

# Evidence Compass



## Summary Report

What is the prevalence rate for substance use disorder in contemporary ex-serving veterans?

Summary of the Rapid Evidence Assessment

August 2013



Australian Government  
Department of Veterans' Affairs

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## Executive Summary

- Contemporary conflicts, such as the Iraq/Afghanistan wars which have been in operation for over a decade, expose veterans to trauma, injury and stress. Substance use disorder is one of the psychiatric disorders that veterans may experience after leaving military service.
- The aim of this rapid evidence assessment was to provide an assessment of the current prevalence rate of substance use disorder in contemporary ex-serving veterans. Literature searches were conducted to collect studies published from 1999-2013 that investigated substance use disorder in veterans, with a focus on contemporary ex-serving veterans.
- Disorders of interest included nicotine use disorder, alcohol use disorder (including alcohol abuse disorder and alcohol dependence disorder), drug use disorder (including drug abuse disorder and drug dependence disorders) and substance use (alcohol or drug abuse or dependence disorder, or alcohol *and* drug abuse disorder or dependence disorder).
- Studies were excluded if the sample population included veterans with a diagnosed physical or mental health disorders or non-contemporary veterans. Studies were assessed for quality of methodology, risk of bias, quantity of evidence, and generalisability to the population of interest, and then collated for each substance use disorder to determine an overall ranking of certainty surrounding the purported prevalence rate.
- Rankings were: 'High certainty' –high degree of certainty that the findings from the studies report a prevalence rate the represents the actual prevalence rate of the target population; 'Moderate certainty' -moderate degree of certainty that the findings from the studies report a prevalence rate the represents the actual prevalence rate of the target population; 'Low certainty' – low degree of certainty that the findings from the studies report a prevalence rate the represents the actual prevalence rate of the target population.
- Fifteen studies met the inclusion criteria for review, which included investigation of veterans and substance use disorder. All of the studies originated from the USA.
- The results showed that 15 per cent of US contemporary veterans had nicotine use disorder. This could be generalised to Australian contemporary ex-serving veterans with moderate certainty.
- Seven per cent of US contemporary veterans had alcohol use disorder, which can be generalised to Australian contemporary ex-serving veterans with moderate certainty.
- Three per cent of US contemporary veterans had drug use disorder, which can be generalised to Australian contemporary ex-serving veterans with moderate certainty.
- Between 7-11 per cent of US contemporary veterans had a substance use disorder, which can be generalised to Australian contemporary ex-serving veterans with moderate certainty.

- Rates are higher in men and appear to have increased over the past decade.
- Studies are needed on Australian veteran populations and in high-risk veteran populations, such as those with physical and psychological health disorders.
- Substance use and misuse rates are typically higher than diagnosed substance use disorder rates, so capturing these behaviours in other research is essential to understanding the scope of these problems in a population.

## Background

This report summarises the rapid evidence assessment conducted on the prevalence rate of substance use disorders in contemporary ex-serving veterans. A substance use disorder is defined as a maladaptive substance use behaviour, with physical symptoms such as withdrawal and craving, negative personal and interpersonal consequences as a result of using the substance, and an inability to cut back or control the use of the substance<sup>1</sup>. With increasing numbers of military personnel returning from the recent Iraq and Afghanistan conflicts and finishing military service, research has addressed the psychological aftermath of the stress experienced during deployment. Evidence shows that contemporary veterans are frequently presenting with psychiatric and physical disorders, such as posttraumatic stress disorder (PTSD), traumatic brain injury (TBI), mood and anxiety disorders, physical injuries, and chronic pain. Additionally, for those psychologically and physically un-afflicted veterans, transitioning to life post-deployment may be stressful, and subsequently, there is concern as to how all veterans will adjust to life after military service.<sup>2</sup> Substance use disorders can co-occur alongside any of the problems veterans may face after leaving military service. For example, in Australian Vietnam veterans, the lifetime prevalence rates were 41 per cent for alcohol use disorders and 3 per cent for substance use disorders.<sup>3</sup> Therefore, prevalence rates are of significant interest in order to understand the scope of this problem and the potential impact on this population.

The aim of this review was to conduct a rapid assessment of the evidence indicating the prevalence rates of substance use disorders in contemporary ex-serving veterans. Nicotine, alcohol, and other substances (illicit and prescription) were all reviewed. In total, 15 papers were included for review. The overall quality of the papers was good, however, all studies used non-Australian populations or veteran populations that did not accurately capture the target population of contemporary ex-serving veterans, meaning the generalisability and applicability of the subsequent prevalence rates must be interpreted with caution.

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## Assessment of the evidence

There were three key components that contributed to the overall evaluation of the evidence.

These components were:

- the evidence base which incorporated the **quality of the evidence** (e.g., representativeness of the sample, clear definitions of population and disorder/topic of interest, using validated tools). The appropriateness of the **data source** (primary or secondary) for the phenomenology of interest, and subsequent risk of bias was also assessed, as was the **quantity of evidence** (such as the number of studies and the size of the samples)
- the **generalisability** of the body of evidence to the target population (i.e., Australian contemporary ex-serving veterans).

The literature search was restricted to 1999-2013 in order to capture the population of interest. A total of 15 articles met the inclusion criteria for this REA.

## Types of substance use disorders

The diagnosed use disorders specifically focussed on in this review are as follows.

### Nicotine use disorder

Nicotine use disorders (which include nicotine abuse disorder and nicotine dependence disorder) are distinguished from tobacco use, or smoking, in that the individual is required to meet the physical symptoms and negative personal and interpersonal consequences associated with the behaviour. This difference is important to keep in mind when considering nicotine use disorder rates and how they may apply to a population. Firstly, because nicotine use disorder may be underdiagnosed, and secondly, because smoking rates in the population of interest are likely to be significantly higher than rates of diagnosed nicotine use disorder.

### Alcohol use disorder

Alcohol use disorders (which include alcohol abuse disorder and alcohol dependence disorder), as with nicotine use disorder, must be distinguished from binge drinking, alcohol abuse, and other risky alcohol behaviours, as the individual must present with specific criteria to be diagnosed with the disorder. Therefore, alcohol misuse rates are typically higher in a given population than alcohol use disorder rates.

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## Drug use disorder

Drug use disorders (including drug abuse disorder and drug dependence disorder) typically refer to the use of any drug other than nicotine or alcohol, including illicit and prescription drugs and other toxins. The REA identified studies that grouped all non-nicotine and non-alcohol drug use disorders under drug use disorders, and/or focussed on specific drug use disorders such as cannabis use disorder, cocaine use disorder or opioid use disorder.

## Substance use disorder

Substance use disorders (which include substance abuse disorder and substance dependence disorder) typically exclude nicotine but include both alcohol and other drug use disorders. For the purposes of this REA, substance use disorder refers to studies where authors did not distinguish between alcohol and drug use disorders which prevented grouping these studies into the nicotine, alcohol or drug groups.

## Categorising the evidence

After the evidence was evaluated, the studies were categorised as follows:

High certainty	Moderate certainty	Low certainty
	<ul style="list-style-type: none"><li>- Nicotine use disorders</li><li>- Alcohol use disorders</li><li>- Drug use disorder</li><li>- Substance use disorders</li></ul>	

'Moderate certainty' means there is a moderate degree of certainty that the prevalence rates reported in eligible papers represent the actual prevalence rate in the target population. The moderate certainty rating given to all four prevalence rates (nicotine, alcohol, drug and substance) was due to at least one study investigating each substance type of good quality, with a sample size that was deemed large enough to reliably identify the phenomenology of interest, and the findings were moderately generalisable to the population of interest. The results revealed a nicotine use disorder current prevalence rate of 15 per cent and we have we have a moderate degree of certainty in the applicability of this rate to Australian ex-serving contemporary veterans. The alcohol use disorder current prevalence rate was at least 7 per cent in the studies reviewed, and we have we have a moderate degree of

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certainty in the applicability of this rate to Australian ex-serving contemporary veterans. The results revealed a drug use disorder current prevalence rate of 3 per cent and we have we have a moderate degree of certainty in the applicability of this rate to Australian ex-serving contemporary veterans. Finally, the results revealed a substance use disorder current prevalence rate of 7-11 per cent and we have we have a moderate degree of certainty in the applicability of this rate to Australian ex-serving contemporary veterans. Moreover, rates are higher in men and appear to have increased over the past decade.

## Implications for policy makers and service delivery

There is evidence from US studies of comparable veteran populations that substance use disorders are a significant problem for veterans and prevalence rates are increasing steadily, coinciding with the start of the OEF/OIF operations.

In addition to a need for Australian-based studies to determine true prevalence rates in contemporary veterans, these findings also highlight the need to target vulnerable individuals. Male veterans may be particularly at risk for developing a substance use disorder. The REA excluded populations of veterans with diagnosed physical or mental health disorders in order to capture the prevalence rate in the average veteran, whereas veterans with physical or mental health disorders are particularly vulnerable to developing substance use disorders. The studies included in this review found that consistent military risk factors were combat exposure and intensity of combat experiences, measured directly or via proxy variables such as age, rank, branch of military and number of deployments. Substance abuse rates are typically significantly higher than those of diagnosed substance use disorders, meaning substance misuse is likely to be an even greater problem for all veterans. Further research should explore these variables and vulnerable populations, and healthcare providers should be aware that the reported prevalence rates are likely to be higher in these veterans. Important to note is that the focus of substance use in the military appears to have shifted from alcohol towards illicit substances such as cannabis, abuse of prescription drugs and nicotine use. These trends in US data need to be investigated and confirmed in Australian veterans.

Dealing with substance use in a veteran population, particularly when the behaviour equates to illegal activity, has many implications. Substance use disorders are characterised by poor introspection and denial of problematic behaviour by the individual. Additionally, individuals

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may have emotional or financial reasons for not disclosing substance use, such as stigma or fear of consequences. Finally, substance use disorder is frequently a secondary disorder, used as a coping mechanism to manage psychological disorders or chronic health issues, meaning that care providers might give less consideration to recording substance use disorder than to the primary diagnosis. All of these factors impact the ability to obtain a true prevalence rate of substance use disorder in veterans.

## References

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