# Contents

EXECUTIVE SUMMARY .................................................................................................................................. 3

INTRODUCTION ............................................................................................................................................. 5

About us ..................................................................................................................................................... 5

Objectives .................................................................................................................................................. 6

Our research .............................................................................................................................................. 6

Prevention ............................................................................................................................................ 7

Treatment ............................................................................................................................................. 7

Epidemiology ........................................................................................................................................ 7

Translation .............................................................................................................................................. 7

Member organisations ................................................................................................................................ 8

Affiliated organisations .............................................................................................................................. 8

Governance structure ................................................................................................................................ 8

Our people ................................................................................................................................................. 9

KEY OBJECTIVES .......................................................................................................................................... 12

1. Generate knowledge ............................................................................................................................... 13

Current and completed projects ............................................................................................................. 13

Prevention ............................................................................................................................................ 13

Treatment ............................................................................................................................................. 17

Epidemiology ........................................................................................................................................ 29

Translational ......................................................................................................................................... 32

Neuropsychiatric .................................................................................................................................. 33

Future projects: Grant development program ........................................................................................ 34

Grant development workshop ............................................................................................................. 34

Response to reviewers workshop ........................................................................................................ 35

Publications ............................................................................................................................................. 35

Citations ................................................................................................................................................... 41

2. Ensure translation of research knowledge ............................................................................................. 42

Workshops ............................................................................................................................................... 42

Webinars .................................................................................................................................................. 42

Citations in policy documents.................................................................................................................. 42
Contributions to policy documents ................................................................. 43
Committee membership.................................................................................... 44
Projects responding to stakeholder interests.............................................. 45
Practitioners .................................................................................................. 45
Policy makers ............................................................................................... 45
Media .............................................................................................................. 46
Website .......................................................................................................... 46
How many people visit the website? ............................................................ 46
Where do visitors to the website come from? ............................................. 47
What content did visitors access? ................................................................. 47
Other Dissemination Activities ..................................................................... 47
Newsletter ..................................................................................................... 47
Social media ................................................................................................. 48
Clearing the Cloud ......................................................................................... 48
Climate Schools ............................................................................................ 49
Second annual conference ........................................................................... 49
National and international conference presentations ......................... 49
3. Train future research leaders ................................................................. 53
Mentoring and leadership support activities .............................................. 55
Senior leadership advisory group ............................................................... 55
Academic group .......................................................................................... 55
Research groups (Epidemiology, Prevention, Treatment and Translation) .................................................. 56
Early career researcher training program ................................................. 56
Early career travel and research funding ................................................... 56
4. Facilitate collaboration ............................................................................. 57
RECOGNITION AND INDICATORS OF ESTEEM ........................................... 58
EXECUTIVE SUMMARY

The NHMRC Centre of Research Excellence in Mental Health and Substance Use (CREMS) was officially launched on 30 January 2013, by the then Health Minister, the Hon Tanya Plibersek, and the then Minister for Mental Health and Ageing, the Hon Mark Butler. In 2014, our membership comprised 77 academics, researchers, postdoctoral and postgraduate students, and clinicians from around the world.

The CREMS has made excellent progress toward achieving its key objectives during its second year, having exceeded targets on most performance indicators (Table 1). There were 30 current projects, and one project completed, representing over $16.6M in funding in addition to our NHMRC centre funding. These projects involve multidisciplinary collaborations across member organisations and research streams. We have the privilege of collaborating with world class clinicians, services providers, and educators in our research and translation activities, and there are currently, over 10,000 people engaged in our research programs. We also partnered with the Community Mental Health and Drug and Alcohol Research Network to develop a mentoring program which aims to support clinician led research and improve research capacity among community services.

In 2014 CREMS members published 94 scientific articles in peer-reviewed journals and their work was cited on 985 occasions. Significant contributions to policy documents include reviews of the literature commissioned by the NSW Health Mental Health and Drug and Alcohol Office.

A major focus of the CREMS is ensuring that knowledge gained from this research is translated not just to the scientific community, but to stakeholders and the general public more broadly. In August, we held our second annual conference in Perth in conjunction with The Mental Health Services Conference (TheMHS) which attracts over 1,000 mental health clinicians, managers, consumers, carers, researchers, educators and policy makers, every year. Our work was presented on 37 occasions at other national and international conferences and we held a number of training workshops and webinars for clinicians.

Our website, social media and quarterly newsletters have continued to be an important mechanism for disseminating our research to the field and wider community, as well as engaging with our partner organisations. The CREMS website received close to 30,400 page views during 2014. Our online resources, including our “Clearing the Cloud” and “Climate Schools” portals, have been well received and their reach is rapidly increasing. Our work has also been broadcast to the wider community through television, radio, print and online media.

In sum, 2014 has been a very successful year for the CREMS. The high quality of our research and innovation is evidenced by our grant success, and the achievements of our members and partner organisations have been recognised through receipt of a number of awards, scholarships and prizes. We have introduced several exciting initiatives so that we may continue to attract and train the highest quality researchers and conducting cutting-edge research in the field. We look forward to furthering this success in 2015 and beyond.
Table 1. Summary of progress towards achieving key objectives

<table>
<thead>
<tr>
<th>Key objectives and progress indicators</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Generate Knowledge</td>
<td></td>
</tr>
<tr>
<td>- An average of 20 ongoing research projects and 10 completed projects a year</td>
<td>✓</td>
</tr>
<tr>
<td>- An average of 5 systematic reviews each year</td>
<td>✓</td>
</tr>
<tr>
<td>- 40 peer reviewed journal articles published or in press</td>
<td>✓</td>
</tr>
<tr>
<td>- 200 citations of CREMS publications</td>
<td>✓</td>
</tr>
<tr>
<td>2. Ensure translation of research knowledge</td>
<td></td>
</tr>
<tr>
<td>- Three annual training workshops in comorbidity attended by 500 clinicians</td>
<td>✓</td>
</tr>
<tr>
<td>- 20 webinars for clinical researchers</td>
<td>In progress</td>
</tr>
<tr>
<td>- Citations in policy documents</td>
<td>✓</td>
</tr>
<tr>
<td>- Contribution to 5 major policy documents</td>
<td>✓</td>
</tr>
<tr>
<td>- Projects which respond to stakeholder interests</td>
<td>✓</td>
</tr>
<tr>
<td>- An average of 50 references to CREMS work in print and electronic media</td>
<td>✓</td>
</tr>
<tr>
<td>- Over 1,000 hits annually on the CREMS website</td>
<td>✓</td>
</tr>
<tr>
<td>3. Train future research leaders</td>
<td></td>
</tr>
<tr>
<td>- Minimum of 13 new clinical researchers:</td>
<td></td>
</tr>
<tr>
<td>- 1 FTE senior post-doctoral research fellow/coordinator</td>
<td>✓</td>
</tr>
<tr>
<td>- 1 FTE early career clinical researcher</td>
<td>✓</td>
</tr>
<tr>
<td>- 5 x 0.5 FTE early career clinical researchers</td>
<td>✓</td>
</tr>
<tr>
<td>- 6 PhD students</td>
<td>✓</td>
</tr>
<tr>
<td>4. Facilitate collaboration</td>
<td></td>
</tr>
<tr>
<td>- An average of 8 collaborative projects with other national and significant state organisations</td>
<td>✓</td>
</tr>
<tr>
<td>- An average of 2 collaborative projects with other international organisations each year</td>
<td>✓</td>
</tr>
</tbody>
</table>
INTRODUCTION

ABOUT US

Mental and substance use disorders represent two of Australia’s most prevalent and burdensome health conditions. Close to one-half of adult Australians experience a mental or substance use disorder during their lifetime, and 25% of these cases are comorbid. One in five persons are affected each year, representing more than 3 million Australians.

Mental and substance use disorders are associated with markedly reduced life expectancy (20 – 30 years less than their non-disorder peers), with the last 10 years of life spent living with chronic illnesses. Worldwide, mental and substance use disorders account for more years of life lost due to disability than any other communicable or non-communicable disease, accounting for 23% of the non-fatal burden. Furthermore, between 1990 – 2010, the burden attributable to mental and substance use disorders increased by 38% making the prevention and treatment of these disorders a “public health priority”. Of particular concern are young Australians (aged 15 – 24 years), for whom the top 10 causes of burden of disease are dominated by mental and substance use disorders. These disorders typically have their onset during this age bracket and tend to reoccur throughout a person’s life. Once comorbid conditions have been established, each disorder serves to maintain and exacerbate the other, often leading to a chronic course of illness.

Despite the high prevalence, burden and disability associated with comorbid mental and substance use disorder, our understanding of, and ability to successfully prevent and treat, these disabling disorders is limited by a lack of evidence.

Funded in November 2012 by the Australian National Health and Medical Research Council (NHMRC), our Centre of Research Excellence in Mental Health and Substance Use (CREMS) aims to build much needed research capacity in this area. The CREMS represents a world first, bringing together the largest concentration of nationally and internationally recognised comorbidity researchers. Specifically, the CREMS brings together leading research academics from four Australian universities (University of New South Wales; University of Newcastle; University of Sydney; and Macquarie University) and three international universities (University of Birmingham, UK; Northwestern University Medical School, USA; and the Medical University of South Carolina, USA).

The CREMS was officially launched on 30 January 2013, by the then Health Minister, the Hon Tanya Plibersek, and the then Minister for Mental Health and Ageing, the Hon Mark Butler. The launch was attended by over 100 clinicians, consumers, policy makers and researchers.
OBJECTIVES

The CREMS aims to generate new research to increase the knowledge base regarding the effective prevention and treatment of comorbid mental health and substance use disorders. These aims will be achieved via three main research streams focusing on the prevention, treatment, and epidemiology, of comorbid mental health and substance use disorders. Our research is not, however, limited to these domains. We also conduct projects in the areas of nosology, neuropsychiatry, and translational research.

In addition to making the findings of our research available in the scientific literature, an integral component of the CREMS is the translation of these research findings into educational curricula, training programs and clinical resources, as well as resources for the general public (Figure 1).

Figure 1. CREMS Objectives

OUR RESEARCH

The CREMS aims to generate new research to increase the knowledge base regarding the effective prevention and treatment to comorbid mental health and substance use disorders. These aims are achieved via three research streams focusing on the prevention, treatment, and epidemiology, of comorbid mental health and substance use disorders. Projects underway and completed during 2014 are described in more detail for each stream later in this report.
**Prevention**

Anxiety, depressive and substance use disorders account for three quarters of the disability attributed to mental disorders. The peak of this disability occurs in those 15-24 years old and corresponds with the typical period of onset of these problems. Critically, anxiety, depression and substance use disorders share common risk factors.

To reduce the occurrence and cost of such disorders, preventative interventions need to begin early, before the problems begin to cause disability, and vocational, educational and social harm. To date, the focus of our research has been on developing and evaluating universal internet-based programs to prevent substance use and related harms in adolescents. Our most recent trial involves combining these universal programs with selective personality-targeted interventions with an aim of maximising outcomes for both high and low risk youth.

**Treatment**

One in every two people will develop a mental health or substance use disorder during their lifetime. Our treatment research aims to develop and evaluate the efficacy of novel interventions to treat these disorders as well as their combination. Our research thus far has focused on the testing of psychotherapies and pharmacotherapies for individuals who have both a substance use disorder and the most common mental disorders including anxiety, depressive and psychotic disorders.

**Epidemiology**

Epidemiological studies of mental health and substance use disorders are vital to understanding the size and nature of the health challenges posed by these disorders. Our epidemiology stream aims to carry out epidemiological studies, both cross-sectional and longitudinal, examining the prevalence, correlates and natural history of mental health and substance use disorders. We also aim to carry out studies to refine and improve the ways in which mental health and substance use disorders are diagnosed and classified. In order to understand the distribution and impact of mental health and substance use disorders we use innovative data analytic techniques to undertake secondary analysis of existing epidemiological data sets, such as the Australian National Surveys of Mental Health and Wellbeing.

**Translation**

A fundamental goal of the CREMS is the dissemination and translation of research findings across all three streams of research. As depicted in Figure 1, our research is translated via four main mechanisms:

- Publications and presentations for scientific audiences;
- Workshops and training for professionals working in substance use, mental health and related fields;
- The development of evidence-based resources for the public and professionals; and
- Contributions to public policy.

Our translational activities in 2014 have spanned all four of these domains and are detailed throughout this report.
MEMBER ORGANISATIONS

The CREMS brings together leading research academics from four Australian universities and three international universities.

- University of New South Wales
- University of Newcastle
- University of Sydney
- Macquarie University
- University of Birmingham
- Northwestern University
- Medical University of South Carolina

AFFILIATED ORGANISATIONS

In addition to the seven member universities that founded the CREMS, a number of organisations are affiliated with us through active collaborations on CREMS projects. In 2014 these included:

- Australian Centre for Posttraumatic Mental Health
- Black Dog Institute
- Centre for Youth Substance Abuse Research
- Community Mental Health Drug and Alcohol Research Network
- Headspace: Australia's National Youth Mental Health Foundation
- Hunter Institute of Mental Health
- Institute of Health and Biomedical Innovation
- National Drug and Alcohol Research Centre
- Northern Sydney Drug & Alcohol Service
- Queensland University of Technology
- Royal Prince Alfred Hospital
- The Mental Health Services
- University of Wollongong

GOVERNANCE STRUCTURE

The CREMS is led by Prof Maree Teesson (Director) and Prof Amanda Baker (Co-Director), and overseen by an Executive Advisory Board (Figure 2). The Board comprises all 10 CREMS Chief Investigators (see Table 1) and is chaired by Prof Kevin Gournay (Kings College London) and Ms Leonie Manns (Consumer Advocate). In 2014, Dr Emma Barrett was appointed to the Board as an Early Career Researcher representative.

Figure 2. CREMS Governance Structure
The Board makes decisions regarding the prioritisation and implementation of research and the administration of funds and ensures that the key objectives of the CREMS are being met. In 2013 the Executive appointed a number of mid-career CREMS academics to oversee the development of the Prevention, Treatment and Epidemiology Streams: Dr Nickie Newton, Director of Prevention Research; A/Prof Katherine Mills, Director of Treatment Research; Dr Frances Kay-Lambkin, Director of Translation; and A/Prof Tim Slade, Director of Epidemiology Research. A/Prof Katherine Mills is also the CREMS Program Director, responsible for coordinating activities and making everyday operational decisions.

**OUR PEOPLE**

CREMS has 77 members from multidisciplinary fields at varying stages of their research career (Table 2). Membership is open to any researcher who is actively collaborating on any of our research projects or programs. A small team of research and administrative staff also provide support for the functioning of the CREMS.

*Table 2. CREMS members*

<table>
<thead>
<tr>
<th>Chief Investigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>✤ Prof Maree Teesson, UNSW</td>
</tr>
<tr>
<td>✤ Prof Amanda Baker, University of Newcastle</td>
</tr>
<tr>
<td>✤ A/Prof Katherine Mills, UNSW</td>
</tr>
<tr>
<td>✤ Dr Frances Kay-Lambkin, UNSW &amp; University of Newcastle</td>
</tr>
<tr>
<td>✤ Prof Paul Haber, University of Sydney</td>
</tr>
<tr>
<td>✤ A/Prof Andrew Baillie, Macquarie University</td>
</tr>
<tr>
<td>✤ Prof Helen Christensen, UNSW</td>
</tr>
<tr>
<td>✤ Prof Max Birchwood, University of Birmingham</td>
</tr>
<tr>
<td>✤ Prof Bonnie Spring, Northwestern University</td>
</tr>
<tr>
<td>✤ Prof Kathleen Brady, Medical University of South Carolina</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Associate Investigators</th>
</tr>
</thead>
<tbody>
<tr>
<td>✤ Ms Leonie Manns, Consumer Advocate</td>
</tr>
<tr>
<td>✤ Mr Trevor Hazell, Hunter Institute of Mental Health</td>
</tr>
<tr>
<td>✤ Prof Robyn Richmond, UNSW</td>
</tr>
<tr>
<td>✤ Dr Cath Chapman, UNSW</td>
</tr>
<tr>
<td>✤ A/Prof Tim Slade, UNSW</td>
</tr>
<tr>
<td>✤ Prof Brian Kelly, University of Newcastle</td>
</tr>
<tr>
<td>✤ Dr Brian Hitsman, Northwestern University</td>
</tr>
<tr>
<td>✤ Dr Leanne Hides, Queensland University of Technology</td>
</tr>
<tr>
<td>✤ Dr Pete Kelly, University of Wollongong</td>
</tr>
<tr>
<td>✤ Ms Marion Downey, UNSW</td>
</tr>
<tr>
<td>✤ Prof Michael Farrell, UNSW</td>
</tr>
<tr>
<td>✤ Dr Glenys Dore, Northern Sydney Drug and Alcohol Service</td>
</tr>
</tbody>
</table>
Table 2. CREMS members (continued)

<table>
<thead>
<tr>
<th><strong>Senior Research Fellows</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Natacha Carragher, UNSW</td>
</tr>
<tr>
<td>Dr Kerry Inder, <em>University of Newcastle</em></td>
</tr>
<tr>
<td>Dr Sharlene Kaye, UNSW</td>
</tr>
<tr>
<td>Dr Nickie Newton, UNSW</td>
</tr>
<tr>
<td>Dr Joanne Ross, UNSW</td>
</tr>
<tr>
<td>Dr Wendy Swift, UNSW</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Research Fellows</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Emma Barrett, UNSW</td>
</tr>
<tr>
<td>Dr Ali Beck, <em>University of Newcastle</em></td>
</tr>
<tr>
<td>Dr Lexine Stapinski, UNSW</td>
</tr>
<tr>
<td>Dr Matthew Sunderland, UNSW</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Postdoctoral Research Fellows</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Heather Buchan, UNSW</td>
</tr>
<tr>
<td>Dr Erica Chrome, <em>Macquarie University</em></td>
</tr>
<tr>
<td>Dr Tonelle Handley, UNSW</td>
</tr>
<tr>
<td>Dr Christina Marel, UNSW</td>
</tr>
<tr>
<td>Dr Kirsten Morley, <em>University of Sydney</em></td>
</tr>
<tr>
<td>Dr Louise Thornton, <em>University of Newcastle &amp; Northwestern University</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Doctoral Candidates</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms Louise Birrell, UNSW</td>
</tr>
<tr>
<td>Ms Katrina Champion, UNSW</td>
</tr>
<tr>
<td>Mr Mark Deady, UNSW</td>
</tr>
<tr>
<td>Ms Miriam Forbes, <em>Macquarie University</em></td>
</tr>
<tr>
<td>Ms Katrina Hammall, <em>University of Newcastle</em></td>
</tr>
<tr>
<td>Ms Erin Kelly, UNSW</td>
</tr>
<tr>
<td>Mr Warren Logge, <em>Macquarie University</em></td>
</tr>
<tr>
<td>Ms Sonja Memedovic, UNSW</td>
</tr>
<tr>
<td>Ms Katrina Prior, UNSW</td>
</tr>
<tr>
<td>Ms Mikki Subotic, <em>Macquarie University</em></td>
</tr>
<tr>
<td>Ms Zoe Tonks, UNSW</td>
</tr>
<tr>
<td>Ms Kris Tulloch, <em>Macquarie University</em></td>
</tr>
<tr>
<td>Ms Kathryn Woodcock, UNSW</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Research Psychologists</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms Kellie Cathcart, UNSW</td>
</tr>
<tr>
<td>Ms Philippa Ewer, UNSW</td>
</tr>
<tr>
<td>Ms Jenny Geddes, <em>University of Newcastle</em></td>
</tr>
<tr>
<td>Ms Joanne Gilsenan, UNSW</td>
</tr>
<tr>
<td>Ms Sally Hunt, <em>University of Newcastle</em></td>
</tr>
<tr>
<td>Ms Julia Rosenfeld, UNSW</td>
</tr>
<tr>
<td>Dr Alyna Turner, <em>University of Newcastle</em></td>
</tr>
</tbody>
</table>
Table 2. CREMS members (continued)

Research Officers
- Ms Xanthe Larkin
- Ms Natasha Nair, UNSW
- Mr Bill Reda, UNSW
- Ms Maxine Robinson, UNSW
- Mr Brad Shaw, UNSW

Associate Members
- Prof Sudie Back, Medical University of South Carolina
- A/Prof Lucy Burns, UNSW
- Dr Danielle Florida, UNSW
- Dr Julianne Hellmuth, Medical University of South Carolina
- Prof Michelle Moulds, UNSW
- Ms Jaelea Skehan, Hunter Institute of Mental Health

Administrative Staff
- Ms Jasmin Bartlett, UNSW
- Ms Stephanie O’Donnell, UNSW
- Ms Sandi Steep, UNSW
**KEY OBJECTIVES**

The CREMS has four key objectives with corresponding performance indicators. Table 3 outlines these objectives and indicators, and provides a summary of our progress towards achieving these aims.

*Table 3. Key objectives and performance indicators*

<table>
<thead>
<tr>
<th>Key objectives and progress indicators</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5. Generate Knowledge</strong></td>
<td></td>
</tr>
<tr>
<td>✶ An average of 20 ongoing research projects and 10 completed projects a year</td>
<td>✓</td>
</tr>
<tr>
<td>✶ An average of 5 systematic reviews each year</td>
<td>✓</td>
</tr>
<tr>
<td>✶ 40 peer reviewed journal articles published or in press</td>
<td>✓</td>
</tr>
<tr>
<td>✶ 200 citations of CREMS publications</td>
<td>✓</td>
</tr>
<tr>
<td><strong>6. Ensure translation of research knowledge</strong></td>
<td>In progress</td>
</tr>
<tr>
<td>✶ Three annual training workshops in comorbidity attended by 500 clinicians</td>
<td>✓</td>
</tr>
<tr>
<td>✶ 20 webinars for clinical researchers</td>
<td>✓</td>
</tr>
<tr>
<td>✶ Citations in policy documents</td>
<td>✓</td>
</tr>
<tr>
<td>✶ Contribution to 5 major policy documents</td>
<td>✓</td>
</tr>
<tr>
<td>✶ Projects which respond to stakeholder interests</td>
<td>✓</td>
</tr>
<tr>
<td>✶ An average of 50 references to CREMS work in print and electronic media</td>
<td>✓</td>
</tr>
<tr>
<td>✶ Over 1,000 hits annually on CREMS website</td>
<td>✓</td>
</tr>
<tr>
<td><strong>7. Train future research leaders</strong></td>
<td></td>
</tr>
<tr>
<td>✶ Minimum of 13 new clinical researchers:</td>
<td>✓</td>
</tr>
<tr>
<td>✶ 1 FTE senior post-doctoral research fellow/coordinator</td>
<td>✓</td>
</tr>
<tr>
<td>✶ 1 FTE early career clinical researcher</td>
<td>✓</td>
</tr>
<tr>
<td>✶ 5 x 0.5 FTE early career clinical researchers</td>
<td>✓</td>
</tr>
<tr>
<td>✶ 6 PhD students</td>
<td>✓</td>
</tr>
<tr>
<td><strong>8. Facilitate collaboration</strong></td>
<td></td>
</tr>
<tr>
<td>✶ An average of 8 collaborative projects with other national and significant state organisations</td>
<td>✓</td>
</tr>
<tr>
<td>✶ An average of 2 collaborative projects with other international organisations each year</td>
<td>✓</td>
</tr>
</tbody>
</table>
1. GENERATE KNOWLEDGE

Performance indicators:
- An average of 20 ongoing research projects and 10 completed projects a year
- An average of 5 systematic reviews each year
- 40 peer reviewed journal articles published or in press
- 200 citations of CRE publications

CURREN AND COMPLETED PROJECTS

During 2014, 26 projects were ongoing and one was completed across all of our research streams. In addition to our three main streams of prevention, treatment and epidemiology, our research has expanded into the areas of translational and neuropsychiatric research.

Prevention

Table 4 provides a summary of ongoing and completed prevention projects. A brief description of each of these projects follows the table.

Table 4. Summary of Prevention Projects

<table>
<thead>
<tr>
<th>Project name</th>
<th>Investigators</th>
<th>Funding Body</th>
<th>Grant Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ongoing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✶ CAP study - Combining effective universal and targeted approaches to drug prevention</td>
<td>Nickie Newton, Maree Teesson, Tim Slade, Patricia Conrod, Emma Barrett, Natacha Carragher, Katrina Champion, Erin Kelly, Julia Rosenfeld, Natasha Nair</td>
<td>NHMRC</td>
<td>$723,665</td>
</tr>
<tr>
<td>✶ Climate Schools Combined (CSC) study: Internet-based prevention for anxiety, depression and substance use in young Australians</td>
<td>Maree Teesson, Nickie Newton, Tim Slade, Cath Chapman, Gavin Andrews, Louise Birrell, Zoe Tonks, Steve Allsop, Nyanda McBride, Leanne Hides, Brad Shaw</td>
<td>NHMRC</td>
<td>$1,709,987</td>
</tr>
</tbody>
</table>
Table 4. Summary of Prevention Projects (continued)

<table>
<thead>
<tr>
<th>Project name</th>
<th>Investigators</th>
<th>Funding Body</th>
<th>Grant Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ongoing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✪ <strong>Climate Schools Interactive (CSI) study:</strong> A cluster randomized controlled trial of the internet-based Climate Schools: Ecstasy &amp; Emerging Drugs Module</td>
<td>Katrina Champion, Nickie Newton, Maree Teesson</td>
<td>NHMRC</td>
<td>$79,437</td>
</tr>
<tr>
<td>✪ Development of an online portal of drug education resources for school communities</td>
<td>Lexine Stapinski, Nickie Newton, Maree Teesson, Cath Chapman, France Kay-Lambkin, Nyanda McBride, Steve Allsop, Bill Reda</td>
<td>AGDH</td>
<td>$700,983</td>
</tr>
<tr>
<td>✪ <strong>Evaluation of the CAYLUS youth worker brokerage program</strong></td>
<td>Christina Marel, Maree Teesson, Katherine Mills, Anthony Shakeshaft, Fiona Shand</td>
<td>CAYLUS</td>
<td>$33,024</td>
</tr>
<tr>
<td>✪ <strong>Illicit drug resources for teachers, students and parents</strong></td>
<td>Nickie Newton, Maree Teesson, Tim Slade, Wendy Swift, Frances Kay-Lambkin, Cath Chapman</td>
<td>AGDH</td>
<td>$504,139</td>
</tr>
</tbody>
</table>

The CAP Study – Combining effective universal and targeted approaches to drug prevention

**Project Members**

Dr Nicola Newton, Prof Maree Teesson, A/Prof Tim Slade, Prof Patricia Conrod, Emma Barrett, Natacha Carragher, Katrina Champion, Erin Kelly, Julia Rosenfeld, Natasha Nair

**Description**

The aim of the CAP (Climate and Preventure) study is to trial a comprehensive approach to preventing substance use and related harms in adolescents by combining effective ‘universal’ and ‘targeted’ school-based prevention programs. The CAP intervention, builds on our unique success in this area through developing the effective universal internet-based Climate Schools program, and the selective personality-targeted Preventure program

The Climate Schools Combined (CSC) study: Internet-based prevention for anxiety, depression and substance use in young Australians

**Project members**

Prof Maree Teesson, Dr Nicola Newton, A/Prof Tim Slade, Dr Cath Chapman, Prof Gavin Andrews, Prof Steve Allsop, Dr Nyanda McBride, Dr Louise Mewton, Ms Louise Birrell, Ms Zoe, Tonks, Mr Brad Shaw
Description

Anxiety, depressive and substance use disorders account for three quarters of the disability attributed to mental disorders. Moreover, research indicates that these disorders are often comorbid, share common risk factors and interact. The peak of these disorders occurs in those aged 15-24 years old, which also corresponds with the typical period of onset. It is therefore important that effective preventative interventions begin early, before patterns of mental health and substance use disorder symptoms are established and begin to cause disability, as well as vocational, educational and social harm.

An array of preventative interventions for these disorders currently exists, however the effectiveness of these programs is contentious. Furthermore, interventions are typically designed to target a single disorder at one time and there are few effective preventive programs which concurrently target these common disorders. The current study aims to address this gap by evaluating an integrative approach known as the CLIMATE Schools Combined (CSC) intervention, which includes the evidence-based ‘universal’ CLIMATE Schools Substance Use course and the ‘universal’ CLIMATE Schools Mental Health course. It is anticipated that this integrative approach will be more effective in reducing problems and symptoms associated with substance use and mental health disorders compared to the stand-alone interventions and school-based health education as usual. The CSC study will be the first trial, internationally, to develop an integrative model for dissemination in schools across Australia.

The CSI (Climate Schools Interactive) study: A cluster randomized controlled trial of the internet-based Climate Schools: Ecstasy & Emerging Drugs Module

Project members

Ms Katrina Champion, Dr Nicola Newton, Prof Maree Teesson

Description

The aim of the CSI (Climate Schools Interactive) Study is to evaluate the Climate Schools: Ecstasy & Emerging Drugs module, an online school-based prevention program designed to educate adolescents about the harms associated with illicit drug use. The program is undergoing further development in 2013 to ensure that the content is up-to-date and relevant to teenagers today, to increase the level of interactivity between students and the program, and to incorporate educational content about the harms associated with Emerging Psychoactive Substances. The course will be trialled among Year 10 students in 2014 through a cluster randomized controlled trial. This study will be the first trial of an internet-based prevention program dedicated specifically to the prevention of ecstasy and emerging drugs.

Development of an online portal of drug education resources for school communities

Project members

Dr Lexine Stapinski, Dr Nicola Newton, Prof Maree Teesson, Dr Cath Chapman, Dr Frances Kay-Lambkin, Dr Nyanda McBride, Prof Steve Allsop, Mr Bill Reda

Description

Providing young people with accurate, up-to-date information and support is the best way to prevent the harms associated with drug and alcohol use. The Department of Health have identified the need for an online portal to help school communities access evidence-based information and drug prevention
programs. With input from teachers, parents and students across Australia we are compiling drug education resources that are engaging, interactive, and proven to improve student wellbeing.

**Evaluation of the CAYLUS youth worker brokerage program**

*Project members*

Dr Christina Marel, Prof Maree Teesson, A/Prof Katherine Mills, Prof Anthony Shakeshaft, Dr Fiona Shand

*Description*

Established in 2002, the Central Australian Youth Link Up Service (CAYLUS) supports community initiatives aimed at reducing the supply of, demand for, and harms associated with, substance misuse among young people across Central Australia (spanning approximately 900 square kilometres). Youth substance misuse remains a pressing concern in Central Australia. In particular, the work of CAYLUS focuses on the misuse of volatile substances (e.g., petrol sniffing, paint, aerosols), which includes liaising with retailers of high-risk products to assist with their management. CAYLUS also assists remote communities in the development, funding and implementation of youth programs. To inform the continued improvement of its programs and ensure that its activities are responsive to community needs, CAYLUS is seeking to establish a rolling monitoring and evaluation process for the activities it runs through the CAYLUS Youth Worker Brokerage Program. The Centre of Research in Mental Health and Substance Use (CREMS) aims to generate new research to increase the knowledge base regarding the nature, prevention and treatment of mental health and substance use disorders. In addition, a fundamental objective of the CREMS is to build research capacity in this area, and assist community agencies develop and conduct their own research. In keeping with this objective, researchers from the CREMS will assist CAYLUS establish a rolling monitoring and evaluation process for the activities it runs through the Youth Worker Brokerage Program, specifically examining the impact of its programs and activities on local level community crime and petrol sniffing. By improving the capacity of the CAYLUS staff to evaluate and monitor their service, the standard of youth programs may be informed and improved, and the enduring disability associated with substance misuse may be reduced.

**Illicit drug resources for teachers, students and parents**

*Project members*

Dr Nicola Newton, Prof Maree Teesson, A/Prof Tim Slade, Dr Wendy Swift, Dr Frances Kay-Lambkin, Dr Cath Chapman

*Description*

The aim of this project is to develop, test and deliver an illicit drugs resource package for use by teachers, parents, and students in Years 9-11. The package will complement the 2012-13 phase of the National Drugs Campaign and be made available on the campaign website and in hard copy to requesting high schools. The package will include booklets on illicit drugs and related harms for teachers, parents, and students as well as an interactive game for students.
### Treatment

Table 5 provides a summary of ongoing and completed treatment projects. A brief description of each of these projects follows the table.

**Table 5. Summary of Treatment Projects**

<table>
<thead>
<tr>
<th>Project name</th>
<th>Investigators</th>
<th>Funding Body</th>
<th>Grant funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ongoing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✫ An evaluation of transitional care for stroke patients</td>
<td>Ashley Kable, Amanda Baker, Carolyn Hullick, Dimity Pond, Alyna Turner, Christopher Levi</td>
<td>Hunter Medical Research Institute</td>
<td>$25,000</td>
</tr>
<tr>
<td>✫ A randomized controlled trial of N-acetylcysteine for drug relapse prevention</td>
<td>Peter Kalivas &amp; Sudie Back (Co-Principal Investigators)</td>
<td>US Dept. of Defence</td>
<td>US$450,000</td>
</tr>
<tr>
<td>✫ Buspirone treatment for marijuana dependence</td>
<td>Aimee McRae-Clark (Principle Investigator), Kathleen Brady (Co-investigator)</td>
<td>NIH/NIDA</td>
<td>US$1,599,483</td>
</tr>
<tr>
<td>✫ Combining startle reflex modulation with serious gaming technologies to determine engagement and impact on depression and binge drinking in young people: The SHADoW Study.</td>
<td>Frances Kay-Lambkin, Peter Walla, Keith Nesbitt</td>
<td>Hunter Medical Research Institute</td>
<td>$25,000</td>
</tr>
<tr>
<td>✫ The DEAL Project: an online intervention for comorbid depression and alcohol use in young people</td>
<td>Mark Deady, Maree Teesson, Frances Kay-Lambkin, Katherine Mills</td>
<td>UNSW</td>
<td>$78,000</td>
</tr>
</tbody>
</table>
Table 5. Summary of Treatment Projects (continued)

<table>
<thead>
<tr>
<th>Project name</th>
<th>Investigators</th>
<th>Funding Body</th>
<th>Grant funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ongoing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☀ Efficacy and biobehavioural basis of Baclofen in treatment of alcoholic liver disease</td>
<td>Paul Haber, Andrew Baillie, Kirsten Morley, Warren Logge</td>
<td>NHMRC</td>
<td>$638,836</td>
</tr>
<tr>
<td>☀ Efficacy of behavioural activation therapy (Activate) in treating depression among dependent illicit drug users</td>
<td>Joanne Ross, Maree Teesson, Katherine Mills, Sharlene Kaye, Kathleen Brady, Glenys Dore, Carl Lejeuz, Katrina Prior, Xanthe Larkin, Joanne Gilsenan, Philippa Ewer, Sarah Masters</td>
<td>NHMRC</td>
<td>$708,998</td>
</tr>
<tr>
<td>☀ Evaluation of a tailored online hospital and post-discharge smoking cessation program for orthopaedic trauma surgery patients</td>
<td>Billie Bonevski, Zsolt Jonas Balogh, Amabda Baker, Ian Harris, John Attia, Chris Doran, C., Johnson George., Luke Wolfenden</td>
<td>NHMRC</td>
<td>$364,658</td>
</tr>
<tr>
<td>☀ Healthy Lifestyles LITE</td>
<td>Amanda Baker, Frances Kay-Lambkin, Pete Kelly, Bonnie Spring, Clare Collins, Robin Callister</td>
<td>University of Newcastle</td>
<td>$20,000</td>
</tr>
<tr>
<td>☀ Integrated treatment of OEF/OIF veterans with PTSD and substance use disorders</td>
<td>Sudie Back (Principal Investigator)</td>
<td>NIH/NIDA</td>
<td>US$1,654,526</td>
</tr>
<tr>
<td>☀ iTreAD (internet Treatment for Alcohol and Depression): Randomised clinical trial of internet-based treatment for binge drinking and depression in young Australians</td>
<td>Frances Kay-Lambkin, Amanda Baker, Maree Teesson, Kathleen Brady, Terry Lewin, Jenny Geddes, Julia Rosenfeld, Kellie Cathcart, Sally Hunt, Kathryn Woodcock</td>
<td>NHMRC</td>
<td>$909,585</td>
</tr>
<tr>
<td>☀ Prevent 2nd Stroke: The development and pilot testing of an online lifestyle behaviour program for stroke and TIA survivors</td>
<td>Billie Bonevski, Alynna Turner, Amanda Baker, Christopher Levi</td>
<td>National Stroke Foundation Grant</td>
<td>$20,000</td>
</tr>
</tbody>
</table>
### Table 5. Summary of Treatment Projects (continued)

<table>
<thead>
<tr>
<th>Project name</th>
<th>Investigators</th>
<th>Funding Body</th>
<th>Grant funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ongoing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✗ Preventing cardiovascular disease among Indigenous Australians</td>
<td>Peter Kelly, Amanda Baker, Richard Chenhall, Robin Callister</td>
<td>Heart Foundation</td>
<td>$74,633</td>
</tr>
<tr>
<td>✗ Randomised controlled trial of treatment for alcohol use problems and social phobia</td>
<td>Andrew Baillie, Maree Teesson, Paul Haber, Claudia Sannibale, Ronald Rapee, Lexine Stapinski, Mikki Subotic</td>
<td>NHMRC</td>
<td>$605,750</td>
</tr>
<tr>
<td>✗ Social well-being and engaged living (SWELL) intervention for Australian youth at risk of mental health and other adverse outcomes</td>
<td>Leanne Hides, Amanda Baker, Helen Stain, Christopher Jackson, Rhoshel Lenroot, Georgie Paulik, Patrick McElduff, Luke Wolfenden</td>
<td>NHMRC</td>
<td>$1,305,235</td>
</tr>
<tr>
<td>✗ The training and support needs of youth mental health and substance use workers</td>
<td>Christina Marel, Katherine Mills, Maree Teesson</td>
<td>AGDH</td>
<td>$320,000</td>
</tr>
<tr>
<td>✗ Treating substance use and traumatic stress among adolescents: A pilot study</td>
<td>Emma Barrett, Katherine Mills, Joanne Ross, Maree Teesson, Sudie Back, Tim Slade; Vanessa Cobham, Ann Wignall</td>
<td>NSW Health</td>
<td>$73,868</td>
</tr>
<tr>
<td>✗ Update and revision of the national comorbidity guidelines</td>
<td>Christina Marel, Katherine Mills, Maree Teesson</td>
<td>AGDH</td>
<td>$320,000</td>
</tr>
<tr>
<td><strong>Completed</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>✗ Australian longitudinal study of heroin dependence: An 11 year prospective cohort study of mortality, abstinence, criminality and psychiatric comorbidity among heroin users (ATOS)</td>
<td>Maree Teesson, Katherine Mills, Joanne Ross, Tim Slade, Shane Darke, Michael Lyskey, Lucy Burns, Christina Marel, Sonja Memedovic, Philippa Ewer</td>
<td>UNSW; NHMRC</td>
<td>$402,450</td>
</tr>
</tbody>
</table>
An evaluation of transitional care for stroke patients

Project members
Ashley Kable, Amanda Baker, Carolyn Hullick, Dimity Pond, Alyna Turner, Christopher Levi

Description
This project will evaluate transitional care (discharge planning and the post discharge delivery) for stroke patients and their carers. Stroke patients are one of the National Health Priority Areas identified by the NHMRC, and are particularly vulnerable to deficits in the planning and provision of transitional care due to their associated functional impairment and the existing transitional care processes. Their carers become de facto health care managers and may not be provided with adequate information, or support, to adhere to recommended transitional care processes. Evaluating actual transitional care practices against recommended practice will assist with planning an intervention study designed to improve the transitional care process for stroke patients and their carers and with developing recommendations for carer- friendly transitional care processes.

A randomised controlled trial of online versus telephone-based information and support: Can electronic platforms deliver effective care for lung cancer patients?

Project members

Description
Telephone support lines can provide helpful informational, emotional and practical support for cancer patients via telephone-based or electronic platforms. However, very little rigorous research has directed toward examining the efficacy of such services in improving outcomes. This study will determine whether: proactive telephone or online-delivered support produces outcomes superior to printed information; and proactive online-delivered support produces outcomes comparable to proactive telephone support among outpatients with lung cancer. The primary patient outcomes are general psychological distress and the efficacy and impact of health education.

The Australian Treatment Outcome Study

Project members
Prof Maree Teesson, A/Prof Katherine Mills, Dr Joanne Ross, A/Prof Tim Slade, Prof Shane Darke, Prof Michael Lynskey, Dr Lucy Burns

Description
Heroin dependence is remarkably persistent, and in many cases it is a lifelong condition with a high mortality rate. Yet, the natural history of heroin dependence has rarely been studied. The Australian Treatment Outcome Study (ATOS) is a landmark Australian cohort study examining outcomes from heroin dependence. 615 participants were recruited to the study in 2001-2002 and followed up over three years. The 11-year follow-up commenced in 2012, making it one of the longest and most comprehensive prospective follow-up of Australian heroin users. An 11-year follow-up presents the unique opportunity to examine: Mortality rates, remission rates, criminal histories and levels of
psychopathology; predictive factors of long term remission, mortality, criminality; and the health service utilisation associated with heroin use careers.

Seventy percent (n=431) of the original 615 participants completed the 11-year follow-up; a further 10% (n=63%) of participants were deceased. The proportion of participants who reported using heroin in the preceding month decreased significantly from baseline (98.7%) to 36-month follow-up (34.0%; odds ratio=0.01; 95% confidence interval=0.00, 0.01) with further reductions evident between 36 months and 11 years (24.8%). However, one in four continued to use heroin at 11 years, and close to one-half (46.6%) were in current treatment. The reduction in current heroin use was accompanied by reductions in risk taking, crime and injection-related health problems, and improvements in general physical and mental health. The relationship with treatment exposure was varied. Major depression was associated consistently with poorer outcome.

**Buspirone treatment for marijuana dependence**

*Project members*

A/Prof Aimee McRae-Clark (Principle Investigator), Prof Kathleen Brady (Co-investigator)

*Description*

Marijuana is the most commonly used illicit drug, yet few clinical trials have evaluated pharmacotherapy treatments for marijuana dependence. This study will evaluate the efficacy of buspirone for reducing marijuana use in marijuana-dependent adults. A contingency management (CM) intervention and motivational enhancement therapy (MET) will be incorporated to encourage study engagement and retention. It is hypothesized that buspirone combined with MET and CM will reduce the percent of marijuana-positive urine drug screen results in marijuana-dependent individuals as compared to a placebo treatment combined with MET and CM.

**Combining startle reflex modulation with serious gaming technologies to determine engagement and impact on depression and binge drinking in young people: The SHADoW Study.**

*Project members*

Dr Frances Kay-Lambkin, Prof Peter Walla, Dr Keith Nesbitt

Dr Frances Kay-Lambkin leads a team of computer designers and programmers, neuroscientists and behavioural researchers on a trial of the serious game SHADoW, which targets depression and binge drinking in young people. The trial seeks to capitalise on the popularity of gaming among young people to better engage this population in conversations about their current mood and binge drinking behaviours.

**The Deal Project**

*Project members*

Mr Mark Deady, Prof Maree Teesson, Dr Frances Kay-Lambkin, A/Prof Katherine Mills

*Description*

Depression and alcohol misuse represent two of the major causes of disease burden in young people today. These conditions frequently co-occur and this co-occurrence is associated with increased risks
and poorer outcomes than either disorder in isolation. Integrated treatments have been shown to be effective. However, there remains a significant gap between those in need in treatment and those receiving it, particularly in young people. The increased availability of Internet-based programs to complement health care presents a unique opportunity in the treatment of these conditions. The DEAL project program is the first online intervention aimed to specifically treat depression and alcohol use in young adults. The program is currently recruiting young people aged 18-25 who are currently depressed and use alcohol to cope.

**Eating as Treatment (EAT): A stepped wedge, randomised controlled trial of a health behaviour change intervention provided by dietitians to improve nutrition in head and neck cancer patients undergoing radiotherapy**

*Project members*

Prof Amanda Baker, Gregory Carter, Judith Bauer, Luke Wolfenden, Chris Wratten, Alison Beck, Ben Britton

*Description*

Maintenance of adequate nutrition in Head and Neck Cancer (HNC) patients is challenging. The rigours of radiation treatment and the burden of the malignancy make it difficult for HNC patients to maintain sufficient nutrition. In addition, HNC patients have higher levels of mental illness such as depression and anxiety and also higher levels of substance dependence, including alcohol misuse. It is therefore surprising that health behaviour interventions designed to improve nutritional status in HNC patients have not been evaluated. This trial aims to build on promising pilot data to evaluate for the first time a dietitian delivered health behaviour intervention (Eating As Treatment; EAT) to improve nutritional status among HNC patients.

**Efficacy of behavioural activation therapy (Activate) in treating depression among dependent illicit drug users**

*Project members*

Dr Joanne Ross, Prof Maree Teesson, A/Prof Katherine Mills, Dr Sharlene Kaye, Prof Kathleen Brady, Dr Glenys Dore, Prof Carl Lejeux

*Description*

Drug dependence is a chronic relapsing condition, associated with high levels of psychopathology. On entry to drug and alcohol treatment approximately 25% of heroin users and 40% of methamphetamine users meet criteria for Major Depression (MD), and this comorbidity has been linked to poorer treatment outcomes. Despite this, the development and assessment of behavioural interventions for depression among illicit drug users has received little empirical attention. One treatment approach that has shown promise among residential rehabilitation clients in the United States is Behavioural Activation Therapy for Depression (Lejuez et al, 2011). BATD-R is a structured treatment that aims to activate clients in specific ways that will increase rewarding experiences in their lives. BATD-R is more time efficient and less complex than most other treatments for depression. The current study seeks to examine the feasibility of using BATD-R among depressed opioid replacement therapy (ORT) and residential rehabilitation clients.
Efficacy and biobehavioural basis of Baclofen in treatment of alcoholic liver disease

Project members
Prof Paul Haber, A/Prof Andrew Baillie, Dr Kirsten Morley, Mr Warren Logge

Description
This is a double-blind randomised placebo-controlled study investigating the efficacy of baclofen for the treatment of alcohol dependence in patients with alcoholic liver disease. Medications will be given for 12 weeks, with a further 6 months follow-up. Both male and female participants will be recruited to this study. Trial patients will be randomised to one of three treatment groups: (1) baclofen 30mg/day (10 mg t.i.d), (2) baclofen 75mg/day (25 mg t.i.d) or (3) Placebo (3 matched tabs/day).

Evaluation of a tailored online hospital and post-discharge smoking cessation program for orthopaedic trauma surgery patients

Project members

Description
Smoking during an inpatient stay in hospital increases the risk of complications associated with orthopaedic surgery, resulting in increased length of admission and a variety of complications which are associated with higher costs. Internet delivered programs are helpful tools for health providers as they have a relatively low cost per user and are less time consuming. This randomized controlled trial aims to evaluate the effectiveness and cost-effectiveness of an online smoking cessation program for orthopaedic trauma patients and its effect of clinical patient outcomes.

Healthy Lifestyles LITE

Project members
Prof Amanda Baker, Dr Frances Kay-Lambkin, Dr Pete Kelly, Prof Bonnie Spring, Dr Clare Collins, Prof Robin Callister

Description
Interventions for Cardiovascular Disease (CVD) risk behaviours among people with severe mental disorders (SMD) are rare and often focus on only one risk behaviour. This project addresses the inequities in cardiac health between the general community and those with SMD. In this study, we will evaluate a low-intensity telephone-delivered health behaviour intervention, with potentially broad reach into the mental health client population. Building upon our existing novel research in which we have evaluated an intervention to modify multiple CVD risk behaviours among smokers with SMD, we will evaluate the efficacy of a Low-Intensity Telephone-delivered intervention (Healthy Lifestyles LITE) that focuses on five specific CVD risk behaviours: smoking, high-saturated-fat diet, low-fibre diet, physical inactivity, and high level of alcohol consumption. The two primary outcomes will be an overall healthy lifestyle behaviour score (a pooled z-score reflecting the five specific CVD risk behaviours which are the basis of eligibility for entrance into the study) and C-reactive protein (CRP), a biomedical marker of CVD risk.
iTreAD (internet Treatment for Alcohol and Depression) A randomised clinical trial of internet-based treatment for binge drinking and depression in young Australians

Project members

Dr Frances Kay-Lambkin, Ms Jenny Geddes, Ms Julia Rosenfeld, Ms Kellie Cathcart, Ms Sally Hunt, Ms Kathryn Woodcock

Description

This project focuses on a common clinical problem that causes substantial functional, economic and health impacts: comorbid depression and binge drinking. These conditions are under-treated and peak in young adulthood. This project offers a low cost, wide reaching, youth-appropriate treatment, which will have profound implications for service design and health policy. It relates to current Commonwealth initiatives in e-health and e-Psychology. We will directly target young people with comorbid depression and binge drinking behaviours and, for the first time, evaluate an internet-based psychological treatment program, augmented with peer-driven social networking. This program can easily be translated into primary care, clinical and real world settings for use by young people experiencing these conditions. With this study, we aim to:

1. (1) Demonstrate that young people, aged 18-30 years, who are experiencing low mood and are binge drinking will engage with web-based treatments that target their multiple problems simultaneously;
2. (2) Demonstrate that young people with these problems will benefit from web-based treatment targeting low mood and binge drinking simultaneously; and
3. (3) Demonstrate the additional benefit of peer-led social influence on engagement and mood and binge drinking outcomes for young people, when offered in conjunction with a web-based treatment for these conditions.

We will examine the relative impact of:

- (a) Monthly online self-assessment (OSA) for 12 months; OSA
- (b) OSA + 12-months of access to a 4-week program of web-based intervention for binge drinking and depressed mood (DEpression ALcohol - DEAL); OSA + DEAL
- (c) OSA + DEAL + 12-months access to a purpose-built social networking site (BreathingSpace); OSA + DEAL + BreathingSpace

Integrated treatment of OEF/OIF veterans with PTSD and substance use disorders

Project members

A/Prof Sudie Back (Principal Investigator)

Description

As a result of sustained operations in Afghanistan and Iraq, there are an increasing number of U.S. military personnel and Veterans at risk of developing both substance use disorders (SUDs) and Post Traumatic Stress Disorder (PTSD). If left untreated, individuals with SUDs and/or PTSD are at risk for other mental health problems (e.g., depression), suicidal ideation and attempts, physical health problems, reduced resiliency, lost productivity, and family/relationship impairment. While mental health services are in place for U.S. military personnel, substantial gaps in the treatment of co-occurring SUDs
and PTSD exist and there is little scientific evidence available to guide the provision of care. The proposed study directly addresses this knowledge gap by testing the feasibility and preliminary efficacy of an integrative behavioral intervention for the treatment of co-occurring SUDs and PTSD modified for use among U.S. military personnel (including National Guard and Reservists) who have served in Operation Enduring Freedom and/or Operation Iraqi Freedom (OEF/OIF). The intervention, called "Concurrent Treatment with Prolonged exposure" or "COPE," represents a novel treatment that integrates cognitive-behavioral therapy for SUDs with prolonged exposure therapy for PTSD. In earlier studies with civilians, COPE has demonstrated efficacy in reducing alcohol and drug use severity, PTSD symptoms, and associated mental health problems (e.g., depression, anxiety). In this hybrid Stage Ib/Stage II study, we will (1) use a manualized, well-tolerated behavioral treatment for SUDs and PTSD (COPE); (2) employ a two-arm randomized between-groups experimental design (COPE versus a modified treatment-as usual (TAU); and (3) examine standardized, repeated dependent measures of clinical outcomes and process variables at 5 time points (pre-, mid-, and post-treatment; 3 and 6 month follow-up). The findings of this study will provide empirical evidence to inform policies and programs to better serve the needs of U.S. military personnel, Veterans, and their families.

Pilot evaluation of “third wave” modular group psychotherapy for comorbid clients

Project members
Dr Danielle Florida, A/Prof Katherine Mills, Prof Paul Haber

Description
There is emerging evidence for “third-wave therapies”, in treating mental health clients’ with comorbid for substance use. However, implementation of manualised evidence based treatments is often hampered by the complexity of comorbidity. This project seeks to develop and pilot test a group based program combining Dialectical Behaviour Therapy-Substance Abuse (DBT-S), Mindfulness Based Relapse Prevention (MBRP), and Cognitive Behavioural Relapse Prevention. It is hypothesised that a modular practice elements approach such as this may enhance acceptability, integration and retention in treatment among comorbid clients.

Prevent 2nd Stroke: The development and pilot testing of an online lifestyle behaviour program for stroke and TIA survivors

Project members
Billie Bonevski, Alyna Turner, Amanda Baker, Christopher Levi

Description
Stroke causes significant death and disability in Australia. Smoking tobacco, alcohol consumption, poor nutrition and low physical activity are known modifiable risk factors for stroke. Providing behavioural intervention to improve risk factors is recommended best practice according to the NSF Clinical Guidelines for Stroke Management. However little is known about the prevalence of risk factors amongst stroke survivors and their carers, the impact of depression and anxiety on risk factors and optimal methods for providing behavioural intervention. This study aims to measure levels of smoking, risky alcohol use, nutrition and physical activity, depression and anxiety amongst recent stroke and TIA survivors and their primary informal carers as well as preferences for types of secondary prevention.
strategies. A cross-sectional survey of 240 stroke and TIA survivors and their nominated primary informal carer will be conducted using a touchscreen computer (for patients) and take-home survey (for carers). The information gathered from the surveys will be new and used to develop interventions to help stroke and TIA survivors improve health risk behaviours. Effective secondary prevention strategies have the potential to dramatically improve stroke and TIA physical and mental health outcomes, including lowering chances of recurrence.

**Preventing cardiovascular disease among Indigenous Australians**

*Project members*

Peter Kelly, Amanda Baker, Richard Chenhall, Robin Callister

*Description*

The life expectancy of Indigenous Australians is 11.5 years less than non-Indigenous Australians. Cardiovascular disease (CVD) is the leading cause of mortality for Indigenous Australians and it also contributes to a very high burden of disease. Improving the health of Indigenous Australians is a focus at all levels of government in Australia, and is a priority area of both the NHMRC and the ARC. However, there has been a lack of research examining behavioural interventions to prevent CVD for Indigenous Australians. To reduce the impact of CVD on Indigenous communities it is essential that culturally appropriate interventions are trialled within Indigenous focused health settings. The investigators have developed an 8-session group based healthy lifestyle intervention that aims to help participants to reduce their smoking, improve their diet, and increase their levels of physical activity. This intervention has been successfully piloted with mainstream substance abuse services. The purpose of this project is to examine the feasibility of the intervention within Indigenous focused substance abuse services.

**Randomised controlled trial of treatment for alcohol use problems and social phobia**

*Project members*

A/Prof Andrew Baillie, Prof Maree Teesson, Prof Paul Haber, Dr Claudia Sannibale, Prof Ronald Rapee, Dr Lexine Stapinks

*Description*

Randomised controlled trial of combined cognitive behavioural therapy for alcohol use problems and social phobia. For comorbid alcohol use and social anxiety disorders does combined cognitive behavioural therapy (CBT) do better than CBT for alcohol alone in improving symptoms of either anxiety or alcohol or quality of life.

**Social well-being and engaged living (SWEL) intervention for Australian youth at risk of mental health and other adverse outcomes**

*Project members*

Dr Leanne Hides, Prof Amanda Baker, Dr Helen Stain, Dr Christopher Jackson, Prof Rhoshel Lenroot, Dr Georgie Paulik, Dr Patrick McElduff, Dr Luke Wolfenden
Description

Adolescence is a period of rapid physical, emotional and social growth. Young people are faced with significant developmental challenges including the establishment of a stable identity, mastery of personal relationships and the achievement of major educational and vocational goals. Many young people lack the socio-emotional skills necessary to successfully negotiate the transition through adolescence, and are at increased risk of disengaging from education, family and community. Once disengaged, youth are at risk of a range of adverse outcomes such as reduced social and community participation in young adulthood and beyond. Much of this social disadvantage could be avoided if disengaged youth had access to effective prevention and early intervention programs. This is the first clinical trial to investigate the efficacy of a telephone delivered intervention for improving the social engagement and emotional well-being of disengaged rural and urban youth. There will be 294 youth aged 12-25 years randomised to receive either (i) 8 sessions of Social Well-being and Engaged Living intervention (SWEL), (ii) 8 sessions of Befriending, or (iii) Single Session Psycho-Education. We will engage with the Aboriginal communities in our catchment regions through consultation and collaboration; employment and training of Aboriginal youth liaison officers; consultation, liaison and education with Aboriginal key workers in the community for referral of disengaged youth. Our unique intervention aims to foster positive social and emotional skills in adolescents, to decrease the risk of adverse outcomes and promote health enhancing lifestyles. It will facilitate the resumption of education, training or employment and enhance the social inclusion of disengaged youth. Our clinical trial will increase access to effective early intervention for disengaged urban and rural youth to improve the mental health and well-being of all young Australians.

The training and support needs of youth mental health and substance use workers

Project members

Dr Christina Marel, A/Prof Katherine Mills, Prof Maree Teesson

Description

Young people with comorbid disorders frequently come to the attention of a diverse range of service systems (e.g., health, social welfare, educational, and criminal justice systems), and present a significant challenge to service providers. We are undertaking a scoping exercise to evaluate the training and support needs of youth workers working with clients who have substance use and mental health conditions will be undertaken, with a view to providing recommendations for workforce development. By improving the capacity of the workforce to intervene with this population, the standard of care may be improved, and the enduring disability associated with mental health and substance use disorders may be reduced.

Treating substance use and traumatic stress among adolescents: A pilot study

Project members

Dr Emma Barrett, A/Prof Katherine Mills, Dr Joanne Ross, Prof Maree Teesson, A/Prof Sudie Back, A/Prof Tim Slade, Vanessa Cobham, Ann Wignall

Description

Substance use disorders (SUD) and post traumatic stress disorder (PTSD) are chronic, debilitating disorders that frequently co-occur. For many individuals with comorbid SUD and PTSD, the onset of these disorders occurs during adolescence, yet the majority do not receive treatment until much later in
There is a critical need to intervene early in the trajectory to prevent the long-term psychological and physical health problems associated with this comorbidity. However, there are currently no empirically validated treatments for adolescents with comorbid SUD and PTSD. We seek to address this gap by conducting a pilot study of an innovative exposure-based treatment for substance use and traumatic stress among adolescents. Ten adolescents (aged 12-17 yrs) with comorbid substance use and traumatic stress will be recruited and offered the intervention. Adolescents and their caregivers will undergo interviews at baseline and post-treatment. Measures of therapeutic compliance, treatment acceptability and feasibility, and treatment outcome will be analysed. These findings will provide valuable information regarding the treatment of comorbid substance use and traumatic stress among adolescents and will assist with the development of a larger randomised controlled trial. By intervening earlier when these disorders have their onset, the enduring disability and considerable economic costs associated with this comorbidity may be reduced.

Update and revision of the national comorbidity guidelines

Project members
Dr Christina Marel, A/Prof Katherine Mills, Prof Maree Teesson

Description
In 2007 the Australian Government Department of Health and Ageing funded the development of “Guidelines on the management of co-occurring alcohol and other drug and mental health conditions in alcohol and other drug treatment settings” (Mills, et al., 2009). The aim of the Guidelines was to provide alcohol and other drug (AOD) workers with evidence-based information on the management of comorbid mental health conditions in AOD treatment settings. The Guidelines have been hugely popular – since publication in December 2009, over 12,000 hard-copies and electronic copies have been distributed to clinicians and treatment services across Australia, and it is a recommended text for students studying TAFE courses in alcohol, other drugs and mental health. Research pertaining to the management and treatment of comorbidity has grown considerably since this time, and as such, this project will update and revise the Guidelines to bring them up to date with the most current evidence.
Epidemiology

Table 6 provides a summary of ongoing and completed epidemiology projects. A brief description of each of these projects follows the table.

Table 6. Summary of Epidemiology Projects

<table>
<thead>
<tr>
<th>Project name</th>
<th>Investigators</th>
<th>Funding Body</th>
<th>Grant funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ongoing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>🌟 2007 National Survey of Mental Health and Wellbeing (NSMHWB)</td>
<td>Tim Slade, Cath Chapman, Maree Teesson, Katherine Mills, Matthew Sunderland, Louise Birrell, Katrina Prior</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>🌟 Diagnosing major depression in older Australian adults: Is there evidence for age-related bias?</td>
<td>Matthew Sunderland, Natacha Carragher, Phil Batterham, Heather Buchan, Tim Slade</td>
<td>NHMRC</td>
<td>$197,845</td>
</tr>
<tr>
<td>🌟 Improving the diagnostic criteria for alcohol use disorders</td>
<td>Louise Mewton, Tim Slade, Sonja Memedovic, Bob Krueger, Maree Teesson</td>
<td>NHMRC</td>
<td>$197,327</td>
</tr>
<tr>
<td>🌟 Screening scales for the common mental disorders</td>
<td>Phil Batterham, Matthew Sunderland, Natacha Carragher, Alison Calear</td>
<td>NHMRC</td>
<td>$380,000</td>
</tr>
<tr>
<td>🌟 Trends over time in the epidemiology of alcohol and cannabis use in men and women</td>
<td>Tim Slade, Cath Chapman, Wendy Swift, Zoe Tonks, Maree Teesson</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>🌟 Untangling co-morbidity: substance use and mental health in young Australians</td>
<td>Louise Birrell, Nicola Newton, Maree Teesson, Tim Slade</td>
<td>APA and Rotary Health</td>
<td>$82,629</td>
</tr>
</tbody>
</table>

2007 National Survey of Mental Health and Wellbeing (NSMHWB)

Project members

A/Prof Tim Slade, Dr Cath Chapman, Prof Maree Teesson, A/Prof Katherine Mills, Ms Louise Birrell, Ms Katrina Prior
Description

The 2007 National Survey of Mental Health and Wellbeing was conducted to provide updated evidence on the prevalence of mental illness in the Australian population, the amount of associated disability, comorbidity of mental disorders and comorbidity of mental disorders and chronic physical conditions, and the use of health services by people with mental disorders. The 2007 NSMHWB is a general household survey of the adult population aged 16-85 years, which was conducted by the Australian Bureau of Statistics from August to December 2007. This project aims to disseminate the findings of the 2007 NSMHWB regarding the prevalence and impact of mental and substance use disorders. To date, the issues addressed through this project include the onset and temporal sequencing of comorbid mood, anxiety and substance use disorders over lifetime, the delay between onset of symptoms and first treatment contact among Australians with alcohol use disorders, the temporal relationship between early onset anxiety/depression and the age of first alcohol use and the comorbidity between substance use, depression and social phobia.

Diagnosing major depression in older Australian adults: Is there evidence for age-related bias?

Project members
Dr Matthew Sunderland, Dr Natacha Carragher, Dr Phil Batterham Dr Heather Buchan, A/Prof Tim Slade

Description
Epidemiological studies have consistently indicated that the prevalence of depression decreases with increasing age. Researchers have debated whether this finding is a real age-dependent decline or an artefact of sampling and assessment. This study seeks to use statistical methods and cognitive interviewing to investigate the potential for age-related bias in the criteria for major depression. The study will make recommendations to improve the diagnostic methods used diagnose and treat major depression in the old age.

Improving the diagnostic criteria for alcohol use disorders

Project members
Dr Louise Mewton, A/Prof Tim Slade, Ms Sonja Memedovic, Prof Bob Krueger, Prof Maree Teesson

Description
Mental health surveys of the general population aim to obtain reliable and valid information regarding the prevalence and correlates of mental disorders. These large-scale, population based surveys often depend on lay administered structured diagnostic interviews that operationalize diagnostic criteria for psychiatric diagnoses as literally as possible. Whilst diagnosis in practice involves clinician judgment, structured interviews diagnose mental illness according to carefully constructed diagnostic algorithms that are based on strict translations of diagnostic criteria. Through the novel use of survey methodology and cognitive interviewing, the current project aims to identify problems in the structure and wording of questions designed to operationalize four DSM-IV diagnostic criteria for alcohol use disorders. Whilst the findings are likely to have implications for all age groups, the current study will focus on the criteria particularly as applied to young adults (aged 18–24). This research is necessary to ensure consistent measurement and accurate prevalence estimates of AUDs in the general population.
Screening scales for the common mental disorders

*Project members*
Dr Phil Batterham, Dr Matthew Sunderland, Dr Natacha Carragher, Dr Alison Calear

*Description*
Although there is a high burden of mental illness in Australia, most people with mental health problems do not seek help. A major reason for this unmet need is a lack of precise and systematic methods for identifying mental health problems in the community. Brief, precise screening tools may provide clearer pathways for people with mental health problems to access online and primary care services. This project will develop and validate several rapid assessment toolkits using advanced statistical techniques to select optimal items for short forms as well as computerized adaptive testing, building on the success of screeners recently developed in the US as part of the PROMIS initiative. To date, eight large items pools consisting of symptoms of panic disorder, social anxiety disorder, obsessive compulsive disorder, post-traumatic stress disorder, adult attention-deficit hyperactivity disorder, drug use disorders, suicidal thoughts and behaviours, and psychosis have been assembled using a highly systematic item selection and refinement process. The refined item pools were then administered to a community-based sample of approximately 5000 adults recruited via Facebook advertisements. In addition, data were collected on the three existing PROMIS item banks that assess emotional distress (depression, generalized anxiety disorder, and anger) as well as numerous legacy screening scales and DSM-5 diagnostic criteria to establish validity of new and existing screeners. A smaller sub-sample were also approached to opt-in to a randomized controlled trial that sought to examine the impact of brief screening and tailored feedback on rates of treatment seeking for mental health among the general population. The data collection stage of the study was completed in late 2014.

Trends over time in the epidemiology of alcohol and cannabis use in men and women: is there evidence for a closing gender gap?

*Project members*
A/Prof Tim Slade, Dr Cath Chapman, Dr Wendy Swift, A/Prof Katherine Keyes, Ms Zoe Tonks, Prof Maree Teesson

*Description*
Research in many countries consistently shows that men are more likely to report substance use and related harms than women. However, emerging evidence suggests this is changing with patterns of substance use converging among men and women from recent birth cohorts. This study gathered and synthesised data from around the world to examine the potential narrowing of the gender gap in alcohol and cannabis use. We mapped data from 82 studies across birth cohorts from the 1900’s to the 1990’s for twelve indicators of cannabis use, alcohol use and related harms. Preliminary results show a distinct closing of the gender gap in prevalence of alcohol use and binge drinking. The next stage of analysis will examine other indicators of alcohol use and related harms and prevalence of cannabis use. The findings have significant implications for prevention, treatment, public health campaigns and future research.
Untangling co-morbidity: substance use and mental health in young Australians

Project members
Ms Louise Birrell, Dr Nicola Newton, Prof Maree Teesson, A/Prof Tim Slade

Description
This project aims to investigate the co-morbidity (co-occurrence within one individual) of mental health problems and substance use in young Australians. To date, the study has utilised large epidemiological datasets to map the developmental sequence of anxiety and mood disorders and first alcohol use in the Australian population. Data is currently being analysed from the control group of a prevention trial involving over 500 adolescents to examine at when, how and why these problems occur together. Adolescence has been chosen as it is a time when both mental health and substance use problems first emerge.

Translational

Table 7. Summary of Translational Projects

<table>
<thead>
<tr>
<th>Project name</th>
<th>Investigators</th>
<th>Funding Body</th>
<th>Grant funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ongoing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>🌟 How do we translate research investments into clinical outcomes in Australian mental health services?</td>
<td>Erica Crome, Andrew Baillie, Tim Slade, Matt Sunderland, Frances Kay-Lambkin</td>
<td>Macquarie University</td>
<td>$49,948</td>
</tr>
</tbody>
</table>

How do we translate research investments into clinical outcomes in Australian mental health services?

Project members
Dr Erica Crome, A/Prof Andrew Baillie, A/Prof Tim Slade, Dr Matthew Sunderland

Description
Whilst there is growing evidence about the barriers to evidence-based practice in mental health treatment, we understand little about what information clinicians actually use, or their ongoing information needs. This project aims to broaden the typical focus on individual professions and barriers to implementation, and develop an understanding of the information needs of all mental health clinicians in Australia to optimise the dissemination of research into clinical practice.
## Neuropsychiatric

*Table 8. Summary of Neuropsychiatric Projects*

<table>
<thead>
<tr>
<th>Project name</th>
<th>Investigators</th>
<th>Funding Body</th>
<th>Grant funding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ongoing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Binge drinking and the adolescent frontal lobe</td>
<td>Maree Teesson, Lucie Swaffield, Caroline Rae, Roland Henry, Louise Mewton</td>
<td>NDARC</td>
<td>$22,000</td>
</tr>
<tr>
<td>The impact of real-time fMRI feedback on response to nicotine cues</td>
<td>Mark George &amp; Kathleen Brady (Co-Principal Investigators)</td>
<td>NIH/NIDA</td>
<td>US$2,059,558</td>
</tr>
</tbody>
</table>

### Binge drinking and the adolescent frontal lobe

**Project members**
Prof Maree Teesson, Ms Lucie Swaffield, Prof Caroline Rae, Prof Roland Henry, Dr Louise Mewton

**Description**
Adolescence is a critical period for brain development, with active rewiring of circuitry that is necessary in successful development of “adult” adaptive patterns of behaviour, such as the frontal lobe and its connections. Binge drinking practices may interfere with the development of these important circuits. The available evidence supports the hypothesis that heavy adolescent alcohol consumption disrupts cortical development and promotes continued impulsive behaviour, alcohol abuse and risk of alcohol dependence. However, there are few studies of the brain particularly targeted to binge drinking effects in adolescent humans and none examining the crucial development of connectivity in relation to cognition.

### The impact of real-time fMRI feedback on response to nicotine cues

**Project members**
Prof Mark George and Prof Kathleen Brady (Co-Principal Investigators)

**Description**
Nicotine dependence is the leading preventable cause of mortality in the world today. Cue-induced craving is likely to play an important role in relapse. The neural correlates of smoking cue-induced craving and extinction have been elucidated using fMRI. Recent advances make it possible to utilize real-time fMRI (rtfMRI) feedback to modify behavior, cognitions and regional brain activity. The purpose of this study is to develop the imaging parameters, brain-computer interface and standardized procedures for using rtfMRI with visual feedback to help nicotine-dependent individuals decrease craving when presented with smoking cues. The exploratory nature of this study requires a phased approach. Phase 1 will focus on the development of the technology and study paradigm. In order to proceed to Phase 2,
there must be convincing evidence that a substantial proportion of nicotine-dependent individuals can manipulate brain activity in critical brain regions associated with smoking cue-induced craving based on rtfMRI visual feedback. If this is established, a controlled comparison and duration of effect will be explored in Phase 2. This project will set the stage for clinical trials investigating a very innovative approach to the treatment of nicotine dependence and other substance use disorders. The study will provide critical information about optimal techniques, durability and "transferability" of the effects to situations outside of the scanner. The findings of this study can be used to inform the design of a clinical trial to investigate the use of rtfMRI neuromodulation training in smoking cessation.

FUTURE PROJECTS: GRANT DEVELOPMENT PROGRAM

The CREMS Grant Development Program was established in 2013 to support the generation of innovative new research projects and foster collaboration across CREMS institutions and research streams. The program consists of a Grant Development Workshop and a Response to Reviewers Workshop.

The aim of the Grant Development Workshop is to i) present NHMRC grant proposals that are planned for submission in the following year to CREMS colleagues for feedback; and ii) assist junior researchers and academics learn about the process of developing a grant application and the reviews process it will undergo. The aim of the Response to Reviewers Workshop is to discuss and provide strategies with CREMS colleagues in preparing responses to NHMRC grant reviews.

All CREMS academics, postdoctoral fellows, postgraduate students, and research staff are encouraged to attend, regardless of whether they are submitting a grant or level of grant writing experience; as the workshops provide a fantastic opportunity to learn skills that are essential for all researchers. The objective is to provide critical and constructive feedback with the aim of improving the grants overall score and ultimately improve its chance of success.

Grant development workshop

The 2014 CREMS Grant Development Workshop was held over 2 days, 20-21 November, at Bronte Surf Life Saving Club. The workshop brought together a team of 20 researchers from UNSW, Macquarie University, the University of Newcastle, and Sydney University, as well as international collaborators, in a fun and collaborative environment to discuss future grant applications and strategies for submission.

Day 1 consisted of a grant review process modelled on that used by NHMRC Grant Review Panels. Each grant was assigned two spokespersons to provide comprehensive feedback to the authors and guide group discussions. The attending members reviewed seven grant applications in total that showcased the full range of research conducted at CREMS. Day 2 involved less formal group discussions of four new and emerging grant ideas as well as grant submission strategies and presentations from the UNSW Research Strategy Office. The two day grant development workshop was highly successful and provided a valuable opportunity to receive comprehensive feedback and learn from the team’s collective experiences with obtaining competitive research funding.
Response to reviewers workshop

This half-day workshop was in June following the receipt of NHMRC reviewers comments. Approximately 20 members attended and provided constructive feedback, in a fun and supportive environment, to assist and strategise responses to the reviewers comments. Ten project grants were reviewed.

PUBLICATIONS

Ninety-four peer reviewed journal articles were published by CREMS members in 2014 (including 6 systematic reviews).


**CITATIONS**

Based on analysis of data from Thomson Reuters Web of Science®, articles published by the CREMS Chief Investigators alone since 2012 were cited 985 times in 2014 (total of 1,516 citations since 2012).
2. ENSURE TRANSLATION OF RESEARCH KNOWLEDGE

Performance indicators:

- Three annual training workshops in comorbidity attended by 500 clinicians
- 20 webinars for clinical researchers
- Citations in policy documents
- Contribution to 5 major policy documents
- Projects which respond to stakeholder interests
- An average of 50 references to CRE work in print and electronic media
- Over 1,000 hits annually on CRE website

WORKSHOPS

Kay-Lambkin, F. *It’s Worth a Try - Integrating Technology into the Management of Comorbidity*. Centre for Mental Health Research, Canberra, April.


WEBINARS


CITATIONS IN POLICY DOCUMENTS

“Evidence summary: Public Health interventions in response to substance misuse (drugs) to support parents, their children and young people up to 25 years.” NHS Health Scotland (September 2014) cited:


Contribution of policy documents

During 2014, the CREMS made invited contributions to the development of three policy documents:

- Maree Teesson led a review on opportunities for innovative prevention and treatment of mental health and substance use disorders to help inform the NSW Mental Health Commission’s Strategic Plan for Mental Health in NSW published in 2014: “Living well: A strategic plan for mental health in NSW 2014-2024”.

- Mark Deady and Emma Barrett led the production of a rapid review commissioned by the Sax Institute on behalf of NSW Health. This review is due to be published by NSW Health in 2015.

- With David Perkins, Sharon Parker and Tony Gill, Tonelle Handley completed a rapid review on opiate substitution for the NSW Health Mental Health and Drug and Alcohol Office (Feb 2014)
COMMITTEE MEMBERSHIP

- American Heart Association, Behavior Committee; Bonnie Spring
- American Psychological Association Committee on Evidence-Based Treatment Guidelines Advisory Steering Committee; Bonnie Spring
- Australian Psychological Society Special Interest Group on Telephone and Internet Treatment Executive Committee, Frances Kay-Lambkin
- Centre for Brain and Mental Health Priority Research Centre Centre Management Committee, University of Newcastle; Frances Kay-Lambkin
- Clinical Translational Research Center (CTRC) Executive Committee, MUSC; Kathleen Brady
- Community Mental Health Drug and Alcohol Research Network Steering Committee; Katherine Mills
- Department of Psychiatry and Behavioral Sciences Educational Steering Committee, MUSC; Kathleen Brady
- Department of Psychiatry Management Committee, MUSC; Kathleen Brady
- Evaluation of behavioural risk factors in stroke survivors Steering Committee, University of Newcastle; Alyna Turner
- International Society for Research on Internet Interventions, Frances Kay-Lambkin
- Liaison Committee on Medical Education (LCME), MUSC; Sudie Back
- Music therapy to improve communication post-stroke Steering Committee, University of Newcastle; Alyna Turner
- National Drug and Alcohol Research Centre Senior Advisory Committee, UNSW; Frances Kay-Lambkin, Katherine Mills, Maree Teesson, Tim Slade
- Neuroscience Institute Executive Committee, MUSC; Kathleen Brady
- NHMRC Early Career Research Fellowship Review Panel; Tim Slade
- NHMRC Project Grant Review Panels; Katherine Mills, Frances Kay-Lambkin
- NHMRC Health Care Committee (HCC); Maree Teesson
- NSW Institute of Psychiatry (IoP) Transition Committee; Maree Teesson
- NSW Mental Health Commission, Maree Teesson
- Paternal Perinatal Depression Initiative, Advisory Committee, Frances Kay-Lambkin
- QLD Forensic Mental Health, Project Reference Group, improving the understanding and treatment of post traumatic stress disorder among incarcerated Aboriginal and Torres Strait Islander women
- School of Medicine and Public Health Research Management Committee, University of Newcastle; Amanda Baker, Frances Kay-Lambkin
- Society for Mental Health Research Executive Committee, Frances Kay-Lambkin
- Substance Abuse Fellowship Committee, Department of Psychiatry and Behavioral Sciences, MUSC; Kathleen Brady
PROJECTS RESPONDING TO STAKEHOLDER INTERESTS

Practitioners

A partnership was formed with the Community Mental Health Drug and Alcohol Research Network (CMHDARN) to develop a mentoring program that commenced in 2014. CMHDARN is a joint initiative of the NSW Network of Alcohol and Drug Agencies and the Mental Health Coordinating Council. It aims to build the research capacity of community mental health and alcohol and other drug organisations. The partnership provides the opportunity for CREMS early career researchers to provide short-term mentoring in research to individuals and organisations working in the sector. This initiative gives members the opportunity to gain experience in mentoring others, as well as build their own links with community services, and be involved in stakeholder driven research.

The broad aim of this project is to provide workers in community mental health and substance use organisations who have an interest in research with academic mentor support to develop their research knowledge and skill development.

Related aims include:

- Facilitate an increase in worker confidence, knowledge and skills in the area of research and evaluation.
- Provide mentors with an opportunity to enhance their understanding of community managed organisations and the specific operational issues which may impact on the conduct and implementation of research.
- Further develop a research culture within community managed organisations.
- Develop deeper understanding by academic researchers of practice related issues of organisations operating in the community sector and stakeholders interests (e.g. consumers, clients, carers).

In its first year, 13 workers were provided with mentoring through the program by CREMS early career researchers. Further detail regarding the mentoring program is available through CMHDARN: http://www.cmhdaresearchnetwork.com.au/activities/mentoring-program/.

Policy makers

The Prevention stream within CREMS led a project funded by the Australian Government Department of Health to develop a series of resources on illicit drugs and associated harms, as part of the National Drugs Campaign to prevent drug use amongst young people. This included booklets for students, teachers and parents, an interactive game for students, and an online portal known as “Positive Choices”, a national gateway to evidence-based drug prevention resources. In December 2014, a total of 186,000 booklets were distributed to parents, teachers and students at all 3,072 secondary schools in Australia. The Positive Choices portal is due to be launched in 2015.
MEDIA

- **ATOS team.** *Segment about methamphetamine.* 702 ABC Sydney Weekends with Simon Marnie, 6 September.
- **Handley, T.** *Depression awareness day coming up.* Warren Weekly, 20 August.
- **Handley, T.** *Hundreds turn out for Depression Awareness Day [Print].* Warren, 27 August.
- **Handley, T.** Australian Rotary Health Hat Day Twitter chat (#HatDayChat), 7 October.
- **Kay-Lambkin, F.** *Drive interview re link between depression and substance use.* ABC Newcastle, 13 August.
- **Kay-Lambkin, F.** *Mental As campaign.* All forms of ABC television, radio, print, Internet and social media, 5-10 October.
- **Mills, K.** *Alcohol Forum.* Studio 10, 29 April.
- **Teesson, M.** *Quick fixes don’t work (ATOS Study).* Lateline, 8 September.
- **Teesson, M.** *Short term treatments for heroin users often fail and lead to relapse.* ABC News 24, 9 September.
- **Teesson, M.** *100 Women of Influence Awards showcase remarkable array of talent.* Canberra Times, 2 October.
- **Teesson, M.** *Revealed: 100 high achievers.* The Sydney Morning Herald, 2 October.

WEBSITE

How many people visit the website?

In 2014 there were 30,400 page views of our website [www.comorbidity.edu.au](http://www.comorbidity.edu.au) made by 8,800 users over 12,100 sessions. This was a substantial increase on 2013 (See Figure 3), with page views, users and sessions up 22%, 101% and 78% respectively. Traffic peaked upon publication of our newsletters and during promotion of the opportunity to take part in the CREMS’ update of the national comorbidity guidelines.
Where do visitors to the website come from?

The majority of visitors to the website originated in Australia (71%), although traffic from international visitors increased 38% on 2013, with most being from the US (8%), UK (5%), then India, Canada and New Zealand.

Sources of website traffic were search engines (73%), direct traffic such as people who had the site bookmarked (18%), referral from other sites (7%) including NDARC, Dual Diagnosis and The MHS Learning Network, and social media (2%).

What content did visitors access?

The website’s most visited pages, after the home page, were those featuring resources for professionals and the general public; staff profiles; information ‘about us’; and information on the CREMS’ research streams. The most clicked on links were those connecting visitors to conferences, the clinical Comorbidity Guidelines, and the CREMS’ online prevention and treatment portal, Clearing the Cloud (www.clearingthecloud.org.au). The CREMS’ quarterly newsletters accounted for two thirds of website downloads in 2014. Fact sheets on drugs and drug-related issues were the second most downloaded item.

OTHER DISSEMINATION ACTIVITIES

Newsletter

The CREMS releases a quarterly newsletter to provide regular updates on the progress of the CRE. In addition to feature articles written by CREMS members, each newsletter includes news, new projects and publications, upcoming seminars, workshops and events.

There were over 250 subscribers to the newsletter in 2014, including academics, researchers, clinicians, policy makers, and members of the general public. There were just shy of 550 downloads of the newsletter from the CREMS website in 2014, up 69% on 2013.
Social media

The CREMS Facebook page had 115 likes at the close of 2014, up 111% on 2013. Over the course of the year, 14,100 people saw content associated with the page (total reach). The posts that achieved the highest number of engaged users were those about the CREMS grant development workshop; Professor Teesson’s win of the Eureka Prize for Outstanding Mentoring of Young Researchers; and Professor Teesson’s profile in UNSW magazine Uniken.

The CREMS Twitter account had 480 followers at the close of 2014, up 34% on 2013. The 1,200 tweets sent throughout year profiled CREMS resources, events, published papers and achievements.

Figure 4. Popular Facebook posts.

Clearing the Cloud

Clearing the Cloud (www.clearingthecloud.org.au) is an online portal that houses online prevention and treatment programs for substance use and mental health developed by the CREMS.

In 2014 there were 6,400 page views of the site made by 1,220 users over 1,450 visits.

The most accessed pages on the site in 2014 were information booklets about illegal drugs developed for teachers, students and parents.
Climate Schools

Climate Schools (www.climateschools.com.au) is an online portal that provides access to the Climate Schools programs.

At the end of 2014 there were 134 schools registered.

During the year this site had 132,195 page views made by 10,341 unique visitors.

In 2014, the Climate Schools: Alcohol and Cannabis course was included in the National Centre for Education and Training on Addiction (NCETA) “Alcohol Education: What really works in Schools” policy document for schools, and was given three stars for effectiveness - the highest rating.

Second annual conference

In August 2014 the second CREMS National Conference was held in conjunction with The Mental Health Services Conference in Perth. The conference featured a full-day program designed to provide insight into ‘Substance use and mental health concerns in young people: Sharing online and interactive resources’. The conference brought together 26 registrants comprising service providers, clinicians and consumers.

National and international conference presentations


15. **Kelly, E., Teesson, M., Newton, N. C., Slade, T., & Conrod, P.** Improving social and academic outcomes for adolescent bullies, victims and bully-victims. Poster at the *Australian Psychological Society Educational and Developmental Psychology Conference, Melbourne, Australia, 2014*.


3. TRAIN FUTURE RESEARCH LEADERS

Performance indicators:

- Minimum of 13 new clinical researchers:
  - 1 FTE senior post-doctoral research fellow/coordinator
  - 1 FTE early career clinical researcher
  - 5 x 0.5 FTE early career clinical researchers
  - 6 PhD students

The CREMS is dedicated to building research capacity in mental health and substance use, and represents a unique opportunity for students and clinicians interested in pursuing research across the areas of mental health and drug and alcohol disorders. The CREMS aims to attract and train high quality higher degree research students (e.g., Masters and PhD level) and post-doctoral researchers to be the future of mental health and substance use research.

Several early career researcher and PhD positions were supported directly by the CREMS in 2014. However, as a result of our profile and success in obtaining competitive research funding, fellowships, and scholarships, we are able to provide training to a far broader range of early career researchers. We were fortunate to have 13 postdoctoral researchers and 13 postgraduate students undergoing training within the CREMS. As highlighted in Table 9, these positions have been funded from a range of sources including NHMRC.

Table 9: CREMS postgraduate students

<table>
<thead>
<tr>
<th>Candidate</th>
<th>Supervisors</th>
<th>Topic</th>
<th>Funding source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms Louise Birrell</td>
<td>Tim Slade, Nicola Newton, Maree Teesson</td>
<td>Untangling comorbidity: substance use and mental health in young Australians</td>
<td>Australian Postgraduate Award (APA) and Rotary Scholarship</td>
</tr>
<tr>
<td>Ms Katrina Champion</td>
<td>Maree Teesson, Nicola Newton</td>
<td>Internet-based substance use prevention for Australian adolescents</td>
<td>NHMRC Postgraduate Scholarship</td>
</tr>
<tr>
<td>Mr Mark Deady</td>
<td>Maree Teesson, Frances Kay-Lambkin, Katherine Mills</td>
<td>Youth Depression and Alcohol Misuse: An Internet-based Intervention</td>
<td>NDARC PhD Scholarship</td>
</tr>
<tr>
<td>Ms Miriam Forbes</td>
<td>Andrew Baillie, Carolyn Schniering</td>
<td>Understanding the latent variable relationships between sexual dysfunctions and depressive and anxiety disorders</td>
<td>Australian Postgraduate Award (APA)</td>
</tr>
<tr>
<td>Candidate</td>
<td>Supervisors</td>
<td>Topic</td>
<td>Funding source</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>PhD</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ms Katrina Hamall</strong></td>
<td>Frances Kay-Lambkin, Kerry Inder, Todd Heard</td>
<td>Improving the wellbeing and resilience of families living with childhood chronic illness: An examination of the effectiveness and acceptability of the CHiRP program</td>
<td>University of Newcastle, Hunter Institute of Mental Health</td>
</tr>
<tr>
<td><strong>Ms Sally Hunt</strong></td>
<td>Amanda Baker, Pat Michie</td>
<td>Neurocognitive profiles of people with comorbid depression and alcohol misuse</td>
<td>University of Newcastle</td>
</tr>
<tr>
<td><strong>Ms Erin Kelly</strong></td>
<td>Maree Teesson, Nicola Newton, Lexine Stapinski</td>
<td>Bullying and substance use in Adolescents: risks and responses</td>
<td>NDARC PhD Scholarship</td>
</tr>
<tr>
<td><strong>Mr Warren Logge</strong></td>
<td>Andrew Baillie, Paul Haber</td>
<td>The ‘thinking behind drinking’ what role does executive functioning have in progression to, and maintenance of alcohol use disorders</td>
<td>Macquarie University Research Excellence Scholarship</td>
</tr>
<tr>
<td><strong>Ms Sonja Memedovic</strong></td>
<td>Joanne Ross, Tim Slade, Maree Teesson</td>
<td>Depression in people with opioid dependence</td>
<td>APA, Brain Sciences UNSW</td>
</tr>
<tr>
<td><strong>Ms Katrina Prior</strong></td>
<td>Joanne Ross, Maree Teessson, Katherine Mills</td>
<td>The relationship between social phobia, depression, and substance use disorders: The impact on treatment outcomes</td>
<td>Australian Postgraduate Award (APA) and Rotary Scholarship</td>
</tr>
<tr>
<td><strong>Ms Mikki Subotic</strong></td>
<td>Andrew Baillie, Lexine Stapinski, Jennifer Cornish</td>
<td>Investigating the role of reward drive, rash impulsivity and drinking behaviour in the relationship between social phobia and alcohol use</td>
<td>Macquarie University Research Excellence Scholarship</td>
</tr>
</tbody>
</table>
Table 9: CREMS postgraduate students (continued)

<table>
<thead>
<tr>
<th>Candidate</th>
<th>Supervisors</th>
<th>Topic</th>
<th>Funding source</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ms Zoe Tonks</td>
<td>Tim Slade, Nicola Newton, Maree Teesson</td>
<td>The development and evaluation of a combined parent and student internet-based substance use prevention for Australian adolescents</td>
<td>Rotary Scholarship</td>
</tr>
<tr>
<td>Ms Kathryn Woodcock</td>
<td>Frances Kay-Lambkin, Maree Teesson, Amanda Baker, Katherine Mills, Peter Stanwell</td>
<td>Managing comorbid substance use and trauma in Australian veterans and their partners: Assessing the acceptability and effectiveness of internet-delivered psychological support programs</td>
<td>NDARC PhD Scholarship</td>
</tr>
</tbody>
</table>

MENTORING AND LEADERSHIP SUPPORT ACTIVITIES

The CREMS has a demonstrated commitment to mentoring the next generation of comorbidity researchers in Australia and internationally. In recognition of this commitment to mentoring, in 2014 CREMS Director Professor Maree Teesson was awarded the prestigious Australian Museum Eureka Prize for Outstanding Mentoring of Young Researchers.

The CREMS strives to provide a collaborative and supportive research environment where researchers at all stages in their careers are given opportunities to develop, learn, lead and thrive. A number of specific activities within the centre support mentoring and leadership.

Senior leadership advisory group

This group meets weekly to provide support for senior staff and to discuss strategic directions of the organisation - research priorities, strategic collaborations, opportunities for awards, fellowships and grant funding as well as staffing and management issues. The CREMS Program Director co-ordinates these meetings.

Academic group

Academic staff meet monthly to provide an opportunity for a broader group of academics to contribute to leadership within the organisation, to discuss current and new research projects, as well as opportunities within and outside the organisation for dissemination of research, new collaborations, and funding. Quarterly, this meeting brings together all staff within CREMS. The CREMS Director co-ordinates these meetings.
Research groups (Epidemiology, Prevention, Treatment and Translation)

Each research group meets quarterly to discuss research priorities, new developments, upcoming projects and to brainstorm new ideas focusing on each of the centre’s major research areas. The Directors of these activities co-ordinate these meetings.

Early career researcher training program

The Early Career Researcher training program provides early career researchers with the foundations upon which they may build their own successful careers. The program aims to provide early career researchers with skills not only in the science of comorbidity, but also personal and professional development in research leadership, management, mentoring and collaborations. The Early Career Researcher Training Program is delivered through a series of monthly seminars and workshops tailored specifically to the needs of its members, formal and informal mentoring from senior academics, and participation in the CREMS Grant Development Program, described earlier in this report. The group meets to discuss career development opportunities, to provide training and support and to promote collaboration across projects and streams. CREMS early to mid-career researchers co-ordinate this program.

Early career travel and research funding

The provision of this funding is an important infrastructure support mechanism provided annually to all CREMS early career researchers who are funded by CREMS. Developed in response to an unmet need identified by CREMS early career researchers, these small grants are provided to facilitate conference travel and seed funding for project activities central to their emergence as independent researchers. Our early career researchers are encouraged to identify conferences of strategic importance and relevance to their work, and gain invaluable experience learning how to operate project budgets and prioritise pilot work to strengthen their competitiveness in larger granting schemes.
4. FACILITATE COLLABORATION

Performance indicators:

- An average of 8 collaborative projects with other national and significant state organisations
- An average of 2 collaborative projects with other international organisations each year

Six of the 31 projects underway in 2014 involved collaborations with other significant national and state organisations, and five involved collaborations with other significant international organisations.

Collaborations with national and state organisations external to the CREMS included:

- Australian National University (ANU), Canberra, ACT
- Calvary Mater Hospital, Newcastle, NSW
- Clinical Research Unit for Anxiety and Depression, St Vincent’s Hospital, Sydney, NSW
- Flinders University, SA
- Monash University, Melbourne, VIC
- National Drug Research Institute (NDRI), Curtin University, Perth, WA
- Neuroscience Research Australia, Sydney, NSW
- Queensland University of Technology (QUT), QLD
- University of Melbourne, VIC
- University of Queensland, Brisbane, QLD

Collaborations with international organisations external to the CREMS (i.e., in addition to those with the University of Birmingham, Northwestern University and the Medical University of Carolina) included:

- Cobalt Therapeutics LLC, USA
- Dartmouth, USA
- Harvard University, USA
- Kings College London, England
- Lausanne University, Switzerland
- Leeds University, UK
- Rutgers Robert Wood Johnson Medical School, USA
- University College London, UK
- University of California, USA
- University of Maryland, USA
- University of Minnesota, USA
- University of Montreal, Canada
- McGill University, Canada
- Webster University, Austria
RECOGNITION AND INDICATORS OF ESTEEM

Several CREMS members received awards, scholarships and honours during 2014 in recognition of their outstanding research efforts:

- **Prof Amanda Baker** was awarded the Australian Association for Cognitive and Behaviour Therapy (AACBT) Distinguished Career Award
- **Dr Natacha Carragher** was awarded the Royal Society of Medicine, UK’s 2014 Epidemiology & Public Health Young Epidemiologists Prize, Natacha was also promoted to Senior Lecturer at UNSW
- **Ms Katrina Champion** was placed on the UNSW Faculty of Medicine Dean’s List
- **Prof Helen Christensen** was promoted to Scientia Professor with UNSW
- **Dr Tonelle Handley** was awarded an Australian Rotary Health Geoff Betts Postdoctoral Fellowship (2014-2017).
- **Dr Frances Kay-Lambkin** was awarded the UK Society for the Study of Addiction (SSA) Fred Yates Prize, Frances was also promoted to Associate Professor in 2014
- **Dr Louise Mewton** was awarded a Rotary postdoctoral fellowship
- **Dr Nickie Newton** was awarded the NSW Young Tall Poppy Award
- **Mr Bill Reda** was awarded the SMHR Conference Award for Best Overall Poster
- **Prof Maree Teesson** was awarded the 2014 Australian Museum Eureka Prize for Outstanding Mentoring of Young Researchers, Maree was also listed on the Australian Financial Review and Westpac’s 100 Women of Influence in the category of innovation, as well as being awarded the Australasian Professional Society on Alcohol & other Drugs (APSAD) Senior Scientist Award. Maree was also promoted to NHMRC Principal Research Fellow.
- **Dr Louise Thornton** was awarded the UNSW Vice Chancellor’s postdoctoral fellowship for 2015-2016
- **CREMS Prevention Stream** was awarded the Australian Rotary Health “Knowledge Dissemination Award” through the Society for Mental Health Research