AUSTRALIAN
HEALTH POLICY
COLLABORATION

The Costs and Impacts of a Deadly Combination: Serious Mental Illness with Concurrent Chronic Disease

A Policy Issues Paper for:
The Royal Australian and New Zealand College of Psychiatrists

Policy Issues Paper
01-2016

The Australian Health Policy Collaboration

The Australian Health Policy Collaboration was established at Victoria University in 2015 to build from the work of the health program at the Mitchell Institute over the previous two years. The Collaboration is an independent think tank that aims to attract much required attention to the critical need for substantial and urgent health policy reform focused on addressing chronic disease on a national scale.

The costs and impacts of a deadly combination: serious mental illness with concurrent chronic disease

People with serious mental illness commonly live 15 years less than others in the community. What is often not recognised even by clinicians is that most do not die as a result of their mental illness, but from the very same chronic physical conditions that are successfully treated in their neighbours and friends. (Professor Mal Hopwood, President, The Royal Australian and New Zealand College of Psychiatrists, September 2015).

Serious mental illness affects a small proportion of the Australian population, but has a significantly disproportionate impact on both the individuals with serious mental illness, and on the national health system and economy.

Schizophrenia and the other psychoses, and anxiety and depression in their severe states, are well known to be highly disabling for the individual.

That people with serious mental illness have shorter lives, in part due to a higher rate of suicide, is also well known. What is less well recognised is that people with serious mental illness are at greater risk of premature mortality because they also experience much higher rates of physical ill-health and particularly chronic diseases such as cardiovascular disease, diabetes and respiratory conditions.

This gap in life span resulting from chronic health conditions for people with serious mental illness represents a significant failing of contemporary health care. Additionally, the lack of awareness of the economic and financial cost impact of the combination of serious mental illness and concurrent chronic disease (comorbidities) for this population group represents a failure of health policy and practice, and presents a substantial challenge for both policy makers and health care providers.

The Royal Australian and New Zealand College of Psychiatrists (RANZCP) has undertaken a series of reports in 2015 to highlight the high rate of physical illness among people with mental illness in Australia and New Zealand, identify the barriers to health care for people with both mental and physical illness, and focus policy attention on the preventable costs and impacts of these comorbidities.

The evidence of the double impact of physical and mental illness on individuals is compelling – the impacts on individuals are evident in the significant gap in life span for people with serious mental illness and chronic diseases; in the lower use of health services that is evident for this population group, and in the impacts on workplaces, national productivity, the health system and health budgets.

Premature mortality, serious mental illness and comorbidities

High rates of physical illness among people with mental illness are well known. There is now increasing evidence that high rates of premature mortality for people with serious mental illness is strongly associated with much higher death rates from the more common causes of death such as cardiovascular disease, cancer and respiratory disease. And the evidence suggests that this occurs because of poor management of the comorbid health conditions of serious mental illness and chronic diseases.

Premature deaths are those which occur before the average life expectancy of the general population. Fewer than 80% of premature deaths of people with serious mental illness have been shown to be the result of physical health conditions not their mental illness. [1]

A range of international reports have confirmed the pattern of premature mortality associated with mental illness. [2] [3] A recent review[4] of the international evidence of mortality and mental disorders drawn from 29 countries found that the relative risk of death was 2.2 times higher in people with mental disorders than

the general population. This review identified that these risks increase for people with psychoses to 2.5 times that of the general population, accompanied by rising relative risks over time, indicating a widening life expectancy gap for people with all types of mental disorders.

Australian and New Zealand studies further confirm this pattern. In Australia, Lawrence, Hancock and Kisely (2013) [5] have shown that people with a primary diagnosis of schizophrenia have an average life expectancy that is 16.4 years less than that the average for Australian men, and 12.5 years less than the average for Australian women. There are similar life expectancy gaps for males and females with affective and other psychoses. Cunningham et al (2007) showed that both men and women using mental health services in New Zealand have more than twice the mortality rate of the total population, with an increased risk of death from cancer (1.3 times) and cardiovascular disease (1.7 times) and external causes – suicide and accident – 3.1 times. In this study, people with a diagnosis of psychotic disorder had three times the overall death rate of the population.

In a new report for the RANZCP and the Australian Health Policy Collaboration (AHPC), the Victoria Institute for Strategic Economic Studies (VISES) has shown that, for people with serious mental illness, physical illness comorbidities are the rule rather than the exception, and that these in combination are associated with significantly higher rates of premature mortality and much higher costs to individuals, health systems and the economy. [6]

The report, Serious mental illness and comorbidities in Australia and New Zealand, by Dr Kim Sweeny and Dr Hui Shi, draws on the 2010 Global Burden of Disease (GBD) report and Australian and New Zealand survey data to estimate the total burden of disease, and premature mortality rates, for people in Australia and in New Zealand with serious mental illness.

The report uses available Australian and New Zealand data to illustrate the common prevalence of comorbidities for people with serious mental illness.

The 2007 ABS National Survey of Mental Health and Wellbeing provides information on the extent of comorbidities among people with anxiety, affective and substance use disorders. For people with anxiety disorder, one quarter also had effective disorder while more than 60 per cent (61.8%) had concurrent physical health disorders. More than half of the population with affective disorder also had anxiety disorder (58.5%) and almost two-thirds (64/4%) had concurrent physical ill-health.[7] Similar results are evident from the New Zealand Mental Health Survey and these results for Australia and New Zealand are consistent with the results for other countries that participated in the World Mental Health Survey Initiative.[8]

For people with psychosis, the Second Australian National Survey of Psychosis has provided evidence of the prevalence of common physical comorbidities and common risk factors for people with different types of psychosis in Australia. Utilising analysis of 2010 GBD data, Sweeny and Hui show that people with psychosis have much higher rates for common physical comorbidities, especially cardiovascular disease with an average prevalence rate of 12.2% for this population compared with 9.9% for the general population, and diabetes, 21.4% prevalence rate for people with any form of psychoses compared with 6.6% for the general population. There are similarly very high rates of risk factors such as high blood pressure, elevated cholesterol, smoking, obesity and physical inactivity.

The authors conclude that people with serious mental illness almost always live with comorbid physical illnesses and their risk factors

In an earlier report prepared for RANZCP, Keeping Mind and Body Together,[9] the barriers to health care for people with both mental and physical illness were examined and methods to reduce and remove barriers considered. The report was prepared in consultation with psychiatrist members of the College in Australia and New Zealand.

That report drew on international evidence that people with a serious mental illness are:

- Between two and three times more likely to have diabetes;
- Six times more likely to die from cardiovascular disease at younger ages, and more likely to die even if they are not smokers;
- More likely to be diagnosed with diabetes , respiratory disease or to have a stroke under the age of 55 years;
- More likely to die from almost all key chronic conditions, and more likely to die within 5 years of these diagnoses.

People living with schizophrenia are also much more likely to be diagnosed with bowel cancer and women with breast cancer than the general population.

For people with serious mental illness, the consequences of chronic physical comorbidities include much shorter life expectancy, higher levels of ongoing disability, reduced workforce participation and productivity, and greater likelihood of welfare dependency and poverty.

However, despite higher levels of ill-health, people with serious mental illness are also less likely to use all health services.

International evidence makes it clear that people with serious mental illness:

- Are less likely to seek assistance to manage either mental or physical health problems
- Have difficulties adhering to medication, particularly when they require multiple pharmaceutical treatments
- Have different patterns of service use, including more complex approaches to their health care and are likely to be more particular about their health care providers.

Given that mental health services in both Australia and New Zealand are typically physically and culturally displaced from both primary and acute care health providers, the fragmentation of service that this generates for people with both serious mental illness and chronic physical health conditions presents particular navigation challenges for this population group – exacerbating their health conditions and trapping individuals in a cycle of poor health.

“In Australia, complex funding sources and the separation between primary and acute health care, and between the mental and general health ‘systems’ have created a particularly fragmented and complex health system”, the RANZCP report says.

The navigation challenges this imposes on people with serious mental illness are so significant that the White Paper on the Reform of the Federation: Roles and Responsibilities in Health highlighted these as an example of systemic barriers in Australia’s health service arrangements. [10]

The picture in New Zealand is different. Another report prepared for the RANZCP on barriers to good health care for people with SMI in New Zealand, Minding the gaps: Cost barriers to accessing health care for people with mental illness (New Zealand) 11 it was recognised that regionalised system of health funding and service provision, where priorities are set through District Health Boards (DHBs)and funding provided to address health needs in particular communities, has both strengths and weaknesses. On the one hand it can encourage innovation and locally tailored solutions and there are excellent models of this in New Zealand however there are also geographical inequities in the availability of and access to high quality services reflecting local priorities and resources, including the availability of an appropriately skilled workforce

In addition there are few mechanisms to ensure that treatments and programs are all based on the best evidence and that 'best practice' models and knowledge are shared between different DHB's. People who have complex physical and mental health needs may be hard to reach and engage in treatment and can easily be overlooked unless DHB's have a specific focus on reaching this group and engaging them in treatment. Importantly, there is no consistency between different districts and the appropriateness and affordability of care can vary significantly.

The series of reports prepared by the RANZCP point to the inescapable conclusion that the treatment gap experienced by people with serious mental illness is significant and universal and contributes to the overall poor health of people with SMI and reduced life expectancy.

Stigma and discrimination

These factors are compounded by extensive evidence that people with psychosis receive sub-optimal health care despite being at high risk for serious physical disorders. [12] 13 The RANZCP report, Keeping Mind and Body Together draws on extensive research which implicates the attitudes of health care staff in both primary and secondary care as well as in specialist settings in inhibiting help-seeking by people with mental illnesses and associated physical health needs. [14] Other research points to disparities in the level of healthcare delivered to this group compared with the general population. Of note is that inequalities were most evident in relation to general medicine and cardiovascular care but may also be present in cancer and diabetes care. [15]

The impact and costs of serious mental illness and concurrent chronic health conditions

Sweeny and Hui use cost of illness data drawn from Australia and New Zealand to show that, for 2014, the cost of comorbidities associated with premature death in those with serious mental illness can be estimated to have been $15.0 billion for Australia, or 0.9% of GDP, and $3.1 billion (1.3% of GDP) for New Zealand.

When chronic opioid dependence is included in the comorbid health conditions, the costs escalate to $45.4 billion for Australia, or 2.8% of GDP), and $6.2 billion for New Zealand (2.6% of GDP).

Overall the cost of the overall burden of disease associated with serious mental illness in Australia and New Zealand in 2014 is estimated to have been $56.7 billion for Australia in 2014 (3.5% of GDP) and $12.0 billion for New Zealand (5.0% of GDP). When chronic opioid dependence is included, the costs in Australia 2014 were $98.8 billion (6% of GDP) and $17.0 billion in New Zealand (7.2% of GDP).

Using data from surveys of mental illness in Australia and New Zealand for estimates of the numbers of people with serious mental illness, together with a cost of illness methodology that calculates the direct and indirect economic cost incurred by individuals, carers, government and others in addressing serious mental illness, the authors estimate that the annual costs of psychosis for the Australian population in 2014 were approximately $3.9 billion incurred by government and $6.2 billion incurred by individuals and non-government organisations, including productivity costs (the societal costs). Those elements of societal cost that can be attributed to comorbidities accounted for around $743 million.

The authors used Australian data to estimate that the prevalence and cost of psychoses in New Zealand. They concluded that psychoses would be likely to be cost New Zealand's society $NZ1.3 billion per annum, and the New Zealand government around $NZ0.8 billion per annum.

If it is assumed that comorbid physical illness (comorbidities) comprise the same proportion of cost as is the case in Australia, the cost of comorbidities associated with psychosis in New Zealand in 2014 is estimated to be $NZ162 million.

Recent work by the Australian Health Policy Collaboration (2015) reinforces the understanding that the interactions between mental and physical chronic diseases increase societal and economic costs.16 Lack of prevention and poor outcomes from treatment drive increasing heath care costs and lost productivity prompting leading Australian economists Alan Fels, also Chair of the National Mental Health Commission (Australia) and Ross Garnaut to call on the Federal Government to embrace mental Health as its next big reform agenda . Figures for the Australian Institute for Health and Welfare indicate that the economic costs of comorbidities are driven up by increased use of services including hospital admissions and re-admissions and GP consultations. [17] The interactions between physical and mental illnesses significantly increase the costs of care and treatment. Melek (2008) demonstrates that people with depression and a chronic physical illness incurred average monthly care costs that were between 33% and 169% higher over a range of conditions.[18] These increased costs excluded direct expenditure on mental health services.[19] Moreover, the strong association between poor mental health and increased costs of care and treatment is broadly consistent across all levels of medical severity and persists even when adjusted for clinical and demographic variables. [20]

Disturbingly – these costs include sums that could have been prevented had evidence based interventions and increased treatment coverage been more widely available to this population. Whilst 60% of the burden of serious mental illness is not avertable, Andrews et al (2004) have estimated that current treatment could avert 13% of the burden, optimal treatment at current coverage could avert 20% of the burden, and optimal treatment at optimal coverage could avert 28% of the burden.[21] Best practice in health care would reduce impacts of serious mental illness and comorbidities by almost one-third.

A further report by RANZCP in 2014, Keeping your head above water: Affordability as a barrier to mental health care [22] showed that out-of-pocket costs arising from Australia's health service arrangements present an additional negative impact on people with mental illness – and add a potential barrier to appropriate timely, health care. In New Zealand, whilst health funding is not a significant contributor to fragmentation of access to health services, there are divisions between acute, primary and specialist care and substantial variations between regions in access to care. Affordability has been shown to be an issue for access to GP services by people with complex mental health problems.

Clearly, for people with serious mental illness, the prevalence of concurrent chronic health conditions, the fragmentation in service arrangements in Australia and New Zealand, and the barriers to access the services that are available, including affordability, add up to a deadly combination, resulting in much higher risk of premature mortality than for the wider population in our countries.

The VISES report to RANZCP concludes that the data available to policy makers and service providers – particularly data from the Global Burden of Disease studies, together with survey data on serious mental illness in Australia and New Zealand – points unequivocally to the strength of the association between mental and physical ill health and the consequences of this burden of comorbid diseases on the life expectancy of people with severe mental illness and on the economy. There is an evident need for radical new policy in this area capable of mainstreaming better prevention and management of the physical health of people with mental illness and national leadership to promote a more integrated approach. This is a major priority for governments, health professionals, health agencies and health systems more broadly. It is also a priority for communities and to the national economies of Australia and New Zealand.

References

1 Lawrence et al, 2013, quoted in RANZCP, 2015, Keeping Body and Mind Together. Improving the physical health and life expectancy of people with serious mental illness. P4.

2 Laursen , TM. (2011), Life expectancy amongst people with schizophrenia or bipolar affective disorder. Schizophrenia Research., vol.131, pp.101-104

3 Crump,C., et al, (2013) Comorbidities and mortality in persons with schizophrenia: a Swedish national cohort study. American Journal of Psychiatry, vol.170, pp 324-333

4 Walker, E., et al. (2015) Mortality in Mental Disorders and Global Burden of Disease Implications. A systematic Review and MetaAnalysis. JAMA Psychiatry, April McGee and Druss (2015)

5 Lawrence, Hancock and Kisely (2013) The gap in life expectancy from preventable physical illness in psychiatric patients in Western Australia: retrospective analysis of population based registers. BMJ (Clinical Research Ed.), 346(May), f2539. doi:10.1136/bmj.f2539

6 Dr Kim Sweeny and Dr Hui Shi, 2015: Serious mental illness and comorbidities in Australia and New Zealand. Report to the Royal Australian and New Zealand College of Psychiatrists and The Australian Health Policy Collaboration. Victoria Institute of Strategic Economic Studies.

7 ABS 2008, '4326.0 – National Survey of Mental Health and Wellbeing: Summary of Results, 2007', Canberra, quoted in Sweeny and Hui 2015.

8 http://www.hcp.med.harvard.edu/wmh/

9 Ballenden, N and Duggan, M (2014), Keeping Body and Mind Together. Improving the physical health and life expectancy of people with serious mental illness. RANZCP.

10 Commonwealth of Australia (2014) White Paper on the Reform of the Federation: Roles and Responsibilities in Health. Issues Paper 3. Canberra: Department of the Prime Minister and Cabinet, quoted in RANZCP 2015, Keeping Body and Mind Together. Improving the physical health and life expectancy of people with serious mental illness

11 RANZCP (2015) Minding the gaps: Cost barriers to accessing health care for people with mental illness (New Zealand) [https://www.ranzcp.org/Files/Publications/RANZCP_NZ-Advocacy-www.aspx

12 Frayne, S. M., et al. (2005). Disparities in diabetes care: impact of mental illness. Arch Intern Med 165 (22), 2631–2638. doi:165/22/2631 [pii]\r10.1001/archinte.165.22.2631 [doi]

13 Rethink UK (2013) Lethal discrimination; why people with mental illness are dying needlessly and what needs to be done about it. http://www.rethink.org/media/810988/Rethink%20Mental%20Illness%20-20Lethal%20Discrimination.pdf

14 De Hert (2011a) Physical illness in patients with severe mental disorders.(1). Prevalence, impact of medications and disparities in health care. World Psychiatry. 10: 52-77

15 Mitchell et al (2009) Quality of medical care for people with and without comorbid mental illness and substance misuse: systematic review of comparative studies. Br J Psychiatry 194:491–9

16 Australian Health Policy Collaboration. (In press - 2015) Health and wellbeing – the interaction of physical and mental chronic diseases. The Case for Integrated Health Care. Working title

17 Australian Institute of Health and Welfare (2008) Australia's health 2008. Cat. No. AUS 99. Canberra: AIHW. Viewed 13 January 2015 http://www.aihw.gov.au/publication-detail/?id=6442468102

18 Melek, S. (2008). Chronic conditions and comorbid psychological disorders. Journal of Mental Health Policy and Economics (2011) Volume: 14, Pages: S21-S22

19 Welch, C. et al. (2009). Depression and Costs of Health Care. World Health Organisation (2013) Mental Health Action Plan 2013-2020. http://www.who.int/mental_health/publications/action_plan/en/

20 Unützer, J., et al (2009). Healthcare costs associated with depression in medically Ill fee-for-service Medicare participants. Journal of the American Geriatrics Society, 57(3), 506–10. doi:10.1111 /j.1532-5415.2008.02134

21 Andres, G,. et al (1985) The Economic costs on Schizophrenia: Implications for public policy. Archives of General Psychiatry, vol.42. No. 6, pp.537-543

22 Royal Australian and New Zealand College of Psychiatrists (2014) Keeping your head above water: Affordability as a barrier to mental health care. A report prepared for the RANZCP by CEG-AP Consultants. Melbourne.

AUSTRALIAN
HEALTH POLICY
COLLABORATION

300 Queen Street, Melbourne, Victoria
+61 3 9919 1820
vu.edu.au/ahpc