



SUBMISSION TO THE VICTORIAN ROYAL COMMISSION INTO **MENTAL HEALTH**

JULY 2019



Founded in 1991, Exercise & Sports Science Australia (ESSA) is the peak professional body and accrediting authority for over 8,000 university qualified and Accredited Exercise Physiologists, Exercise Scientists, Sports Scientists, and High Performance Managers.

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Exercise & Sports Science Australia (ESSA) thanks the Royal Commission into Victoria's Mental Health System for the opportunity to make a submission. ESSA is the peak professional body and accrediting authority for over 8,000 members, including university qualified Accredited Exercise Scientists, accredited sports scientists and Accredited Exercise Physiologists (AEPs). AEPs are federally recognised Allied Health Professionals (AHPs), who provide clinical exercise interventions aimed at preventing acute or managing sub-acute or chronic disease or injury, and assist in restoring optimal physical function, health or wellness.

In this submission, ESSA confines itself to answering two of the questions posed by the Royal Commission in its request for submissions. These are:

- (4) What makes it hard for people to experience good mental health and what can be done to improve this? This may include how people find, access and experience mental health treatment and support and how services link with each other.
- (11) Is there anything else you would like to share with the Royal Commission?

Mental Health Burden

In any given year, 20 per cent of the Australian population will experience mental illness. Physical inactivity is the cause of approximately 9% of premature mortality worldwide, with people experiencing a mental illness particularly susceptible. People with mental illness experience poorer physical health. People with severe mental illness live between 10- 32 years less than the general population.ⁱ A major contributing factor to this lower life expectancy is poor physical health and higher rates of chronic illnesses, such as cardiovascular disease and diabetes.

Current funding models do not support wide-spread access to lifestyle interventions like exercise, despite exercise and diet being core lifestyle interventions in the prevention and management of physical health conditions in the general population. Limited dedicated funding exists to support people to exercise when they are experiencing a mental illness, despite evidence that large savings can result from such programs.

In 2016, ESSA commissioned Deloitte Access Economics to identify the financial investment associated with engaging the AEP workforce from the perspective of the consumer. Deloitte Access Economics identified that exercise interventions delivered by AEPs are efficacious and highly cost effective for Australians living with complex chronic disease, including mental illness.ⁱⁱ On average, the overall benefit for consumers receiving AEP exercise interventions for the management of depression was estimated to be \$6,025 with a net benefit of \$5,467 (overall benefit minus the cost of treatment); a benefit to cost ratio of 1:10.8 (for every dollar spent on AEP services, the consumer will receive a \$10.80 return) and approximately 20 per cent of direct out-of-pocket expenses saved.ⁱⁱⁱ

In addition to consumer savings, improving access to AEPs has significant implications for the Australian economy. In 2015, ESSA commissioned Deloitte Access Economics to identify the benefits of employing AEPs in chronic disease management, and, identify economic benefits relating to avoided health system costs, avoided lost productivity costs and years of life saved attributed to AEP-led exercise interventions.^{iv} Deloitte estimated total annual savings due to AEP exercise interventions to be \$2,239 per person living with a mental health condition. Furthermore, each case of depression averted through AEP-led interventions saves \$10,062 annually.^v

Exercise is an efficacious adjunct intervention for improving both physical and mental health outcomes. However, it can be more difficult for people experiencing mental illness to initiate and maintain exercise programs because of the complex nature of mental illness. AEPs are trained to provide evidence-based exercise interventions to individuals at high risk of developing, or with existing, chronic and complex medical conditions and injuries.

Recent evidence guides published by the Royal Australian and New Zealand College of Psychiatrists and the Mental Health Commission of NSW^{vi} recommend referral to, or engagement with, dedicated allied-health professionals with expertise in exercise prescription - specifically an AEP - to promote improved health outcomes of people living with a mental illness. One-in-three mental health nurses consult with an AEP regarding the physical health of the people they work with.^{vii}

Cost-of-treatment is a barrier to accessing health services regardless of health status; however, people living with a chronic health condition are more likely to skip treatment due cost than other cohorts.^{viii} Increasing out-of-pocket expenses result in reduced attendance rates, which is associated with poorer health outcomes and a greater burden on the Australian economy. As the issues paper highlights, many individuals living with a mental health disorder are utilising social services and income support, and consequently they may have difficulty purchasing adequate healthy food or paying for exercise equipment or services.

High out-of-pocket expenses are a problem in Australia for people living with mental illness. For example: adults with depression, anxiety and other mental health conditions have 95 per cent higher household out-of-pocket expenditure compared with people who have no health conditions and are 7.65 times more likely to skip healthcare than people with no health condition.^{ix}

The importance of including exercise as a cornerstone of effective mental health care has been well-established in clinical research. Firstly, exercise has profound protective benefits for the prevention of suicide. For example, the research of Davidson et al has revealed that exercise is directly and indirectly associated with suicide risk; exercise is associated with fewer depressive symptoms and better sleep patterns, each of which is related to a lower risk of suicide in veterans.^x

Secondly, supervised exercise is more effective than unsupervised exercise. Conn reports that supervised exercise intervention is more efficacious for the treatment of anxiety.^{xi} Similarly, a systematic review by Rosenbaum et al showed that there is clear evidence demonstrating superior outcomes from structured and supervised exercise interventions compared to non-structured, unsupervised exercise in populations living with mental illness.^{xii}

Exercise for better mental health

The importance of including AEP interventions for improving both physical and mental health outcomes, for people living with a mental illness, has been well-established in clinical research.^{xiii} Exercise for the improvement of mental health is still not well-recognised, and the rates of GPs referring relevant patients to exercise professionals are not high. To quote an Exercise Physiologist working with *headspace*, “exercise is still considered purely as an adjunct therapy, and an added bonus, and Exercise Physiologist is seen as a luxury within a care team, rather than an important cog in the wheel of support for people living with mental illness.”^{xiv}

Physical health outcomes

- Weight management (weight loss, maintenance and prevention of weight gain).^{xv}
- Reduce the risk of chronic disease (i.e. cardiovascular disease, metabolic syndrome & Type 2 Diabetes).^{xvi}
- Improved psychosocial function i.e. activities of daily living, social and occupational functioning.^{xvii}
- Contribute to longer life expectancy through improvements in cardiovascular fitness and reduction in cardio-metabolic risk.^{xviii}
- Mitigate weight gain induced by psychotropic medications
- Decrease symptoms of depression and anxiety.
- Improve sleep quality
- increase self-esteem^{xix}

Mental health outcomes

- Decrease symptoms of depression, anxiety, stress and schizophrenia^{xx}
- Decrease social isolation^{xxi}
- Improve sleep quality^{xxii}
- Increase engagement with treatment and service utilisation^{xxiii}
- Reduce cravings and withdrawal in substance use disorders and alcohol addiction^{xxiv}

Existing Government health initiatives

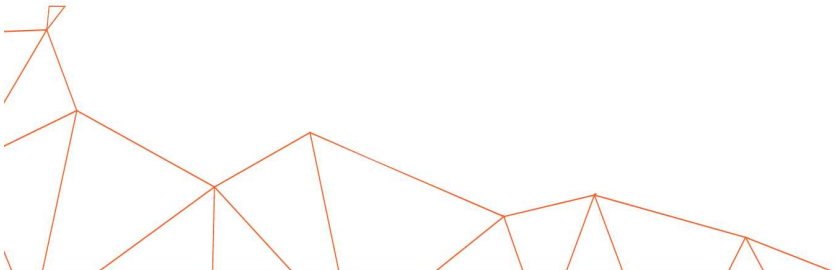
The Chronic Disease Management plans enable GPs to plan and coordinate the health care of patients with chronic or terminal medical conditions, including patients with these conditions who require multidisciplinary, team-based care from a GP and at least two other health or care providers.

Medicare funding for the provision of exercise physiology is available under these plans, however it is currently not well-utilised by GPs. ESSA would welcome the opportunity to provide information and assistance to GPs regarding the use of Exercise Physiologists in the treatment and prevention of mental illness.^{xxv}

New South Wales Health runs [*Keeping the Body in Mind*](#) teams in four Sydney locations. The major priority for these teams is to see people between the ages of 15-25 years who have experienced first episode psychosis and who have also been prescribed antipsychotic medications.^{xxvi} Early intervention is key in preventing the metabolic effects of medicines such as Olanzapine, Clozapine and Risperidone.^{xxvii} Each team consists of a nurse, exercise physiologist, dietitian and peer support worker. They use an evidence-based model of care providing a 12-week individualised program supporting changes to diet, exercise, smoking, sleep and stress and equips consumers with skills to sustain changes. Consumers can participate in a 12-week structured group program to address physical health issues especially those related to cardio metabolic risk.^{xxviii} This program, which recognises the benefits of an early intervention involving exercise, deserves to be rolled out nationally given its potential to prevent additional and more serious episodes of psychosis.

ESSA recommends policy makers implement:

- Increased access to lifestyle services, such as exercise and diet, as part of normal care for people living with mental illness.
- Offering regular screening and ongoing monitoring of both physical and mental health for people experiencing mental illness.
- Providing dedicated funding and improved referral pathways that support targeted access to exercise services as part of standard care.
- Supporting consumer and carer engagement in mental health services to build a system that places the person at the centre of care and helps each person better manage her or his own health.
- Encouragement and education of GPs to make use of Chronic Disease Management plans to enable patients to access the benefits of exercise physiology.
- An extension of the *Keeping Body in Mind* program across Australia.



BENEFIT TO COST RATIO OF AEP INTERVENTIONS

PRE-DIABETES **6.0**

TYPE 2 DIABETES **8.8**

MENTAL ILLNESS (DEPRESSION) **2.7**

CHRONIC HEART FAILURE **6.2**

CHRONIC BACK PAIN **14.6**

OSTEOARTHRITIS **4.0**

RHEUMATIC DISEASES **4.2**



COMBINING THE DIRECT COSTS

WITH THE BURDEN OF DISEASE AVOIDED ANNUALLY, THE TOTAL ANNUAL WELLBEING GAINS DUE TO AN AEP INTERVENTION IS:



\$7,967

per person annually
for type 2 diabetes

\$6,115

per person annually
for pre-diabetes

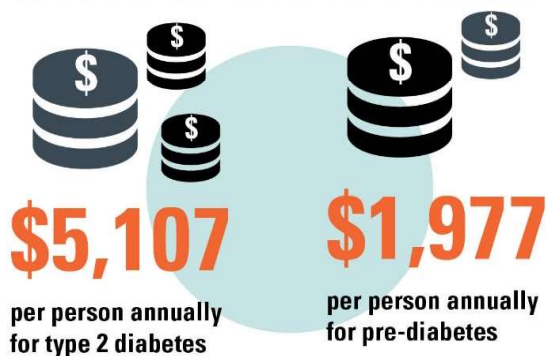


EXERCISE INTERVENTIONS FOR PEOPLE WITH A MENTAL HEALTH CONDITION, AS DELIVERED BY AEPs, RESULT IN BENEFITS OF

**\$2,239
PER PERSON.**



ANNUAL SAVING IN HEALTH SYSTEM EXPENDITURE FROM AN AEP DELIVERED EXERCISE INTERVENTION:



\$477

per person per year



is the cost savings due to a reduction in complications of diabetes

- ⁱ Deloitte Access Economics, (2016) *The value of accredited exercise physiologists to consumers in Australia*, <https://www.essa.org.au/wp-content/uploads/2016/04/Deloitte-Value-of-AEP-to-Consumers.pdf> (accessed 26 June 2019).
- ⁱⁱ *Ibid.*
- ⁱⁱⁱ *Ibid.*
- ^{iv} Deloitte Access Economics, (2015), *Value of Accredited Exercise Physiologists in Australia*, <https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-economics-value-exercise-physiologists-Australia.pdf>, accessed 28 June 2019.
- ^v *Ibid.*
- ^{vi} *Ibid.*
- ^{vii} Stanton, S., Rosenbaum, S., Kalucy, M., Reaburn, P., and Happell, B. (2015) A call to action: exercise as treatment for patients with mental illness. *Australian Journal of Primary Health*, 21(2), 120-125.
- ^{viii} Callander, E.J., Corscadden, L., and Levesque, J.F., (2017), *Out-of-pocket healthcare expenditure and chronic disease - do Australians forgo care because of the cost?* *Aust J Prim Health*, 23(1), 15-22.
- ^{ix} *Ibid.*
- ^x Davidson, C.L., Babson K.A., Bonn-Miller M.O., Souter T., and Vannoy S., (2013), *The Impact of Exercise on Suicide Risk: Examining Pathways through Depression, PTSD, and Sleep in an Inpatient Sample of Veterans*. *Suicide and Life-Threatening Behavior*, 43(3), 279-289.
- ^{xi} Conn, V.S., (2010), *Anxiety outcomes after physical activity interventions: meta-analysis findings*, *Nursing Research*, 59(3), 224-31.
- ^{xii} Rosenbaum, S., Lederman, O., Stubbs, B., Vancampfort, D., Stanton, R., and Ward, P.B., (2016), *How can we increase physical activity and exercise among youth experiencing first-episode psychosis? A systematic review of intervention variables*. *Early Interv Psychiatry*, 10(5), 435-40.
- ^{xiii} Lederman, O. (2016), *Consensus statement on the role of Accredited Exercise Physiologists within the treatment of mental disorders: a guide for mental health professionals*, *Australas Psychiatry*, 24(4), 347-51.
- ^{xiv} Email Rebecca Hallam (headspace), to T. Reeves (ESSA), 4 July 2019.
- ^{xv} Curtis, J., (2016), *Evaluating an individualized lifestyle and life skills intervention to prevent antipsychotic-induced weight gain in first-episode psychosis*, *Early Interv Psychiatry*, 10(3) 267-76; Ward, M.C., White, D.T., and Druss, B.G., (2015) *A meta-review of lifestyle interventions for cardiovascular risk factors in the general medical population: lessons for individuals with serious mental illness*. *J Clin Psychiatry* 76(4), 477-86; Bruins, J., (2014), *The effects of lifestyle interventions on (long-term) weight management, cardiometabolic risk and depressive symptoms in people with psychotic disorders: a meta-analysis*. *PLoS One*, 9(12).
- ^{xvi} Vancampfort, D., (2015) *Risk of metabolic syndrome and its components in people with schizophrenia and related psychotic disorders, bipolar disorder and major depressive disorder: a systematic review and meta-analysis*, *World Psychiatry*, 14(3), 339-347.
- ^{xvii} Rosenbaum, S., (2015), *Aerobic exercise capacity: an important correlate of psychosocial function in first episode psychosis*, *Acta Psychiatr Scand*, 131(3), 234.
- ^{xviii} Vancampfort, D., (2012), *International Organization of Physical Therapy in Mental Health consensus on physical activity within multidisciplinary rehabilitation programmes for minimising cardio-metabolic risk in patients with schizophrenia*. *Disabil Rehabil*, 34(1), 1-12.
- ^{xix} Dietitians Association of Australia, Australian Psychological Society and Exercise and Sports Science Australia, (2016) *Joint Position Statement- Addressing the physical health of people with mental illness*, <https://daa.asn.au/wp-content/uploads/2016/05/addressing-physical-health-mental-illness.pdf> (accessed 26 June 2019).
- ^{xx} Firth, J., (2015), *A systematic review and meta-analysis of exercise interventions in schizophrenia patients*, *Psychol Med*, 45(7), 1343-61.
- ^{xxi} Richardson, C.R., (2005), *Integrating physical activity into mental health services for persons with serious mental illness*. *Psychiatr Serv*, 56(3), 324-31.
- ^{xxii} Youngstedt, S.D., (2005), *Effects of exercise on sleep*, *Clin Sports Med*, 2005. 24(2), 355-65, xi.
- ^{xxiii} Curtis, J., (2016), *Evaluating an individualized lifestyle and life skills intervention to prevent antipsychotic-induced weight gain in first-episode psychosis*, *Early Interv Psychiatry*, 10(3) 267-76;
- ^{xxiv} Wang, D., (2014), *Impact of physical exercise on substance use disorders: a meta-analysis*. *PLoS One*, 2014.
- ^{xxv} Australian Government Department of Health, (2004), <https://www.health.gov.au/internet/main/publishing.nsf/Content/mbsprimarycare-chronicdiseasemanagement>, (accessed 3 July 2019).
- ^{xxvi} NSW Government, *Keeping the Body In Mind*, <https://www.seslhd.health.nsw.gov.au/keeping-body-mind>, (accessed 3 July 2019).
- ^{xxvii} Email Rebecca Hallam (headspace), to T. Reeves (ESSA), 4 July 2019.
- ^{xxviii} NSW Government, *Keeping the Body In Mind*, <https://www.seslhd.health.nsw.gov.au/keeping-body-mind>, (accessed 3 July 2019).