treating mental ill-health and alcohol/other drug use has been collected. Although there is less evidence for specific examples treating comorbidity in young people, the available evidence indicates the potential for early intervention for this age group. The role for early

intervention programs for young people has been promoted by the National Mental Health Commission. The proven potential is ready to be tested in the development and rollout of joint treatment programs for comorbidity.

The successful delivery of early intervention is reliant on capturing the attention of young people, or equipping people around them with the necessary knowledge and skills to recognise the signs of mental ill-health and alcohol/other drug use. For young people in contact with the health system, early intervention requires that professionals screen and assess a patient's symptoms across a range of domains, regardless of whether comorbidity is suspected. The capacity to provide screening and assessment to young people through a range of services that may be accessed by young people has been identified as central to the treatment of comorbidity in Canada (Watson et al. 2014). The same capacity is required in Australia.

## Evidence

In Australia, much work has been completed in preparing clinical and policy guidelines for diagnosing comorbidity of mental ill-health and alcohol/other drug use. The big policy and practice challenge now is developing treatment models for people that build upon these guidelines and the growing evidence-base in this area. The National Mental Health Commission recognises that although there is international evidence for the translation of comorbidity treatment approaches into clinical settings, they have not been widely tested in Australia (National Mental Health Commission 2014a). An Australian review by the Centre of Research Excellence in Mental Health and Substance Use identified limitations in existing comorbidity research, but found treating both disorders was associated with better health outcomes, and prevented people missing out on treatment altogether (Deady et al. 2013).

The evidence for best practice in early intervention in comorbidity is still coming in. While most early interventions have tended to have a single focus, there is emerging evidence for comorbid programs that show promise (Deady et al. 2013). The focus of early interventions has leaned towards the treatment of licit drugs, because of higher barriers to accessing programs treating illicit drug use by young people. Users of illicit drugs are more stigmatised, have lower rates of service access and early use is not easy to identify (Deady et al.

2013). There is also an imbalance between the evidence for treatment that works and the service implementation of these treatments.

Despite national and state guidelines for dual diagnosis, in practice very little uptake or implementation of evidenced-based treatments has occurred. The lack of political leadership in ‘walking the talk’ means that training in evidence-based therapies for comorbidity is not coordinated (Weissman 2015), highlighting the need for unified high-level support for systematic reform.

Opportunity	Mechanism
<p>Gaps remain in the applied evidence for the treatment of alcohol and other drug use among young people with a mental illness. A research agenda for increasing the evidence-base for joint treatment of mental ill-health and alcohol and other drug use in young people would provide a sound base for service development and monitoring.</p>	<p>Orygen, The National Centre of Excellence in Youth Mental Health, National Drug and Alcohol Research Centre, National Health and Medical Research Council</p>

Orygen, The National Centre of Excellence in Youth Mental Health is presently developing a National Youth Mental Health Research Framework that will provide a foundation for a targeted research framework for the early intervention and treatment of co-occurring alcohol and other drug use and mental ill-health at all levels of illness.

**Young people**

The promise of online and mobile platforms is being explored in Australia by a number of researchers working in the fields of youth mental health and alcohol/other drug use. The Centre of Research Excellence in Mental Health and Substance Use is exploring the potential of online services to provide effective early intervention for young people with alcohol/other drug use issues and mental ill-health. One such example is the iTreAD Project.

**iTreAD**

iTreAD is a randomised controlled trial of treatment for people aged 18–30 years who have current depressive symptoms

and engage in regular binge drinking. Three stepped interventions are being compared to measure drinking and depression outcomes. The interventions are: (1) monthly online self-assessments; (2) self-assessments plus four weeks of online CBT; and (3) self-assessment, online CBT and moderated social networking.

Interestingly, the trial was designed with several points of ‘real time’ clinical contact with participants (via phone) as this was an important feature for older people in earlier trials, where people were reluctant to engage with the online CBT without a clear pathway to accessing ‘real time’ input from a therapist. For the 18–30 age group, the phone-based contact requirement was actually found to be a barrier to participation. Switching to a fully automated online program has seen significantly better retention and participation by the young people engaged in the trial.

The social media component is being accessed at least several times a week—more than was expected. Comments posted by participants reflect their comfort with this type of engagement, more so than talking with a therapist (even when follow-up is offered via phone). This early evidence suggests that social media platforms may support young people in overcoming a barrier to treatment engagement potentially typical of this population.

“ I can't imagine the words leaving my mouth over the phone...even if it's not replied to straight away, my side is out there...I just struggle to talk about it...”

Male, aged 25

A New Zealand study found that providing free counselling to young people assessed to have mild to moderate mental health concerns appeared to be effective. Particular effectiveness was found among Maori young people and those from a lower socioeconomic group (Clark et al. 2014). Expanding such a program to include a shared focus on alcohol/other drug use provides a ready opportunity to test an already successful project for its suitability for early interventions among comorbid young people.

Addressing bullying behaviour has also been identified as an area in which early interventions may reduce the onset of alcohol/other drug use and mental ill-health among both victims and perpetrators. Identifying young people involved

in bullying provides a screening prompt for health issues and discernment of intervention options (Kelly et al. 2015).

### Aboriginal and Torres Strait Islander young people

The provision of early interventions for Aboriginal and Torres Strait Islander population groups may require some adaptation of programs found to work for a general population. Reflecting this need, culturally-specific screening tools have been developed, including tools developed for Aboriginal and Torres Strait Islander young people.

One of these tools, Strong Souls, was trialled alongside existing screening tools. The Strong Souls tool was validated for the screening of depression and anxiety symptoms and alcohol/other drug use in young people (Thomas et al. 2010). Another screening tool is the Westerman Aboriginal Symptoms Checklist-Youth (WASC-Y), which was developed for 13-17 year olds. This tool is gender-specific and incorporates a cultural resilience measure alongside depression, anxiety, alcohol/other drug use and suicidal behaviour. The WASC-Y has been validated in its application alongside a general screening tool for assessing young people's health (Stathisa et al. 2012).

The potential of online mental health services are also being explored for Aboriginal and Torres Strait Islander populations with poor service access. An Australia-wide eMental Health in Practice project has been funded by the Commonwealth to roll out training and online and mobile tools for mental health, alcohol/other drug use, and physical illness. The project, which concludes in 2016, includes components for Aboriginal and Torres Strait Islander populations.

Opportunity	Mechanism
The outcomes, efficacy and cost efficiency of existing and piloted early intervention programs needs to be measured. Comparable measurements of early interventions delivered through online and mobile platforms are also required. A comparative analysis of face-to-face and technology based early interventions should be undertaken over the next three years.	Orygen, The National Centre of Excellence in Youth Mental Health, National Health and Medical Research Council

## Treatment

In the US it has been estimated that only 7% of people with comorbid illness (of all ages) receive treatment for both disorders (Deady et al. 2013). No equivalent Australian data exists. Despite the lack of evidence examining integrated versus non-integrated treatments, the promise of joint treatment for comorbidity is underpinned by evidence that people are open to being treated for multiple health problems at the same time (Deady et al. 2013). Joint treatment of young people experiencing advanced comorbidity, or the existence of symptoms of one illness alongside a severe disorder is required if treatment is to have long-term benefits.

Treatment of alcohol and other drug use should not require abstinence. If young people who relapse or continue some level of use are turned away from services the likelihood of going untreated increases. Harm reduction should be a feature of treatment.

### Evidence

Treatment options for alcohol and other drug use in young people with a mental illness can be divided into two categories: psychosocial and pharmacological. Available evidence on the treatment of comorbidity is largely limited to alcohol and depression; and cannabis and psychosis.

### Psychosocial

Psychosocial therapies focus on treating the ways people react to, think about and perceive things. This treatment approach is particularly relevant to depression and anxiety disorders, but some treatments are also applicable to psychotic disorders (e.g., bipolar disorder and schizophrenia). Therapies include:

- CBT in which a therapist works with a person to develop more helpful ways of thinking and acting.
- Interpersonal psychotherapy examines how relationships and interactions affect a person's own thoughts and behaviours.
- Dialectical behaviour therapy is used to help people with borderline personality disorder to better manage their emotions and responses.

Peer-orientated group interventions have been found to be effective for adults, however, evidence for other forms of intervention is inconsistent (Drake et al. 2007) or the evidence is not yet

sufficient (Hesse 2009). A recent review of psychosocial treatments found that no single treatment was clearly better than another in reducing alcohol/other drug use or serious mental illnesses (Hunt Glenn et al. 2013). Although there has been rapid development in psychosocial interventions for comorbid patients, the evidence is mixed.

In a series of systematic reviews of the published evidence for psychological interventions for comorbidity, seven studies were examining alcohol misuse interventions in psychotic populations, (Baker et al. 2012a); a further eight were identified for alcohol misuse treatments in depression and anxiety (Baker et al. 2012c) and eight related to cannabis use treatments in psychotic populations (Baker et al. 2012b). The convergence of evidence arising from these reviews suggests that for alcohol and mental ill-health, comprehensive assessment across alcohol and mental health domains, followed by a single session of CBT/MI and initial goal setting for alcohol use is associated with clinically meaningful changes in alcohol use by people with psychosis or depression. Longer interventions (e.g., CBT for alcohol use across ten sessions), were associated with similar levels of improvement as the single session, but had an additional impact on functioning and depression among people with alcohol, psychosis or depression-related comorbidity. Importantly, alcohol-focused interventions had little impact on anxiety, particularly social phobia. Unlike alcohol, brief (one session) cannabis-focused psychological treatments in psychotic populations are not as effective as longer (ten-session) treatments, which are associated with significantly greater reductions in cannabis use (Baker et al. 2012b). Generally, the available evidence does not test joint treatment programs for comorbidity, especially integrated psychological interventions addressing multiple comorbid issues, and very little evidence currently exists to suggest what works best for treating comorbidity in young people.

Researchers in Australia have developed the first evidence-based internet-delivered CBT treatment for comorbid affective and addictive disorders (the SHADE program) that provides integrated psychological treatment for comorbidity. The SHADE program has been evaluated relative to extended face-to-face traditional CBT in two randomised controlled trials. These trials indicate that the ten-session integrated SHADE program (with 10–15 minutes weekly therapist

support) is associated with similar and significant improvements in depression and reductions in alcohol use and cannabis use at 12, 24, and 36-month follow-ups as a ten-session therapist-delivered integrated CBT (Kay-Lambkin et al. 2009, Kay-Lambkin et al. 2011). Important results were obtained for binge drinking patterns over 36 months following SHADE treatment. SHADE participants reported the largest reduction in frequency of binge drinking of all the treatment groups, with the largest effect observed among young people in the sample (35 years and under) for whom binge drinking is a major concern. Methamphetamine use reduced by at least 80% over the treatment period, with both face-to-face and SHADE treatments producing equal improvements (Kay-Lambkin 2009). There was also a significant advantage of SHADE for cannabis use over time, with SHADE participants reporting twice the reduction in cannabis use as the face-to-face condition (Kay-Lambkin et al. 2009).

### Pharmacological

Pharmacological treatments are used in more advanced or severe cases of mental illness. Medications include antidepressants, antipsychotics and mood stabilisers. There is a large body of evidence for the use of medication in treating mental disorders. Measuring the suitability or secondary benefits of medications for dual diagnosis is a more recent area of study.

The evidence for treating comorbidity is largely drawn from single treatments in which secondary effects are beginning to be measured. For example, treatments for alcohol use in the general population are also being prescribed for people with a mental illness. Antidepressants appear to reduce alcohol use and depressive symptoms in comorbid adults (Drake et al. 2007, Pettinati et al. 2010), however, the evidence is not uniform, with other studies finding modest or lower effects (Nunes and Levin 2004). There is also some evidence that antipsychotics may reduce alcohol/other drug use (Drake et al. 2007). While there is some evidence for joint pharmacotherapy treatments, there is less evidence of joint treatments for young people.

A study combining psychological therapies and medication (or placebo) for treating 15–20 year olds for depression and alcohol use produced improvements in both groups (Cornelius et al. 2009). The design of an integrated model for treating comorbidity in young people needs to reflect the context and experience of this group. Adult programs cannot simply be replicated for young people, who have different patterns of utilisation, adherence and preferences for treatments (Deady et al. 2013).

Consensus on the need for joint intervention for comorbidity has seen the development of guidelines for joint treatment. In many cases the development of guidelines are an expansion of alcohol/other drug use treatments to include mental ill-health. For example, programs that use personality traits to treat alcohol/other drug use have been identified as candidates for comorbidity treatment, as the same traits are evident in people with a mental disorder (Deady et al. 2013).

The need for further evidence is reliant upon trials and pilot studies of joint treatment models, with a clear link to effectiveness in clinical service settings. In a ‘chicken and egg’ scenario, such trials are also reliant on structural changes within systems that deliver treatment for mental illness and alcohol/other drug use.

The use of pharmacological treatments can also have broader health impacts for young people. For example, psychotropic medication can result in rapid weight gain or sexual dysfunction. For further discussion of the potential health effects of treatment see the Orygen, The National Centre of Excellence in Youth Mental Health policy paper: *Physical challenge: wider health impacts for young people with a mental illness*.

### Aboriginal and Torres Strait Islander people

There are particular cultural and service level challenges that need to be considered in developing a joint treatment for co-occurring mental ill-health and alcohol/other drug use among young Aboriginal and Torres Strait Islander people. Limited access to treatment in rural and remote settings is an issue for Aboriginal and Torres Strait Islanders (and other population groups). The importance of a holistic approach to treatment has been emphasised (Nagel et al. 2011).

A review of interventions for the social and emotional wellbeing found that despite much having been written on the topic there were few evaluations (Day and Francisco 2013).

“ [O]nly a small number of program evaluations have been published that have involved either Indigenous participants or Indigenous communities.

Day and Francisco 2013, p. 353

There is some evidence for the treatment of alcohol/other drug use and mental ill-health in Aboriginal and Torres Strait Islander populations. Drug and alcohol use has been successfully addressed through a range of approaches including restrictions to access, early intervention, alternatives to drugs and alcohol and harm reduction strategies. Research has shown that among Aboriginal and Torres Strait Islander people with a mental illness in remote communities, motivational care planning has achieved improved mental health and decreased alcohol/other drug dependence (Australian Institute of Health and Welfare 2015c).

As part of the ‘Closing the Gap’ initiative, the AIHW has summarised the successful mental health programs that have been implemented for Aboriginal and Torres Strait Islander people (Australian Institute of Health and Welfare 2015c). The reported programs were:

- Motivational care planning improved the mental health and decreased the alcohol/other drug dependence in remote communities.
- A culturally appropriate model using hip hop programs engaged Aboriginal and Torres Strait Islander young people and increased self-esteem, preparedness to talk to family and friends about their own mental health issues and their ability to identify signs of depression in others.
- Adaptations of effective mainstream programs—the Triple P-Positive Parenting Program, the Resourceful Adolescent Program and MindMatters—were considered culturally competent and achieved positive outcomes with Aboriginal and Torres Strait Islanders.

**IMPLICATIONS**

Evidenced-based programs for treating young people with a mental illness and alcohol and other drug use exist. These programs need to be implemented to realise potential health and social benefits.

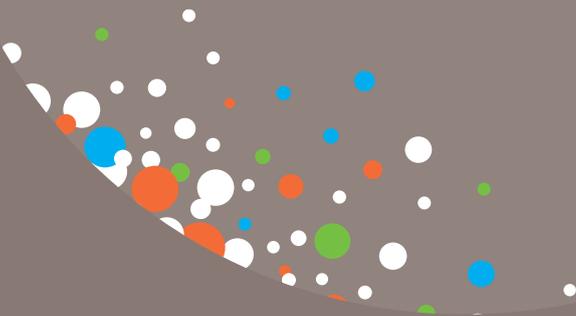
The implementation of programs will be made easier with the integration or co-location of services.

Where gaps exist for specific mental illnesses or particular drugs more research is needed.

Mobile and online programs provide new opportunities for treating comorbidity, including early interventions to minimise the impact of mental illness and alcohol/drug use on the lives of young people and their future.

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Research evidence exists for joint treatment programs that work. Trials of these programs will lead the integration of services.



# An integrated approach

An integrated approach to joint treatment recognises the interdependent relationship between mental illness and alcohol/other drug use for many young people, and the importance of addressing and treating both aspects. Often young people will not make the links between comorbid conditions on their own. Making the connection in service delivery at all stages will improve the outcomes that can be achieved through prevention, early intervention and treatment. The variation in severity of illness, timing and order of onset, and historical divides in treatment necessitate a range of policies that provide care at different stages of an illness to maximise the potential benefits and outcomes for young people, their community and society.

The policies outlined below do not make specific reference to the requirements of Aboriginal and Torres Strait Islander people, disadvantaged, difficult-to-reach young people, or those from a culturally diverse background. Where relevant, it is assumed that consultation with community leaders, young people, experienced health workers, and other stakeholders will be undertaken in developing and implementing policies.

## The divide

An historical divide between services for mental health and alcohol and other drug use continues to be a barrier to access, despite the progress in establishing improved screening through dual diagnosis guidelines and tools. The ongoing divide is in part maintained by the continuation of separate funding of services and entrenched systemic and professional perspectives and practices in parts of both sectors. The Australian government has made integration of services a key feature of the new Primary Health

Networks. Achieving an integrated approach for the treatment of alcohol/other drug use for young people with a mental illness will require organisational change and a willingness to work together.

The lack of joint treatment services increases the range of services that young people with co-occurring mental ill-health and alcohol/other drug use are required to access. A Joint Dual Diagnosis Treatment Plan would facilitate the government's objective to integrate these services and help ensure that young people receive treatment for both health issues.

## Joining the pieces

While co-location of services is a medium-term goal, improved integration of existing services is an achievable short-term goal towards this objective. A number of steps will contribute to this integration, including:

- The training of mental health nurses and alcohol/other drug counsellors in assessment of symptoms from respective fields.
- Audits of existing structural obstacles.
- Curating clinical access for young people such as, extended hours, appointment periods for young people only and discreet, confidential engagement by staff.

The evidence exists for joint treatment programs that work. Trials of these programs will lead the integration of services. eHealth services are expanding the opportunities for joint treatment. A coordinated approach to implementing and further developing integrated programs is required to maintain progress towards the goal of joint treatment and improved health and life outcomes for young people.

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