We are thrilled that the second National CREMS Conference, held in Perth on the 26th of August in conjunction with The Mental Health Services Conference, was a fabulous success! This year showcased our innovative, evidence-based resources developed for the prevention and treatment of comorbid mental health and substance use conditions in young people. This included an update on the latest research examining the effectiveness of interventions, directions for development of future interventions and opportunities for delegates to have first-hand experience of the online programs.

Prof Vera Morgan (University of Western Australia), Dr Cath Chapman (University of New South Wales), Dr Emma Barrett (University of New South Wales), Dr Lexine Stapinski (University of New South Wales), Ms Nina te Pas (Curtin University), and Ms Mel Forbes-Harper (International School of Western Australia) all delivered excellent presentations about cutting-edge research and experiences implementing our online interventions.

Conference attendees provided evaluations of their experiences at the Conference. They were overwhelmingly positive about the new directions in comorbidity research and approaches to drug and alcohol education in young people. Attendees also welcomed the opportunity to be introduced to new resources and interventions available online through the CREMS website, network with other health professionals and develop new research partnerships.

We look forward to seeing everyone again next year!
WHAT ARE THE 11-YEAR OUTCOMES OF HEROIN DEPENDENCE?

By Prof Maree Teesson and Dr Christina Marel

What is ATOS?
Heroin dependence is often life-long and causes considerable disability. Heroin overdose deaths are in the top 20 causes of years of life lost for males in developed countries. While the impact of heroin dependence is undeniable, there are very few long-term studies anywhere in the world. An understanding of the long-term health and social impacts of heroin dependence, mortality, criminal involvement and mental health are critical in improving health outcomes.

Yet they remain poorly understood. This can frustrate our attempts to improve health outcomes.

To try and address this gap in our knowledge, a group of addiction researchers started the Australian Treatment Outcome Study. Prof Maree Teesson, Shane Darke, Michael Lynskey and Dr Joanne Ross conceived of and first sought funding for the study in 2001. CREMS chief investigator A/Prof Katherine Mills was one of the first researchers on the study and is a current investigator. The Australian Treatment Outcome Study (ATOS) was developed as a longitudinal cohort study of 615 entrants to treatment for heroin dependence. At first we aimed for a 12 month follow-up. With successful applications to NHMRC and government funding we have been able to extend the study to 11 years. This is now one of the longest running follow-up studies anywhere in the world. The participation of the cohort and the amazing skills of the research teams have meant that we now have a chance of closing the knowledge gaps.

Who was followed up?
Over the last 11 years, the ATOS cohort has been interviewed at 3 months (89%), 12-months (80%), 24-months (76%), and 36-months (70%) post-baseline. At 11-years, 431 individuals were reinterviewed (70%), a further 7 (4%) were incarcerated and 63 (10%) were deceased. The majority of the cohort (over 91%) was located at 11-years. It is incredible to have such amazing information and we hope that it will provide insights into better treatment and responses to people with heroin dependence.

Has there been a change in heroin use?
Over the 11 years of the study there were substantial reductions in heroin use (Figure 1). Daily use had declined sharply from 80% at baseline to 24% by 3-months, declined again to 17% at 12-months, where it remained fairly stable to 36-months. By 11-years however, daily heroin use had declined to 4%. Current heroin abstinence was 49% by 3-months, and

![Figure 1. Heroin use in the preceding month](image-url)
increased to over half the cohort at all subsequent follow-ups. By 11-years, three-quarters of this group of long-term heroin users were currently heroin abstinent.

As with heroin use, there was a substantial reduction in heroin dependence over the follow-up period. Whilst almost the entire cohort was heroin dependent at baseline, by 11-years, this had reduced to 15%.

Has there been a change in levels of crime?
Consistent with the large declines in heroin use and injecting, levels of criminal involvement declined from baseline to 11-years. As with heroin use and dependence, the sharpest decline occurred at 3-months. The reduced impact on society is evident by the fact that 55% had committed crime in the month prior to the commencement of ATOS, compared to 22% at 11-years. Although there was a slight increase in criminal involvement between 36-months and 11-years, it was not statistically significant. Importantly, at baseline, almost one-quarter of the cohort indicated their main source of income was obtained from criminal activity. At 11-years, this had dramatically reduced to just 2.1%.

Has there been a change in mental health?
Although there were substantial and sustained declines in heroin use and crime, the psychological health of the cohort had substantially worsened (Figures 2 and 3). Whilst the overall mental health of the cohort had improved dramatically from baseline to 36-months, by 11-years, general mental health had substantially declined and remained very poor compared to the general population (Figure 3). At baseline, 49% were categorised as having severe mental health problems compared to 19% at 36-months, and 25% at 11-years. Despite improvements over the course of the study, poor psychological health remained a problem for large proportions of the cohort.

At baseline, a quarter of the cohort had a current diagnosis of major depression (Figure 2). This proportion was halved by 3-months, and declined at each subsequent point to 36-months, where 8% met criteria for a diagnosis. However, by 11-years, current depression had sharply increased, to the point where one in five met criteria for current major depression.

More than one third of the cohort had a diagnosis of lifetime post-traumatic stress disorder (PTSD) at baseline, with almost one third of the cohort having experienced
Despite advances in public awareness and understanding, men still experience mental health problems with friends, family and health professionals. But there is momentum for change! There is an increasing awareness that we need to better understand and address the unique and diverse mental health needs of boys, youth of all ages.

Improving men’s mental health is everyone’s business. So join us this February at TheMHS Summer Forum 2015 in Sydney to discuss new thinking, latest research, and innovative programs for improving men’s mental health.

Figure 3. Mental health (severe disability)

What have we learned from ATOS?
Firstly, longitudinal research among heroin users in Australia is possible. Prior to ATOS, the ability to maintain a longitudinal substance-dependent cohort was uncertain. Not only have ATOS follow-up rates remained at, and exceeded international standards, but the most recent follow-up rates exceeded those from the previous follow-up, despite there being no contact with participants in the intervening eight years. Astoundingly, more than 90% of the cohort was accounted for at 11-years. As such, we have learned from ATOS that it is possible to investigate the natural history of heroin users.

Secondly, there were substantial improvements in heroin use and dependence, risk-taking, and crime, which were maintained over 11-years. However, these improvements were not similarly reflected in the physical or psychological health of the cohort. Comorbid psychiatric disorders present a major clinical challenge to treatment agencies, perhaps more so than the challenges presented by alcohol or other drug use.

TheMHS Summer Forum: Men’s Mental Health - Building a Healthier Future

Mental health problems affect more than 2.1 million men in Australia every year. Despite advances in public awareness and understanding, men still experience significant stigma associated with recognising and talking about mental illness and mental health problems with friends, family and health professionals.

But there is momentum for change! There is an increasing awareness that we need to better understand and address the unique and diverse mental health needs of boys, youth of all ages.

Improving men’s mental health is everyone’s business. So join us this February at TheMHS Summer Forum 2015 in Sydney to discuss new thinking, latest research, and innovative programs for improving men’s mental health.
Within the CREMS Prevention Stream, we have been working on an exciting project funded by the Australian Government Department of Health to develop innovative and evidence-based drug education resources for young people. The team (Dr Nicola Newton, Prof Maree Teesson, Dr Lexine Stampinski, Mr Daniel Rodrigues, Mr Bill Reda, Dr Cath Chapman and Dr Frances Kay-Lambkin) has collaborated with the National Drug Research Institute (NDRI) at Curtin University (Prof Steve Allsop, Dr Nyanda McBride) to develop:

🌿 Pure Rush: A fun and interactive online drug education game.

🌿 Drug Education Booklets for Teachers, Parents and Students

The online game and booklets are free to access and are available now by clicking here.

PURE RUSH: Using serious education games to educate young people about drug harms

With input and feedback from local secondary school students and their teachers, we have created a unique, interactive drug education game for Australian teenagers.

The project began with a literature review which revealed that serious education games are effective in increasing knowledge in other subject areas (e.g. languages, maths). Furthermore, research suggests that serious educational games maintain higher levels of motivation to learn and engagement compared to traditional education methods. Other benefits of educational games include the promotion of general problem-solving skills, goal-oriented behaviour, cognitive skills and strategic thinking. Our review identified a handful of existing drug education games, most developed in the US, with some evidence that these games can increase knowledge about alcohol and other drugs. However, these games were in the style of a click-through comic book, rather than a traditional arcade-style game. The team concluded there was an unmet demand for...
a short, fun, truly interactive drug education game for Australian teenagers.

The next step was to find out what kind of game would appeal to teenagers. We sought input from 115 students (aged 15-17) across 5 schools in NSW and WA. The overwhelming response was that students loved the idea of an interactive drug education game. In particular, the concept of a fun, simple, points-based game that demonstrated the effects of different drugs was popular.

Taking on board this feedback, we worked together with game developers 2and2 to develop a unique game called Pure Rush, which incorporates current evidence-based drug education principles. Pure Rush educates students about the effects and potential harms associated with cannabis, methamphetamine, hallucinogens and pill such as ecstasy. Learning is interactive and is placed in a context that is relevant and meaningful for teenagers.

Pilot testing of the prototype for the game was conducted with students aged 14-17 at two Sydney schools, and initial feedback has been very positive. The vast majority of students (80-90%) found the game enjoyable, age-appropriate, and found the information presented useful and understandable. The next step is to evaluate the benefits of Pure Rush compared to more traditional drug education.

Mr Bill Reda is currently carrying out this research in schools. Please contact us if your school would be interested in participating.

The Pure Rush game takes 15-20 minutes to play and can be played by students individually, or incorporated into a Health lesson plan. The game will be released in October as an app on itunes and google play, and is currently free to play online here.
To meet this need, we have developed an illegal drugs resource package for use by teachers, parents, and students. Informed by expert review of research evidence and consultation with teachers, parents, and students, the booklets in this series have been developed to:

- Provide accurate, up-to-date information about illegal drugs, their use, effects, and potential harms
- Help students to make informed choices and deal with pressure from peers
- Provide guidance about how to talk to a young person about illegal drugs, or help someone who has taken a drug
- Give information about school-based drug prevention programs that have demonstrated positive outcomes in Australia

Copies of the booklets will be delivered to every secondary school in Australia in Term 4, 2014.

What’s next? Positive Choices... coming soon!

In the next exciting phase, we are building on these school-based resources by developing an online portal that facilitates access to interactive evidence-based drug education resources for parents, teachers, and students.

Click above to download our drug education booklets
alcohol use. Importantly, we have also seen some common myths dispelled - for example, some of the most recent evidence strongly indicates that early introduction to alcohol by parents in a controlled environment, a practice common in Mediterranean countries, is actually associated with increased alcohol use in Australian adolescents. However, despite this body of research, the translation of this into evidence-based preventive programs is very limited, such that parents are rarely included in prevention programs.

My PhD thesis will build on the Climate Schools program of research by addressing the pivotal role that parents can play in preventing adolescent alcohol use. One of the most common questions I am asked is, ‘Are there any resources for parents?’ Parenting and adolescent alcohol use is an interesting topic, and it has been recently receiving more attention. There is a wealth of evidence indicating that factors such as parental modelling, parental monitoring, parent-child communication and parent-child relationship quality can all influence adolescent alcohol use. Importantly, we have also seen some common myths dispelled - for example, some of the most recent evidence strongly indicates that early introduction to alcohol by parents in a controlled environment, a practice common in Mediterranean countries, is actually associated with increased alcohol use in Australian adolescents. However, despite this body of research, the translation of this into evidence-based preventive programs is very limited, such that parents are rarely included in prevention programs.

Every member of CREMS provides a unique contribution to improving our understanding of mental health and substance use. Each issue we highlight the research achievements of particular members of CREMS.

In this issue, the spotlight is on Ms Zoe Tonks and her work extending the Climate Schools program of research to address the pivotal role parents can play in preventing adolescent alcohol use.
intervention, which is an integrative parent and student Internet-based substance use prevention program for Year 8 students. The student component of the StraightUp intervention will be based on the already existing evidence-based Climate Schools - Substance Use program developed by Dr Nicola Newton and Prof Maree Teesson. It comprises two sets of six 40-minute lessons delivered six months apart, with each lesson having a 15-20 minute Internet-based cartoon storyline of teenagers experiencing real life situations and problems with alcohol, and a classroom activity.

The parent component will be developed in collaboration with Dr Ina Koning from Utrecht University in The Netherlands and will be based on her Prevention of Alcohol Use in Students - Parent Intervention (PAS-PI). The PAS-PI is a face-to-face intervention for parents that specifically targets alcohol-specific rule-setting, as this parenting practice has shown to be one of the best and easily modifiable predictors of adolescent substance use. When combined with a student intervention, it has shown to be effective in reducing adolescent alcohol use at significantly greater levels. For my PhD, I will be translating this program into an online version for Australian adolescents.

In June this year, I had the pleasure of travelling to The Netherlands to meet Dr Koning. In between bicycle rides along the beautiful Edam coast and sampling delicious Dutch cuisine (for example, Edam cheese!), we were able to discuss information about preventive programs from our respective countries, share ideas about future preventive programs, and brainstorm for future publications. Dr Koning’s passion and enthusiasm for research was infectious and I am looking forward to developing the StraightUp parent component and collaborating with her over the coming years.
Prof Maree Teesson, Outstanding Mentor of Young Researchers

Congratulations to Professor Maree Teesson, CREMS Director, who was awarded the 2014 Australian Museum Eureka Prize for Outstanding Mentoring of Young Researchers.

The award was presented on 6 September at a gala dinner held at the Sydney Town Hall, attended by over 600 leaders in Australian science.

Regarded as the ‘Oscars of Australian Science’, the Australian Museum Eureka Prizes are the country’s most comprehensive national science awards, honouring excellence in Research and Innovation, Leadership, Science Communication and Journalism, and School Science.

Maree’s award is testament to her passion for mentoring and nurturing the next generation of researchers. Her mentoring has been instrumental in positioning Australia at the forefront of the discipline of mental health and substance use internationally. Maree’s vision and drive, mixed with compassion and care, make her one of our true academic leaders. It is a phenomenal achievement and wonderful to see that research into the prevention and treatment of co-occurring mental and substance use disorders is recognised as an important scientific pursuit - alongside epigenetics and climate change!

For further information on the Eureka Prizes and Maree’s nomination visit http://australianmuseum.net.au/media/2014-Eureka-Mentor
Congratulations!

Dr Natacha Carragher has been awarded the prestigious 2014 Epidemiology and Public Health Young Epidemiologists Prize from the Royal Society of Medicine, UK for her work on the development and evaluation of an alcohol policy assessment tool: the Toolkit for Evaluating Alcohol policy Stringency and Enforcement (TEASE-16). The Tease-16 assesses the adequacy of national policies aimed at reducing alcohol consumption and related problems and is designed to be used by international and national regulatory bodies and policy makers to guide the design, implementation, evaluation and refinement of effective policies to reduce alcohol consumption and related problems. A paper based on this work is published in the current issue of the Bulletin of the World Health Organisation and can be viewed here.

Dr Carragher is also to be congratulated on her recent promotion to Senior Research Fellow. She has worked closely with colleagues here at CREMS examining unanswered questions in the classification of mental health and substance use. This promotion is a testament to her hard work and dedication. Congratulations Natacha!

Dr Emma Barrett was awarded the College on Problems of Drug Dependence (CPDD) Early Career Investigator Travel Award to attend the 2014 CPDD Scientific Meeting in Puerto Rico in June. She was invited to provide an oral presentation on her research examining the mental health and substance use outcomes following childhood trauma in the Australian general population. Dr Barrett was also chosen among a select few speakers to present her research to media representatives during the Inaugural CPDD Media Forum.

Congratulations to Katrina Champion, a CREMS PhD candidate, was awarded the Top Ranked Abstract 2014 Postgraduate Symposium: Clinical Research, held at the University of New South Wales in August.

Recent Presentations

The 15th International Mental Health Conference was held at the QT Gold Coast from the 25-27th August. CREMS CI Prof Amanda Baker gave a talk entitled, ‘From treatment silos to a healthy lifestyles approach: a new direction for treatment of substance use and mental disorders’.

The iTread Project - Recruiting now!

The iTread Project is designed for young Australians (aged 18-30) who experience depressive symptoms and are engaging in binge drinking.

This online program combines a CBT based treatment for alcohol and depression (the DEAL project) with a custom social networking site (BreathingSpace). It aims to determine the role of social support in treatment outcomes for comorbid depression and alcohol use.

If you are interested in participating, click here for more information.
Update from CRESP

Professor Helen Christensen, the Director of the Black Dog Institute, the Chair of CRESP and a CI of CREMS, was among the speakers at the online forum organised by Suicide Prevention Australia to discuss Australia’s response to the first ever World Health Organisation (WHO) World Suicide Report “Preventing Suicide - A Global Imperative”. The Report was launched on the World Suicide Prevention Day (September 10th) and the document follows the adoption of the Mental Health Action Plan which commits all 194 WHO member states to reducing suicide rates by 10% by 2020.

We believe CRESP needs to be responsive to the needs of those directly affected by suicide in order to promote and improve research of relevance to this group. As such, CRESP has established a Consumer Subcommittee to help guide us through engaging with those at risk of suicide, suicide survivors, and families and friends of those who have died by suicide. Key aims of the Consumer Subcommittee include the canvassing of priorities for research in suicide and promoting knowledge of and participation in research. At the same time we seek to provide members of the Consumer Subcommittee with an opportunity to raise awareness and knowledge of suicide and suicide prevention in Australia and engage with researchers. Consumer Subcommittee members play an important role in driving the development and implementation of evidence-based suicide prevention policy and practice, and in doing so contribute to lowering suicide rates both in Australia and around the world.

As part of World Suicide Prevention Day 2014 and to encourage new and established researchers in suicide prevention, CRESP is announcing two Best Research Paper Awards 2014. The awards, for outstanding original research with potential to contribute to suicide prevention, will be offered in two categories: Early Career Research Paper Award ($2500) and Senior Research Paper Award ($2500). One award will be offered in each category. The winners will be announced later this year. The applications close on Friday October 24th. For details please contact CRESP Coordinator Karolina Krysinska at k.krysinska@unsw.edu.au.
Ms Louise Birrel

We are delighted to provide an update on the progress of the Climate Schools Combined (CSC) study which kicked off earlier this year across NSW, QLD and WA. The CSC study is a cluster randomised controlled trial that aims to evaluate a novel online prevention program for substance misuse, anxiety and depression in adolescents. The study utilises an evidence based online prevention programme that places educational online material within interactive classroom sessions with students aged 13-16 years. The lessons focus on educating students about risky behaviours and providing them with coping skills to aid their decision making in situations involving anxiety, depression, risky behaviour, drugs and alcohol misuse.

To date, the study has successfully recruited 70 schools and completed the first substance use intervention, baseline and follow-up survey with over 8000 high school students across Australia.

The team have received overwhelmingly positive feedback from both teachers and students about the substance use course and the online mental health course will be implemented next year. The study will continue to follow-up participating students for a further five surveys until the end of 2016.

It is anticipated that students at schools who are receiving both the substance use and mental health prevention program will show greater delays in the initiation of substance use, reductions in substance use and mental health symptoms and increased substance use and mental health knowledge.

UPCOMING CONFERENCES

13-16th October 2014
AUSTRALASIAN THERAPEUTIC COMMUNITIES ASSOCIATION 2014 CONFERENCE
CREMS speakers include Prof Amanda Baker

23-26th October 2014
AUSTRALASIAN ASSOCIATION FOR COGNITIVE AND BEHAVIOUR THERAPY 37TH NATIONAL CONFERENCE
CREMS speakers include Prof Amanda Baker

28-29th October 2014
UNSW FORENSIC PSYCHOLOGY RESEARCH CONFERENCE
CREMS speakers include Dr Emma Barrett

9-12th November 2014
AUSTRALASIAN PROFESSIONAL SOCIETY ON ALCOHOL AND OTHER DRUGS
CREMS speakers include Prof Maree Teesson, Prof Amanda Baker, A/Prof Andrew Baillie, A/Prof Katherine Mills, Dr Peter Kelly, Dr Christina Marel, Ms Katrina Champion and Ms Erin Kelly.

3-5th December 2014
SOCIETY OF MENTAL HEALTH RESEARCH (FORMERLY AUSTRALASIAN SOCIETY FOR PSYCHIATRIC RESEARCH)
CREMS speakers include A/Prof Tim Slade, Dr Natacha Carragher, Dr Cath Chapman, Dr Lexine Stampinski, Dr Matthew Sunderland, Ms Louise Birrell and Ms Zoe Tonks


Kaye, S., Gilsenan, J., Young, J. T., Carruthers, S., Allsop, S., Degenhardt, L., . . . van den Brink, W. Risk behaviours among substance use disorder treatment seekers with and without adult ADHD symptoms. Drug and Alcohol Dependence(0). doi: http://dx.doi.org/10.1016/j.drugalcdep.2014.08.008


**Adolescent PTSD Project Now Recruiting**

We are currently recruiting adolescents aged 12-17yrs who have experienced a trauma to take part in a trial of a treatment for co-occurring traumatic stress and substance use among adolescents. The intervention consists of up to 16 weekly sessions with a clinical psychologist and combines evidence-based CBT for adolescent PTSD and substance use and incorporates exposure techniques.

Clinicians providing adolescent substance use and mental health treatment are faced with a significant challenge, as there are currently no evidence-based treatments for adolescents with co-occurring PTSD and SUD. We aim to address this gap by evaluating a treatment adapted from the COPE intervention, shown to be effective for adults with co-occurring PTSD and substance use disorder.

For more information or to refer a participant, please contact Dr Emma Barrett or Ms Erin Kelly. You can download more information here.
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- A/Prof Katherine Mills
- Dr Frances Kay-Lambkin
- Prof Paul Haber
- A/Prof Andrew Baillie
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- Dr Joanne Ross
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- Dr Tonelle Handley
- Dr Christina Marel
- Dr Kirsten Morley
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