Table 1 Number of DALYs averted, cost-effectiveness ratio and probability of being cost-effective for the four interventions to reduce overweight and obesity when compared to current practice

	DALYs averted	Cost per DALY (95% uncertainty range)	Probability of being under $50,000/DALY
Diet & exercise	2,100 (310 – 7,600)	$33,000 ($7,000 – $69,000)	84%
Low-fat diet	1,200 (110 – 6,100)	$41,000 ($0 – $310,000)	59%
Sibutramine	5,800 (4,300 – 7,600)	$230,000 ($170,000 – $330,000)	0%
Orlistat	2,100 (1,500 – 2,900)	$700,000 ($500,000 – $1,000,000)	0%

The estimated impact for these four interventions combined is about 11,000 DALYs over the lifetime of all adult Australians alive in 2003. Compared to the total annual loss of 200,000 DALYs due to overweight and obesity, this is a very small effect.

6. CONCLUSIONS

Diet and exercise interventions can be reasonably cost-effective but are insufficient to substantially reduce the burden due to overweight and obesity. Treating obese persons with orlistat or sibutramine is not cost-effective. The uptake of both drugs and diets is likely to be greater among women with higher socio-economic status. Shortages of dieticians and exercise physiologists may limit the capacity for diet and exercise interventions, especially in rural areas.

To address the high burden due to excess body weight, there is an urgent need to assess the (cost-)effectiveness of interventions that change the 'obesogenic' environment and target populations rather than individuals.

As part of the ACE Prevention project, work on nutrition labelling, taxing unhealthy foods and gastric banding is reported elsewhere.

For more information on this topic area, please visit: **www.sph.uq.edu.au/bodce-ace-prevention**

ACE–PREVENTION PAMPHLETS

7. ABOUT ACE-PREVENTION

To aid priority setting in prevention, the Assessing Cost-Effectiveness in Prevention Project (ACE-Prevention) applies standardised evaluation methods to assess the cost-effectiveness of 100 to 150 preventive interventions, taking a health sector perspective. This information is intended to help decision makers move resources from less efficient current practices to more efficient preventive action resulting in greater health gain for the same outlay.

PAMPHLETS IN THIS SERIES

Methods:

A. The ACE-Prevention project
B. ACE approach to priority setting
C. Key assumptions underlying the economic analysis
D. Interpretation of ACE-Prevention cost-effectiveness results
E. Indigenous Health Service Delivery

Overall results

1. League table
2. Combined effects

General population results

1. Adult depression
2. Alcohol
3. Blood pressure and cholesterol lowering
4. Cannabis
5. Cervical cancer screening, Sunsmart and PSA screening
6. Childhood mental disorders
7. Fruit and vegetables
8. HIV
9. Obesity
10. Osteoporosis
11. Physical activity
12. Pre diabetes screening
13. Psychosis
14. Renal replacement therapy, screening and early treatment of chronic kidney disease
15. Salt
16. Suicide prevention
17. Tobacco

Indigenous population results

1. Cardiovascular disease prevention
2. Diabetes prevention
3. Screening and early treatment of chronic kidney disease

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