



The National Centre of Excellence  
in Youth Mental Health

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# Annual Report

2017-18





“The best thing about being a Youth Advisory Council member is being given an opportunity to make a difference in the lives of other young people

**Emily,  
Youth Advisory Council,  
Orygen**

Cover image  
Orygen peer workers  
(from L-R) Andrew, Rachid, Sarah,  
Tamika, Connor and Joshua

Orygen, The National Centre  
of Excellence in Youth Mental Health  
Annual Report 2018

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of Excellence in Youth Mental Health 2018

ISBN-13: 978-1-920718-51-0

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# About Orygen

Orygen, the National Centre of Excellence in Youth Mental Health, is the world's leading research and knowledge translation organisation focusing on mental ill-health in young people.

**Our mission** is to reduce the impact of mental ill-health on young people, their families and society; **our vision** is for young people to enjoy optimal mental health as they grow into adulthood.

To achieve these goals we deliver:

- cutting-edge research spearheaded by world leaders in youth mental health and rapidly developed and implemented with young people and our clinical partners;
- innovative clinical services for more than 3500 young people (aged 12 to 25) at four headspace centres in the north and north-west of Melbourne; and
- evidence-based training and education for organisations, health services, governments and individuals.

Orygen's pioneering approach to the prevention and treatment of mental disorders has precipitated a global shift towards more positive and inclusive models of care for young people.

There is now a primary focus on partnering with young people and their families to ensure that young people are getting well, and staying well.

**Orygen recognises** the expertise of young people from diverse backgrounds and communities and partners with them to develop strategies that are responsive and inclusive.

**Orygen acknowledges and recognises** Aboriginal and Torres Strait Islander people as the traditional owners and custodians of the land we share.

**Orygen is committed to** continuously improving the mental health and wellbeing of all young Australians.



## Year at a glance

**6**   
national  
workshops  
held

**18**   
trainings and  
consultations  
delivered

**4**   
research bulletins  
published

**51**   
research projects

**210**   
young people in  
our youth participation  
programs

**11**   
clinical trials

**227**   
publications

**12**   
webinars held



“Youth participation is so important because it allows young people to have a voice that empowers us, makes us feel valued, and allows us to use our own lived experience to help develop youth-friendly services

Jess,  
Youth Advisory Group  
headspace Sunshine

## Chairman's report



### Mr Alan Beanland Chairman

Welcome to my first Chairman's report for Orygen. I would like to extend my greatest thanks to Peter Smedley who served as Chairman for seven years for his leadership and foresight over that time. Peter's tenure saw some great accomplishments, including successful advocacy for the funds necessary to build new facilities for Orygen and Orygen Youth Health, the clinical program that serves the north and west of Melbourne. This advocacy achieved the commitment of \$78 million through the generous support of the Victorian Government, Colonial Foundation, The University of Melbourne, the Ian Potter Foundation and the Australian Government.

Orygen has set some ambitious goals over its time and our history reflects strong achievement in all that we commit to. We were instrumental in advocating for the national reform that led to the founding of headspace. In parallel we have rapidly expanded our breadth of activities in youth mental health and furthered our consolidation as a national leader in improving treatments, clinical care and services for young people. In this past year alone, thousands of young people with mental ill-health received services through

our headspace centres. Our research continues to lead in many areas, both on national and international fronts, making positive and lasting change to youth mental health practice. Youth mental health is a global issue and I would like to recognise and acknowledge all our experts here and international colleagues who are contributing to improving mental health outcomes for young people the world over. Many of our people were honoured for their work, including Professor Helen Herrman becoming first Australian president of the World Psychiatric Association. Our solid performance on all fronts is testament to the leadership, vision and commitment of the organisation and its staff, led by Professor Patrick McGorry.

Moving ahead, a major focus is to expand our reach and address the gaps in youth mental health services particularly through the development and delivery of integrated service models to meet the mental health needs of young people from early intervention through to complex specialist care. A key support of this goal is in ensuring that our financial base remains strong and sustainable. By diversifying our revenue streams further we will

expand our base and provide strong foundations where we can expand and grow our service reach. There are many opportunities in this area that we will seek out and draw upon.

In closing, it is a privilege to be in a position where I can contribute to Orygen's success. I am proud of what the organisation has achieved since its beginnings a quarter of a century ago. We still have a long way to go before we can truly close the gap between need and provision of complete mental health services for young people. I am confident that the next few years will not only see us continue to drive positive change in youth mental health research and clinical practice but also expand our reach and make a lasting impression on future generations.

## Executive Director's report

### Professor Patrick McGorry AO Executive Director

Each year I'm afforded the opportunity to reflect on what we have achieved in the past year; and this year was significant as it marked 25 years of progress in early intervention and youth mental health since the founding of the Early Psychosis Prevention and Intervention Centre (EPPIC) in the early 1990s.

The year also signified new beginnings, with our new state-of-the-art facility at Parkville due to be completed in late 2018. It is already obvious how transformative, both symbolically and practically, this new building will be as we move closer towards achieving a unified model of clinical care for young people in north-west Melbourne. The building redevelopment has been expertly managed by a dedicated and hardworking team that represented staff, young people and families of both Orygen and Orygen Youth Health; a truly collaborative project in all respects. This collaboration is being strengthened and, in a practical sense, will be represented by an alignment of values, operations and governance of Orygen under a single strategic plan that delivers a much better patient and family experience, continuity of care, and improved outcomes.

A major driver of these improved outcomes is research and rigorous policy approaches in youth mental health. We were therefore pleased to receive news that the Australian Government has extended Orygen's role as the National Centre of Excellence in Youth Mental Health to 2023. The advent of the government's Million Minds Mission also saw \$125m awarded to mental health research funding within the Medical Research Future Fund. We look forward to exploring the opportunities afforded by this significant government investment. Other research highlights included extremely positive National Health and Medical Research Council results with Fellowships offered to Professor Sue Cotton, Associate Professor Barnaby Nelson, Dr Kelly Allott, Dr Jo Robinson and Dr Brian O'Donoghue.



“

The year also signified new beginnings, with our new state-of-the-art facility at Parkville due to be completed in late 2018. It is already obvious how transformative, both symbolically and practically, this new building will be as we move closer towards achieving a unified model of clinical care for young people in north-west Melbourne.

One high point in the year was the 4<sup>th</sup> International Youth Mental Health Conference in Dublin in September 2017. This conference strives to change how the global community thinks about young people and their mental health, and recognises that the voice of young people is intergral to this. This year we were delighted to offer eight young people from our youth councils the opportunity to present at the conference. The conference also enabled a satellite meeting for the International Youth Mental Health Research Network, which Orygen has spearheaded. This satellite meeting brought together more than 60 of the world's leading researchers in youth mental health and 17 international funding organisations to construct a global research strategy for youth mental health. Momentum is building around this reform paradigm and is likely to catalyse major global change in youth mental health.

Closer to home, our headspace centre at Sunshine celebrated the 10<sup>th</sup> anniversary of offering high-quality care to young people in the north-west of Melbourne. headspace Sunshine was one of the first 10 headspace centres to open in Australia, and is now one of more than 100 centres nationwide providing early intervention mental health services to young people and their families.

The year also marked the appointment of our staff to a number of key international posts including Professor Helen Herrman as Australia's first President of the World Psychiatric Association and Professor Eóin Killackey as President-Elect of the IEPA Early Intervention in Mental Health. I would also like to congratulate all individuals and teams who received local and international recognition throughout the year, and there were many of you. But, to all staff, I am grateful for your passion and skill and thank you for the incredible and vital work that you perform each and every day.

The next 12 months with a brand new facility and a raft of new research funding schemes opening up will be a time of great opportunity for Orygen as we unify, strategise, expand and increase our national and global footprint.

*Peter D. McFarlane*

## Investing in the foundations supporting excellence in youth mental health



The long-awaited construction of Orygen's new purpose-built youth mental health facility officially commenced in September 2017, in the company of the Victorian Minister for Mental Health, the Hon Martin Foley, key guests, and members of the Orygen board.

The facility will house Orygen, the National Centre of Excellence in Youth Mental Health; and the Orygen Youth Health Clinical Program, which is operated by Melbourne Health.

The new facility realises a long-held goal of both organisations to develop a unique regional model of evidence-based treatment and care for all young people experiencing mental ill-health, that can serve as an exemplar model across Victoria and Australia.

Orygen's executive director, Professor Patrick McGorry, said the organisation's youth and family participation values had been incorporated into the building's planning and design. "More than 150 young people from Orygen's youth councils, young people from the wider

community and family members all contributed their ideas on the shape, design and feel of the new building," he said.

"The result is a facility that will be transformative: for the first time, clinical, research, policy, and education and training services will all be housed under the one roof."

The new facility is the result of a \$78 million partnership between the Victorian Government and Orygen, the National Centre of Excellence in Youth Mental Health. Orygen formed the partnership with the government after receiving an initial \$10 million towards the new building from The Colonial Foundation (\$5 million) and the University of Melbourne (\$5 million); and then later a further \$8 million from the Australian Government (\$5 million) and The Ian Potter Foundation (\$3 million). The Victorian Government contributed \$60 million to the project.

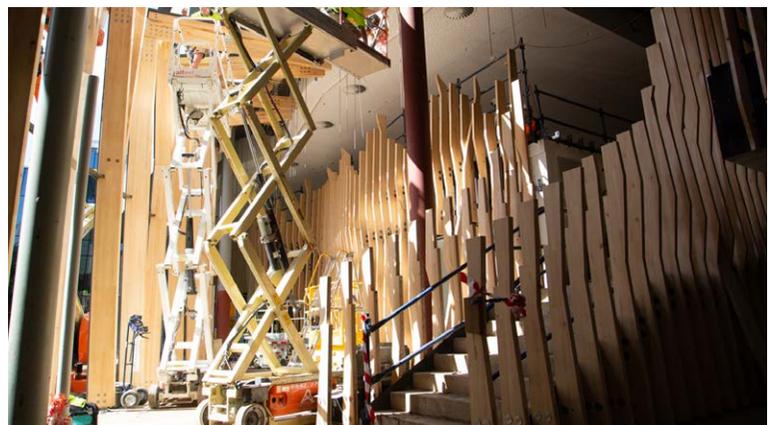


TOP

Professor Patrick McGorry  
and The Hon. Martin Foley,  
Minister of Mental Health, Victoria

LEFT

Professor Patrick McGorry  
and The Hon. Greg Hunt,  
Australian Minister for Health



The new Parkville facility begins to take shape

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## Awards and recognition

The following staff received awards and recognition for their professional achievements during 2017-18.

**Dr Holly Andrewes** was awarded the 2018 European Society for the Study of Personality Disorders' Young Researcher Award for her research into self-injury among young people living with borderline personality disorder.

**Ms Eleanor Bailey** won the 2018 Black Puppy Foundation award for her PhD research, which is investigating the acceptability of educating secondary school students about suicide prevention as an aid to reducing suicide prevalence.

**Professor Helen Herrman**, the head of vulnerable and disengaged youth research at Orygen, became the first Australian president of the World Psychiatric Association in 2018. Professor Herrman has had a longstanding career in mental health, including many years as director of psychiatry at Melbourne's St Vincent's Hospital, and as a regional advisor to the World Health Organization.

**Mr Dan Kneipp**, Orygen's fundraising director, led the team of fundraisers and graphic designers that received two Fundraising Institute of Australia Awards for Excellence. The team's work in raising the final \$8 million needed to fund the redevelopment of Orygen's facilities won awards in the Capital Campaign category and Most Outstanding Fundraising Project category.

**Professor Patrick McGorry** received the Schizophrenia International Research Society's Lifetime Achievement Award in acknowledgement of his clinical and research contributions to psychosis. Professor McGorry was also elected a fellow of the Australian Academy of Health and Medical Sciences in acknowledgment of his distinguished career in mental health.

**Dr Simon Rice** received the 2018 Australian Psychological Society Early Career Researcher Award for excellence in scientific achievement. The award is given to psychologists who are at early stages of their research careers in Australia.

**Professor Stephen Wood** was awarded the 2017 Society for Mental Health Research Orator Award. The award recognises a SHMR member who is prominent in the Australian and New Zealand psychiatric research community. It was presented to Professor Wood in acknowledgment of his contributions to understanding the neurobiological markers of mental illness.



Paris,  
Youth Research  
Council, Orygen

## Testing times: finding new ways of identifying those at risk of severe mental illness

Mental illness is the number one challenge facing Australia's young people, with one in four experiencing mental ill-health each year. One of the urgent challenges is to create a simpler and more effective approach to early identification and treatment of emerging mental disorders in young people in order to improve their mental health outcomes.

The Clinical High At Risk Mental State (CHARMS) study seeks to test a new set of clinical criteria to identify help-seeking young people who are at risk of progressing to a severe mental illness. The criteria are based on symptoms of moderate intensity and family history of mental illness.

The CHARMS study is an attempt to broaden the highly successful ultra-high risk (UHR) approach to identifying psychosis risk in young people. The UHR method, pioneered at Orygen, involves early detection of those at risk of developing schizophrenia and other psychotic disorders so that preventive treatments can be implemented and causes can be better understood.

Professor Barnaby Nelson, who is leading CHARMS with Professor Patrick McGorry, said the study was trialling how to broaden the scope of the UHR criteria to pick up on risk for a range of disorders, not only psychosis, but also bipolar disorder, severe major depressive disorder and borderline personality disorder.

"Many young people present to services with a number of co-existing symptoms of mental ill-health," Professor Nelson said.

"What we're trying to do is to detect help-seeking young people at risk of progressing to a serious mental disorder transdiagnostically, that is, to identify those who might be at risk of a range of different disorders rather than a single specific disorder.

"We know that there are many pathways into specific disorders and also that different serious mental disorders have common risk factors and early signs, so we're trying to capitalise on that by having a broad, inclusive identification approach.

"We're looking at the full picture and seeing how all these early symptoms might relate to each other, how they might influence each other over time, and also trying to figure out which risk factors might be quite specific to particular disorders and which ones might be associated with more general risk for serious mental disorder."

These are the first steps. If the CHARMS identification approach proves to be useful then it introduces the possibility of trialling preventive treatments for this broad at-risk group, Professor Nelson said.



Professor Barnaby Nelson

## Examining emergency department practices for young people who self-harm

The ways in which emergency departments manage young people who present with self-harm will be monitored as part of a large-scale study launched by Orygen.

The research study is being conducted at Victorian emergency departments located at the Royal Melbourne, Sunshine, Footscray and Williamstown hospitals, with plans to extend the study to an additional two rural and two metropolitan hospital sites during 2018/2019.

Associate Professor Jo Robinson, who is leading the study and is head of suicide prevention research at Orygen, said the primary objectives of the study were to examine how many young people present to emergency departments (EDs) across Victoria due to self-harm, identify any demographic trends among those who present to EDs as well as the treatment they receive.

The study will examine what barriers exist to providing optimal care in emergency departments, will develop an ongoing system for monitoring self-harm presentations and review and refine existing data collection procedures to ensure they align with international best practice, Associate Professor Robinson said.

Self-harm was widespread with approximately 8% of young people aged 20-24 reporting that they have harmed themselves in the past, she said. "Self-harm is more prevalent in younger age groups and is a risk factor for additional episodes of self-harm, subsequent suicide and premature death."

The study has three major components:

- an examination of self-harm presentations made by young people aged nine and older over the past eight years;
- an examination of hospital staff perceptions of the current barriers to delivering optimal care for young people who self-harm and present to emergency departments; and
- an examination of young people's perspectives of the treatment they received.

Associate Professor Robinson said the study would allow for an improved understanding of the extent and nature of self-harm presentations in the participating hospital emergency departments and would help identify opportunities for change. "The recommendations that will come from this project will support improved outcomes for patients and positive changes for emergency department staff," she said.

"The findings will also lead to the development of a more robust database on self-harm and an ongoing monitoring system to track self-harm presentations and the subsequent care provided to young people."



Associate Professor  
Jo Robinson

## Understanding supported decision-making in mental health care

There are commonly three types of decision-making within health services: substituted decision-making – where one person makes decisions on behalf of a mental health service user; shared decision-making, which refers to collaborative decision-making; and supported decision-making.

Supported decision-making is where the person receiving the services can ask for and be offered advice – but they make the final decision.

Australia is a signatory to the UN Convention on the Rights of Persons with Disabilities, which mandates supported decision-making.

A study by researchers at Orygen, RMIT University and the University of Melbourne, published in the *Australian and New Zealand Journal of Psychiatry*, explored barriers and facilitators to supported decision-making in Australia.

It found that supported decision-making of mental health service users fulfils professional, ethical and moral obligations of health practitioners and may aid personal recovery.

Orygen's Professor Helen Herrman said there was a growing understanding that it was important for practitioners to work with mental health services users and their families and to develop a 'trialogue' for effective mental health care.

"There is also increasing understanding of the international human rights agenda, which is working towards supporting the will and preferences of individuals," Professor Herrman said.

In the study, 90 interviews about experiences of supported decision-making were conducted and analysed. Interviewees were mental health service users with diagnoses including schizophrenia, psychosis, bipolar disorder and severe depression. Family members and mental health practitioners were also interviewed.

The study found negative interpersonal experiences in the care system undermined involvement in decision-making for users and families. But mental health practitioners felt supported decision-making could empower users and families and increase respect. The use of legal and rights-based mechanisms, such as advance statements, may improve supported decision-making in everyday practice.

"Practitioners need the care system to ensure there are opportunities for appropriate training, because if you work in an environment where risk is minimised at the expense of people's autonomy, it is difficult to facilitate supported decision-making," Professor Herrman said.

"We can provide better services by being more open to listening and through good communication with mental health service users and their families."



Professor Helen Herrman

## Using computer simulation to develop the resilience of young Victorians

Orygen researchers are leading a collaborative project that will use computer simulation to examine better approaches to building the resilience of young people in Victoria.

The readyforwhatsnext project is mapping existing evidence about resilience in children and young people and is engaging with young people, health professionals, policymakers and researchers to develop a computer simulation model that will be used to help identify feasible, affordable, fair and cost-effective health policies that better enhance the resilience of young Victorians.

readyforwhatsnext is funded by VicHealth - The Victorian Health Promotion Foundation, and is led by researchers from Orygen - The National Centre of Excellence in Youth Mental Health, Deakin Health Economics, the University of Adelaide and Victoria University.

Matthew Hamilton, senior policy analyst at Orygen, said increasing global awareness of the economic imperative to reduce the impact of mental illness, the particular vulnerability of children and young people to mental ill-health, and the availability of evidence-based and cost-effective resilience-building

strategies had all contributed to a growing policy emphasis on fostering the resilience and mental wellbeing of children and young people.

One of the outcomes of the readyforwhatsnext project would be a simulator that could be used to identify equitable and cost-effective strategies to improve the mental wellbeing of Victoria's young people, Mr Hamilton said.

"Simulation models are increasingly used to inform health policy because of their ability to explore the potential impact of alternative policy choices and to describe the decision uncertainty relating to those choices," he said.

"Using the power of computer technologies and computer simulation approaches we want to identify innovative policy solutions that can both develop the resilience of young Victorians and deliver wider social and economic benefits."



Matthew Hamilton

## Employment aids social inclusion for young people experiencing first episode psychosis

Social inclusion - the ability of an individual to participate in society to the degree that they desire - has been linked to positive health and wellbeing, and is particularly important in adolescence. Yet the time when social inclusion becomes important in a young person's life is also when a first episode of psychosis is most likely to occur, if it is going to occur.

Young people with psychosis often experience social exclusion, so understanding what might help them feel more socially included is important in ensuring a smooth transition to adulthood.

A team of Orygen researchers led by Professor Eóin Killackey examined if there were factors that could predict how socially included a young person experiencing a first episode of psychosis might be.

They found that in young people who had experienced an episode of psychosis, symptoms of depression better predicted them feeling isolated than unemployment.

The study looked at nearly 150 young people who were involved in a randomised, controlled trial of supported employment at the Early Psychosis Prevention and Intervention Centre (EPPIC) at Orygen Youth Health.

It found that the young people's social cognition - their capacity to understand others and recognise emotional cues - did not have an impact on whether they were socially included, and that paid work may be a first step towards these young people feeling more accepted within their communities.

Professor Killackey said the study illustrated that while it was important to treat the symptoms of mental illness and to help young people into employment, those two interventions alone were not enough.

"If you haven't really been socially interacting for two or three years, your skills are likely to be a bit rusty, so you'll be that kind person who doesn't talk that much to people at work," he said.

Professor Killackey said future research should look at how to best support young people to make friends at work, or to use their increased economic independence to find peer relationships elsewhere.



Professor Eóin Killackey

## Autism traits increase thoughts of suicide in people with psychosis

People with autism traits who have psychosis are at a greater risk of depression and thoughts of suicide, an Orygen study has found.

Lead researcher Professor Stephen Wood said the study revealed that among people with psychosis, depressive symptoms and thoughts of self-harm were not because of the psychosis, but instead were linked to the level of autism traits a person had.

“The more autism traits people with psychosis had, the lonelier and more hopeless they felt and were more likely to think about suicide,” Professor Wood said.

“When a person presents with a psychotic illness, such as schizophrenia, they are at an increased risk of self-harm or suicide. People with autism are also at a heightened risk.”

Professor Wood’s team explored how the two might be related by reviewing people with a clinical diagnosis of psychosis and those without. “What we found was that with both groups the more autism traits a person had, the more likely they were to have depressive symptoms and suicide ideation.”

The research was published in the journal *Schizophrenia Research*.

Professor Wood said to prevent people attempting suicide it was important to identify those most at risk. “Our study shows that a person’s level of autism traits is an extremely important marker in helping identify those people with psychosis at risk of suicide,” he said.

“What we need to do now is improve care for people with high levels of autism traits who develop a psychotic illness. This means better training for clinical staff to support people with both autism and psychosis, and the need to ask about autism traits in clinical assessments.”



Professor Stephen Wood

## Early drug treatment sees good outcomes for young people with treatment-resistant psychosis

Clozapine is currently the most effective antipsychotic medication, supporting better long-term outcomes including remission of symptoms, better education and employment outcomes, lower rates of hospitalisation and better long-term survival. However, it is used only after the failure of two or more other antipsychotic medications, due to its side-effects, which can, on rare occasions, include death. Consequently, there can be delays of up to 10 years before clozapine is prescribed for people experiencing psychosis.

However a study by Orygen researchers suggests that clozapine could produce good outcomes when used to treat young people with treatment-resistant schizophrenia.

The study, published in the journal *Schizophrenia Research*, was a retrospective study of 544 young people who were treated for their first episode of psychosis over three years at the Early Psychosis Prevention and Intervention Centre (EPPIC) at Orygen Youth Health.

Researcher Dr Brian O'Donoghue said the study indicated that clozapine could be prescribed as little as three to six months after a diagnosis of treatment-resistant schizophrenia if candidates were able to be identified early and monitored safely.

"The average delay for treatment-resistant patients to access clozapine in routine care, if indeed they ever do, is four years," Dr O'Donoghue said. "During this period, they suffer and languish with a severely disabling illness which may respond very well to clozapine."

Dr O'Donoghue said nearly 10% of the young people in the study experienced persistent psychotic symptoms despite being treated with anti-psychotic medications. Of these, nearly 60% were subsequently prescribed clozapine.

"More than three-quarters of the young people treated with clozapine achieved remission of their symptoms and half returned to education or employment," Dr O'Donoghue said.

"Some people remain fearful of this drug because, rarely, it poses a major risk of cardiac and blood count problems. However, with monitoring, these risks can be managed, and in fact clozapine treatment substantially increases life expectancy in those treated."

"This study highlights the need for early intervention and the crucial role that psychosis services have in ensuring timely initiation of clozapine in young people who have not responded adequately to other medications."



Dr Brian O'Donoghue

## File audit shows cognitive assessments aid treatment decisions

Clinical Neuropsychological Assessments have been thought to help clinicians identify, confirm and explore treatment options for behavioural, emotional and social issues in young people experiencing mental illness.

A clinical neuropsychological assessment measures a person's cognitive functioning (e.g., memory, attention, decision-making, problem-solving, language and learning ability) and can help mental health service providers make a precise or clarified diagnosis.

Cognitive impairments in learning, language, memory, attention, emotion and executive functioning can affect a young person's ability to study, form friendships and gain and maintain employment.

Rather than relying on anecdotal evidence, researchers at Orygen sought to objectively report on the clinical use and benefit of Clinical Neuropsychological Assessments by undertaking a clinical file audit.

Led by Dr Kelly Allott, the research team audited 140 neuropsychological assessment reports completed by the Orygen Neuropsychology Unit between 2002 and January 2009. The reports assessed patients aged 13-29 years old with a range of complex psychiatric case histories.

The audit found that of the 140 Clinical Neuropsychological Assessments:

- 85% diagnosed cognitive impairments;
- 77.1% recommended additional services and assessments;
- 75.7% identified likely causes of cognitive impairment;
- 73.6% recommended how to improve functioning; and
- 68.6% recommended a mental health treatment.

It also found that 54.3% ruled out a diagnosis, 51.4% enhanced case formulation and recommended cognitive strategies, 27.1% diagnosed a new disorder, 8.6% confirmed a diagnosis and 5.7% recommended behaviour management.

The audit results were published in the journal *Applied Neuropsychology: Child*.

Dr Allott said the audit confirmed the benefits of Clinical Neuropsychological Assessments.

"This [research] provides empirical support for what many clinicians intuitively knew to be true, that Clinical Neuropsychological Assessments are clinically useful in a youth mental health setting, regardless of diagnostic category, and that cognitive impairments exist across a wide range of diagnoses in youth mental health," she said.

Dr Allott said future studies should examine the cost-effectiveness, implementation, and objective impact of Clinical Neuropsychological Assessments in clinical practice.



Dr Kelly Allott

## Computerised speech analysis successfully predicts psychosis in at-risk patients

A computer-based program that analyses speech has successfully predicted, with 83% accuracy, which young people at risk of psychosis would go on to develop the disorder within two years.

The same program predicted the onset of psychosis in a second group of at-risk young people with an accuracy of 79%.

Dr Gill Bedi, head of substance use research at Orygen, said the study's findings suggest that language-classifying technology has the potential to improve prediction of psychosis among young people at ultra-high risk of developing the disorder. Around three in every 100 young people will experience a psychotic episode, with most fully recovering from the experience.

"One of the characteristics of psychosis is disorganised thinking, which can present as a disrupted flow in people's speech where their conversation seems to go off track," Dr Bedi said.

"Having this technology could really help young people get the treatment they need earlier and ultimately alter the way we do psychiatry and potentially other fields of medicine," she said.

The results of the study were published in the journal *World Psychiatry*.

The next stage of the research will focus on testing the effectiveness of the language-classifying technology in larger groups of people - 93 young people were involved in this study - and adapting it to analyse languages other than English.



Dr Gill Bedi

## Mind the gap — services need to target young male needs

Mental health services need to target the unique, unmet needs of young men by proactively engaging them rather than blaming them for poor health-seeking behaviours, says a study by researchers at Orygen.

Led by Dr Simon Rice, the review of global research literature highlighted the higher rates of suicide, substance use, interpersonal violence and other aggressive and law-breaking behaviours by adolescent boys and young men, compared to young women.

“Although broad health and mental health outcomes among boys and young men are substantially worse than those for girls and young women, this gender-based disparity has received relatively little global attention,” Dr Rice said.

The research team found that young men begin to disconnect from health care services during adolescence. This relationship to health care services and health seeking is influenced by poor emotional awareness and mental health literacy, elevated levels of self-stigma and shame, restrictive cultural ideas of masculinity, issues with different symptom patterns and diagnosis, and service acceptability.

Their findings were published in the *Journal of Adolescent Health*.

However, Dr Rice said it was critical to move beyond seeing young men as the ‘problem’ in as much as they may exhibit poor emotional awareness and help-seeking motivation.

Instead, he echoed the call by the Lancet’s Commission on Adolescent Health by also calling for urgent, major investment into service reform, research and workforce development that targets the gender disparities associated with young men’s mental health needs.



Dr Simon Rice

## Something fishy: investigating if omega-3 fatty acids prevent psychosis

Approximately 50% of people who develop a psychotic disorder will do so by the time they are in their early 20s. The earlier the symptoms of psychosis are recognised and treated, the better the outcomes for young people.

After initial findings in 2014 indicated that omega-3 fatty acids may significantly reduce the rate of onset of psychosis in ultra-high risk young people, Orygen tried to replicate this finding on a larger scale.

This follow-up study – the NEURAPRO trial – involved 304 young people attending 10 different specialised early psychosis clinics in Australia, Asia and Europe. Participants were randomly assigned to two different groups: one received 1.4g of omega-3 fatty acids per day plus psychosocial treatment, while the second group received placebo plus psychosocial treatment.

Co-author and head of ultra high risk for psychosis research at Orygen, Barnaby Nelson, said the study's findings were quite nuanced and had triggered further important research.

“Unfortunately, we weren't able to find benefit in favour of the omega-3 group, which was disappointing,” Dr Nelson said. “This time the onset rate of psychotic disorder was about 11% in both groups over a 12-month period.”

However, omega-3 fatty acids could still prove effective for sub-groups, subsequent Orygen research has suggested.

“Our preliminary sub-analysis of biological data, led by Professor Paul Amminger, indicates that omega-3s may have helped in terms of improving symptoms for those young people who had low fatty acid levels to begin with, but that effect may be masked if you look at it on the group level,” Dr Nelson said.

“So we don't want to be too dismissive about the possible role of omega-3 fatty acids yet.”

The NEURAPRO study has also added to the body of evidence supporting the possible role of psychosocial treatments in young people at risk of psychosis.

“In the original study, participants received some basic psychological therapy but in the NEURAPRO study we provided a more intensive and extended psychosocial intervention, which may have contributed to the benefits seen in both treatment groups,” Dr Nelson said.

As such, Orygen is now further investigating the benefits of cognitive-behavioural case management – and other early interventions – via its Staged Treatment in Early Psychosis (STEP) study.



Professor Barnaby Nelson

## Online platform empowers young people pursuing work and study

An online vocational support platform designed to motivate and empower young people seeking study or work opportunities is being developed by researchers at Orygen.

The Youth Online Training and Employment System (YOTES) is a comprehensive web-based employment support package for young people aged 15-24 who are experiencing barriers to obtaining and remaining in work due to mental illness.

The YOTES platform delivers a range of vocational support strategies and guides and prompts young people to identify, discuss and exercise key personal strengths within the online environment and in real-life to enhance self-esteem, foster social functioning and improve mental health.

Young people who experience mental illness are approximately three times more likely to suffer disruption to their education and work life compared to their peers, said Associate Professor Mario Alvarez-Jimenez. "Yet they share the same aspirations as any other young person and consistently rate gaining employment as one their key priorities.

"Providing appropriate support to young people with mental illness is essential to minimise the negative impact on young people, their families and the broader community, and maximises their opportunities to participate in work and life according to their personal goals," Associate Professor Alvarez-Jimenez said.

The platform is designed to complement existing face-to-face services and features:

- interactive content covering core skills for work;
- moderated social interaction with other young people; and
- targeted career support provided by online vocational specialists and peer motivators in real time.



Associate Professor  
Mario Alvarez-Jimenez



“Orygen has given me the opportunity to be a part of research studies, has seen me present to audiences and has expanded my networks meeting likeminded people who are all doing things to improve the mental wellbeing of Australians

Taylor,  
Youth Research Council,  
Orygen

## Global research collaboration to predict those at greatest risk of suicide

Researchers from Orygen have joined an international team that aims to develop a new evidence-based way of understanding and predicting which young people are at highest risk of attempting suicide.

The Help Overcome and Predict the Emergence of Suicide (HOPES) project aims to predict those at risk of suicide by analysing brain scans and data on suicidal behaviour of young people across the world to identify why some people develop suicidal thoughts and behaviours and others do not.

Orygen's Dr Lianne Schmaal is the Australian lead on the project and is joined by colleague Associate Professor Mario Alvarez-Jimenez on the international team of scientists from the UK and US that is working on the project.

Dr Schmaal said suicide was a global crisis and required global collaboration between researchers to address some of the critical gaps in knowledge about suicide and suicidal thoughts and behaviours. "Combining data from

approximately 4000 young people worldwide, this will be the largest study undertaken on adolescent suicidal behaviours and thoughts to date," she said.

Suicide is the leading cause of death among people aged 15-44 in Australia, and the second leading cause of death worldwide. Associate Professor Alvarez-Jimenez said there was an urgent need to better understand why some young people attempt suicide, in order to better prevent suicide.

"We need to learn what are the mechanisms underlying the transition from suicidal thoughts to actually attempting to take one's life," he said. "The (HOPES) project aims to shed light on this, and ultimately help to develop the better preventions and interventions that are urgently required."



Dr Lianne Schmaal

## Brain connectivity influences how depressed young people view themselves

Two regions in the midline of the brain – the medial prefrontal cortex and posterior cingulate cortex – are known for their role in self-awareness, and are often very active when a person's mind is wandering.

An Orygen study has found that the interaction between these two brain regions is also important when depressed young people think about themselves.

A team led by Associate Professor Christopher Davey found there is abnormal connectivity between these two regions when depressed young people think about themselves, with the medial prefrontal cortex having an unusually high level of influence over the posterior cingulate cortex. This causes the young person to have difficulty shifting their focus to events in the external environment.

“We found that young people with depression appraise themselves more negatively, and that this is related to the greater influence the medial prefrontal cortex has on the posterior cingulate cortex,” Associate Professor Davey said.

“Young people with depression can excessively ruminate about themselves, and this abnormal connectivity explains why they might find it so difficult to concentrate on things happening outside of them,” Associate Professor Davey said.

To measure the connectivity between the two brain regions, the researchers used functional magnetic resonance imaging to study the brains of 159 young people while they undertook tasks related to self-appraisal and external attention. Seventy-one of the young people had moderate-to-severe major depressive disorder while 88 were young people who were not experiencing depression. The abnormal connectivity was observed only in the young people who had major depressive disorder.

The research was published in the *American Journal of Psychiatry*.



Associate Professor  
Christopher Davey

## Childhood trauma link offers treatment hope for people with schizophrenia

People with schizophrenia may now benefit from more effective, tailored treatments and greater self-empowerment, due to research establishing a link between childhood trauma and some of schizophrenia's most common symptoms.

The research has shown that childhood sexual, physical and emotional abuse are associated with severe hallucinations in schizophrenia and other psychotic disorders.

The study's strongest finding was that hallucinations in those with psychotic disorders were associated with all types of childhood trauma, said Dr Sarah Bendall, the study's lead author and head of trauma research at Orygen. "This means there's something about childhood trauma that leads some people to develop hallucinations," Dr Bendall said.

The meta-analysis, which analysed 29 studies on childhood trauma and psychotic symptoms, also found that childhood sexual abuse was associated with delusions.

The study provides the missing link for clinicians who have long theorised about the association between childhood trauma and hallucinations and delusions.

Dr Bendall said providing this evidence was a crucial first step in developing tailored, sensitive and effective treatments for trauma-based psychotic symptoms.

Around one in every 100 people will experience a psychotic disorder in their lives, with the majority developing symptoms at 18-25 years old. Psychotic symptoms can include detachment from reality, hallucinations, delusions, disorganised thinking, and lack of motivation or emotion.

Until now, treatments for trauma in psychosis have focused on post-traumatic stress disorder rather than specific symptoms such as hallucinations and delusions.

Dr Bendall said the new research would not only help refine treatments for patients with psychotic disorders but may also help to empower young patients.

"When young people come to youth mental health services, we should be assessing for trauma and for emerging psychotic symptoms, and treating them as soon as they emerge," Dr Bendall said.

"We can also arm young people with some of this research knowledge and then they can make decisions about the factors that may have caused their psychosis to develop or continue. It's a very empowering thing to be able to give people that information."



Dr Sarah Bendall

## Self-injury patterns might indicate coming suicide attempts in people with BPD

Research into self-injury among young people living with borderline personality disorder has suggested that a person's patterns of non-suicidal self-injury could be an indicator of a forthcoming suicide attempt.

The rate of suicide among people with borderline personality disorder is higher than that of any other psychiatric disorder.

Orygen's Dr Holly Andrewes, Professor Andrew Chanen, Dr Jennifer Betts and Professor Sue Cotton undertook their research through the Helping Young People Early (HYPE) programs at Orygen Youth Health and headspace Sunshine. They studied the patterns of non-suicidal self-injury (NSSI) among 107 young people living with borderline personality disorder (BPD) who used these services, and the relationship between those patterns and suicide attempts.

'Random' patterns of NSSI were identified as NSSI events that occurred inconsistently across a period of time, whereas 'habitual' patterns indicated NSSI events that occurred consistently across the same time period.

Dr Andrewes said the research revealed that individuals who engaged in a 'random' pattern of non-suicidal self-injury over the 12 months prior engaged in a significantly higher number of suicide attempts and their acts of self-injury required significantly more medical attention than participants who engaged in a 'habitual' pattern of non-suicidal self-injury.

"These results suggest that clinicians should identify a client's patterns of non-suicidal self-injury as changes in these patterns might be an indicator of a forthcoming suicide attempt," Dr Andrewes said.

The research was published in the journal *Early Intervention in Psychiatry*.



Professor Andrew Chanen



Dr Jennifer Betts



Professor Sue Cotton

## Forging key international partnerships

Orygen continues to focus on building international relationships, and has joined the Frayme network as one of the organisation's key and only international partners. Frayme's network is comprised of diverse international youth mental health-focused organisations working to create effective integrated systems of care and improving youth mental health services and supports worldwide.

Frayme, funded by the Government of Canada Networks of Centres of Excellence program, brings together young people with lived experience of mental ill-health, their families, clinicians, researchers, health service providers and policy makers to:

- gather and share evidence and practice-based knowledge about optimal models of youth mental health care;
- engage young people and families to ensure that research evidence, lived experience and practical knowledge is integrated into practice and policy in youth mental health care; and
- support implementation in communities across Canada and the world, so that young people receive the care they need, when and how they need it.

Associate Professor Rosemary Purcell, Orygen's Director of Research and Translation, and who is also an Associate Director of Frayme, said the partnership was an exciting initiative.

"This collaboration allows Orygen to provide our perspective of developing and implementing youth mental health services in Australia to Canadian and broader international contexts and provides an opportunity to learn from the experience of establishing integrated youth services in Canadian provinces, especially those in remote communities and indigenous communities," Associate Professor Purcell said.

"We all have a lot that we can learn from each other, and that is the purpose of Frayme: knowledge mobilisation, or sharing 'what works' so others don't have to re-invent the wheel."

“

We all have a lot that we can learn from each other, and that is the purpose of Frayme: knowledge mobilisation, or sharing 'what works' so others don't have to re-invent the wheel.



Associate Professor Rosie Purcell (top row, third from the left) Frayme Board and Leadership team

## Next generation researchers

The following students are currently completing graduate degrees by research at Orygen.

### Doctor of Philosophy (Research)

#### Alan Bailey

A physical activity intervention for young people with depression: in search of mechanisms of change

Supervisor: Alexandra Parker

#### Lara Baldwin

Childhood trauma and the effects on cognition and functioning in first episode psychosis

Supervisor: Kelly Allott

#### Johanna Bayer

Identifying neurobiological correlates of disease profiles and disease course in affective disorders

Supervisor: Lianne Schmaal

#### Erin Dolan

Youth access clinics: the development of youth-focused services in rural settings

Supervisor: Eóin Killackey

#### Laura Finlayson-Short

Investigating self referential processing in youth social anxiety disorder and its association with personality disorder traits

Supervisor: Christopher Davey

#### Emma Halpin

Towards an understanding of dissociation in psychosis

Supervisor: Sarah Bendall

#### Nicole Hill

Suicide and self-harm hospitalisation among young people in Tasmania, Australia: an epidemiological study of risk factors and the provision of care in the acute settings

Supervisor: Jo Robinson

#### Melanie Jones

Canine- and equine-assisted group psychotherapy for adolescents with common mental health disorders

Supervisor: Sue Cotton

#### Ilias Kamitsis

The subjective experience of taking neuroleptic medication: a qualitative study of people with psychotic illness and a history of childhood trauma

Supervisor: Sarah Bendall

#### Marianne Muller

Does antipsychotic dose reduction lead to better functional recovery in first episode psychosis: a randomised controlled trial

Supervisor: Stephen Wood

#### Jessica O'Connell

Temporal relationship between post-traumatic intrusions and positive psychotic symptoms

Supervisor: Sarah Bendall

#### Wilma Peters

Effectiveness of the integrated trauma treatment model in the treatment of complex trauma in adolescents and young adults with early onset mental illness at headspace

Supervisor: Sarah Bendall

#### Yara Toenders

Subtyping young people with major depressive disorder and the association with biological correlates and treatment response

Supervisor: Lianne Schmaal

#### Lee Valentine

Factors influencing engagement in online first episode psychosis interventions

Supervisor: Mario Alvarez-Jimenez

#### Hok Pan Yuen

Application of joint modelling to the analysis of transition to psychosis

Supervisor: Andrew MacKinnon

### Master of Philosophy (Research)

#### Tracey Dryden-Mead

Cross sectional study of PTSD symptoms, psychotic symptoms and risk factors for ultra-high risk

Supervisor: Sarah Bendall



“I believe youth participation is so important in mental health because it makes our services more relevant, efficient and sustainable to better help future generations of young people experiencing mental ill-health

Rebecca,  
Youth Advisory Council,  
Orygen

# headspace Craigieburn, Glenroy, Sunshine, Werribee snapshot 2017-2018



# 24,639

services were provided to young people

**4,244**  
accessed  
a headspace centre

**2,282**  
new young  
people

**6**  
average number of occasions  
of service young people receive

## Demographic

**2,134**  
Culturally or  
linguistically  
diverse



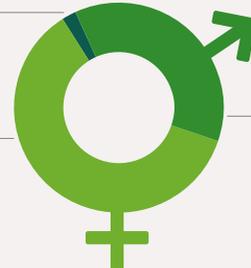
**2,349**  
LGBTIQ+

**322**  
Aboriginal and  
Torres Strait Islander

## Gender

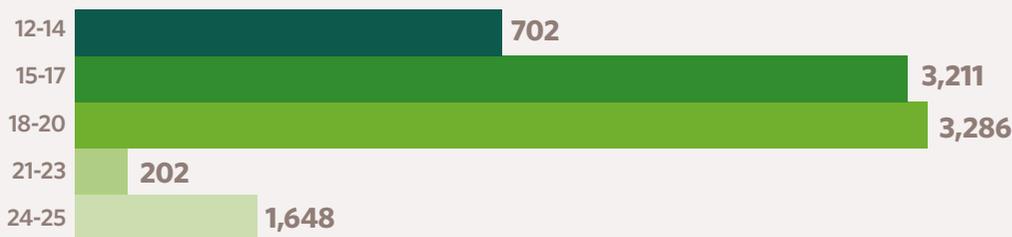
**211** other

**5,948**  
female



**3,629**  
male

## Age



This information is gathered from the headspace National Office (hNO) minimum data set, headspace Applications Platform Interface or hAPI.

**Main reasons young people came to headspace**

**5,451**  
problems with how I feel



- **673** problems with school or work
- **581** I was made to come
- **411** problems with relationships
- **122** physical and sexual health
- **85** vocational services
- **54** problems with alcohol and other drugs
- **6** other

**Presenting issues**

**8,196**  
mental health and behaviour



- **927** situational (eg: relationships, conflict, bullying)
- **202** vocational assistance
- **161** other
- **122** alcohol and other drugs
- **97** physical health
- **45** sexual and reproductive health

## Showcasing NinjaArt

Generous funding from The James Marcon Youth Health Foundation has enabled the ongoing delivery of a range of art and music programs across Orygen's four headspace centres in north-west Melbourne, which have proven to be very popular among young people.

Connor, a member of the NinjaArt group at headspace Werribee, said the weekly art group gave him a reason to start doing art again and inspired him to get involved in the youth advisory group (YAG) at headspace Werribee.

"Each week I designated time and resources to start doing art again, a year later, I now have purpose, an avenue to express myself and I'm a YAG member, studying to become a youth worker myself."

The art group creates a supportive and stimulating environment that allows young people to explore their creativity and invites them to establish friendships and connections.

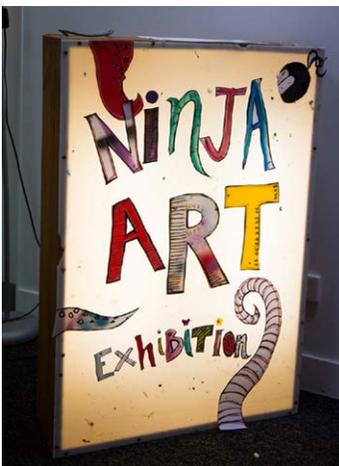
Ella, another member of the art group, said attending the group was one of her coping strategies. "It takes away my anxiety and my stress from the day and it's a release," she said.

"If I didn't have art group I wouldn't have a way to get my anger and frustration out. I always go home happy after art group."

Liz Burgat, outgoing Director of Clinical Services at Orygen, said the art therapy group was important to the wellbeing of many young people at headspace Werribee.

"The art group has created a safe environment for young people to express themselves in creative and social ways," she said.

"We are incredibly grateful for the continued support from The Marcon Foundation, which allows this program to thrive."



Mirella Marcon (left) from the James Marcon Foundation and Ella (Ninja Art participant)

## headspace highlights

Orygen operates four headspace centres in the northern and western Melbourne suburbs of Werribee, Sunshine, Glenroy and Craigieburn. These centres provide young people aged 12-25 with advice, assistance, treatment and support in the areas of general health, mental health, education and employment, and alcohol and other drugs.

The four headspace centres also provide a host of programs and events throughout the year that highlight the diversity. Below is a snapshot of activities over 2017-18.

### A decade of supporting young people

headspace Sunshine celebrated 10 years of supporting young people in Melbourne's north-west. It was one of the first 10 headspace centres to open in Australia, and since its inception has supported thousands of young people and their families from across the north-west of Melbourne.

### Aboriginal wellbeing project

headspace Werribee secured funding to provide Aboriginal and Torres Strait Islander young people with tailored and holistic support through its Aboriginal Wellbeing project. The support includes meet and greet assessments, referrals and linkages, individual support sessions, parent sessions and group sessions.

### DRUMBEAT

headspace Glenroy received funding from its local Commonwealth Bank branch to establish the DRUMBEAT program, which encourages participants to develop their personal and social skills.

### Craigieburn festival

The youth advisory group at headspace Craigieburn partnered with a large number of organisations and other local services to attend the annual Craigieburn festival. The festival provided a valuable opportunity to introduce the headspace centre to the community and to engage with young people and their families in a relaxed atmosphere.

### Music and mood

The headspace Sunshine team partnered with young people to design a music and mood program that helps participants learn how to use music to manage difficult moods, to express thoughts and feelings, and to connect with others.



Nicholas (left) and Matt (right) with Adrian, Commonwealth Bank Glenroy's branch manager

## Brief interventions in youth mental health deliver lasting benefits

Although timely access to treatment in the early stages of mental illness is pivotal to recovery and prevention of longer-term issues, access to often busy mental health services can sometimes be a challenge.

In response, a team led by Carsten Schley, clinical services manager at headspace Sunshine, has developed the Brief Interventions Clinic (BIC) to enable young people to begin treatment early rather than wait for a service to become available.

The BIC was developed with young people and is the only youth-specific treatment package designed 'for young people, by young people'. It is currently used across Orygen's four headspace centres in Craigieburn, Glenroy, Sunshine and Werribee as well as an additional 20 headspace centres nationally.

The BIC treatment package comprises nine skill-building and behavioural intervention modules that young people choose for themselves. Treatment occurs over a maximum of six sessions, usually weekly.

Mr Schley said since the inception of the BIC, young people with early signs of mental ill-health have had a significantly increased chance of accessing treatment before their problems become worse.

"Locally, the implementation of the BIC across our four headspace centres has significantly increased the likelihood of young people with mental health problems receiving access to care before their problems potentially become more debilitating," Mr Schley said.

"We're really proud that we've packaged together a range of simple interventions in a ready-to-use format, which saves a lot of time for a youth mental health worker and provides a better outcome for young people."

An evaluation of the BIC showed the package had resulted in significant reductions in overall psychological distress, depression symptoms and anxiety severity, as well as significant improvements in social and occupational functioning.

Encouragingly, 91% of young people who had participated in the BIC said their outcome expectations had been entirely met and 95% were completely satisfied with their treatment experience.

The nine modules in the Brief Interventions Clinic are:

- communicating with confidence;
- exercise for wellbeing;
- problem-solving skills;
- understanding and accepting myself;
- understanding my anger;
- understanding my moods and anxiety;
- mindfulness and relaxation;
- sleeping well; and
- nutrition for wellbeing.

## Doctors in Schools program shows early success

Orygen-led headspace centres are now delivering GP bulk-billed services into secondary schools in Melbourne's north-west as part of the Victorian Department of Education's Doctors in Schools program.

The weekly GP appointments are being held at Mt Ridley College and Glenroy College.

Dr Leila Byrne, general practitioner at headspace Craigieburn, has been seeing students at Mt Ridley College and said feedback from teachers and parents had been positive.

"We have had a number of engagement activities through the school, which has seen an increase in the number of students that have visited the clinic," Dr Byrne said.

"Initially we saw only young people referred by teachers, but more students and parents are self-referring now, which is really great to see."

A 14-year-old student from Glenroy College said seeing the school GP was the first time she had visited a GP who was not her family GP. "My friends talked me in to coming to see the GP," she said. "If they hadn't told me to come, I wouldn't have come on my own. The doctor has suggested that I go see a counsellor at headspace, I would never have agreed to that before today."

Dr Byrne said the appointments had presented a great opportunity to link students in with other relevant services within the school and with headspace.

"Given that sessions at school are quite limited, where possible I try to link students into services such as headspace if they are needing ongoing mental health support," Dr Byrne said. "We also work with referral pathways as needed to other physical health care services, alcohol and other drugs, or options for counselling within the school or private providers."

Dr Byrne says she has already seen the benefits of having a clinic within the school. "Not only has it made it easier for students to see a doctor, but we have also found that we are engaging with students that we might not have done so before."

"It also reduces the pressure on parents to take young people to a doctor out of school hours, but most importantly, it helps us identify and address any health problems early," Dr Byrne said.

"Ideally, I would love to see the Doctors in Schools program expanded state, even Australia wide."

“

It reduces the pressure on parents to take young people to a doctor out of school hours, but most importantly, it helps us identify and address any health problems early.





“Being part of the YAG allows me to engage with individuals I would otherwise not have met to collaborate through a shared passion for mental health awareness

Rafi,  
Youth Advisory Group,  
headspace Werribee

## Young veterans at increased risk of mental illness and suicide

Young people who transition out of the Australian Defence Force (ADF) within their first year or early in their career are at an increased risk of developing a mental illness and are twice as likely to die by suicide than young Australians in the general community.

A report, *The Next Post: Young People transitioning from military service and mental health*, co-authored by Orygen and Phoenix Australia, recommends targeted interventions and services to be developed to support this vulnerable group.

Dr Simon Rice, a senior research fellow at Orygen, said recent Australian research had revealed that young people who leave the military with less than four years of active service are at increased risk for depression, panic attacks, suicidality and alcohol-use disorders.

“This increased risk of mental ill-health could be attributed to a number of factors including exposure to potentially traumatic events on operations, or leaving the service involuntarily,” Dr Rice said. “The loss of the protective factors the military

provides, including social support, and a sense of belonging and identity, can affect the mental health of young ex-serving personnel, leaving many feeling unprepared for civilian life.”

The report’s authors consulted with younger veterans and service providers to identify what they saw as their needs and gaps in available services. To reduce the high rates of mental illness and suicide among young ex-serving ADF personnel, the report recommends:

- the implementation of a mandatory comprehensive social and psychological assessment prior to young people transitioning out of the military;
- the development of targeted support hubs, co-designed in partnership with ex-serving personnel, to provide a youth-specific model of mental health care. Different levels of service would be provided based on the risk of mental health or psychosocial adjustment problems; and
- improving engagement with young serving and ex-serving personnel, with a specific focus on engaging young service personnel during the recruitment process, initial training, and within their first year of service.



Dr Simon Rice (left) and Samuel, veteran

## Youth mental health services a family affair

Families often feel excluded when young people access a mental health service, despite the mental health outcomes of most young people being enhanced by including families in the care and treatment they receive.

An Orygen report, *We're in this together: family inclusive practice in mental health*, recommends that mental health services introduce 'family inclusive practice' into their operations and that this reform be informed by young people and families.

Family inclusive practice is an approach to mental health service design and the delivery of treatment that empowers a young person's family to take an active role in supporting a young person experiencing mental ill-health, said David Baker, principal policy adviser at Orygen.

"Recognition of the supportive role family can play in improving a young person's mental health cannot be understated," Mr Baker said.

"When working with a young person, however, it is important that services and clinicians remember that all families are different and the family relationship that a young person deems important in their lives will also differ," he said.

The type of mental health service and the stage of ill-health a young person is experiencing will inform how family engagement can be facilitated. Family inclusive practice in a primary health setting where a young person presents with mild to moderate symptoms

will differ to the approach required when a young person presents with severe symptoms or is involuntarily hospitalised, he said.

An evidence base, guidelines, practice models and dedicated roles already exist to enable the implementation of family inclusive practice in youth mental health services, but the main barrier to the transformation of family inclusion is a lack of specific, ongoing funding, Mr Baker said.

The report recommends the funding of an incentive program to increase the family peer support workforce located in primary health and specialist mental health services. It also recommends funding be provided to mental health services transitioning to family inclusive practice and that the funding:

- be linked to management performance;
- require structured and evaluated collaboration with young people and families;
- provide training and accreditation for clinical staff; and
- enable the delivery of dedicated family inclusive roles.

"Evidence shows us that young people can benefit greatly by including family members in their care and treatment," Mr Baker said. "The inclusion of family in mental health services should be seen as part of the standard service a young person receives."



David Baker

## Health services inadequate in responding to young people affected by trauma

Australian mental health services lack the capability and capacity to respond to the needs of young people affected by trauma, a policy report by Orygen has found. The report, *Trauma and young people: moving toward trauma-informed services and systems*, recommends that government, mental health services and young people collaborate to develop better identification, assessment, support and treatment of trauma within mental health systems.

Dr Sarah Bendall, who leads trauma research at Orygen, said studies overseas had shown that experiences of trauma among young people were common, with up to two-thirds having been exposed to at least one traumatic event by the age of 16.

“The likelihood of having experienced trauma is much higher in young people who have been in contact with the justice system, in the care of family and human services, from refugee backgrounds, those working in our armed forces or emergency services, or young Aboriginal and Torres Strait Islanders,” Dr Bendall said.

“Trauma can have a negative impact on all aspects of a young person’s life. Yet there are currently a number of significant barriers to providing effective treatment for trauma.”

To address the lack of services and systems to treat young people with a history of trauma, the report recommends:

- developing a national policy response for trauma that describes clear actions and activities for implementing effective and evidence-based trauma responses within health and human services and systems. This should involve input from sector experts and those with a lived experience of trauma;
- increasing the number of mental health and human service professionals who are trained in understanding and responding to trauma by developing a consistent trauma-informed curriculum for relevant tertiary education courses;
- developing and trialling a trauma-informed, youth specific method of assessing young people to identify the presence and impact of trauma; and
- that the Australian Government develop a targeted primary mental health care package for young people with complex trauma-related mental ill-health. This package would provide the actual number of therapy sessions needed to treat a young person with trauma, rather than the 10 sessions currently available.



Dr Sarah Bendall

## Building national capacity in mental health service delivery

The Australian Government has provided funding for Orygen to support Australia's 31 Primary Health Networks in implementing mental health services for young people with complex and severe mental health problems.

In addition, Orygen has also been funded and tasked with providing expert support, advice and assessment in the scaling up to full operation of six headspace Youth Early Psychosis Programs (hYEPP) nationally.

Over this year the National Programs team has collaborated with other teams within Orygen to achieve the following:

- undertaking a needs assessment with the 31 Primary Health Networks (PHNs) to identify their support needs;
- worked with PHNs to identify solutions to implementation challenges, including but not limited to per capita funding for service delivery for each PHN, remoteness and isolation, local need and demand, diverse communities and workforce shortages;
- developing a suite of tools to support PHNs and their commissioned providers; and
- facilitated three national forums, provided a bi-monthly e-news bulletin and developed a website portal for PHN staff to facilitate access to information and resources.

The National Programs team continues to scale up operations with the six hYEPP sites in south-east Melbourne, Adelaide, Perth, Darwin, south-east Queensland and western Sydney.

A number of activities critical to this work, include:

- the facilitation of a range of teleconferences including bimonthly meetings for operational managers and quarterly meetings for psychiatrist and clinical directors;
- regular liaison with PHNs regarding the funding and accountability of the hYEPP program including problem-solving contractual issues;
- undertaking fidelity measurements of the 16 core components of the EPPIC (Early Psychosis Prevention and Intervention Centre) model and providing support to the hYEPP sites to improve the quality and consistency of service delivery;
- developing and managing an online platform to provide a hub for information sharing, resources, workforce development and discussion forums; and
- organising and facilitating three national workshops.

---

**delivered**



national forums

**developed**



key resources for Primary Health Networks

**established**



a Primary Health Network committee

---

**collaborated on developing**



resources for broader audience

policy papers

**developed**



websites to support information sharing and improve service quality

---

**supported**



PHN sites

hYEPP sites

to deliver mental health services to young people with complex mental health needs and first episode psychosis

## Supporting professionals through education and training

As one of the world's leading research and knowledge translation organisations focussed on mental ill-health in young people, a key role of Orygen is to provide mental health professionals with the skills and clinical evidence they need to improve their capacity to help young people.

Online learning has allowed the translation of evidence-based practice to be more accessible, and Orygen's online training has been used by services nationally, and internationally in New Zealand and the United States.

The team has facilitated training and education in almost all Australian states and territories with topics including: working with early psychosis; early intervention in youth mental health; clinical staging; depression and anxiety; and working with trauma.

The Doctors in Secondary Schools project is a collaboration with the University of Melbourne, headspace, Family Planning Victoria and the

Royal Children's Hospital and Orygen's translation team has been involved in the project providing online training resources, as well as developing and operating a youth mental health advice line for GPs and Practice Nurses who are operating in schools.

Staff have worked with supermarket giant Coles to develop a strategy that assists the organisation in improving the connectedness and wellbeing of the young workers in their supermarket stores. This project involved in-depth consultation, analysis of work patterns, current measures of mental wellbeing, and strategies addressing wellbeing at work.

The team has collaborated with Speech Pathology Australia to continue to develop and disseminate a range of resources aimed at working with speech and language difficulties in the mental health sector.

### International collaborations

With the investment in early psychosis services in the United States, Orygen has been providing face-to-face support, advice and training to two youth mental health services set up to address the needs of young people presenting with early psychosis. In Hong Kong, members of the translation team were invited as guests of the inaugural Hong Kong Mental Health Conference, and have also been supporting the scaling up of the MIND Hong Kong mental health charity, providing advice and consultation in relation to strategies to improve mental health awareness and access.



# 1,100

participants in face to face training sessions



# 300

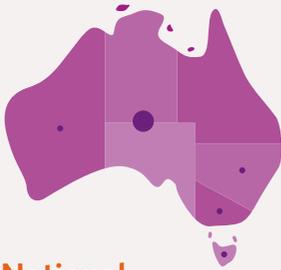
live webinar participants



# 600

participants accessed online modules

## Clinical and non-clinical services training and consultations



### National

Coles Supermarkets  
Speech Pathology Australia

### New South Wales

Central and Eastern Sydney PHN  
NSW Health Education and Training

### South Australia

headspace Adelaide  
Youth Early Psychosis Program  
headspace Berri

### Tasmania

Tasmania Primary Health Network  
Tasmanian PHN commissioned training services (Hobart)

### Victoria

headspace Swan Hill  
Juvenile Justice induction program: suicide assessment and intervention  
NEAMI mental health community support services (Victoria)  
Murray Primary Health Network  
University of Melbourne Doctor's in Secondary Schools Project

### Western Australia

headspace Perth  
Youth Early Psychosis Program  
Western Australian Country Health Service



### New Zealand

Auckland District Health Board  
Te Pou: Mental Health workforce education



### United States

Missouri Mental Health Coalition  
Riverside County Early Psychosis Program

## Commonwealth deliverables completed



- 8 webinars
- 4 research bulletins
- 4 clinical practice points
- 4 advanced practice webinars
- 4 factsheets
- 2 online modules
- 2 toolkits
- 2 online consultation frameworks for knowledge translation and trauma-informed practice

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## International visitors and events

Orygen hosted a number of international visitors during the year, who met with staff and young people to learn about the work that we do, to exchange ideas and forge new collaborations. We welcomed visitors from the United States, United Kingdom, Canada, Ireland, Norway, Israel, Netherlands, Hong Kong, Japan and South Korea.

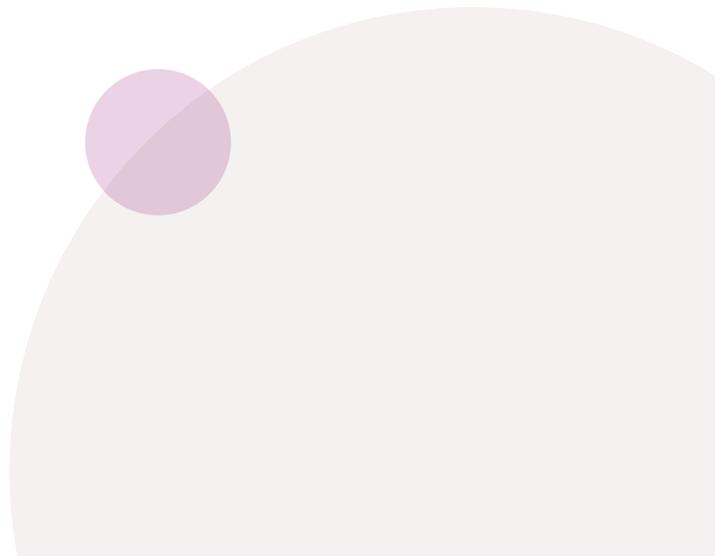
In October 2017 we hosted a week-long visit from Dr James Kirkbride, the Sir Henry Dale Fellow and Reader in Epidemiology in the Division of Psychiatry at University College London.

To coincide with Dr Kirkbride's visit Orygen hosted a research symposium: *Better approaches to addressing the social determinants of resilience and mental ill-health in young people.*

In December 2017, Orygen hosted a visit from Professor Brenda Penninx, from the VU University Medical Center, Amsterdam, Netherlands. Professor Penninx collaborates with a number of Orygen staff and this visit provided a great opportunity to broaden the connections and collaborations as well as exchange information.

During Professor Penninx's visit to Orygen, a full-day research symposium was held: *New approaches to depression: From basic mechanisms to novel treatments.* This symposium featured presentations by a host of national and international experts in the field.

We look forward to hosting, welcoming and sharing the work that we do with other international visitors in the coming year.



## Teachers given skills to manage suicide and self-harm among students

Teachers Australia-wide are now able to learn the skills necessary to detect, prevent and manage self-harm and suicide-related behaviours in young people, through a new graduate education program developed by Orygen in collaboration with the University of Melbourne.

The Graduate Certificate in Managing Youth Self-Harm and Suicide is delivered by some of the world's leading authorities on youth mental health. It is the first online graduate program open to teachers that specifically focuses on suicide and self-harm-related issues in young people.

Associate Professor Jo Robinson, head of suicide prevention research at Orygen, said rates of suicide, self-harm and mental ill-health were rising among school students. "Schools have long been accepted as an ideal setting for suicide prevention activities that target young people, and school staff are often a first port of call for distressed students," Associate Professor Robinson said

"With youth suicide rates at their highest in several years it has never been more important for school staff to feel equipped to respond appropriately," she said. "Teachers are well-placed to identify and intervene with young people at risk, however, these key 'gatekeepers' often report feeling under-skilled in their ability to respond adequately."

"The evidence clearly shows that the right training can help teaching staff feel better able to both identify and support young people at risk," Associate Professor Robinson said. "The Graduate Certificate in Managing Youth Self-Harm and Suicide has the capacity to upskill teachers and, as a result, they are better positioned to play a key role in supporting any vulnerable young people who they come into contact with."

The Graduate Certificate in Managing Youth Self-Harm and Suicide is a 12-month part-time course consisting of four subjects.

“

The Graduate Certificate in Managing Youth Self-Harm and Suicide has the capacity to upskill teachers and, as a result, they are better positioned to play a key role in supporting any vulnerable young people who they come into contact with.



“Mental health affects all age groups and many young people can feel misunderstood. Having a voice that represents young people and their mental health in an honest and wholesome light becomes reflective in practice

Chloe,  
Youth Advisory Group,  
headspace Glenroy

## Young people as partners

Orygen recognises that young people and their families are key partners in improving young people's mental health. We are committed to partnering with young people and ensuring they remain at the core of everything we do.

Below are some highlights of our partnerships with young people over 2017-2018.

- Young people co-designed and delivered activities at the 2017 International Association for Youth Mental Health (IAYMH) conference in Dublin.
- The youth advisory group at headspace Werribee initiated and developed a successful partnership with the Student Representative Council at a school in Melbourne suburb of Tarneit.
- Orygen held its third Summer Intern Program which saw four young people participate in a four-week learning experience with research teams, key policy and advocacy staff, clinical specialists and workforce trainers.
- headspace Sunshine's youth advisory group developed and delivered workshops for Year 12 students to demonstrate that success in life doesn't always follow a linear path and success means different things to different people.
- Young people partnered with Orygen in the development of key organisational activities including the interior design phase of the new Parkville building, and co-design workshops around a new model of youth mental health care.
- After identifying a lack of youth-led groups within the boundaries of Moreland City Council, the youth advisory group at headspace Glenroy created the headspace Glenroy artspace group, to offer an opportunity for young people in the area to learn new skills and build confidence.

## Our youth advisors

### headspace Craigieburn

Cassandra Jankovic  
Isabella Bolton  
Jacqueline Graham  
Jasmine Russell  
Laura Beddoe  
Lexie Kargiotis  
Marisa Bellina  
Meghan O'Keefe  
Nadine Nasser Eldin  
Pembe Ilgaz  
Sebastian Strzebonski  
Shubhda Pokhriyal  
Teresa Scicluna

### headspace Glenroy

Apurva Nargundkar FEB 2018  
Chloe Orlanski  
Clare Shu FEB 2018  
Eric Neskakis  
Evangelina Kalaitzakis  
Gemma Helms FEB 2018  
Genesis Lindstrom FEB 2018  
Haseeba Faizy  
Ifrah Mohamed  
Matthew Mostovac FEB 2018  
Matthew Salviani  
Nicholas Ford  
Rebecca Singer

### headspace Sunshine

Ana Sterjovska  
Ashlee Compton  
Betty Do  
Han Duong  
Jessica Cahill  
Martin Vu  
Rachael Cordell  
Rhylee Hardiman  
Sara Batleska  
Shannon Dance  
Song Le  
Tessa Nguyen



Brianna McGregor  
Connor Widdicombe  
Cristina Martinez MAY 2018  
Desney Millen  
Emily Boubis  
Grace Bell  
Jack Price  
Josh Everson  
Kate Barber  
Lucy Kong MAR 2018  
Luke Hartley  
Mehak Sheikh  
Rafi Armanto  
Sarah Daw  
Zaida Mansaray



Amelia Morris  
Britt Liebeck  
Emily Cole  
Harry Koelyn  
Madeline Wills  
Maria Bilal  
Rebecca Langman  
Roxanne MacDonald



Bridget Murray  
Dylan Langley  
Emily Parry  
Jessica Ranson  
Nicole Juniper  
Rebecca Langman



Adele Romagnano  
Kate Obst  
Lilian Ma  
Lucy Williams  
Paris Jeffcoat  
Sarah Langley  
Somayra Mamsa  
Taylor Johnstone

## A safe space for LGBTQIA+ young people

QSpace is an all-inclusive, safe and supportive queer youth group held at headspace Glenroy where young people aged 15-25 years who identify as LGBTQIA+, meet monthly to learn new skills, share and validate experiences and make valuable connections within the community.

As well as building relationships and connections, the group discusses topics including coming out, language, safe sex, consent, identity, history and queer representation.

As a young person who has been through some of the struggles of queer identity, the group allows facilitator Nicole to relate to what participants are saying. "I find that I can form a deeper connection with everybody. For me, Qspace feels like a group of friends just hanging out," she said.

"We have had very positive feedback from our sessions, which have so far involved everything from sushi making, movie watching, education on queer topics, guest speakers, and much more. The group is free, and also offer resources for individuals, friends and family."

Qspace is facilitated by Nicole, Blaze, Eric and Nick and is supported by headspace Glenroy's Dr Sarah Burrowes.

“

We have had very positive feedback from our sessions, which have so far involved everything from sushi making, movie watching, education on queer topics, guest speakers, and much more.



Nicole, Qspace facilitator

## Young people take centre stage at Dublin conference

The 4<sup>th</sup> International Association for Youth Mental Health conference was held in Dublin in September 2017. The conference brings together leaders from around the world who are dedicated to creating positive change in youth mental health. At the core of that change is young people, and Orygen was delighted to support six young people to attend. They co-designed seven activities including workshops, presentations and posters across the conference program. We asked them to share with us their reflections on their experience.

“

The biggest learning I will take from this incredible event was the sheer influence that we, as young people, have on both each other and on service providers or clinicians. Our voices are undeniably significant.”

Yasmine

“

I think the most valuable thing I came away with from this experience is the idea that some problems in mental health are complicated, definitely. But if we can focus on what we can do, and start simple such as just asking a young person what they think, then we are all capable of having a small but positive impact on other people’s lives.”

Bridget

“

The conference showcased the amazing work that young people can do when they are given the power, guidance, and tools to do it. No one will know more about what young people need more than them; we merely need to listen more attentively to them.”

Genesis

“

It was great to see so many young people from all over the world advocating for a wide spectrum of issues regarding youth mental health. Five years ago, I certainly didn’t think I would have been capable of presenting at a conference such as this.”

Adriana

“

While I had the microphone in my shaking hands, knee-deep into my mental health story, the importance of sharing lived experience truly sank in. I have been left with a strong flavour of youth participation; of sharing lived experience, peer support, paid employment for consumers and empowerment for young people through this movement.”

Nicolette

“

Talk to young people. If a drafts person is hired to draw up a floorplan for a house, they talk to their clients about what they want that to look like. Literally. Young people are experts in themselves. They are experts in their lives. That expertise needs to be honoured.”

Matthew

## Community leaders' forum raises awareness of youth suicide

Youth suicide prevention is an issue being considered at all levels of government, and Orygen continues to build strong community connections to address this issue.

During the year we collaborated with Hobsons Bay City Council to host the 'Community Leaders Youth Suicide Prevention Forum'.

Attracting young people and community leaders from a variety of disciplines within the northern and western suburbs of Melbourne, the forum aimed to raise awareness of youth suicide, discuss and explain the work of Orygen, and to determine the ways in which the community could work together to prevent and/or reduce suicide among young people.

Associate Professor Jo Robinson, who leads Orygen's suicide prevention research program, said engagement in the forum by local stakeholders gave a good sense of how important the issue of youth mental health and suicide prevention was to the Hobsons Bay community.

"The forum provided an opportunity to talk about our work plans going forward and to ensure its relevance to the local community, providing us a blueprint for research into youth suicide prevention across north and west Melbourne," Associate Professor Robinson said.

All attendees of the forum were invited to participate in workshop activities that aimed to understand the views and priorities of the north-west region of Melbourne.

Key themes and discussion points included:

- an ideal clinical service model;
- the role of educational institutions;
- the role of online technology;
- an ideal north-west suicide prevention network;
- an ideal suicide postvention program; and
- Hobsons Bay priorities.

Approximately 86 community leaders, as well as young people, attended the forum and represented a range of local organisations including Ambulance Victoria, the Victorian Department of Health and Human Services, Western Bulldogs football club and Victoria Police.



Taylor, Orygen Youth Research Council member and Associate Professor Jo Robinson presenting at the forum



Harry,  
Youth Advisory  
Council, Orygen

## Securing support for the research and programs that improve youth mental health

Orygen acknowledges with gratitude the ongoing support we receive from organisations and individuals that allows us to continue to improve the lives of young people.

We would like to particularly acknowledge the following contributions this year. This ongoing support and commitment makes all the difference to our ability to deliver the best possible outcomes for young people experiencing mental ill-health.

- The Ian Potter Foundation: providing the second instalment of \$3 million to support the building of Orygen's new facility at Parkville;
- Gandel Philanthropy: \$1,250,000 for research into clinical treatments to reduce drug and alcohol use in young people with mental illness;
- William Buckland Foundation: \$600,000 for an online youth suicide prevention program;
- Helen Macpherson Smith Trust: \$586,221 for the Youth Online Training and Education (YOTES) program, which provides online peer-support for young people seeking employment;
- The Future Generation Global Investment Company: \$263,083 received for suicide and self-harm prevention;
- The McCusker Charitable Foundation: \$250,000 to support initiatives including sport and youth mental health; and trauma and youth mental health;
- Anonymous foundation: \$250,000 to support Orygen's key organisational capacity-building initiatives;
- BB & A Miller Foundation: \$239,000 for Professor Eóin Killackey's fellowship in functional recovery research;
- The John T Reid Charitable Trusts: \$200,000 to help identify young people who are at ultra-high risk of developing psychosis;
- Morris Family Foundation: \$200,000 to address the physical health needs of young people attending Orygen's clinical services;
- Hats for Hope: \$54,199.84 for suicide prevention research. This donation recognises Andrews Funeral Care as a major sponsor;
- Anonymous foundation: \$50,000 to enable Orygen to invest in organisational capacity-building initiatives that will support key strategies of our mission and vision.
- The James N. Kirby Foundation: \$40,000 to support a three-year pilot study aimed at helping young people with mental illness return to school;
- Perpetual and the William Paxton Charitable Fund: \$36,000 for a research pilot study of an app-based brain-training intervention for young people with depression;
- The Matana Foundation for Young People: \$30,000 to support a three-year pilot study aimed at helping young people with mental illness return to school; and
- The James Marcon Youth Health Foundation, for their ongoing support for art therapy programs based in our headspace centres.



“Being an advocate for young people encourages the upkeep of research and practitioner techniques. Ultimately, this helps shape Australia’s healthcare landscape to reflect the needs of Australia’s young people

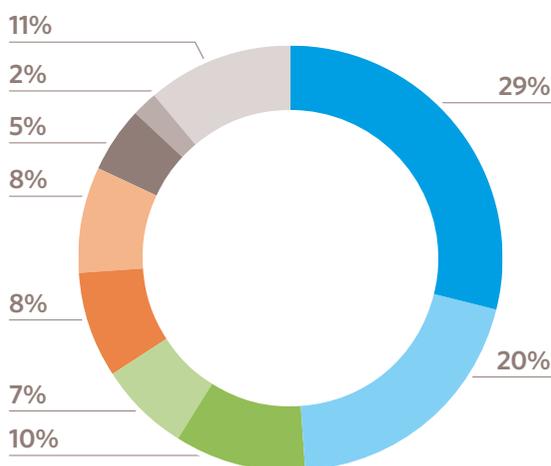
Laura,  
Youth Advisory Group,  
headspace Craigieburn

## Financial statements

### Statement of comprehensive income for year ended 30 June 2018

	2018	2017
	\$'000	\$'000
<b>Revenue from ordinary activities</b>	<b>25,798</b>	<b>22,604</b>
<b>Expenditure</b>		
Consultancy	1,703	372
Depreciation	425	453
Occupancy	1,098	885
Salaries	15,914	12,391
Medical supplies, tests and practitioner payments	1,841	1,863
Other expenditure	2,620	2,551
<b>Surplus/(Deficit) for the period</b>	<b>2,197</b>	<b>4,089</b>

### Sources of revenue (Year ended 30 June 2018)



	\$'000	% of Total
Commonwealth grants	7,530	29%
Primary Health Network	5,225	20%
Colonial Foundation	2,600	10%
Clinical service provision income	1,890	7%
Research grants (international)	2,015	8%
Fundraising and donations	2,097	8%
Infrastructure and reimbursement income	1,314	5%
Training income and sale of resources	452	2%
Other	2,675	11%
<b>Total</b>	<b>25,798</b>	<b>100%</b>

A full copy of the Orygen Special Purpose Statutory Financial Report for the year ended 30 June 2018, is available on the ACNC website [www.acnc.gov.au](http://www.acnc.gov.au)

## Statement of financial position for year ended 30 June 2018

	2018	2017
	\$'000	\$'000
<b>ASSETS</b>		
<b>Current assets</b>		
Cash at bank	18,446	11,480
Term deposits	78	81
Trade and other receivables	6,448	1,804
Prepayments	112	140
Inventory	-	89
<b>Total current assets</b>	<b>25,084</b>	<b>13,594</b>
<b>Non-current assets</b>		
Property, plant and equipment	969	1,100
<b>Total non-current assets</b>	<b>969</b>	<b>1,100</b>
<b>Total assets</b>	<b>26,053</b>	<b>14,694</b>
<b>LIABILITIES</b>		
<b>Current liabilities</b>		
Trade and other payables	10,701	4,410
Income in advance	2,885	-
Employee provisions (current)	526	449
<b>Total current liabilities</b>	<b>14,112</b>	<b>4,859</b>
<b>Non-current liabilities</b>		
Other liabilities (non current)	267	381
Employee provisions (non current)	287	264
<b>Total non-current liabilities</b>	<b>554</b>	<b>645</b>
<b>Total liabilities</b>	<b>14,666</b>	<b>5,504</b>
<b>Net assets</b>	<b>11,387</b>	<b>9,190</b>
<b>EQUITY*</b>		
Share capital	-	-
Retained surplus/(deficit)	3,682	3,542
Unexpended funds reserve	7,705	5,648
<b>Total equity</b>	<b>11,387</b>	<b>9,190</b>

\* Equity includes project funds received in the year ended 30 June 2018, but committed to expenditure in future financial years.

## Board members



L - R  
Professor Patrick McGorry AO, Jane Harvey, Alan Beanland,  
Adam Horsburgh (Alternative Director for Professor Christine Kilpatrick),  
Lynette Allison, Andre Carstens, Professor Marilyns Guillemin

## Alan Beanland

BSc, FAICD

### Chairman

Alan Beanland has extensive international experience across four continents in roles as a director, senior executive, consultant and business developer within the information technology and finance sectors. He has advised major Australian and Asian groups on their international business expansion activities and is the current chair of the Colonial Foundation.

## Lynette Allison

BEd

Former leader of the Australian Democrats Lynette Allison is on the boards of several health-related not-for-profit organisations. She chaired the Senate Mental Health Inquiry (2005-2006) which led to a Council of Australian Governments (COAG) agreement and an additional \$4 billion spent on mental health.

## Andre Carstens

B.Coms(Hons), FCA, MAICD

Andre Carstens is a chartered accountant (fellow) and member of the Australian Institute of Company Directors. He has extensive leadership experience, having held CEO/CFO positions with multi-national businesses including Spotless Group, Colonial First State Group, Aviva Australia and the Gribbles Group. Mr Carstens is currently CEO of the Colonial Foundation.

## Professor Marilys Guillemain

PhD, MEd, DipEd, BAppSc

Associate Dean (learning and teaching) at the University of Melbourne's Faculty of Medicine Dentistry and Health Sciences, Professor Marilys Guillemain is a sociologist of health and illness. Her research has spanned sociology of health, illness and technology; innovative research methodologies; research practice; narrative ethics; and ethical practice in research and healthcare.

## Jane Harvey

BCom, MBA, FCA, FAICD

Jane Harvey is a former partner of PricewaterhouseCoopers and has been a director of the Royal Melbourne Hospital, the Alfred Hospital, the Royal Flying Doctor Service and Medibank Private Limited. She is on the boards of the Colonial Foundation, Bupa ANZ, IOOF Holdings Limited, DUET Finance Ltd and UGL Limited.

## Professor Christine Kilpatrick

MBBS, MBA, MD, FRACP, FRACMA, FAICD. FAHMS, DMedSci (Hons)

Christine Kilpatrick commenced as chief executive of Melbourne Health in May 2017. Previous appointments include chief executive, The Royal Children's Hospital; executive director Medical Services, Melbourne Health; and executive director Royal Melbourne Hospital, Melbourne Health. Prior to these appointments she was a neurologist and specialised in epilepsy.

## Professor Patrick McGorry AO

MD, PhD, FRCP, FRANZCP

Professor Patrick McGorry is executive director of Orygen, professor of youth mental health at the University of Melbourne, and a founding director of the National Youth Mental Health Foundation (headspace). He is a world-leading researcher in early psychosis and youth mental health, and has been involved in research and clinical care for homeless people, refugees and asylum seekers.

# Publications

July 2017 – June 2018

## Journal articles

- 1 Aggarwal S, Patton G, Reavley N, Sreenivasan SA, **Berk M**. 2017. Youth self-harm in low- and middle-income countries: systematic review of the risk and protective factors. *International Journal of Social Psychiatry* 63(4):359-375.
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- 3 Barbe-Tuana FM, Parisi MM, Panizzutti BS, Fries GR, Grun LK, Guma FT, Kapczynski F, **Berk M**, Gama CS, Rosa AR. 2017. Analyzing leukocyte telomere length in bipolar disorder: authors' reply. *Revista Brasileira de Psiquiatria* 39(3):275-276.
- 4 Barbosa IG, Vaz GN, Rocha NP, Machado-Vieira R, Ventura MRD, Huguet RB, Bauer ME, **Berk M**, Teixeira AL. 2017. Plasma levels of tumor necrosis factor superfamily molecules are increased in bipolar disorder. *Clinical Psychopharmacology and Neuroscience* 15(3):269-275.
- 5 Bassett D, Mulder R, Outhred T, Hamilton A, Morris G, Das P, **Berk M**, Baune BT, Boyce P, Lyndon B, Parker G, Singh AB, Malhi GS. 2017. Defining disorders with permeable borders: you say bipolar, I say borderline! *Bipolar Disorders* 19(5):320-323.
- 6 Bauer M, Glenn T, Alda M, Aleksandrovich MA, Andreassen OA, Angelopoulos E, Ardaur R, Ayhan Y, Baethge C, Bharathram SR, Bauer R, Baune BT, Becerra-Palars C, Bellivier F, Belmaker RH, **Berk M**, et al. 2017. Solar insolation in springtime influences age of onset of bipolar I disorder. *Acta Psychiatrica Scandinavica* 136(6):571-582.
- 7 Bauer R, Conell J, Glenn T, Alda M, Ardaur R, Baune BT, **Berk M**, et al. 2017. International multi-site survey on the use of online support groups in bipolar disorder. *Nordic Journal of Psychiatry* 71(6):473-476.
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- 9 Berger ME, Smesny S, Kim SW, **Davey CG**, Rice S, Sarnyai Z, Schlogelhofer M, **Schafer MR**, **Berk M**, **McGorry PD**, **Amminger GP**. 2017. Omega-6 to omega-3 polyunsaturated fatty acid ratio and subsequent mood disorders in young people with at-risk mental states: a 7-year longitudinal study. *Translational Psychiatry* 7(8):e1220.
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- 11 **Berk M**, Ramsay R. 2017. Clinical research and the medical research future fund. *Australian and New Zealand Journal of Psychiatry* 51(9):863-865.
- 12 **Bosanac P**, Lusicic A, Castle D. 2017. Chapter 13 – The treatment of cannabis use disorder among individuals with a psychotic disorder. The complex connection between cannabis and schizophrenia. Academic Press 289-307.
- 13 Bowman S, McKinstry C, **McGorry P**. 2017. Youth mental ill health and secondary school completion in Australia: time to act. *Early Intervention in Psychiatry* 11(4):277-289.
- 14 Boyce P, Lyndon B, Outhred T, Hamilton A, Morris G, Das P, Bassett D, Baune BT, **Berk M**, Mulder R, Parker G, Singh AB, Malhi GS. 2017. Priorities in the assessment and management of perinatal mood disorders. *Australian and New Zealand Journal of Psychiatry* 51(11):1082-1084.
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- 18 Callaghan BL, Dandash O, Simmons JG, **Schwartz O**, Byrne ML, Sheeber L, **Allen NB**, Whittle S. 2017. Amygdala resting connectivity mediates association between maternal aggression and adolescent major depression: a 7-year longitudinal study. *Journal of the American Academy of Child and Adolescent Psychiatry* 56(11):983-991.e3.
- 19 **Chanen A**. 2017. Borderline personality disorder is not a variant of normal adolescent development. *Personality and Mental Health* 11(3):147-149.
- 20 **Chanen AM**. 2017. Tinkering at the margins. *Bipolar Disorders* 19(8):706-707.
- 21 Chye Y, Solowij N, Ganella EP, Suo C, Yucel M, Batalla A, Cousijn J, Goudriaan AE, Martin-Santos R, Whittle S, **Bartholomeusz CF**, Lorenzetti V. 2017. Role of orbitofrontal sulcalgyral pattern on lifetime cannabis use and depressive symptoms. *Progress in Neuro-Psychopharmacology & Biological Psychiatry* 79:392-400.
- 22 Conell J, Bauer R, Glenn T, Alda M, Ardaur R, Baune BT, **Berk M**, et al. 2017. Erratum to: online information seeking by patients with bipolar disorder: results from an international multisite survey. *International Journal of Bipolar Disorders* 5(1):18.
- 23 Conus P, **Cotton S**, Schimmelmann BG, **McGorry PD**, Lambert M. 2017. Rates and predictors of 18-months remission in an epidemiological cohort of 661 patients with first-episode psychosis. *Social Psychiatry and Psychiatric Epidemiology* 52(9):1089-1099.
- 24 Conus P, **Cotton SM**, **Francey SM**, **O'Donoghue B**, Schimmelmann BG, **McGorry PD**, Lambert M. 2017. Predictors of favourable outcome in young people with a first episode psychosis without antipsychotic medication. *Schizophrenia Research* 185:130-136.
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