AUSTRALIAN CHRONIC DISEASE PREVENTION ALLIANCE

4th April 2019

The Australian Chronic Disease Prevention Alliance (ACDPA, comprising Diabetes Australia, Cancer Council Australia, National Heart Foundation of Australia, Kidney Health Australia and the Stroke Foundation) and Quit Victoria ("Quit") welcome the Productivity Commission Mental Health Inquiry ("the Inquiry") and the opportunity to make a joint submission.

Summary of recommendations

People with a mental illness are at an unacceptably higher risk of chronic disease compared to the general population, predominantly due to the higher prevalence of chronic disease risk factors including tobacco smoking, obesity and overweight, poor diet, inadequate physical activity and alcohol consumption.

Preventing the development of chronic disease in people with a mental illness, by addressing risk factors, has clear economic, social and productivity benefits.

The ACDPA and Quit make the following key recommendations for consideration by the Commission:

- *A systematic approach to chronic disease prevention must be embedded across all mental health services and the entire health system.*
- *Tailored, evidence-based interventions for people with a mental illness need to be developed and implemented to address smoking and other risk factors as a means of preventing chronic disease.*
- *Population-based policies should be considered to reduce chronic disease risk factors through changes to the food supply and the creation of environments that support healthy choices.*

Why chronic disease risk factors need to be addressed in people with a mental illness

1. *People with a mental illness are at an unacceptably higher risk of chronic disease*

There is currently an unacceptable gap in life expectancy between people with a mental illness and the general population – estimated at up to 15 years.[1] The vast majority of deaths are not due to the mental illness. Concerningly for every person with a mental illness who dies from suicide, 10 will die due to chronic diseases.[2] These chronic diseases include cardiovascular disease and stroke, cancer, type 2 diabetes, chronic kidney

---

1 Lawrence D, Hancock KJ, Kisely S. The gap in life expectancy from preventable physical illness in psychiatric patients in Western Australia: retrospective analysis of population-based registers. British Medical Journal. 2013;346:f2539.
2 Roberts R, Lockett H, Bagnall C, Maylea C, Hopwood M. Improving the physical health of people living with mental illness in Australia and New Zealand. Australian Journal of Rural Health. 2018;26:354-362.

disease and respiratory conditions such as asthma and chronic obstructive pulmonary disease.[3,4,5] Nearly 60% of people with a mental illness also have at least one or more other chronic diseases.[6]

Many of these chronic diseases share multiple risk factors, such as smoking, overweight and obesity, poor diet, physical inactivity and alcohol consumption. People with a mental illness have a much higher prevalence of these risk factors compared to the general population, contributing significantly to the disproportionate chronic disease burden. In fact, evidence suggests that people with a serious mental illness are:[7]

- Six times more likely to die from cardiovascular disease
- Two to three times more likely to be diagnosed with type 2 diabetes
- More likely to be diagnosed with a respiratory disease and type 2 diabetes or have a stroke at a younger age (under 55)
- 90% more likely to be diagnosed with bowel cancer (particularly if they have schizophrenia)
- 42% more likely to be diagnosed with breast cancer (in women with schizophrenia)

The ACDPA and Quit advocate that the Inquiry addresses smoking, overweight and obesity, poor diet, physical inactivity and alcohol consumption, as key modifiable risk factors for chronic disease.

Tobacco smoking

Despite decreasing smoking rates in the general population, they remain unacceptably high in people with a mental illness. Compared to the general population, women with a mental illness are nearly 70% more likely to be smokers, and men with a mental illness are nearly 40% more likely.[8] Smoking prevalence tends to increase alongside the severity of the mental illness[9] and rates also vary by diagnosis – with 25% of people with depression being daily smokers, to up to 47% of people with schizophrenia[10] (compared with 12.2% of the general population[11]). In two Australian studies conducted 10 years apart both found that among people living with psychotic disorders, about 70% of men and 60% of women smoked.[12,13]

In addition to increased mortality, smoking in people with a mental illness has been associated with more psychiatric symptoms, increased hospitalisations, and higher required psychiatric medication dosages[14]

3 Harris B, Duggan M, Batterham P, Bartlem K, Clinton-McHarg T, Dunbar J, et al. Australia's mental and physical health tracker. Technical paper No. 2018-06. Australian Health Policy Collaboration. Aug 2018.

4 Iwagami M, Mansfield KE, Hayes JF, Walters K, Osborn DP, Smeeth L, et al. Severe mental illness and chronic kidney disease: a cross-sectional study in the United Kingdom. Clinical Epidemiology. 2018;10:421-429.

5 Reilly S, Olier I, Planner C, Doran T, Reeves D, Ashcroft DM, et al. Inequalities in physical comorbidity: a longitudinal comparative cohort study of people with severe mental illness in the UK. BMJ Open. 2015;5(12).

6 Harris B, Duggan M, Batterham P, Bartlem K, Clinton-McHarg T, Dunbar J, et al. Australia's mental and physical health tracker.

7 Keeping Body and Mind Together: Improving the physical health and life expectancy of people with serious mental illness. Melbourne. The Royal Australian and New Zealand College of Psychiatrists. 2015.

8 Harris B, Duggan M, Batterham P, Bartlem K, Clinton-McHarg T, Dunbar J, et al. Australia's mental and physical health tracker.

9 Mendelsohn CP, Kirby DP, and Castle DJ. Smoking and mental illness. An update for psychiatrists. Australas Psychiatry, 2015; 23(1):37–43.

10 Australian Bureau of Statistics Table Builder, using data from the National Health Survey 2014–15.

11 Australian Institute of Health and Welfare. National Drug Strategy Household Survey (NDSHS). 2106 key findings tables. Canberra: AIHW, 2017. Available from: https://www.aihw.gov.au/reports/illicit-use-of-drugs/2016-ndshs-detailed/data

12 Cooper J, Mancuso SG, Borland R, Slade T, Galletly C, et al. Tobacco smoking among people living with a psychotic illness: The second Australian survey of psychosis. Australian and New Zealand Journal of Psychiatry, 2012; 46(9):851–63.

13 Jablensky A, McGrath J, Herrman H, Castle D, Gureje O, et al. People living with psychotic illness: An Australian study 1997–98. Mental Health Branch, Commonwealth Department of Health and Aged Care.Canberra 1999.

14 Prochaska JJ. Smoking and mental illness-breaking the link. The New England Journal of Medicine. 2011;365:196-8.

(because components of tobacco smoke accelerate the metabolism of some antidepressant and antipsychotic medications).[15] Higher dosages can, in turn, increase the risk of poor metabolic health.

There is some evidence to suggest that, amongst people diagnosed with a mental illness such as psychosis, smoking increases the risk of suicidal behaviour.[16] Evidence has also shown that smoking can increase the risk of anxiety, depression and psychotic disorders including schizophrenia.[17,18]

Overweight and obesity, poor diet and physical inactivity

Overweight and obesity, poor diet and inadequate physical activity are risk factors for heart disease and stroke, chronic kidney disease, type 2 diabetes and certain cancers. People experiencing serious mental illness may be between two and three times more likely to have type 2 diabetes and are more likely to die from cardiovascular disease regardless of smoking status.[19]

Australians living with a mental illness are also more likely to be sedentary. For example, national health survey data has shown that Australian men with a mental illness are 11% more likely and women 8% more likely to have physical activity levels under the recommended guidelines.[20] Similarly, a survey of Australians living with psychosis identified that, in the seven days prior to completing the survey, over 33% of people were sedentary.[21]

The 2015 PwC report *Weighing the cost of obesity: A case for action* highlighted that there is a clear link between obesity and mental health, but that causality is unclear.[22] Just over one-quarter (28.4%) of Australian males are obese, compared to one-third (33.2%) of Australian males with a mental illness. Similarly, 27.4% of Australian females are obese, compared to 31.3% of females with a mental illness.[23] Alarmingly, in a survey of Australians living with psychosis, obesity rates were as high as 45%.[24]

Conversely, the 2012 Ausdiab study results demonstrated that the prevalence of depression in people with obesity was nearly two times as high as those without obesity, and similar studies indicate that people with obesity are more likely to experience depression. The PwC report estimated that obesity costs around $8.6 billion per year (including reduced productivity), and that these costs may partially account for depression experienced as a result of obesity. Other issues, including stigma and discrimination were also raised as contributing to poorer mental health outcomes.

Alcohol consumption is another modifiable risk factor that can contribute to excess energy intake and unhealthy weight gain, as well as increasing risk of certain cancers and cardiovascular disease.[25] Men with a

---

15 Banham L, Gilbody S. Smoking cessation in severe mental illness: What works? Addiction. 2010;105:1176-89.
16 Sankaranarayanan A, Castle D. Burden associated with smoking as a suicidal risk factor in an Australian sample of patients with psychosis. Australas Psychiatry. 2016;24(5):437-40.
17 Pedersen W, von Soest T. Smoking, nicotine dependence and mental health among young adults: a 13 year population-based longitudinal study. Addiction. 2008;104(1):129-137.
18 De Leon J, Diaz FJ. A meta-analysis of worldwide studies demonstrates an association between schizophrenia and tobacco smoking behaviours. Schizophrenia Research. 2005;76(2-3):135-57.
19 Keeping Body and Mind Together: Improving the physical health and life expectancy of people with serious mental illness. Melbourne. The Royal Australian and New Zealand College of Psychiatrists. 2015.
20 Ibid
21 Jackson CA, Dobson AJ, Tooth LR, Mishra GD. Lifestyle and socioeconomic determinants of multimorbidity patterns among mid-aged women: a longitudinal study. PloS one. 2016;11(6):e0156804.
22 PwC 2015. Weighing the cost of obesity: A case for action.
23 Australia's mental health and physical health tracker.
24 Morgan VA, McGrath JJ, Jablensky A, Badcock JC, Waterreus A, Bush R, et al. Psychosis prevalence and physical, metabolic and cognitive co-morbidity: data from the second Australian national survey of psychosis. Psychological Medicine. 2014;44(10):2163-76.
25 Australian Institute of Health and Welfare. Risk factors to health. Available from: https://www.aihw.gov.au/reports/risk-factors/risk-factors-to-health/contents/excessive-alcohol-consumption

mental health condition are 15% more likely to consume alcohol at risky levels than men without a mental health condition (29.9% compared to 25.9%). Similarly, women with a mental health condition are more 10% likely to consume alcohol at risky levels (10.3% compared to 9.4%).[26] A survey of Australians living with psychosis found that half of participants had a lifetime history of alcohol abuse or dependence.[27]

2. *The social and economic costs of chronic disease in people with a mental illness are significant*

In 2018, over 2.4 million Australians were living with both chronic disease and mental illness.[28] A report by the Royal Australian & New Zealand College of Psychiatrists places the cost of premature death in people with serious mental illness with a comorbid physical illness at $15 billion AUD annually.[29] Adding substance use into the mix increases this to $45 billion.[30]

Co-morbid physical and mental illness also increase treatment costs dramatically, with one study identifying a significantly higher (33% to 169%) cost of care in people with co-morbid depression and a chronic physical illness compared to the physical illness alone (and excluding mental health service costs).[31]

Addressing chronic disease and preventing chronic disease in people with a mental illness is not only a duty of care or "the right thing to do", it is also of great economic importance.

3. *Addressing chronic disease risk factors in people with a mental illness can improve their quality of life and promote recovery from mental illness*

Research has demonstrated that addressing these risk factors can assist with recovery from mental illness. For example, stopping smoking for longer than six weeks has been linked to people feeling less stressed, anxious and depressed, with effect sizes similar to using antidepressants to treat mood and anxiety disorders.[32] This has significant implications for productivity, such as improving work presenteeism and absenteeism.

At an individual level, the benefits of stopping smoking are also not just limited to health benefits. An individual who smokes 20 cigarettes a day can save around $9855 a year upon quitting,[33] lessening the burden of financial stress, with the potential to reallocate spending to healthier choices.

Several interactions between smoking and medications have been identified. In most cases, it is not the nicotine that triggers these drug interactions, but rather the tobacco smoke itself. Medications include benzodiazepines and antipsychotics including clozapine and olanzapine. Upon smoking cessation, medication

---

26 Australia's mental health and physical health tracker.
27 Morgan VA, McGrath JJ, Jablensky A, Badcock JC, Waterreus A, Bush R, et al. Psychosis prevalence and physical, metabolic and cognitive co-morbidity: data from the second Australian national survey of psychosis. Psychological Medicine. 2014;44(10):2163-76.
28 Australian Bureau of Statistics. National Health Survey: First Results, 2014-15. Canberra 2015.
29 Royal Australian & New Zealand College of Psychiatrists and Australian Health Policy Collaboration. The economic cost of serious mental illness and comorbidities in Australia and New Zealand: a report for the Royal Australian & New Zealand College of Psychiatrist and the Australian Health Policy Collaboration by Victoria Institute of Strategic Economic Studies. Melbourne RANZCP 2016.
30 Ibid
31 Duggan M. Beyond the fragments: Preventing the costs and consequences of chronic physical and mental diseases. Australian Health Policy Collaboration. Issues paper No.2015-05. Australian Health Policy Collaboration, Melbourne. 2015.
32 Taylor G, McNeill A, Girling A, Farly A, Lindson-Hawley N, Aveyard P. Change in mental health after smoking cessation: systematic review and meta-analysis. BMJ 2014;348:g1151
33 Australian Retail Tobacconist. Volume 108 October-November-December 2018. Based on an "average pack" of 20 cigarettes, at an average cost of $27AUD/pack.

dosages may be able to be reduced.[34,35] This has the potential not only to save individuals money, but also reduce mental health care costs nationally.

These medications are also linked to metabolic side effects, including type 2 diabetes, high cholesterol and weight gain. Reducing the dosages of these medications, through quitting smoking, may feasibly also reduce the likelihood of these side effects and their impact on metabolic health.

Similarly, improved physical activity levels have been shown to not only be preventive against some mental health conditions but also be an effective component of treatment.[36,37,38,39,40] In addition, diets higher in fruit, vegetables, fish and whole grains have been associated with a reduced likelihood of depression in adults.[41]

Addressing chronic disease risk factors in people with a mental illness: Key recommendations

Not addressing chronic disease risk factors in people with a mental illness undermines just delivery of healthcare and will serve to perpetuate inequalities in this vulnerable population. Health professionals and the health sector have a duty of care to not only manage a person's mental illness but also to optimise their physical health.

In the context of smoking, the self-medication hypothesis postulates that people with a mental illness smoke to mitigate their symptoms.[42] This has contributed to the misinformed belief that addressing smoking in this cohort may worsen their mental illness. Although attempting to quit smoking can be more challenging[43] and require more intensive support to be successful, there is evidence that people with a mental illness want to stop smoking and can do so.[44] Even in people who smoke and have been admitted to hospital for a mental illness, 65% had an interest in smoking cessation.[45]

In addition, addressing chronic disease risk factors at the population level has the potential to improve health for people with a mental illness as a subset of the population, through changes to the health system and environment.

This section specifically answers the following question posed in the Productivity Commission Issues Paper:

34 Lucas C, Martin J. Smoking and drug interactions. Australian Prescriber 2013;36:102-104.

35 NHS/Specialist Pharmacy Service/UKMi. Medicines Q&As. (UKMi Q&A 136.4) What are the clinically significant drug interactions with cigarette smoking? Prepared November 2017. Available https://www.sps.nhs.uk/wp-content/uploads/2017/11/UKMI_QA_Drug-interactions-with-smoking-cigarettes_update_Nov-2017.pdf

36 Schuch FB, Vancampfort D, Firth J, Rosenbaum S, Ward PB, Silva ES, et al. Physical activity and incident depression: A meta-analysis of prospective cohort studies. American Journal of Psychiatry. 2018;175(7):631-648.

37 Rebar AL, Stanton R, Geard D, Short C, Duncan MJ, Vandelanotte C. A meta-meta-analysis of the effect of physical activity on depression and anxiety in non-clinical adult populations. Health psychology review. 2015;9(3):366-78.

38 Rosenbaum S, Tiedemann A, Sherrington C, Curtis J, Ward PB. Physical activity interventions for people with mental illness: a systematic review and meta-analysis. Journal of Clinical Psychiatry. 2014;75(9):964-74.

39 Cooney GM, Dwan K, Greig CA, Lawlor DA, Rimer J, Waugh FR, et al. Exercise for depression. Cochrane Database of Systematic Reviews. 2013.

40 Firth J, Cotter J, Elliot R, French P, Yung AR. A systematic review and meta-analysis of exercise interventions in schizophrenia patients. Psychological medicine. 2015;45(7):1343-61.

41 Jacka FN, O'Neill A, Opie R, Itsiopoulos C, Cotton S, Mohebbi M, et al. A randomised controlled trial of dietary improvement for adults with major depression (the "SMILES" trial). BMC Medicine. 2017;15(23)

42 Prochaska JJ, Das S, Young-Wolff Kelly C. Smoking, mental illness, and public health. Annual Review of Public Health. 2017;38:165-185.

43 Cook BL, Wayne GF, Kafali EN, Liu Z, Shu C, et al. Trends in smoking among adults with mental illness and association between mental health treatment and smoking cessation. Journal of the American Medical Association, 2014; 311(2):172–82.

44 Prochaska JJ. Failure to treat tobacco use in mental health and addiction treatment settings: A form of harm reduction? Drug and Alcohol Dependence, 2010; 110(3):177–82.

45 Siru R, Hulse GK, Tait RJ. Assessing motivation to quit smoking in people with mental illness: a review. Addiction. 2009; 104:719–33

What changes do you recommend to healthcare to address the specific issues of comorbidities among people with a mental illness? What evidence is there to support your suggested actions and what types of improvements would you expect in terms of population mental health, participation and productivity?

1. A systematic approach to chronic disease prevention must be embedded in mental health services and across the entire health system

A systematic approach needs to be adopted not only in formalised mental health services, but also the entire health system, from primary care to general hospital-based services. This is because only a relatively small proportion of people with a mental illness are in contact with formalised mental health services.[46] A whole-of-sector approach is also vital to ensure continuity of care as people transition from different types of care.

Almost 40% of potentially preventable hospitalisations are due to chronic conditions.[47] Early detection and management of chronic disease risk factors, including among people with a mental illness, has the potential to reduce disease risk, slow or reverse disease progression, and reduce complications and unnecessary hospitalisations. There are potential benefits at an individual level in improved quality of life, participation and reduced burden of disease, as well as at the health system level with reduced expenditure for related hospitalisations.

The systematic provision of integrated health checks in primary care (comprising absolute cardiovascular disease risk assessment, a type 2 diabetes check, and a kidney disease test) would enable assessment of chronic disease risk factors for people with mental illness at specific ages, in alignment with clinical guidelines,[48] irrespective of their engagement with mental health services. Support could be provided through referrals for: smoking cessation services; weight management, including bariatric surgery for the severely obese; exercise and behaviour change programs; and consideration of medication for those at high-risk, in accordance with guidelines and in consultation with their GP.

Addressing smoking and other risk factors in people with a mental illness, as a means of preventing chronic disease development, needs to occur in a systematic way across the health sector. Relying on individual practice change at the clinician level alone is not sufficient. An example of this is the Tackling Tobacco framework, developed by Cancer Council New South Wales. It takes an organisational change approach to addressing smoking in health and community services.[49] The framework consists of six key elements for success including:

- Committed leadership
- Comprehensive smokefree policies
- Supportive systems
- Consistent quit supports
- Training and follow up
- Systematic monitoring and data collection

In Victoria, the framework has been successfully embedded in selected mental health pilot sites and wider roll-out is planned. Evaluation of the project is ongoing, however staff audits prior to implementation found that

---

46 Mental health services in brief 2018. Australian Government. Australian Institute of Health and Welfare [cited March 2019]. Available from: https://www.aihw.gov.au/reports/mental-health-services/mental-health-services-in-australia/report-contents/summary-of-mental-health-services-in-australia/overview

47 AIHW Chronic disease overview. Available from: https://www.aihw.gov.au/reports-data/health-conditions-disability-deaths/chronic-disease/overview

48 Royal Australian College of General Practitioners. 2018. Guidelines for preventive activities in general practice. 9th edn, updated. East Melbourne, Vic: RACGP

49 The Tackling Tobacco Program. Melbourne: Cancer Council Victoria [cited March 2019]. Available from https://www.quit.org.au/resources/community-services/tackling-tobacco-program/

while the majority (91%) believed that offering smoking cessation support should be part of routine care, only 28% felt confident to do so. 60% of staff now rate their service's capability to provide cessation support as extremely or very capable.[50] Consumers describe the support to quit as being "essential", with increased self-confidence about quitting and better financial situations.

This highlights the importance of supporting individual practice change to optimise system and organisation-level interventions. A crucial part of this is addressing the perception that people with mental illness aren't interested in quitting and that quitting is an additional burden.[51] Other studies have suggested that while mental health clinicians may be confident to ask about smoking, a much smaller proportion follow this up with advice to quit and provide best practice treatment (pharmacotherapy and referral for behavioural intervention, such as Quitline).[52] This can be achieved, in part, by providing training and education, resources and evidence-based policies, procedures and clinical guidelines to build practitioner confidence, skills and knowledge to address chronic disease risk factors.

Ideally, all consumers with a mental illness in contact with mental health services should be asked about their smoking status and weight, diet and physical activity, and provided with evidence-based help to manage these risk factors. A systems-based approach means this action does not rely on the conscientiousness of individual clinicians, but rather becomes integrated into the holistic care of people with mental illness.

Internationally, systems-based interventions have been highly successful in reducing smoking rates. The Ottawa Model for Smoking Cessation, adopted in over 120 hospitals in Canada, is an example of this. Patients receiving care under this model have been found to have a reduced risk of all-cause readmission at 30 days, with the effect lasting up to two years, and a reduction in mortality at one year (compared to patients receiving "usual care" – which in most cases is the provision of self-help brochures).[53] Beyond the health impacts, the potential cost-savings to the health sector by addressing chronic disease risk factors systematically are huge.

2. *Tailored, evidence-based interventions for people with a mental illness need to be developed and implemented to address smoking and other key risk factors*

The most effective intervention to support quitting smoking is a combination of a multi-session behavioural intervention (such as that offered through Quitline) and pharmacotherapy (nicotine replacement therapy or smoking cessation medications such as varenicline).[54] Many Quitlines offer tailored programs for people with a mental illness and provide a culturally appropriate service for Indigenous Australians, and culturally and linguistically diverse communities. The Victorian Quitline is currently the only Quitline that offers mental health symptom monitoring, to ascertain if and how quitting may be impacting their mental health. This is an important intervention that should be available to all people with a mental illness calling Quitlines across Australia.

Developing tailored interventions targeting overweight and obesity in people with a mental illness is also of paramount importance. This is particularly relevant when commencing antipsychotic medications, which have

50 Quit Victoria and NorthWestern Mental Health. 2019. Unpublished data from the "Tackling Tobacco" project.
51 Sheals K, Tombor I, McNeill A, Shahab L. A mixed-method systematic review and meta-analysis of mental health professionals' attitudes toward smoking and smoking cessation among people with mental illness. 2016;111(9):1536-53.
52 Sharma R, Meurk C, Bell S, Ford P, Gartner C. Australian mental health care practitioners' practices and attitudes for encouraging smoking cessation and tobacco harm reduction in smokers with severe menta; illness. International Journal of Mental Health Nursing. 2018;27(1):247-257.
53 Mullen KA, Manuel DG, Hawken SJ, Pipe AL, Coyle D, Hobler LA, et al. Effectiveness of a hospital-initiated smoking cessation programme: 2 year health and helathcare outcomes Tobacco control. 2017;26(293-299).
54 Kotz D, Brown J, West R. 'Real-world' effectiveness of smoking cessation treatments: a population study. Addiction. 2014 Mar;109(3):491-9.

been linked with an increased risk of obesity.[55] Evidence-based nutrition, weight and physical activity interventions have been found to be effective in this population and should be offered.[5] The Life! program run by Diabetes Victoria, and supported by the Heart Foundation and Stroke Foundation, is an example of a comprehensive program designed to support people at high risk of chronic diseases to make evidence-based lifestyle modifications.[56]

Similarly, the My Health for Life program in Queensland is a free, evidence-based behaviour modification program for patients at high-risk of developing a chronic disease, delivered by the Healthier Queensland Alliance (Diabetes Queensland, Heart Foundation, Stroke Foundation, Queensland Aboriginal and Islander Health Council, Ethnic Communities Council of Queensland, Primary Health Networks (PHN) Queensland) with funding from the Queensland Government.[57]

The program is designed to support positive lifestyle changes in order to reduce an individual's risk of developing conditions such as type 2 diabetes, heart disease, stroke, high cholesterol and high blood pressure. It covers areas such as: healthy eating and physical activity; achieving and maintaining a healthy weight; reducing alcohol consumption; and quitting smoking. The program includes six sessions over six months, delivered by qualified health professionals trained as My Health for Life facilitators. The program also offers culturally tailored group programs for Aboriginal and Torres Strait Islanders, Pacific Islanders, and Mandarin, Cantonese, Vietnamese, and Arabic speaking communities.

Other programs, such as the Achievement Program (supported by the Victorian Government and delivered by Cancer Council Victoria), serves to support schools and workplaces to create healthier organisational environments that encourage people to make healthier choices.[58]

Research into specific interventions for addressing chronic disease risk factors in people with a mental illness is crucial. This is necessary to ensure interventions are tailored to the unique need of the cohort and are cost-effective. The Australian Health Policy Collaboration report *Beyond the fragments: Preventing the costs and consequences of physical and mental diseases* highlights a number of examples of such interventions, including a study that found a healthy lifestyle program is cost-effective in maintaining body mass index for people with schizophrenia.[59]

3. ***Population-based policies should be considered to reduce chronic disease risk factors through changes to the food supply and the creation of environments that support healthy choices***

Policy reforms that promote a healthier environment such as those found in the Tipping the Scales consensus[60] will also positively impact high priority groups – such as people with a mental illness – and should be supported as a population-level approach to tackle major risk factors for chronic disease, including overweight and obesity, poor nutrition and physical inactivity.

Food reformulation was identified as a priority policy to reduce overweight and obesity in the Tipping the Scales consensus report, and it is recognised internationally as a feasible and cost-effective intervention to improve nutrition at the population-level. Food reformulation can collectively contribute to improving diet

55 Clinical practice guidelines for the management of overweight and obesity in adults, adolescents and children in Australia. National Health and Medical Research Council. Department of Health. Canberra, 2013. Available from: https://nhmrc.gov.au/sites/default/files/documents/reports/clinical%20guidelines/n57-obesity-guidelines-.pdf
56 Lifeprogram.org.au. Melbourne: Diabetes Victoria [cited Jan 2019]. Available from https://www.lifeprogram.org.au/
57 My Health for Life. Available from https://www.myhealthforlife.com.au/
58 Achievementprogram.health.vic.gov.au. Melbourne: Cancer Council Victoria and Victoria State Government [cited Jan 2019]. Available from https://www.achievementprogram.health.vic.gov.au/
59 Beyond the fragments: Preventing the costs and consequences of chronic physical and mental diseases. Australian Health Policy Collaboration.
60 Tipping the scales. Australian Obesity Prevention Consensus. Global Obesity Centre (GLOBE) and Obesity Policy Coalition. Australia: 2017. Available from: http://www.opc.org.au/downloads/tipping-the-scales/tipping-the-scales.pdf

quality for all Australians, including those with a mental illness, through changes to the food supply to improve the healthiness of products, even in the absence of changes to individual dietary patterns.[61] Reformulating commonly consumed food and drinks to reduce the amounts of saturated fat, salt and sugar also has the potential to improve dietary intakes in priority populations, without exacerbating inequities.[62,63]

Acknowledging that creating individual behaviour change can be challenging, population-level changes can influence individual behaviours through 'nudges' and other policies. The creation of health-conducive physical environments, such as pathways and safe recreation spaces, is essential to promote walking and activity through the life course. The Heart Foundation's Healthy Active by Design website provides the best available evidence, practical advice, checklists and case studies to help with the development of healthy neighbourhoods and communities that promote walking, cycling and an active public life.[64]

The Tipping the Scales consensus recommendations include a number of other policy reforms to reduce overweight and obesity by creating environments that support healthy choices for all Australians, including for those with mental illness who experience higher risk factors for chronic disease.

Thank you for considering this submission.

---

61 Leroy P, Requillart V, et al. An assessment of the potential health impacts of food reformulation. European Journal of Clinical Nutrition. 2016. 70, 694-699.
62 National Heart Foundation of Australia 2012. Rapid review of the evidence. Effectiveness of food reformulation as a strategy to improve population health. Melbourne.
63 Friel S, Hattersley L, et al. Addressing inequities in healthy eating. Health Promotion International. 2015. Vol 30; Supp 2, pp77-88.
64 Heart Foundation. http://www.healthyactivebydesign.com.au/