

Postgraduate Research Scholarship in Substance Use

Up to 3 scholarships, each valued at \$42,440 per annum for up to 3.5 years, are available for candidates wishing to undertake PhDs in the areas outlined below. All three are funded by an NHMRC grant.

1. The natural history and long-term outcomes of heroin dependence

Lead supervisor: [A/Prof Christina Marel](#)

Heroin dependence is associated with exceedingly high levels of morbidity and mortality and a greater burden of disease than any other illicit drug class. Despite its undeniable impact on public health and health service systems, remarkably little is known about the natural history and long-term course of heroin dependence. The NHMRC-funded study of heroin dependence (the Australian Treatment Outcome Study, ATOS) is the longest and largest cohort study in Australia, and aims to address critical gaps in our understanding of mortality, heroin use and remission, psychiatric health, physical health, and health service use.

This PhD project will examine the natural history and long-term outcomes of heroin dependence, using the ATOS dataset and linked administrative datasets. ATOS is a naturalistic prospective longitudinal study examining outcomes from heroin dependence (n=615). Recruited in 2001-2002, the cohort has been followed up on six occasions up to 18-20-years, achieving exceptional follow-up rates (65% at 18-20yrs).

Research undertaken as part of this project could include:

- Reviewing existing evidence regarding patterns of health service utilisation among those with heroin dependence.
- Assessing the long-term rates, and causes of, mortality.
- Investigating the long-term health consequences of heroin use.
- Determining the long-term health needs of people with heroin dependence.

2. The epidemiology of co-occurring substance use and mental health disorders

Lead supervisor: [A/Prof Matthew Sunderland](#)

Comorbid or co-occurring mental and substance use disorders impact a substantial proportion of the population each year with previous evidence demonstrating increased levels of distress, impairment, service utilisation, and severity with increasing numbers of co-occurring disorders. Recent evidence has demonstrated that co-occurring conditions have increased among more recent birth cohorts and the nature of mental health and substance use might be changing with increases in emotionality yet decreases in substance use more generally. Despite the size and impact of co-occurring conditions, the area has remained relatively understudied and relatively little is known about how and why rates of co-occurring conditions might be changing in more recent birth cohorts.

This PhD project will examine the changing nature and emerging correlates of co-occurring mental health and substance use disorders using data from the Intergenerational Health and Mental Health Study (IHMHS) that will obtain mental health and substance use disorder diagnoses and associated information on Australians between 2021 and 2024 and the ability to link with previously obtained data in 2007.

Research undertaken as part of this project could include:

- Harmonising data from multiple sources to elucidate the changing trends in co-occurring mental health and substance use disorders.
- Examine the natural life course sequence of co-occurring conditions across older and younger birth cohorts.
- Determine whether significant correlates (either risk or consequences) of co-occurring conditions have strengthened, weakened, or remained consistent across age, time, and birth cohorts.
- Assess the potential changing impact of early life events and traumatic experiences on the rate of co-occurring conditions across age, time, and birth cohorts.

3. Psychological therapies for the treatment of co-occurring post-traumatic stress and substance use disorders

Lead supervisor: [Prof Katherine Mills](#)

Post-traumatic stress disorder (PTSD) is a chronic and disabling mental health disorder that is frequently complicated by the presence of a co-occurring substance use disorder (SUD). Once established, both disorders serve to maintain and exacerbate the other leading to considerable harms and poor treatment outcomes. This PhD presents an opportunity to contribute to a growing body of research examining the effectiveness of integrated approaches to the treatment of this comorbidity.

Research undertaken as part of this project could include:

- Reviewing existing evidence regarding characteristics of effective treatments.
- Comparing the effectiveness of different treatment approaches using data collected from randomised controlled trials among adolescents and adults.
- Identifying factors associated with improved outcomes to inform targeting of interventions.