Australian Government
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NHMRC

National COVID-19 Health and Research Advisory Committee[a]

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Emerging issues in psychological distress/anxiety as a consequence of measures put in place to control the spread of COVID-19

Focus

The Chief Medical Officer (CMO) asked the National COVID-19 Health and Research Advisory Committee (NCHRAC) to provide rapid advice on the emerging issues in psychological distress/anxiety as a consequence of measures put in place to control the spread of COVID-19.

There is evidence from previous pandemics/disasters and broader research that there are risks of increasing mental ill health and suicide during the crisis and recovery phase. Almost all people affected by emergencies and their associated social and economic responses will experience some level of psychological distress.[1] While for many this will be mild and transient, for others, this will manifest in acute short-term mental distress. For some, the experience may result in a long-term decline in mental health and wellbeing and increase risk of suicidal behaviours. Rose notes that widespread minor illness can have a bigger impact on population health than high rates of disease in a small number, thus widespread distress can result in a high burden.[2]

Australia has responded to COVID-19 with successful public health and economic policies designed to limit the spread and impact of the pandemic. However, some of these public health measures are having significant social and economic impacts, which in turn negatively affect individual and community mental health and wellbeing.[3] Some of the economic measures (such as increased income support through the JobSeeker, Youth Allowance and the introduction of the JobKeeper scheme) have had positive impacts on mental health including a reduction in financial stress and unemployment.[4]

It is also important to note that COVID-19 impacts are occurring in the context of a system where many or even most people cannot or do not access the services and supports they need to achieve their best possible mental health and the rate of suicide continues to increase.[5,6] Prior to the introduction of COVID-19 control measures, around 10 million Australians were already experiencing poor mental health, with young people disproportionately impacted by mental health issues.

[a] NHMRC is providing secretariat and project support for the Committee, which was established to provide advice to the Commonwealth Chief Medical Officer on Australia's health response to the COVID-19 pandemic. The Committee is not established under the NHMRC Act and does not advise the NHMRC CEO.

The links between social dislocation and loneliness, financial stress and poverty, family stress and violence, unemployment, job insecurity and, casualised employment and risk of mental illness and suicidality are well-established. This means the pandemic's impacts on mental health and suicidality may be deeper and long-term, both for those already living with mental health illness and mental health issues emerging in people with no prior history.[7]

Given the significant scope and complexity of the topic – which needs to take into account the impact of broader social determinants of mental health – the working group agreed to focus initially on two specific issues seen as requiring urgent consideration. These issues are *self-harm and suicidality* and *eating disorders*. These two topics were chosen as there appears to be emerging evidence to indicate that the incidence of these issues is increasing because of COVID-19 preventative measures, either directly or indirectly.[8] For example, the National Mental Health Commission have identified eating disorders as a key issue and have compiled a background paper that includes national and jurisdictional data indicative of service use, demand and eating disorder presentations in 2020.[9] Addressing both these issues early can potentially prevent loss of life and mitigate against significant individual, community, economic and health system burden as:

- People with a history of self-harm and/or suicide attempts are at increased risk of dying by suicide[10,11,12]; and
- Eating disorders are associated with a high level of morbidity, mortality and suicidal behaviour and have a significant impact on cognitive, physical, social and psychological aspects of health.[13,14,15,16]

These issues are among many other important issues identified by the working group. These issues had also been identified previously in an earlier paper developed as part of NCHRAC advice #4 on the mental health impacts of quarantine and self-isolation. To provide comprehensive advice to the CMO, NCHRAC considers that these other issues should be addressed as part of future advice papers. These include, but are not limited to:

- Financial stress and unemployment, especially in groups such as school leavers and long-term unemployed leading to mental illness
- Loneliness and isolation
- Family distress and dislocation
- Increased incidence of family violence and child abuse
- Feelings of grief and loss
- Inability to express grief in normal ways (such as when church and funerals are disrupted)
- Decline in general health, leading to psychological distress
- Exacerbation of existing mental illnesses
- Emergence of mental illnesses among people who have not experienced mental illness previously
- Burnout, particularly from health care workers and first responders

- Impacts on clinician-patient communication due to telehealth, use of personal protective equipment
- Impacts on people living with disabilities
- Homelessness
- Impacts upon carers
- The conjunction of environmental disasters, the epidemic of non-communicable disease, growing inequities and COVID-19 has been labelled as a syndemic and will have considerable impact on mental health[17]
- Exacerbation of weaknesses in the mental health system
- Mental health benefits from COVID-19 e.g. acceleration of telehealth, reduced psychological distress for people with autism, people benefitting from higher payments from JobSeeker allowance
- Non-therapeutic responses to mental health impacts.

NCHRAC could provide specific advice on any of these issues if requested by the CMO. NCHRAC considers the next priority issue for urgent advice should be the impacts of unemployment and financial stress, which have disproportionately affected some groups such as school leavers and older women.

Notes:

This advice was developed by an NCHRAC working group with input from relevant experts (**Attachment 1**).

This advice is point in time and may need further review as more evidence is available. In the absence of evidence, information has been sourced from experts and organisations involved in research, delivery of mental health services or the pandemic response in Australia (and is specified as such throughout the document).

Approach

A rapid search and review of the evidence was conducted over 25 November–10 December 2020. Various strategies were used to identify relevant information, including:

- Searching all four topics in the 'inventory of best evidence synthesis' on COVID-END
- Searching NIHR Innovation observatory using the term [COVID]
- Pubmed searches using the terms:
    - ("severe acute respiratory syndrome coronavirus 2"[Supplementary Concept] OR "severe acute respiratory syndrome coronavirus 2"[All Fields] OR "ncov"[All Fields] OR "2019 ncov"[All Fields] OR "covid 19"[All Fields] OR "sars cov 2"[All Fields] OR "coronavirus"[All Fields] OR "cov"[All Fields]) AND " Feeding and eating disorders"[MeSH Terms]
    - ("severe acute respiratory syndrome coronavirus 2"[Supplementary Concept] OR "severe acute respiratory syndrome coronavirus 2"[All Fields] OR "ncov"[All Fields] OR "2019 ncov"[All Fields] OR "covid 19"[All Fields] OR "sars

cov 2"[All Fields] OR "coronavirus"[All Fields] OR "cov"[All Fields]) AND "Self-Injurious Behavior"[MeSH Terms]

- MedRxiv using advanced search with [covid-19 systematic review] as the subject and "psychiatry and clinical psychology" as the subject area
- Cochrane library using the term [coronavirus]
- Psychiatry and Clinical Neurosciences virtual issue on "Mental health issues associated with COVID-19 outbreak", and
- Using references identified by working group members and external experts.

Evidence was considered if it addressed one or more of the following aspects:

- Data on prevalence (including self-reported) or presentations to clinicians or service providers that are indicative of eating disorder or self-harm and suicidality associated or impacted by COVID-19.
- Differences between population groups.
- Factors directly or indirectly attributed to COVID-19 pandemic/control measures and effects (relevant to eating disorder, self-harm and suicidality).

Key findings

The following key findings are based on the working group's consideration of a range of literature, data sources and expert input.

Evidence for self-harm and suicidality

Key findings:

- There is evidence that a range of stressors that emerge during a pandemic, from lockdown measures, to financial stressors, can increase suicide rates.
- An increase in suicide rates may not be in the immediate period following the pandemic, but may appear in the months or years to follow.
- There is currently no evidence from official data sources of an increase in suicide rates in Australia in 2020, however:
    - experts are concerned about a potential increase in rates over the next few years, and
    - there are preliminary data and anecdotal reports in Australia that point to an increase in the rates of presentation to emergency departments for self-harm and suicidality, and an increase in the rates of presentation to mental health support services.
- Thus, it is important to continue to monitor the rates of self-harm and suicide in Australia, and to increase efforts to mitigate those risks.

There is currently no evidence of an increase in suicide rates in Australia yet as a result of the COVID-19 pandemic or measures put in place to control the spread of SARS-CoV-2.[18,19,20,21,22,23,24] However, experts are concerned about a potential increase in

rates over the next few years.[25] This is not solely due to COVID-19 infections, but rather the syndemic of wider biological and social interactions that take into consideration non-communicable diseases and socioeconomic factors.[17] Modelling conducted by the Brain and Mind Centre at the University of Sydney forecasts that an increase of 12.3% for self-harm hospitalisations and 13.7% for suicide deaths over the period 2020-2025 is an optimistic 'best case' scenario.[26] Expert advice to the working group was that an increase in suicide rates would not be in the immediate period following a crisis, due to a 'coming together' effect,[18,27] but in the months to years following. A preprint study looking at the suicide rates in a major German city is consistent with this, showing a decrease in the suicide rate during COVID-19 restrictions and predicting an increase afterwards.[28]

There is some evidence to support an association between epidemics and increased risk of suicide, suicidal behaviour, and suicidal thoughts.[27] There is also evidence that financial stressors can increase suicide,[29,30,31] and discussion in the literature about the potential implications for the impact on suicide rates due to the global economic downturn precipitated by implementation of lockdown measures.[32,33,34]

Expert advice to the working group is that there are preliminary data and anecdotal reports in Australia for an increase in the rates of presentation to emergency departments for self-harm and suicidality, and an increase in the rates of presentation to mental health services.

- All Government funded phone and online mental health services reported substantial increase in demand for their services during the COVID-19 pandemic. In the 4 weeks from 31 August to 27 September 2020, almost 83,500 calls were made to Lifeline (a 15.6% increase from the same time in 2019), Kids Helpline received more than 32,000 contacts (14.3% increase from the same time in 2019) and more than 27,500 contacts were made to Beyond Blue (21.3% increase from the same time in 2019). Following initial significant spikes in traffic, websites provided by ReachOut and Head to Health have seen their activity drop from their peak of visitors in March/ April 2020, although their average number of daily users has remained higher than before March.[35]
- During lockdown in Victoria, there was an increased use of crisis and support services. Compared to the same time period in 2019, Lifeline reported a 41.6%increase in answered contacts in Victoria in the 4 weeks to 27 September, compared to an 18.4% increase for the rest of Australia (excluding NSW and Victoria). Kids Helpline reported a 59.3% increase in answered contacts in 2020, compared to 22.0%for the rest of Australia (excluding NSW and Victoria), and Beyond Blue a 75.3%increase (compared to 10.0%).[24]
- In 2020 the number of people posting on Beyond Blue Online Forums for the first time has increased, and there has been a sharp rise in acuity of distress and suicidality. Prior to the pandemic, there was an average of between 16 and 18 critical escalations from the Forums per month. Since the start of COVID-19, there has been ongoing monthly numbers in the 70s and higher (**Attachment 2** Figures 1 and 2). Traffic to the *Suicidal Thoughts and Self Harm* board and *Staying Well* board have

become the most frequently accessed areas. Traffic to the Suicidal thoughts and Self-Harm board has increased by 12%.

- The percentage of people using Coronavirus Mental Wellbeing Support Service and Beyond Blue Support Service who had a high or medium suicide risk ranged from 4.6% to 6.5% nationally between 6 July 2020 and end of November 2020. In Victoria for the same time period the risk ranged from 3.7% to 6.8%, and has been elevated since Stage 4 restrictions (**Attachment 2** Figures 3 and 4).
- An examination of the groups with the highest presentations of suicidality to Coronavirus Mental Wellbeing Support Service and Beyond Blue Support Service (**Attachment 2** Figure 5) shows:
    - callers under the age of 15 were far more likely to be flagged as a suicide risk than those from any other age bracket
    - no clear discrepancy in suicidality among males and females, although trans and non-binary people were far more likely to be a suicide risk
    - suicidality was highest among callers from Tasmania, and lowest in NSW, and
    - regional callers were more likely to be flagged as a suicide risk than metro callers.
- There was no difference in the number of trauma admissions to Westmead Hospital (NSW) for adults due to self-harm in the lockdown period in March–April 2020, compared to the same period in 2016.[36]
- In the United Kingdom, there was a decrease in the number of emergency department presentations of people aged 0–17 years with psychiatric symptoms and psychiatric inpatient admissions in the lockdown period in March–April 2020, compared to the same period in 2019.[37]
- In three Western Australian emergency departments, suicide and self-harm presentations decreased by 26% over the period January to May 2020, compared to January to May 2019.[38]
- A study of four emergency departments in Western Sydney between March and May 2020 found that the number of presentations with mental health problems was higher in 2020 (daily mean = 8.4, SD = 3.1) than in 2019 (daily mean = 6.9, SD = 2.6).[39]
- Media reports citing Department of Health and Human Services (DHHS) data have outlined a 33% recorded rise in children presenting to hospital with self-harm injuries over July to August 2020 in Victoria, compared to the same period in 2019.[40]

There is emerging evidence, through studies such as cross-sectional online surveys, which demonstrate an increase in the indicators of risk for self-harm and suicidality e.g. psychological distress.

- In a cross-sectional study from New Zealand of 2,416 adults during the lockdown, 30% of respondents reported mild to severe psychological distress, and 6% reported suicidal ideation.[41]

- A cross-sectional study of 3,120 adults in the USA reported the percentage of respondents endorsing suicidal ideation was greater with each passing month for those under lockdown or shelter-in-place restrictions.[42]
- A cross-sectional online survey of 69,054 University students (ages 18–22 years) in France during lockdown found a prevalence of 11.4% for suicidal thoughts.[43]
- A cross-sectional survey of 24,378 University students in China found that 14-day mandatory quarantine, due to exposure to COVID-19 or travel, was significantly and positively associated with self-harm / suicidal ideation (OR=4.98).[44]
- Examination of data from 44,785 participants in University College London's COVID-19 Social Study, a longitudinal study on the psychological and social experiences of adults in the UK during the pandemic, found that 18% reported experiencing thoughts of suicide or self-harm in the first month of lockdown and 5% reported harming themselves in that time.[45]

Given the suggestion of a lag in suicide rates following crises, Australian modelling and emerging evidence of psychological distress, it is important to keep a close eye on the rates of self-harm and suicidality in Australia, and to increase efforts to mitigate those risks through appropriate interventions.[3,6,26] It is also valuable to note that Professor Jane Pirkis of University of Melbourne represents Australia in the International COVID-19 Suicide Prevention Research Collaboration (ICSPRC).[46] This is an international group of suicide prevention researchers from around 30 countries formed in response to widespread concerns about the impact of the COVID-19 pandemic on suicide and suicidal behaviour.

Evidence for eating disorders

Key findings:

- To date there is limited published literature relevant to both eating disorders and COVID-19.
- However, it is strongly suspected that people with eating disorders and their carers have been uniquely and adversely impacted by measures put in place to control the spread of COVID-19.
- Reports and insights (published and unpublished) emerging from experts and professionals involved in the support and management of people with eating disorders, both in Australia and internationally, have signalled cause for concern. There is particular concern for children and adolescents.
- There is a need for further research on the full range of impacts of the pandemic on people with eating disorders.
- Preliminary data and anecdotal reports in Australia from health and mental health services show an increase in the rates of presentations, referrals, wait-lists and help seeking behaviour for eating disorders.
- There is a need to continue to monitor trends and demand for help or treatment and build capacity of the service system to avoid deterioration of eating disorders or symptoms and mitigate risk of associated self-harm and suicidality.

Eating disorders are complex mental illnesses with a range of potentially life-threatening medical complications.[47] Evidence of the long-term impacts and physical complications and increased mortality of eating disorders is well established. According to the National Eating Disorder Collaboration, eating disorders are estimated to affect approximately 9% of the Australian population.[48] This figure may increase based on reports of increased demand for mental health services and services specialising in the treatment of eating disorders, discussed below.

Literature identified as relevant to both eating disorders and COVID-19 is largely limited to self-reported concerns about eating disorders or behaviours. Evidence is not available about whether eating disorders have increased in incidence, or whether those with eating disorders have been adversely impacted as result of measures put in place to control the spread of COVID-19. However it is strongly suspected that people with eating disorders have been uniquely and adversely impacted by these measures.[b] Published reports and insights (published and unpublished) emerging from experts and professionals involved in the support and management of people with eating disorders, both in Australia and internationally, have signalled cause for concern. The need for further research on the full range of impacts has been acknowledged internationally.[49,50]

The effect of 'lockdown' on people with eating disorders has been reported in several studies. Baenas et al reported a deterioration of symptoms in a quarter of patients it studied during lockdown (N=74) and was largely associated with lower self-directedness.[51] This deterioration was highest among people with anorexia nervosa. In a pilot study of 32 patients, 38% of patients reported impairments in their symptoms and 56% reported additional anxiety symptoms.[52] A larger scale study investigating the early impact of COVID-19 on individuals with self-reported eating disorders in the US (N=511) and Netherlands (N=510) found the majority experienced elevated anxiety levels and concerns about the impact of COVID-19 related factors on their eating disorder and on their mental health in general.[53]

There is a lack of published literature on the effect of COVID-19 or associated control measures on eating disorders in Australia. In an Australian survey (N= 5,469) investigating eating and exercise behaviours in April 2020, 180 patients self-identified as having an eating disorder; the majority identified a history of anorexia nervosa (49%) followed by bulimia nervosa (13%). Sixty-five percent of adults with an eating disorder reported increased food restriction, 47% reported increased exercising, 36% reported increased binging and 19% reported increased purging, compared to before the COVID-19 pandemic. Sixty percent of those with an eating disorder reported a comorbidity of anxiety/anxiety disorder. In the general population over a quarter (27.6%) reported a greater level of food restriction and over a third (35%) reported increased binge eating behaviours and less exercise than those with eating disorders.[54]

Peri-pandemic data relative to pre-pandemic data based on helpline activity, health seeking behaviour and increased demand and waitlists have triggered concern that the severity and

[b] Reported to NCHRAC working group, 10 December 2020

risk of eating disorders and the impact on care-givers may worsen if not addressed.[55] There is particular concern for children and adolescents. Data identified in reports or provided to the National Mental Health Commission and the NCHRAC working group are:

- The National Eating Disorders Collaboration have collated and compared data across Australia and found a marked increase in presentations of both new and relapsing eating disorders, and in the level of acuity and severity of presentations, and increased demand for community and in-patient services, along with an increase in complexity of presentations. These presentations include high psychiatric and medical risk and has impacted on supports available at each level of the system of care.[c]
- Five Primary Health Networks in Victoria and NSW reporting on paediatric care during the pandemic have reported affective disorder diagnoses in children of all ages has increased, including anxiety, depression and eating disorders. A sustained increase in eating disorder diagnoses for 10–24 year-olds has been observed since late March 2020 (week 13 of the groups' ongoing observations) with an average doubling of diagnoses compared to 2019.[56]
- Several acute paediatric units in Victoria reported 30–45% increase in hospital admissions this year. Austin Health have seen almost a doubling of acute paediatric referrals (98% increase) and hospital admissions (95%increase) for eating disorders compared to 2019 service data.[e] The Sydney Children's Hospital Network has seen a 27% increase in hospital admissions for eating disorders in 2020 compared to 2019 data.[e]
- NSW Health data show a 42% increase in overall presentations in children and adolescents with eating disorders compared to a 6% increase in adults. There has been a 48% increase in new clients aged under 18 years and 8% increase in new adult client.
- Demand for treatment has increased across Australia. Marked increases in services delivered and referrals to specialist eating disorder services/programs have been reported for Victoria, WA, SA and Queensland with reports of some services/programs closed for new admissions (Eating Disorders Victoria) or noting long waitlists for assessment or treatment. Headspace early intervention services for eating disorders reported the current wait for assessment is 8 weeks and 4 months for treatment.
- People presenting with disordered eating are also presenting with co-morbidity including self-harm, suicidality, anxiety and depression.[c]
- Increased contact with helplines has been reported across Australia. The Butterfly Foundation reported a 76% increase in contacts across phone, email and web-chat

[c] Reported to NCHRAC working group, 10 December 2020
[d] Data supplied to the National Mental Health Commission by the National Eating Disorders Collaboration (NEDC) and Australia and New Zealand Academy of Eating Disorders (ANZAED) in early October 2020 on behalf of national, state and territory public health services as well as private and non-profit providers, based on information to September 2020. See Attachment 4, Appendix A.
[e] Reported to NCHRAC working group, 18 December 2020

between January and November 2020. The biggest increases in contacts for this period were in Victoria (71% increase) and NSW (61% increase), followed by SA (38% increase), WA (36% increase), Queensland (18% increase) and Tasmania (5% increase). (No data was reported for ACT and Northern Territory).[f]

Rodgers et al[57] have identified three pathways for how COVID-19 measures may exacerbate eating disorder risk and are supported by others:

1. disruptions and restrictions to daily activities and movements[53,57,58]
2. effects of media from increased exposure to eating disorder specific or anxiety provoking media, including increased video-conferencing[57], and
3. emotional distress and fear of contagion.[57]

Other factors that may precipitate the development of disordered eating or exacerbate eating disorder risk have been described:

- lack of structure, increased time spent in a triggering environment, lack of social support[53]
- potential financial impact on food security, capacity to care for person with eating disorders or ability to purchase safe or specialised foods [58,59,60]
- adapting to changes in established lockdown routines[61]
- increased perception of weight gain[62] or concerns about body weight and shape, significant increase in perfectionism and lower self-esteem, particularly young women at risk of developing an eating disorder[g]
- restricted access to particular foods for specialised diets or to sustain usual eating behaviour
- fears of low personal control has been suggested as an aetiological risk for some eating disorders.

Positive changes have also been reported:

- absence of social contact; for people who also experience social anxiety, restrictions on social interactions (e.g. not attending school) has been beneficial in reducing associated stress[63]
- connection with family and friends
- catalyst to focus on recovery goals[53,61] and engagement in adaptive coping skills.[53]

[f] Reported to NCHRAC working group, 14 December 2020

[g] Reported to NCHRAC working group, 10 December 2020 from unpublished prospective study in progress (Zhou and Wade)

Attachments

Attachment 1: NCHRAC working group membership

Attachment 2: Service use data from Beyond Blue Support Service and Coronavirus Mental Wellbeing Support Service

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Australian Government
National Health and Medical Research Council

NHMRC

Attachment 1

About the Committee and the Working Group

About the National COVID-19 Health and Research Advisory Committee

The National COVID-19 Health and Research Advisory Committee (NCHRAC) was established in April 2020 to provide advice to the Commonwealth Chief Medical Officer advice on Australia's health response to the COVID-19 pandemic. NCHRAC provides rapid and evidence-based advice (or expert advice in the absence of evidence) on Australia's health response to the COVID-19 pandemic with the aim of preventing new cases, optimising the treatment of current cases, and assisting in optimising overall health system readiness to deal with the pandemic as it progresses.

Further information on the terms of reference and membership of the Committee is available at: www.nhmrc.gov.au/nchrac. NHMRC is providing secretariat and project support for the Committee. The Committee is not established under the NHMRC Act and does not advise the NHMRC CEO.

Working Group Membership

NCHRAC convenes working groups of its members and external experts to deliver its reports. The following NCHRAC members were involved in the development of this advice:

Committee Members

Ms Georgie Harman (Chair)

Professor Fran Baum AO

Associate Professor Lorna Hallahan

Ms Christine Morgan

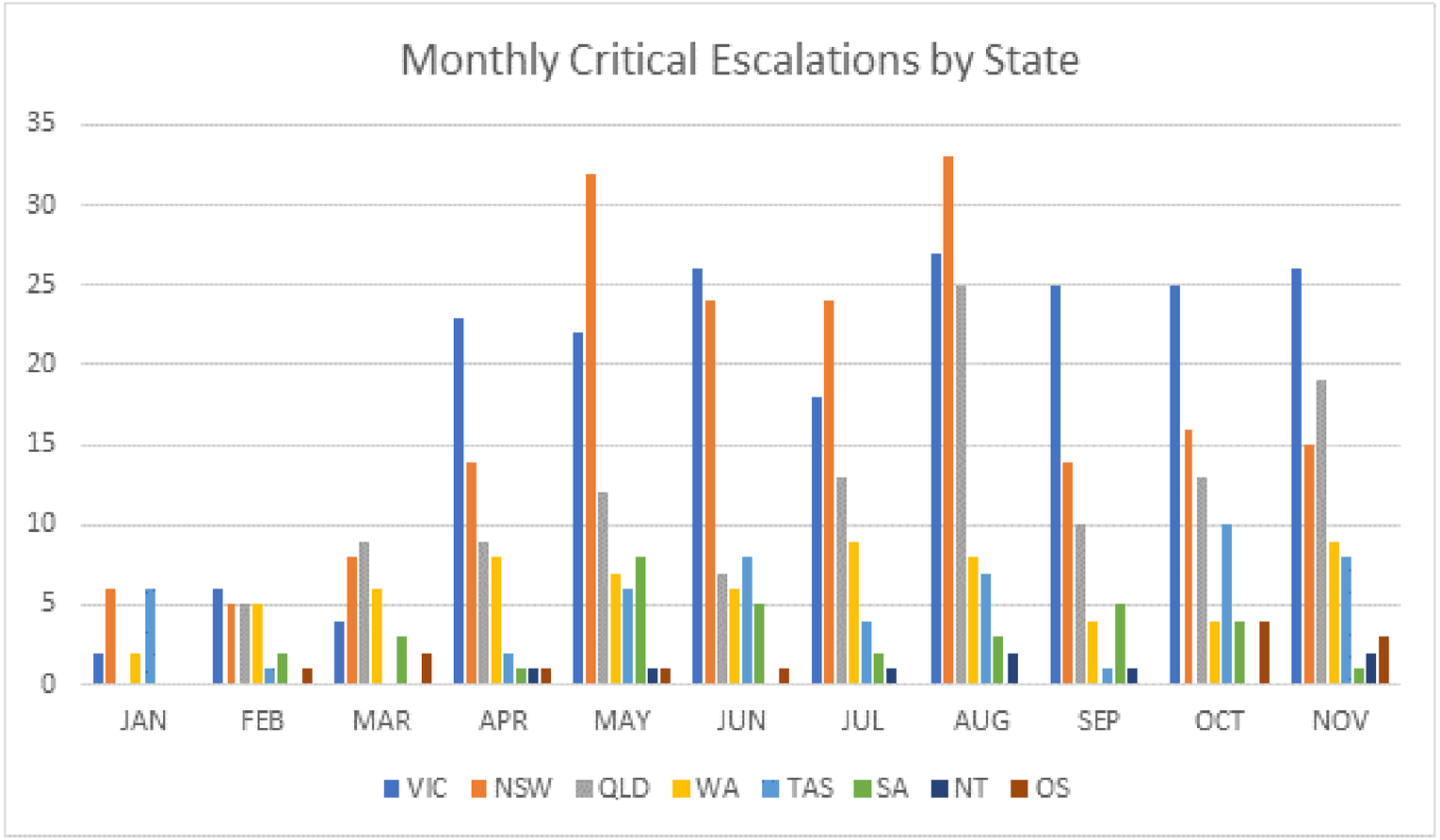
Professor Ingrid Scheffer AO

Experts consulted

During the development of this advice, the working group consulted with the following experts who provided information to inform the development of advice:

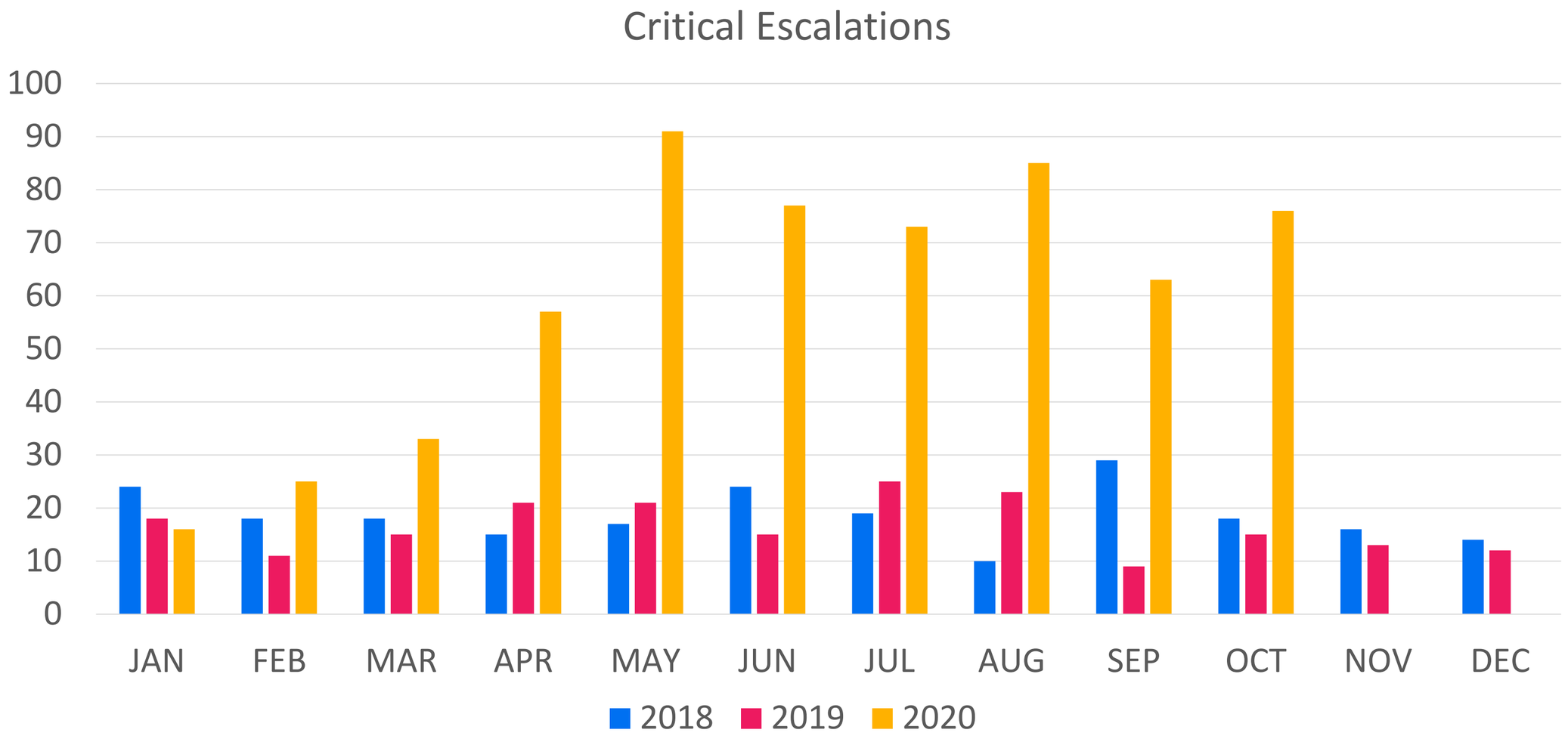
- Associate Professor Sloane Madden, Child and Adolescent Psychiatrist and Clinical Lecturer in Paediatrics & Child Health, Children's Hospital, Westmead through the University of Sydney and Network Eating Disorder Coordinator
- Professor Richard Newton, Clinical Director, Peninsula Mental Health Service and Adjunct Professor, Department of Psychiatry, Monash University

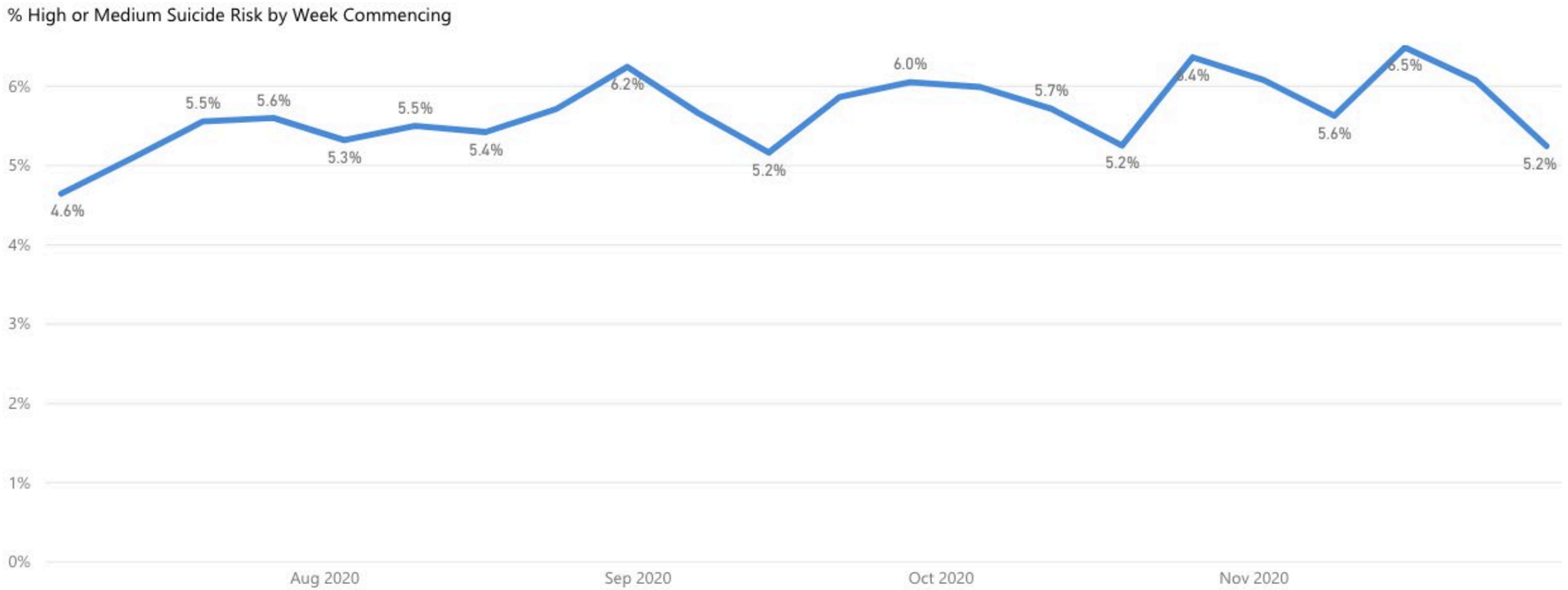
- Associate Professor Jo Robinson, Head, Suicide Prevention Research, Orygen
- Professor Tracey Wade, Matthew Flinders Distinguished Professor of Psychology, Flinders University

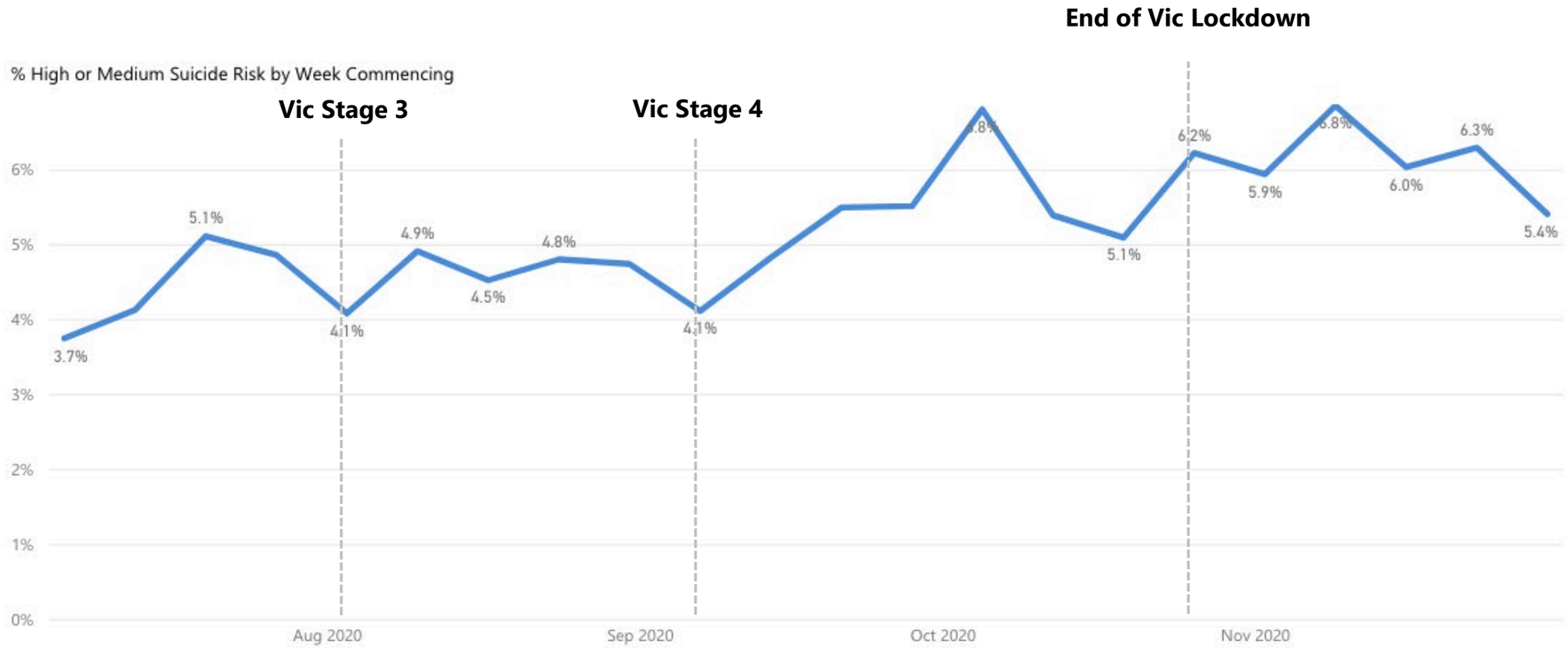


- We saw another high month of escalations for November with a total of 82.

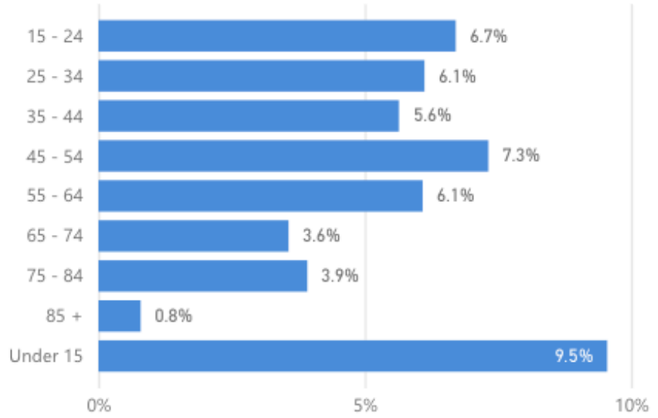
- Again majority of escalations coming from Victoria, interestingly Queensland had a particularly high number of their escalations this month, with no repeat users coming from the Queensland region.



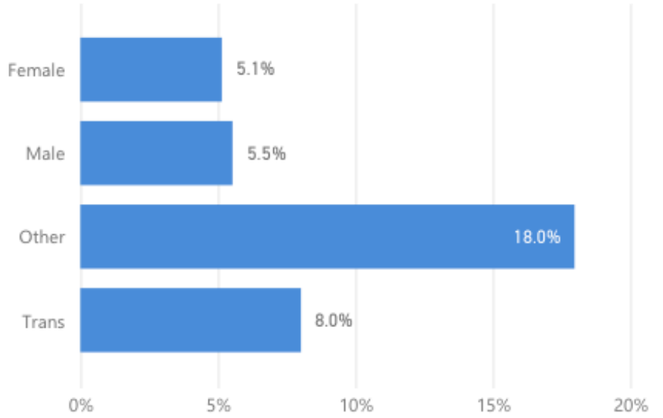




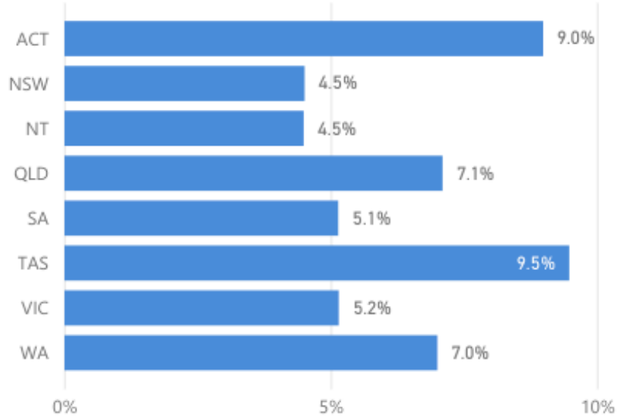
% High or Medium Suicide Risk by Age Bracket



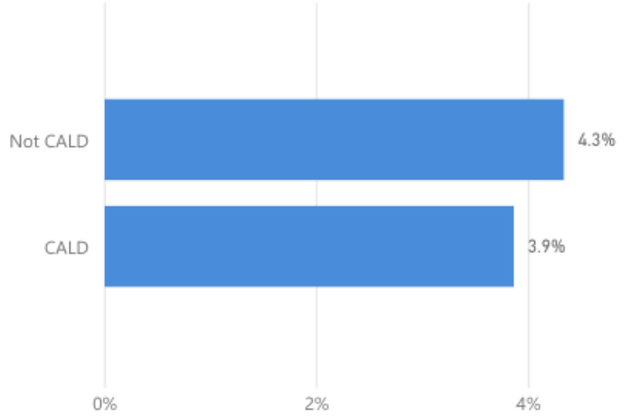
% High or Medium Suicide Risk by Gender



% High or Medium Suicide Risk by State



% High or Medium Suicide Risk by Contact CALD Indicator



% High or Medium Suicide Risk by Regionality