Dr Stephen King
Presiding Commissioner
The Social and Economic Benefits of Improving Mental Health
Australian Government Productivity Commission
GPO Box 1428
Canberra City ACT 2601

5 April 2019

Dear Dr King,

The Deakin University Institute for Health Transformation through its Health Economics group, is pleased to provide input to the Productivity Commission's Inquiry on the economic impacts of mental ill-health.

Deakin Health Economics believes this Inquiry, examining the role of mental health in supporting economic participation, productivity and economic growth, is addressing a particularly important issue for Australian society.

It is hoped that this review will lead to sustainable, long-term change to the way mental health promotion, prevention and treatment is delivered within the Australian context; where people will have the opportunity to lead a contributing life and to engage productively in the community.

There are many reasons why Deakin Health Economics sees this Inquiry as a vital step in improving and enhancing the Australian mental health system. We are particularly pleased that the Commission has taken a broad approach to the definition of economic participation that extends beyond participation in the workforce alone and considers social participation. The emphasis on the provision of an efficient, and by extension cost-effective, mental health care system is also welcome.

Deakin Health Economics is well placed to contribute to this inquiry due to the experience of the dedicated stream of mental health economics research led by Professor Cathy Mihalopoulos.

I commend this submission to the Inquiry and the recommendations to the Commission contained within our responses to the Terms of Reference.

Yours sincerely

Professor Anna Peeters
Director
Institute for Health Transformation
Faculty of Health
Deakin University

Submission

Productivity Commission Inquiry into the Economic Impacts of Mental Ill-Health

5 April 2019

PREAMBLE

Deakin Health Economics is pleased to contribute to the Productivity Commission Inquiry into the Economic Impacts of Mental Ill Health. Deakin Health Economics, located within the Institute for Health Transformation at Deakin University, is one of the largest groups of health economists in the country. Within Deakin Health Economics, the mental health economics stream is the largest group of dedicated mental health economists working across a range of economics projects.* This work includes within-trial economic evaluations, economic modelling, broader priority setting studies (that compare across multiple interventions), cost of illness studies and methodological research for economic evaluation (e.g. outcome measurement research).

Deakin Health Economics supports the Productivity Commission's Inquiry into the role of mental health in supporting the social and economic participation of Australians and thereby improving productivity and economic growth. Such improvements will only be realised by improving the mental health of people in Australia by promoting good mental health, preventing mental ill-health and appropriately treating mental illness. Given that there is a limit to the resources available to support such important aims, it is vital that available resources are allocated to interventions, programs or policies that have evidence of both effectiveness and cost-effectiveness thereby improving the efficiency of the system. Furthermore, it is important that there is consistency and agreement regarding what is deemed to be cost-effective and what are the most important outcomes that should be considered in cost-effectiveness studies across the spectrum of promotion, prevention and treatment. Unfortunately, the complexity of the delivery and organisation of the mental health care system in Australia, characterised by multiple funders and providers across different sectors, means that such consistency of decision making does not currently exist. This has resulted in a system that is not well aligned and associated with considerable dissatisfaction and evidence of inefficiencies for providers, people with mental health problems, their carers/families and the population more generally.

The Commission's background paper to this submission process has well summarised the many important issues facing the mental health system and has posed many important questions. The content of this submission is to provide insights by the mental health economics team into some of these questions. To ease readability we have repeated the question posed by the Commission and provided some insights or considerations for each question below. Note we have not attempted to answer all questions but concentrate on those where our academic work has provided us with important insights.

We have provided insights into what we believe might be a fair and transparent process for resource allocation decisions across the spectrum of mental health care. Furthermore we provide examples from our own work of interventions and programs that have relatively strong evidence of cost-effectiveness but are still not being routinely provided within the Australian health care system.

* The content of this submission was prepared by members of Deakin Health Economics, Institute for Health Transformation, including Professor Cathy Mihalopoulos, Dr Mary Lou Chatterton, Mr Martin Hensher, Dr Long Le, Dr Lidia Engel and Mr Yong Yi Lee

Deakin Health Economics' high level recommendations include:

- Agreement on what should constitute the definition of value for money in mental health. We believe that a cost-benefit analysis (CBA) framework alone will not necessarily result in fair allocation of resources. This is because many of the requirements for robust CBAs (such as monetarisation of non-monetary outcomes) do not currently exist.
- Inclusion of patient reported outcomes scales (PROMS), used commonly in economic evaluation (such as the Assessment of Quality of Life (AQoL) measures) be included in the suite of routinely collected outcome measures.
- Undertaking of another National Survey of Mental Health and Wellbeing, given that the data in the current survey are now 12 years old and pre-date many important mental health policy changes.
- Incorporation of the type and number of interventions people are receiving in administrative data sets, including diagnostic information, so that questions of value for money of the existing system can be readily ascertained.
- Clear incorporation of the social determinants of mental health into the Inquiry's assessment approach.
- Consideration of funds-pooling and risk-sharing at state and territory or regional levels, involving state and territory health departments and Local Hospital Networks, and granting Primary Health Networks delegated powers to pool MBS and PBS funding within such arrangements.
- Investment in mental health prevention and promotion programs with evidence to support their cost-effectiveness.
- Consideration of innovative treatments for mental health with evidence to support their cost-effectiveness including stepped care, dietary interventions, digital technologies and interventions to address social isolation.

Deakin Health Economics' specific responses to the Inquiry questions raised in the issue paper follow. For brevity we also refer to the Productivity Commission as "the Commission".

RESPONSES TO THE PRODUCTIVITY COMMISSION ISSUES PAPER

What suggestions, if any, do you have on the Commission's proposed assessment approach for the inquiry? Please provide any data or other evidence that could be used to inform the assessment.

The four assessment components of the submissions approach appear sufficiently broad to capture a range of issues relevant to the impact of mental health on social and economic participation.

An important omission from the Assessment Approach as laid out in Section 2 and Figure 3 is the absence of any reference to the social determinants of mental health. Extensive evidence exists linking poorer mental health with disempowerment and lack of control over personal and working lives, with the existence of social gradients and income inequalities, and with low social cohesion.[1,2] While the approach does consider some social factors, such as housing and criminal justice, in its current form it does not allow for the fact that a wide variety of social causes drive poor mental health, and focuses only on how poor mental health subsequently reduces social and economic participation and wellbeing. This literature is not controversial, and should be more clearly incorporated into the approach for this inquiry.

However, the Commission may wish to consider two other issues in the assessment framework.

1. Economic Evaluation Frameworks to Inform Decision-Making

While it is welcome that the Commission has emphasised both effectiveness and value for money (cost-effectiveness) for the assessment of current and potential interventions, it is important that the Commission takes both a holistic as well as a pragmatic approach to such evaluations. This is particularly true for economic evaluation. Unlike the UK, where there is a single health technology agency (the National Institute for Health and Care Excellence - NICE) that assesses both health and social care within a comprehensive evaluation/economic evaluation framework, no such comprehensive agency or framework exists in Australia. In Australia, formal health technology agencies and processes exist for the funding of pharmaceuticals via the Pharmaceutical Benefits Advisory Committee (PBAC) and medical and other services via the Medical Services Advisory Committee (MSAC). Both the PBAC and MSAC recommend products for listing on both the PBS and the MBS. For services or programs that are not funded through these two mechanisms there are no formal health technology appraisal frameworks. Clinicians and other health and social care providers who seek funding for their interventions/services and programs often commission or undertake themselves business case studies to present a compelling case for funding. This fragmented and uncoordinated process does not support the overall efficiency of the system.

The recommended economic evaluation framework used by such formal health technology agencies such as the PBAC, MSAC and NICE in the UK is cost-utility analysis where outcomes are assessed as quality-adjusted life years (QALYs). While there are well-known limitations of such outcome measures, they are nevertheless a well-accepted and understood outcome measure within the health sector and used extensively within most international health technology agencies. Importantly, the decision criterion of such methods is not that interventions need to demonstrate that they are cost-saving, as is the case in many business case appraisals, but rather that they represent some notional value for money. In the UK, for example, this is between £20,000 to £30,000 per QALY gained.[3] In Australia there is no explicit threshold of value for money, although recent evidence has suggested that it may be around $28,000 per QALY.[4] In addition, $50,000 per QALY is sometimes used as a rough rule of thumb threshold.[5] Importantly, the empirical derivation of the recently published $28,000 per QALY work did not include mental health care and thus may not reflect the threshold for mental health improvements. Furthermore, Australia's PBAC requires that the primary economic perspective is the health sector rather than societal. This means that productivity impacts are excluded from the base case cost-effectiveness results. The reasons for this are detailed in the PBAC submission guidelines (https://pbac.pbs.gov.au/information/printable-version-of-guidelines.html), but include well known difficulties associated with the measurement and valuation of productivity impacts, along with equity considerations.[6] The advantage of such frameworks is that they offer a transparent method of evaluation that is well described and accepted.

These economic frameworks are not, however, routinely used outside of MBS and PBS subsidised care. Most of the mental health promotion/prevention and even treatment interventions are not funded via the MBS/PBS funding mechanism and therefore do not necessarily need to demonstrate value for money using such frameworks. Furthermore many effective interventions may require financial support from sectors outside of health (e.g. school based interventions for mental health promotion/prevention). Given that both state and local governments tend to directly fund such interventions (for example specialised mental health care is a state responsibility) there is no legislated formal requirement that services and interventions must demonstrate cost-effectiveness. Although many public policy and background documents do highlight the need for value for money or efficiency considerations. In fact, departments of treasury tend to recommend cost-benefit analyses (CBA) methods.[7]

Traditionally, CBA values all costs and benefits in monetary terms so that interventions across multiple sectors can be compared. The decision criterion is simple: if monetary benefits outweigh the costs of interventions then they are worth doing. While this is theoretically attractive and means that intersectoral interventions can be compared (e.g. education versus health interventions) there are well known difficulties in placing monetary valuations on health and mental health benefits. For example, many of the consequences associated with improved mental health, such as social participation and improved self-esteem do not have readily available, empirically determined monetary valuations. The consequence of this is that many studies that attempt to adopt a CBA framework – particularly within the context of providing business case arguments for decision-makers outside the MBS/PBS - adopt limited economic perspectives. Many of these studies are termed 'return on investment' (ROI) analyses and primarily consider the costs associated with implementing interventions compared with cost savings such as productivity improvements or potential cost-savings of the downstream use of health services. While this is not incorrect, this does support efficiency across the whole system. This is because different criteria of what is deemed to be cost-effective is used to fund different interventions that all aim to improve mental health.

The requirement of CBA analysis that monetarised benefits must outweigh costs, particularly in many business case studies, including return to investment projects on mental health promotion and prevention interventions means that a higher economic bar may be set for some interventions compared to others. Pharmaceuticals do not need to demonstrate cost savings but there is a perception by many mental health practitioners that other interventions do need to demonstrate cost-savings (particularly financial cost savings) in order to receive ongoing funding. This creates an inherently uneven playing field for funding and incentives for inefficient resource allocation. We therefore recommend that the Commission consider such inherent inconsistencies of decision-making when they consider what current and future interventions are deemed to be good value-for-money. We feel that benefits that can be monetarised, such as quality of life improvements should not be ignored in ROI and CBA studies but explicitly included using outcomes such as QALYs to ensure that the full impact of interventions are considered.

2. Outcome measurement for assessing the consequences of mental ill health

In Figure 4 of the issues paper the Commission has defined that many of the costs of mental ill health are intangible. Many of these are not intangible, but rather outcomes that can be captured by patient reported outcome scales (PROMS) as well as other outcome instruments used in mental health more generally. This includes commonly used tools to assess outcomes used in economic evaluation, such as QALYs. While there is literature evaluating the best tools to be used as routinely collected outcome measures for mental health, Deakin Health Economics has focused the discussion here on tools used primarily for economic evaluations, especially within the context of cost-utility analyses. Therefore, the content of this section also speaks to the Commissions section on the measurement of outcomes under Assessment Framework 4.

Which outcome is used, and how it is measured, is fundamentally important as the choice of the measure can have dramatic impacts on the final cost-effectiveness result. This is largely because the different instruments capture different quality of life domains and hence do not include the same impacts of poor mental health. Deakin Health Economics has evaluated both the tools that are used to measure QALYs in people with depression and found that the choice of tool can have non trivial impacts on cost-effectiveness conclusions.[8] A current NHMRC funded project led by Prof Mihalopoulos investigating the tools for

measuring QALYs in children with mental health problems is seeking to assess the validity of the use of such tools in children with mental health problems (APP1105187).

The Commission also cites 'disability-adjusted life years' (DALYs) as an example of an index that can be used to measure the consequences of mental ill-health. Again, this index is very useful, well known and particularly good for burden of disease description. However, it does have some important limitations for use in economic evaluation. For example, some of our recent work (unpublished) has found that the use of DALYs (using the most recently published disability weights [9]) to evaluate the cost effectiveness of pharmaceutical treatments for children with ADHD has found commonly used treatments to be very cost ineffective. However, when QALYs are used, this conclusion changes and is more in line with other international evidence that has found that such interventions are cost-effective. One important limitation of the DALY measures is that they do not account for disease severity in many mental health disorders (except for depression and anxiety) and do not capture benefits associated with mental health improvements that do not constitute a mental illness.

There has been research both nationally and internationally showing that the tools used to measure the most commonly used health outcomes in economic evaluation, QALYs, are valid for use in adults with both high and low prevalence mental disorders, across severity levels and even in subsyndromal mental health contexts.[10-13] These tools are largely health related quality of life measures with added utility scoring algorithms. The most well-known of these measures is the Euro-Qol 5D (EQ-5D), used commonly in the UK and Europe.[14,15] While reasonable for use in high prevalence disorders, it has been shown to have important limitations in low-prevalence disorders.[10] The Australian developed Assessment of Quality of Life (AQoL) suite of measures (see - http://www.aqol.com.au/) is associated with greater sensitivity and coverage than the EQ- 5D for both high and low prevalence disorders. The AQoL suite (e.g. the AQoL 4D which is the briefest of the AQoL measures) could be considered as part of a suite of routinely collected outcome measures that would expedite economic evaluation given that none of the currently collected routine measures (recommended as part of the NOCC or AMHOCM work) and include a measure capable of deriving QALYs. Furthermore, there are also tools in existence that can measure productivity impacts, including presenteeism and absenteeism.[16] These should also be considered as part of the suite of instruments used in routine data collection for all mental health services, not such acute or specialised services.

Deakin Health Economics is strongly committed to an open, transparent and equitable process to evaluate the cost effectiveness of mental health interventions and recommend tools that can assist in this process.

To what extent is currently collected information used to improve service efficiency and effectiveness?

There is substantial literature that has assessed the effectiveness and cost-effectiveness of a range of interventions targeting mental health across the prevention to treatment spectrum. However, this literature does not include economic evaluations of all interventions or services that are currently being provided, particularly some of the newer initiatives[1], and conversely includes evidence of cost-effective services that are not being routinely provided. It is not our intention here to repeat the conclusions from all the available studies but rather provide an impression of what may or may not be possible in terms of assessing the value for money of current support programs.

In prior work carried out by Deakin Health Economics and others, an estimate of the population cost effectiveness of interventions compared to 'treatment as usual' was undertaken.[17-19] Defining what treatment as usual is, that is our current mix of interventions and services, has not been straightforward. We have used available estimates to project not only the quantity of services and interventions people are using but also the quality, that is are they evidence-based practice. The quantity task has been relatively straightforward but the quality task has not. We have used assumptions that if people received over a

[1] We are not suggesting that these services are not cost-effective but rather that they have not been assessed in a high quality rigorous way for cost-effectiveness

certain number of contacts or services, then this was assumed to be evidence-based practice. In reality it may not be. Furthermore, in the absence of better comprehensive data there is a reliance on an outdated survey, the 2007 National Survey of Mental Health and Wellbeing, to gain such estimates. The data in this survey are now over 15 years old and pre-date the introduction of the Better Access initiative.

Furthermore, while there is substantial administrative data being collected via platforms such as the MBS/PBS, hospitals, specialised mental health services, the National Disability Insurance Scheme (NDIS) as well as routinely collected outcome measures. There are important limitations to such data including:

- The delays and difficulties experienced in linking these data sets
- the absence of important information such as accurate diagnostic information and description of actual interventions or service provided (e.g. CBT, problem solving therapy etc)
- missing data elements – e.g. services provided via community health centres or other government departments (e.g. employment services).

Deakin Health Economics believes that how the Commission will determine the cost-effectiveness of current services will be constrained by the above factors. There may be information on the cost-effectiveness for some elements of the system but certainly not for the system as a whole.

Deakin Health Economics recommends that the Commission give attention to the availability and collection of data that will allow robust analyses of the determination of cost-effectiveness that is transparent, open to scrutiny and meaningful. It is important that the framework for economic evaluation is also specified so that there is a clear expectation of which data elements are required to robustly determine the cost-effectiveness of existing services.

Are the current arrangements for commissioning and funding mental health services — such as through government departments, PHNs or non-government bodies — delivering the best outcomes for consumers? If not, how can they be improved?

The core challenge to effective funding and delivery of mental health services is captured in the Assessment Approach, namely the complexity and lack of integration of multiple funding streams for mental health services. The consistent push to subsume funding for public mental health services under Activity Based Funding (ABF) has, whilst successful in its own terms, further entrenched a lack of integration between primary care and specialised mental health services in the community and in hospitals. Yet the drive towards value-based care in mental health services in many countries involves sharing of funds and risks, pooling resources to be managed on behalf of disparate funding agencies, and often involves capitation-based funding models. The ABF fee-for-service model is particularly ill-equipped at fostering this form of integration, and the Independent Hospitals Pricing Authority has made extremely slow and limited progress in devising plausible mechanisms by which to pool ABF resources and to incentivise alternatives to hospital care. Bolder experiments in funds-pooling and risk-sharing at state and territory or regional level are required, involving state and territory health departments and Local Hospital Networks, and granting Primary Health Networks (PHNs) delegated powers to pool MBS and PBS funding within such arrangements. This should not be based around general practice, as was the case for the recent 'healthcare homes' initiative, but involve an effort to set up regional health funding pools – whether for mental health services only, or for all publicly-funded health care – and bringing together personnel from state and territory agencies, PHNs and other Australian Government entities to pool skills and expertise in strategic health purchasing.

Which forms of mental health promotion are effective in improving population mental health in either the short or longer term? What evidence supports this?

It is not the intention of this section to provide the commission with a list of ALL interventions that have been assessed for cost-effectiveness within the mental health space – as this would be a very substantive exercise. Furthermore, without some assessment of the quality of this work a simple description will not be informative. But rather we wish to highlight some recent cost-effectiveness work, undertaken by our team that will hopefully inform the deliberations and conclusions drawn by the Commission.

Prevention/promotion and early intervention

Mental health prevention interventions aim to reduce the incidence of mental disorders among at-risk populations or even the general population. Alternatively, mental health promotion interventions aim to increase mental well-being, enhance positive mental health and empower individuals and/or communities. Early intervention aims to intervene early on in the disorder process to ameliorate negative outcomes before they become entrenched.

A range of mental health promotion and prevention interventions have been found to be cost-effective in improving mental health and reducing the risk of developing mental illness. There are a number of existing reviews of this work for example. [20,21]

While there are a number of studies conducted in the United Kingdom or the United States that have evaluated the cost effectiveness of promotion/prevention interventions for mental health, there are relatively few that are specific to the Australian context. Most of the identified studies were conducted in the United Kingdom or the United States, which makes it difficult to generalize findings to the Australian context. Evidence on the cost-effectiveness of interventions to prevent mental disorders in Australia has largely come from two priority setting studies: the Assessing Cost-Effectiveness in Prevention (ACE-Prevention) project [22] and the economics research stream of the NHMRC-funded Centre for Research Excellence in Mental Health Systems Improvement (CREMSI). These studies comprised cost-utility analyses that used secondary data to model a range of preventive interventions for mental disorders in the Australian population.

To summarise, there is currently strong evidence supporting the cost effectiveness credentials for:

- psychological interventions (including parenting interventions) to prevent anxiety disorders in children, adolescents and young adults;[23]
- school-based psychological interventions to prevent depression in children, adolescents and young adults; [24]
- social and emotional learning interventions to prevent conduct disorders in children, adolescents and young adults; [25]
- psychological interventions to prevent post-natal depression in adults
- psychological interventions delivered in workplace settings to improve mental health and well-being in adults; [25]
- internet-based cognitive behavioural therapy to prevent depression in older adults.[25]

The National Mental Health Commission is currently undertaking cost-effectiveness analyses of 10 selected interventions within the Australian context. The technical analyses for this work are being completed by the mental health economics team within Deakin Health Economics. These include interventions for the prevention of depression in schools and the workplace (delivered via face-to-face and e-health modalities), postnatal depression and anxiety. In addition, mental health promotion interventions are also being evaluated that address bullying in schools and loneliness in older adults. The preliminary results show that most mental health prevention/promotion interventions are considered good value for money and produce a high return on investment within the Australian context. The framework of this research is similar to that recently completed by David McDaid and colleagues in the UK.[25] Results of this work should be available mid 2019.

In terms of early intervention, Australia has been a pioneer of early intervention services, particularly for psychotic disorders. Again there is a substantive body of evidence, some of it Australian, demonstrating that such models of care are very cost-effective, if not cost saving.[26,27]

There has also been economic work evaluating important policy changes within the Australian mental health context. For example the economic impacts of the Australian National Perinatal Depression Initiative

(NPDI) that instituted screening for perinatal depression in pregnant women has been completed. While this initiative was focused around screening women for perinatal depression, it is equally likely it resulted in prevention of subsequent development of postnatal depression. The first study by Chambers, et al. 2016 used aggregate Medicare service data to show that the NPDI significantly increased access to mental health care in subpopulations of women, particularly those aged under 25 and over 34 years living in major cities.[28] An additional analysis utilising hospital admissions data from New South Wales and Western Australia found that the NPDI reduced inpatient psychiatric hospital admission by up to 50% [0.9% point reduction (95% CI 0.70–1.22)] in the first postnatal year.[29] Both these studies suggest that the NPDI was associated with increased community care for women and reduced inpatient admissions. This work highlights how the economic impacts of important policy questions can be answered using nationally linked datasets.

E-Health Interventions for mental health promotion/prevention

Recently there has been significant attention directed to the effectiveness and cost-effectiveness of internet interventions for both mental health promotion and treatment. A recent review has found that while many of these interventions are cost-effective – they are not necessarily cost saving and the issue of adherence is an important consideration.[30] Deakin Health Economics is currently involved in a number of e-mental health economic evaluations. Past economic evaluations have included an evaluation of the Mindspot clinic.[31] The study found that Mindspot was an extremely cost-effective intervention. More recent economic evaluations have included the evaluation of an online tool (called Link) to increase help-seeking behaviour for mental health in young adults. This evaluation was part of an Australian randomised control trial. Findings showed that relative to the control group (i.e. usual search strategies), those who received the intervention had significantly improved quality of life and lower health care related costs over three-months.[32]

Loneliness

An emerging area identified by the Commission is in the area of social isolation and loneliness, in which Deakin Health Economics has undertaken a systematic review (currently under review). This review highlights the cost of loneliness and the few interventions where return on investment or cost-effectiveness evaluations have been undertaken. This is clearly an area requiring urgent research attention.

What healthcare reforms do you propose to address other specific health concerns related to mental ill-health? What is the supporting evidence and what would be some of the benefits and costs?

Deakin Health Economics draws the Commission's attention to a number of evidence-based, cost-effective and innovative interventions in the treatment of mental health conditions that may be useful to this Inquiry including:

- Stepped care for the treatment of mild-to-moderate anxiety or depression has been shown to be cost-effective compared to usual care for Australian adults through economic modelling (Stiles J, et al. under review; Lee YY, et al. under review).[33,34]
- For the treatment of anxiety in young people (aged 7-17), a three-step model of stepped care had significantly lower delivery costs from the societal perspective (which included the cost of parental time) compared to a validated face-to-face programme. Clinical and quality of life outcomes as well as total costs (including other health care resource use) were not significantly different between the intervention groups.[35]
- The Positive Parenting Programme - Triple P delivered in a group and individual format for the treatment of conduct disorders in children was cost-effective compared to no intervention.[36]
- Support from a dietician to eat a modified Mediterranean diet as a treatment for people with depression significantly reduced depressive symptoms as well as being associated with significantly lower costs from both health sector and societal perspectives.[37,38] An additional modelled economic evaluation based on results from the HELFIMED trial provided similar results showing that a group dietary intervention to assist people with depression adhere to a Mediterranean diet was cost-effective.[39,40]

- Digital interventions aimed at identifying people with mental health diagnoses in need of treatment within general practices have been trialled to evaluate effectiveness and cost-effectiveness. [41,42] The results of these trials will be analysed in the next 12 months.
- With respect to eating disorders - the front-line treatments for Australians aged 11 to 18 with anorexia nervosa family-based therapy, and 18 to 65 with bulimia nervosa (cognitive behavioural therapy) were evaluated for cost-effectiveness.[43,44] The studies analysed Medicare costs, out-of-pocket expenses and time and travel costs. Results showed that both interventions were very cost-effective in comparison to usual care.

Deakin Health Economics is also involved in assessing the cost effectiveness of a number of other innovative mental health interventions, including online recovery focused interventions for psychosis and bipolar disorders, ketamine for the treatment of persistent depression, PARC sub-acute residential services, school-based interventions targeting suicide prevention and comorbid substance and mental health preventions (separate interventions). The results of many of these studies should be available during the course of the Inquiry.

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