

E:: Executive Summary

INVESTING IN NEED

Cost-effective interventions for eating disorders



Executive Summary

“A productive Australia depends on the Government making wise investments in the health of it’s community. The Investing in Need report offers this opportunity.”

DAVID MURRAY AO, Chair, The Butterfly Foundation

Eating disorders (EDs) are expensive conditions. It can cost more than \$100,000 to appropriately treat a person with Anorexia Nervosa (AN)¹. EDs are also long lasting and debilitating conditions. For example, if someone has AN for a decade, the costs of their foregone productivity and other financial costs could be larger than \$200,000².

On the available evidence, only between 5% and 15% of people receive any treatment for their EDs in any given year. Furthermore, for those who do receive treatment, much is not evidence-based, and of undemonstrated efficacy.

The National Eating Disorders Collaboration (NEDC) is an initiative of the Australian Government representing approximately 1,000 members, including leading experts in eating disorders treatment, frontline clinicians working with people with eating disorders, people with lived experience and their families. NEDC reports reflect the best available evidence of relevance to the Australian context. In 2012, the NEDC identified a suite of evidence-based treatment options and delivery mechanisms, which features:

- a focus on early intervention;
- a range of delivery options, from general practitioners and online self-help, through intensive outpatient and residential programs, to full inpatient hospitalisation;
- a “stepped care” approach, realising that patients might need to progress both up and down (sometimes repeatedly) through delivery levels; and
- long-term follow up, to prevent relapse.

The Butterfly Foundation tasked Deloitte Access Economics with assessing whether a cost benefit analysis (CBA) of investing in such interventions could be developed.

There are a number of centres already operating around the world, such as the Douglas Institute in Canada and the Emily Program in Minnesota. However, there does not appear to

have been any CBA or cost effectiveness analysis (CEA) conducted in relation to these centres.

Indeed, CEA studies of any sort are conspicuous by their absence in the field of EDs. A recent systematic review of CEA and cost of illness studies for EDs found just two that met standard criteria for CEA (Stuhldreher et al, 2012). Similarly, there have been almost no program evaluations for ED centres. A recent Australian PhD thesis found only five worldwide (Weber, 2010)³.

Even among simple effectiveness analysis of ED treatments, there are no uniform agreements as to what constitutes remission or recovery. Moreover, the aetiology of eating disorders does not appear to be well understood yet (Rikani et al 2014).

Estimates of the natural path and duration of the traditional EDs, AN and Bulimia Nervosa (BN) are few, and based on small samples. Binge Eating Disorder (BED) was only accepted as a distinct disorder by the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) in 2013. There is almost no useable data pertaining to what were referred to in DSM – IV as Eating Disorder Not Otherwise Specified (EDNOS) and are now referred to as Other Specified Feeding and Eating Disorders in DSM-5, even though these are highly prevalent.

However, in order to estimate the efficacy of an intervention, it is necessary to have some idea of what would occur in the absence of the intervention. Accordingly, Deloitte Access Economics undertook statistical analysis of cohort studies to derive durations for BN and AN that were i) consistent with such published estimates as are available, and ii) provided an average path of outcomes over time. An inter-temporal approach is necessary for CBA, since future outcomes are discounted to estimate the net present value (NPV) of costs and benefits.

An extensive literature search uncovered a handful of cost-effectiveness studies for evidence-based interventions

¹ See section 3.2.

² Deloitte Access Economics (2012) estimated the annual financial costs per ED case were more than \$20,000.

³ None of which were sufficiently robust.

that included stepped care, day centres and specialist outpatient services. While only a few of these used common effectiveness measures, by employing some assumptions it was feasible in most cases to translate outcomes into recovery rates. Costs and effectiveness (recovery rates) were then estimated for this suite of treatments that, together, could act as a proxy for the best practice model advocated by the NEDC.

For modelling purposes, it was assumed that there will be a roll out program similar in implementation time and costs to that established by the Australian Government to address youth mental illness. This will enable primary healthcare professionals to detect EDs in early onset, and will provide enough multi-disciplinary teams to then treat these cases. The best practice interventions are applied in the model to the 213,208 Australians estimated to develop EDs in 2014.

By substantially reducing hospitalisations, best practice is less costly than treatment as usual, particularly for AN. However, it is still more expensive than no treatment, which constitutes current standard practice for up to 95% of people with EDs. Yet because best practice interventions enable most people to recover more quickly, they can participate in many more years of productive employment / study.

In 2012, Australia only spent \$109 per year for each person with an ED (Deloitte Access Economics 2012), which

equates to \$145 million ‘treating’ new cases developed in 2014 over the next ten years, in NPV terms. Over this ten year period, their EDs will rob the economy of more than \$27 billion in lost productivity and other financial costs.

Applying best practice interventions to all new cases of EDs would represent a cost of around \$2.8 billion (NPV) over ten years to treat everyone who gets an ED in 2014, while the resultant productivity benefits and other gains to the economy would be around \$15.1 billion (NPV). Best practice would increase recovery rates from 5 to 8% initially (where almost nobody receives best practice treatment), up to 50 to 80% as enough health professionals are trained and centres constructed, to be able to provide best practice treatment for all new cases as they occur.

This will improve the lives of tens of thousands of people. Moreover, since the majority of the benefit is related to productivity, there would not only be tangible financial benefits to those affected by EDs, but also large benefits to government, with an additional \$4.3 billion in tax receipts.

Thus the benefits of such an intervention outweigh its costs by more than 5.38 to 1.

The results of the CBA suggest that there is a very strong case on economic grounds to implement the NEDC’s findings and work towards best practice treatment models for Australians with EDs.

Deloitte Access Economics

Table i: ED Financial costs under base case and intervention (NPV)

Category	\$ billion
A. Health, productivity and other financial costs under base case – (treatment as usual)	27.8
B. Cost of intervention	2.8
C. Health, productivity and other financial costs post intervention	12.7
D. Benefit of intervention (=A-C)	15.1
E. Net benefit of intervention (=D-B)	12.3
Benefit cost ratio (BCR=D/B)	5.38 to 1

Source: Deloitte Access Economics calculations. Presented results may not be directly calculable due to rounding of figures to \$ billions.

⁴ Indeed, EDNOS no longer exists in the DSM-5, with most patients now reassigned to the other three disorders, and a new condition “other specified feeding and eating disorders” applied to the remainder.

⁵ The CBA is conducted over the ten years following the intervention. However, it is acknowledged that many people have EDs for longer than ten years.

⁶ The National Institute for Health and Clinical Disorders (2004) recommends 16 to 20 treatment sessions over four to five months for most EDs.

⁷ This is a conservative figure as it does not include savings from reducing comorbidities associated with EDs.

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“We now have a very compelling argument for the economic and clinical benefits of early intervention under a stepped model of care that is inclusive, connected, responsive and flexible.”

PROFESSOR SUSAN PAXTON,
COLLEGE OF SCIENCE, HEALTH AND ENGINEERING – SCHOOL OF PSYCHOLOGY AND PUBLIC HEALTH, LA TROBE UNIVERSITY



Butterfly

Foundation for Eating Disorders

THE BUTTERFLY FOUNDATION - SYDNEY
103 Alexander Street Crows Nest NSW 2065
Phone: +61 2 9412 4499 Fax: +61 2 8090 8196
Email: info@thebutterflyfoundation.org.au

THE BUTTERFLY FOUNDATION - MELBOURNE
1430 Malvern Road Glen Iris VIC 3146
Phone: +61 3 9822 5771 Fax: +61 3 9822 5776
Email: info@thebutterflyfoundation.org.au

For support: 1800 ED HOPE – 1800 33 4673
or email: support@thebutterflyfoundation.org.au

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