



WITNESS STATEMENT OF ASSOCIATE PROFESSOR NICOLA REAVLEY

I, Nicola Reavley, Associate Professor, of 207 Bouverie St, Carlton Victoria 3053, say as follows:

1 I make this statement on the basis of my own knowledge, save where otherwise stated. Where I make statements based on information provided by others, I believe such information to be true.

Background and experience

2 I have a Bachelor of Science (Hons) from the University of Bristol and a PhD from Swinburne University of Technology.

3 I have been an academic at the University of Melbourne in the Melbourne School of Population and Global Health since June 2012 (and at the University of Melbourne since 2007). At the Melbourne School of Population and Global Health, I am the Head of the Population Mental Health Unit and Deputy Director of the Centre for Mental Health. In this role, I also undertake research on mental health literacy¹ and on stigma.

4 I have authored and co-authored a number of research papers in the area of stigma and mental health literacy, including those that report on the findings of the National Survey of Mental Health Literacy and Stigma, and the National Survey of Experiences of Discrimination and Positive Treatment.

5 Attached to this statement and marked 'NR-1' is a copy of my CV.

6 Attached to this statement and marked 'NR-2' is a list of articles that forms the evidence base for the opinions set out in this statement.

How are mental health problems and mental illness defined for the purposes of your evidence? What is mental illness stigma?

7 Mental health problems and mental illness refer to a range of cognitive, emotional and behavioural disorders that interfere with the lives and productivity of people. There is, however, no one single definition of mental illness. Mental illness is on a continuum, and there is a point at which symptoms meet a diagnosis and will be considered a mental

¹ "Mental health literacy" has been defined by Jorm et al (Medical Journal of Australia 166; 4 1997, p 182) as "knowledge and beliefs about mental disorders which aid their recognition, management or prevention".

illness within the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* classification, which is one of two main international medical standards to define and classify mental disorders. While there are many categories of mental disorders, most of my work relates to common mental disorders (which include depression, anxiety disorders and alcohol use disorders) or severe mental illness (mainly schizophrenia, psychosis and bipolar disorder).

- 8 Stigma is defined by the World Health Organisation to be “a mark of shame, disgrace or disapproval which results in an individual being rejected, discriminated against, and excluded from participating in a number of different areas of society”. It can be useful to distinguish between stigmatising attitudes and discrimination. In this context, stigmatising attitudes are the attitudes or beliefs held by a person, whereas discrimination is behaviour or perceived behaviour.
- 9 There are multiple dimensions of stigmatising attitudes towards people living with mental illness. These include personal attitudes towards people living with mental illness (I use the term “personal stigma”, however, others use the term “public stigma”), personal beliefs about other people’s attitudes toward people with mental illness (“perceived stigma”) and personal beliefs about oneself (‘self-stigma’). Perceived stigma can be significant for people who develop mental health problems but do not disclose them because they believe that people hold more stigmatising attitudes than they actually do.
- 10 Stigmatising attitudes towards people with mental illness are wide-ranging. In work colleagues and I have undertaken in this area, we have investigated:
 - (a) beliefs that people living with mental illness are dangerous and unpredictable;
 - (b) beliefs that a mental illness is a sign of personal weakness, “not a real medical illness” or that a person with mental illness “could snap out of the problem”; and
 - (c) unwillingness to interact socially or professionally with people with mental illness or willingness to avoid people with mental illness (also known as “desire for social distance”).
- 11 Beliefs that people living with mental illness are dangerous and unpredictable are common. The relationship between mental illness and violence is contentious. The most important point is that, based on the evidence, most people with mental illness (including more severe disorders such as psychosis) are not violent; and most violent people do not have a mental illness.
- 12 The available evidence shows that having a severe mental illness, including schizophrenia and psychosis is associated with increased risk of violence, although the overall increase is small. The findings from individual studies vary, but some

researchers have performed analyses of multiple studies which look at this question. One such analysis showed that psychosis was significantly associated with a 49% to 68% increase in the odds of violence in individuals.

13 Other studies have looked at the risk factors for violence in people with psychosis. A 2013 study combined the results of 110 studies from multiple countries. This study showed that there were a number of risk factors for violence in people with psychosis, most notably:

- (a) having a history of violent victimisation during adulthood, which increased the odds of violence by 510%. This finding underscores the important and related point that people with mental illness are more likely to be victims of violence;
- (b) having a criminal history, which increased the odds of violence by between 100% and 2000%;
- (c) comorbid drug and alcohol misuse, which increased the odds of violence by between 100% and 900%;
- (d) non-adherence with psychological therapies, which increased the odds of violence by approximately 500%; and
- (e) non-adherence with prescribed medication, which increased the odds of violence by approximately 100%.

14 The limitations of this work are that most studies considered were cross-sectional rather than longitudinal, making it difficult to distinguish between correlation and causation. Our key challenge is to use available evidence to better understand how to reduce the risks of violence in people with psychosis (and other conditions) without ignoring the risks, or alternatively, sensationalising the risks and worsening stigma.

What is the National Survey of Mental Health Literacy and Stigma?

15 The first National Survey of Mental Health Literacy and Stigma was conducted in 1995. Subsequent surveys have been conducted in 2003/4 and 2011 in adults (aged 16 years and above), and in 2006 and 2011 in young people (aged 12-25). In the most recent surveys in 2011, approximately 6,000 people participated in the adult survey and approximately 3000 people participated in the youth survey. Both surveys included questions about:

- (a) people's mental health literacy (including the ability to recognise a mental illness, beliefs about treatments (including medical, psychological and self-help treatments), causes, prevention, prognosis and how to help others;
- (b) people's own experience of mental illness and their exposure to this in others; and

- (c) people's stigmatizing attitudes towards and desire for social distance from people with different mental illnesses.
- 16 The survey consisted of a computer-assisted telephone interview about 20 minutes in length. Each survey presented a short written narrative, or "vignette", of a character who satisfied the diagnostic criteria for depression, depression with suicidal thoughts, psychosis, chronic schizophrenia, social phobia or post-traumatic stress disorder. Attached to this statement marked 'NR-3 are examples of vignettes used in the 2011 adult survey.
- 17 After being presented with a vignette, participants were asked to ask signal their attitudes, as well as their beliefs about what other people's attitudes would be, towards the character in the vignette. This was done with reference to the following statements:
- (a) "people with a problem like the character's could snap out of it if they wanted";
- (b) "a problem like the character's is a sign of personal weakness",
- (c) "the character's problem is not a real medical illness";
- (d) "people with a problem like the character's are dangerous";
- (e) "it is best to avoid people with a problem like the character's so that you don't develop this problem";
- (f) "people with a problem like the character's are unpredictable";
- (g) "if I had a problem like the character's I would not tell anyone";
- (h) "I would not employ someone if I knew they had a problem like the character's";
and
- (i) "I would not vote for a politician if I knew they had suffered a problem like the character's".
- 18 The statements exploring the desire for social distance rate the person's willingness to:
- (a) move next door to the character;
- (b) spend an evening socialising with the character;
- (c) make friends with the character;
- (d) work closely with the character on a job; and
- (e) have the character marry into their family.
- 19 I am reasonably confident that the results of these surveys are generalisable to the Australian population. This is because:

- (a) we used random sampling methods (a household survey in 1995 and a dual-frame (landline and mobile) phone survey in later years) to recruit respondents;
- (b) weighting methods were used to account for under sampling of some groups (including younger men and people with a lower level of education); and
- (c) we have published multiple papers on the surveys in peer-reviewed journals.

What do we know about the nature and prevalence of mental health stigma in Australia and Victoria?

20 The National Survey of Mental Health Literacy and Stigma is a national survey. As its conclusions are broadly applicable to the Australian population, it provides insight into the nature and prevalence of mental health stigma in Australia. Because of its methodology, I am comfortable that the conclusions are also applicable to Victoria.

21 The 2011 adult survey indicated the following:

- (a) Beliefs in dangerousness and unpredictability are notably higher for schizophrenia than other illnesses: 37% of respondents believed that a person with chronic schizophrenia is dangerous whereas 22% of respondents held the same belief with respect to a person with depression.
- (b) People are less likely to hire or vote for a person with chronic schizophrenia than a person with the other illnesses considered by the survey: 40% of respondents indicated this in respect of a person with chronic schizophrenia.
- (c) Men are generally more likely to be seen as dangerous and to elicit greater desire for social distance, possibly because of their gender.
- (d) Beliefs in mental illness as a sign of personal weakness or “not a real medical illness” are generally higher for social phobia than for the other illnesses considered by the survey: 16.5% of respondents held these views for social phobia whereas 12% of respondents held these views in respect of chronic schizophrenia.
- (e) People are most likely to disclose post-traumatic stress disorder and least likely to disclose chronic schizophrenia.

What are the trends in relation to mental health literacy and stigma? Has Australia progressed in reducing stigma and what changes have been observed over time?

22 The National Survey of Mental Health Literacy and Stigma tells us that there are both positive and negative trends occurring in relation to mental health literacy and stigma in Australia. Since 1995, the key findings relating to mental health literacy are that:

- (a) mental health literacy has improved, particularly in relation to depression. This means that people are much better at recognising depression in a vignette (39% of respondents in 1995 compared with 74% in 2011) and are more likely to believe that GPs, psychiatrists, psychologists and antidepressants are helpful to treat depression;
- (b) people are now much more willing to disclose having problems with their mental health (in the 1995 survey, 23% of respondents said they had depression, while in 2011 this figure was 35%) and they are also much more likely to know someone else who is either having or has had problems with their mental health (in 1995, 45% of respondents said they had a family member or friend with depression while in 2011, this figure was 71%); and
- (c) being male, having a lower level of education and being over 60 years of age are the most significant predictors of poor mental health literacy.

23 In terms of changes in stigmatising attitudes between 2003/4 and 2011, the desire for social distance from people living with mental illness has decreased somewhat (other than for chronic schizophrenia). It is possible that this change is due to increased awareness of depression, which may have led to greater numbers of people disclosing their experiences with depression. Increased disclosure creates a higher likelihood of members of the public becoming aware of someone they know who has depression. This increased awareness means that attitudes are more likely to be based on real experiences rather than the stereotypes that underlie stigma. Australian national campaigns to reduce stigma may also have been a factor in this trend.

24 In the same period, perceptions of dangerousness and unpredictability of those with depression, depression with suicidal thoughts, early schizophrenia and chronic schizophrenia increased. In 2003/4, 12% of respondents held these views in relation to a person with depression, whereas in 2011, the proportion was 22%. For chronic schizophrenia, the figures were 22% and 34% respectively. This may be due to the promotion of the idea that mental illness is a result of a "chemical imbalance" and is not something that can be controlled. This idea is rooted in an understanding of how antidepressants work in the brain, and the focus on this was designed to reduce blame towards people with mental illness and encourage them to seek treatment. However, for many, believing that a person's mental illness cannot be controlled can also lead to the belief that the person will behave in an unpredictable and potentially dangerous way. It is apparent that, overall, community attitudes towards the more severe disorders (including schizophrenia and bipolar disorder) have shifted the least. That is not to say that we have done all we need to in relation to attitudes to other disorders, but more effort is clearly needed in relation to stigma towards people with more severe disorders.

Have these changes been different for different people and communities?

- 25 The Survey is a national survey. Its conclusions are broadly applicable to Australia, and not to the unique circumstances of particular communities. There is a need for more culturally relevant work in Aboriginal and Torres Strait Island communities, and in culturally and linguistically diverse communities.

Why does the stigmatisation of mental illness matter?

- 26 Stigmatising attitudes may inhibit people with mental illness from seeking help and can compound experiences of psychological distress. Stigmatising attitudes can also lead to discrimination against people with mental illness, which leads to social and economic exclusion. This can have a profound impact on the lives of people living with mental illness.
- 27 Work undertaken by me and my colleagues has shown that discrimination against people with a mental illness is experienced in multiple settings. This is based on the National Survey of Discrimination and Positive Treatment, which we conducted in 2014 in a similar way to the National Survey of Mental Health Literacy and Stigma. This survey was a dual frame (mobile and landline) survey with a sample that is representative of the Australian population.
- 28 This survey was the first of its kind in the world to look at the actual experiences of avoidance, discrimination and positive treatment towards people with mental illness in a wide range of domains, including:
- (a) from friends, a spouse or intimate partner, or other family members;
 - (b) from people in the workplace;
 - (c) while searching for work;
 - (d) from people in places of education;
 - (e) from different types of health professionals; and
 - (f) from other people in the community.

29 Some of the key findings of the survey were as follows:

- (a) In most domains, respondents reported more positive treatment experiences than avoidance or discrimination (for example, 22% of respondents said their friends avoided them, 14% said their friends discriminated against them and 50% said their friends treated them more positively). The key exception was in looking for work (where 10% of respondents said that they were discriminated against while 7% said that they were treated more positively).
- (b) Friends and family were more likely to avoid a person with mental illness than to discriminate.
- (c) In the domain of the workplace or people searching for work, the most common types of discrimination included dismissive treatment or lack of understanding of the illness (identified by 27% of respondents), being forced to change responsibilities or being denied opportunities at work (24%), being fired (15%) or being treated as incompetent (13%).
- (d) Among those respondents reporting discrimination when looking for work, 51% said that they had not been hired because of their mental health problems, and 11% mentioned not disclosing their mental health problems during the recruitment process for fear that doing so would result in a negative reaction from prospective employers.
- (e) In the health system, people reported being treated dismissively, being judged and not being listened to, particularly in regard to their personal history and treatment needs.
- (f) In terms of friends and family, being treated positively is much more common, however some people reported experiences of their friends and family reducing or cutting contact, being dismissive of the person's illness (for example, denying that it is real) or showing lack of understanding about mental health problems or treatments and how they can impact behaviour and functioning.
- (g) Having a more severe mental illness or severe symptoms seems to be associated with more negative treatment.
- (h) Respondents reported being treated more negatively than positively in the domains of insurance (2.3% more negatively and 0.3% more positively) and interacting with police (2.8% more negatively and 1.2% more positively). Because there were only a small number of these reports, it is difficult to draw general conclusions from them.

30 The survey asked respondents to report on their experiences in the different domains in which they disclosed their mental health problems. Disclosing having a mental illness is associated with both negative and positive treatment. In the domain of friends and

family, respondents were more likely to disclose to ‘some people’, than to “everyone” or to “no one”. In most other domains, non-disclosure was most common. This included in the workplace, where non-disclosure to supervisors was more likely than disclosure (only 44% of respondents disclosed having a mental illness to their supervisor).

- 31 A limitation of this survey is that we did not assess the severity of different experiences, both positive and negative. This meant that we were unable to know whether experiences of severe negative treatment (for example, losing one’s job) had a greater impact on a person than other experiences of positive treatment.

What are the drivers of stigma?

- 32 The drivers of stigma towards mental illness differ according to the illness. As part of the National Survey of Discrimination and Positive Treatment, we explored this by asking people about their beliefs about the dangerousness of a person with depression or schizophrenia and looking at the links between this and their recall of media reports of violence and mental health problems, contact with and experiences of fear, threats or harm by people with mental health problems.
- 33 The findings of this study were in line with other research showing that knowing someone with a mental illness is linked to a lower likelihood of believing that, in general, people with mental illness are dangerous. Therefore, familiarity with mental illness is generally positively correlated with a reduction in beliefs that people with mental illness are dangerous or violent. This is likely to be because most people have contact with people with depression and anxiety (they are the most common mental illnesses) and these are less likely to be characterised by unpredictable or frightening behaviour.
- 34 We found that, for schizophrenia, recalling media reports of violence and having felt afraid of someone were linked with beliefs about dangerousness. But this was not so true for depression. It seems likely that when people are asked to think more broadly about mental health problems and dangerousness their exposure to media reports is only one factor in forming their views and is outweighed by other factors, particularly to the extent that they know someone who suffers from a mental illness.
- 35 It is therefore likely that the media has a bigger role when it comes to less common mental illnesses. People are more likely to have stereotypical beliefs where they don’t know anyone personally with a mental illness and are instead informed by representations of the mental illness in the media. These have a considerable impact, particularly in cases of extreme acts of violence, which often receive significant media coverage in Australia. In work colleagues and I have undertaken, we have argued that more liberal access to firearms in the United States of America may drive stigma towards mental illness because of media reporting that focuses on the link between

mental illness and gun violence. We are also doing work to promote improved media reporting of mental illness and violence.

Why do stigmatising attitudes remain?

- 36 There is an extent to which stigmatising attitudes towards mental illness remain because of the way that human nature deals with unfamiliarity and difference. In this sense, stigma towards mental illness is like racism and other forms of prejudice. But the symptoms that people experience also contribute to the way others treat them and this does impact on stigma and discrimination.
- 37 It would obviously be ideal for there to be no stigma towards people with mental illness. However, completely eliminating stigma seems unlikely. The focus therefore needs to be on shifting negative stereotypes as much as possible and focusing on the contribution that people with mental illness can make in all areas of life.

Of the strategies that have been implemented, what are the significant elements of those strategies that work and why?

- 38 Stigma reduction strategies tend to fall into two main types: those that are known as contact interventions (involving in-person or video contact with a real person with a mental illness who tells their story) and educational interventions. Contact interventions are said to work by reducing anxiety and increasing empathy towards people with mental illness while educational interventions aim to reduce stigma by providing factual information to contradict inaccurate stereotypes. An example of an educational intervention is Mental Health First Aid training, which is an effective anti-stigma intervention that is widespread in Australia and globally. Some interventions are a combination of these two types.
- 39 I recently co-authored a rigorous review of the scientific literature on interventions to reduce stigma to severe mental illness. The findings of this review were that:
- (a) both contact interventions and educational interventions have small-to-medium immediate effects upon stigma, but further research is required to explore whether the impact of contact on stigma varies according to mental illness or level of contact;
 - (b) there is little evidence to show that reductions in stigmatising attitudes persist for longer than six months and so we also need more research to investigate how to sustain benefits in the longer-term; and
 - (c) further research is required to understand the active components of interventions in order to maximise their effectiveness.

Have any other jurisdictions overcome or significantly reduced stigma? If so, give examples of how.

- 40 The most intensive and well-funded stigma reduction campaign has been Time to Change, which is a UK-based mental health campaign formed by mental health charities MIND and Rethink Mental Illness. The campaign was established in 2008 and has involved social marketing (national television, print, radio, cinema, outdoor and online advertisements), social media and mass social/physical exercise events. The messaging of the campaign has focussed on tackling myths about mental illness, changing attitudes and encouraging social contact with people with mental illness. Its impact is evaluated by an annual survey. The latest evaluation of Time to Change shows that the campaign has improved knowledge, attitudes and reduced the desire for social distance, particularly among people aged 25-44 (the target age group). This is a positive finding given the difficulties of evaluating these types of interventions.
- 41 However, the evaluation measures for these studies typically use the term “mental illness”, rather specifically talking about severe conditions such as schizophrenia. While there is some evidence that when the general public hear the term “mental illness”, they think of severe mental illness, it is possible that campaigns such as Time to Change, which target “mental illness” in general, broaden people’s understanding of the term to include higher prevalence conditions such as depression. This can make it difficult to assess whether such campaigns are having the desired effect of reducing stigma towards all conditions. There might also be a risk of spreading the stigmatising attitudes linked to severe illnesses to more common disorders such as depression.
- 42 One of the few interventions to specifically address stigma towards schizophrenia is the World Psychiatric Association’s campaign called “Open the Doors” in Germany and Austria. This campaign involved promotion of contact with people with schizophrenia, education of target groups, and “protest” against discriminative behaviour and structural discrimination. The campaign held lectures in adult education centres, art exhibitions, cinema events, readings, theatre events, and charity concerts. Most events included panel discussions with mental health professionals and consumers.
- 43 The campaign in Germany was evaluated by way of surveys before its commencement in 2001, and after its completion in 2004, in intervention and control cities. Only about 4% of respondents had heard of the campaign but it was associated with a small decrease in overall desire for social distance from people with schizophrenia. In Austria, the campaign was assessed by comparing the results of surveys in 1998 before its commencement, and five years after its commencement, in 2007. Only 7% of respondents had heard of the campaign. While there were some positive changes, of concern were reported increases in beliefs about dangerousness and desire for social distance. The authors of this evaluation thought this may have been due to media

reporting of a killing by a mentally ill man five weeks prior to data collection for the 2007 survey. These findings highlight the need to carefully design campaign messages to make sure they are effective and importantly, don't cause harm.

What are the key impediments to successful mitigation of stigma?

- 44 There are multiple and competing demands on institutions and organisations seeking to reduce the stigma of mental illness. This leads to funding and time being key impediments to stigma-reduction efforts. In some organisations, particularly workplaces, management may also be hesitant to support mental health awareness programs out of a fear that they could lead to greater reporting of mental health problems.
- 45 Further research is required to inform the design of future mass media campaigns and interventions tailored to different groups in Australia. Specifically, we need research to better understand:
- (a) The active ingredients in interventions that are specifically designed to reduce stigma towards people with severe mental illness. This could be done through experimental studies designed to test the impact on stigmatising attitudes. Such studies are also important to ensure that messages or interventions do no harm, because there is evidence from some studies of contact interventions that if the participants don't see the person positively or relate to them, this can increase stigma.
 - (b) The impact of more positive messages, that is, more research into what to do rather than what not to do. This builds on findings from work my colleagues and I have undertaken that it is more common for people with mental illness to be avoided than actively discriminated against. This is possibly because while most people arguably want to help, they are anxious not to do the wrong thing so will often choose to avoid someone with mental health problems. This can be perceived by the person as discrimination.
 - (c) How messages and interventions need to be tailored to different groups in Australia, including health professionals, students of health professions, police, adolescents and employers. This research will allow us to conclude what types of consumer contact interventions, educational interventions or campaign messages are effective and sustainable for these different groups. As much as possible, this research needs to be of a high quality (for example, using randomized controlled trials) and include behavioural measures (both intentions and reports of actual behaviours) rather than just focusing on attitudes.
 - (d) How to use social media more effectively. There has been no comprehensive study on the impact of social media on levels of stigma. It is an important but difficult area, and more work needs to be done. Because of extreme views

broadcast on social media platforms, I believe that there is potential for harm. However, social media platforms also offer new opportunities for stigma-reduction interventions.

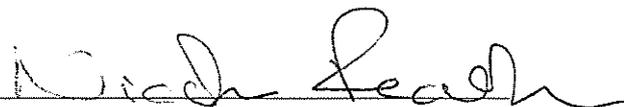
- (e) The economic impacts of stigma, for example, on workplace participation and health service use.

46 Research of this nature this would be relatively easy to do and could inform the design of mass media campaigns and more focused interventions targeted to specific groups.

What are the actions that might be taken to reduce stigma, particularly towards people with severe mental illness?

47 Reducing stigma is a process of bringing about long-term cultural change. We have evidence that this is possible because of the changes in knowledge and attitudes to depression. The evidence also shows that more intensive campaigns are more likely to bring about change.

48 Public campaigns to reduce stigma need to be ongoing. They must also be regularly updated to remain current and avoid causing fatigue. Such campaigns must adopt a "whole of system" approach that targets the media, schools, workplaces and the medical profession. This is because different target groups interact with people with mental illness in different ways and have different needs in terms of interventions. In terms of severe mental illness particularly, we also need to evaluate the impacts of these campaigns to ensure they do no harm and to ensure that resources are used in the most effective way. The surveys we have done, particularly the 2014 survey on experiences of discrimination, offer opportunities to assess change over time in the Australian population.

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print name A/Prof Nicola Reavley

date 2 / 7 / 19



ATTACHMENT NR-2

This is the attachment marked 'NR-2' referred to in the witness statement of Associate Professor Nicola Reavley dated 2 July 2019.

LIST OF ARTICLES

- 1 Robinson EJ, Henderson C (2018) Public knowledge, attitudes, social distance and reporting contact with people with mental illness 2009-2017. *Psychol Med*:1-10. doi:10.1017/S0033291718003677
- 2 Schomerus G, Matschinger H, Angermeyer MC (2013) Causal beliefs of the public and social acceptance of persons with mental illness: a comparative analysis of schizophrenia, depression and alcohol dependence. *Psychol Med*:1-12. doi:10.1017/S003329171300072X
- 3 Reavley NJ, Jorm AF (2011) Recognition of mental disorders and beliefs about treatment and outcome: Findings from an Australian National Survey of Mental Health Literacy and Stigma. *Aust N Z J Psychiatry* 45 (11):947-956
- 4 Reavley NJ, Jorm AF (2011) Stigmatizing attitudes towards people with mental disorders: Findings from an Australian National Survey of Mental Health Literacy and Stigma. *Aust N Z J Psychiatry* 48 (12):1086-1093
- 5 Reavley NJ, Jorm AF (2011) Young people's stigmatizing attitudes towards people with mental disorders: findings from an Australian national survey. *Aust N Z J Psychiatry* 45 (12):1033-1039. doi:10.3109/00048674.2011.614216
- 6 Reavley NJ, Jorm AF (2012) Public recognition of mental disorders and beliefs about treatment: changes in Australia over 16 years. *Br J Psychiatry* 200:419-425
- 7 Reavley NJ, Jorm AF (2012) Stigmatizing attitudes towards people with mental disorders: changes in Australia over 8 years. *Psychiatry Res* 197 (3):302-306
- 8 Reavley NJ, Jorm AF (2014) Willingness to disclose a mental disorder and knowledge of disorders in others: changes in Australia over 16 years. *Aust N Z J Psychiatry* 48 (2):162-168. doi:10.1177/0004867413495317
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- 10 Reavley NJ, Morgan AJ, Jorm AF (2016) Discrimination and positive treatment towards people with mental health problems in workplace and education settings: Findings from an Australian national survey. *Stigma and Health* (in press)
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- Australian national survey. *Soc Psychiatry Psychiatr Epidemiol* 52 (3):269-277. doi:10.1007/s00127-016-1301-9
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 - 14 Morgan AJ, Reavley NJ, Jorm AF, Beatson R (2017) Discrimination and support from friends and family members experienced by people with mental health problems: findings from an Australian national survey. *Soc Psychiatry Psychiatr Epidemiol* 52 (11):1395-1403. doi:10.1007/s00127-017-1391-z
 - 15 Morgan AJ, Reavley NJ, Ross A, Too LS, Jorm AF (2018) Interventions to reduce stigma towards people with severe mental illness: Systematic review and meta-analysis. *J Psychiatr Res* 103:120-133. doi:10.1016/j.jpsychires.2018.05.017
 - 16 Morgan AJ, Ross A, Reavley NJ (2018) Systematic review and meta-analysis of Mental Health First Aid training: Effects on knowledge, stigma, and helping behaviour. *PLoS ONE* 13 (5):e0197102. doi:10.1371/journal.pone.0197102
 - 17 Witt, K., van Dorn, R., & Fazel, S. (2013). Risk factors for violence in psychosis: systematic review and meta-regression analysis of 110 studies. *PLoS ONE*, 8, e55942.
 - 18 Douglas, K. S., Guy, L. S., & Hart, S. D. (2009). Psychosis as a risk factor for violence to others: a meta-analysis. *Psychological Bulletin*, 135, 679-706
 - 19 Jorm, A. F., & Reavley, N. J. (2014). Public belief that mentally ill people are violent: is the USA exporting stigma to the rest of the world? *Australian and New Zealand Journal of Psychiatry*, 48, 213-215.
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- 22 Koller, M., & Stuart, H. (2016). Reducing stigma in high school youth. *Acta Psychiatrica Scandinavica*, 134 Suppl 446, 63-70.
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- 24 Gaebel, W., Zasko, H., Baumann, A. E., Klosterkötter, J., Maier, W., Decker, P., & Moller, H. J. (2008). Evaluation of the German WPA "program against stigma and discrimination because of schizophrenia--Open the Doors": results from representative telephone surveys before and after three years of antistigma interventions. *Schizophrenia Research*, 98, 184-193.
- 25 Reavley, N. J., Jorm, A. F., & Morgan, A. J. (2016). Beliefs about dangerousness of people with mental health problems: the role of media reports and personal exposure to threat or harm. *Social psychiatry and psychiatric epidemiology*, 51(9), 1257-1264.



ATTACHMENT NR-3

This is the attachment marked 'NR-3' referred to in the witness statement of Associate Professor Nicola Reavley dated 2 July 2019.

Mental health literacy survey vignettes

Depression

John is 30 years old. He has been feeling unusually sad and miserable for the last few weeks. Even though he is tired all the time, he has trouble sleeping nearly every night. John doesn't feel like eating and has lost weight. He can't keep his mind on his work and puts off making decisions. Even day-to-day tasks seem too much for him. This has come to the attention of his boss, who is concerned about John's lowered productivity.

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Depression with suicidal thoughts

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Early schizophrenia

John is 24 and lives at home with his parents. He has had a few temporary jobs since finishing school but is now unemployed. Over the last six months he has stopped seeing his friends and has begun locking himself in his bedroom and refusing to eat with the family or to have a bath. His parents also hear him walking about his bedroom at night while they are in bed. Even though they know he is alone, they have heard him shouting and arguing as if someone else is there. When they try to encourage him to do more things, he whispers that he won't leave home because he is being spied upon by the neighbour. They realize he is not taking drugs because he never sees anyone or goes anywhere.

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Chronic schizophrenia

John is 44 years old. He is living in a boarding house in an industrial area. He has not worked for years. He wears the same clothes in all weathers and has left his hair to grow long and untidy. He is always on his own and is often seen sitting in the park talking to himself. At times he stands and moves his hands as if to communicate to someone in nearby trees. He rarely drinks alcohol. He speaks carefully using uncommon and sometimes made-up words. He is polite but avoids talking with other people. At times he accuses shopkeepers of giving information about him to other people. He has asked his landlord to put extra locks on his door and to remove the television set from his room. He says spies are trying to keep him under observation because he has secret information about international computer systems which control people through television transmitters. His landlord complains that he will not let him clean the room which is increasingly dirty and filled with glass objects. John says he is using these "to receive messages from space".

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Social phobia

John is a 30-year old who lives alone. Since moving to a new town last year he has become even more shy than usual and has made only one friend. He would really like to make more friends but is scared that he'll do or say something embarrassing when he's around others. Although John's work is OK he rarely says a word in meetings and becomes incredibly nervous, trembles, blushes and seems like he might vomit if he has to answer a question or speak in front of his workmates. John is quite talkative with his close relatives, but becomes quiet if anyone he doesn't know well is present. He never answers the phone and he refuses to attend social gatherings. He knows his fears are unreasonable but he can't seem to control them and this really upsets him.

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PTSD

John is a 30-year-old who lives with his wife. Recently his sleep has been disturbed and he has been having vivid nightmares. He has been increasingly irritable, and can't understand why. He has also been jumpy, on edge and tending to avoid going out, even to see friends. Previously he had been highly sociable. These things started happening around two months ago. John owns a newsagent shop with his wife and has found work difficult since a man armed with a knife attempted to rob the cash register while he was working four months ago. He sees the intruder's face clearly in his nightmares. He refuses to talk about what happened and his wife says she feels that he is shutting her out.

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