

A COMPARATIVE ANALYSIS OF THE ECONOMICS OF OBESITY INTERVENTIONS

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BACKGROUND

The management of obesity and obesity related conditions represents a major challenge to the National Health Service (NHS). Obesity has been recognised as a pre-disposing factor for a number of conditions, including:

- Cardiovascular disease;
- Diabetes Mellitus;
- Chronic Obstructive Pulmonary Disease;
- Musculoskeletal diseases;
- Colon cancer.

The National Audit Report into obesity reported that individuals who are obese can expect to have a reduced life expectancy of 9 years and that obesity related conditions are estimated to result in over 30,000 deaths per year in the United Kingdom.

The NAO report also estimates that the treatment of obesity and conditions associated with excess weight costs the NHS in England approximately £0.5billion per annum (1998 prices). The broader costs to society, including both the costs to the NHS and the costs of lost productivity associated with obesity, were estimated to be in excess of £2billion per annum.

NICE guidelines on obesity highlight the need to put in place strategies to help prevent and treat obesity. Commissioners are faced with tough decisions relating to how much to invest in prevention and how much to allocate to treatment. These resource allocation decisions should ideally be based on evidence.

Evidence on Commercial Weight Loss Programme

The objective of this study was to review the available evidence on interventions designed to prevent and treat obesity, with a view to informing commissioning decisions. Particular attention was paid to the clinical evidence on commercial weight loss programmes.

Economic evidence on interventions designed to prevent obesity was identified from the NICE guidelines on obesity. Additional evidence on interventions designed to prevent or manage weight gain was derived from studies of individual interventions.

Table 2: Commercial Weight Loss Interventions

Interventions	Study Type	Follow-Up	Publication
Weight Watchers	RCT	2 years	Heshka S <i>et al.</i> JAMA 2003
Weight Watchers	Observational study	5 years	Lowe <i>et al.</i> BJN 2007
Weight Watchers Slim-Fast Rosemary Conley Dr Atkins	RCT	1 year	Truby H <i>et al.</i> BMJ 2006
Counterweight Programme	Naturalistic, observational study	2 years	Counterweight Project Team, BJGP 2008

OBJECTIVE AND METHODS

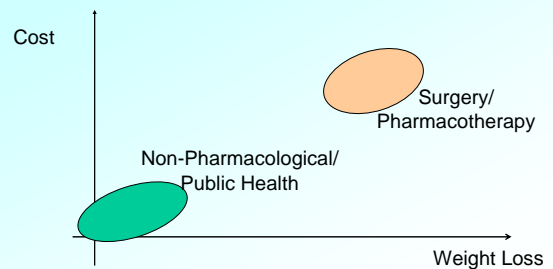
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Table 1: Interventions to prevent/manage obesity

Interventions	Cost/QALY range
Surgery	£6,289 to £8,527
Pharmacotherapy	£6,349 to £24,431
Non-pharmacological approaches	£174 to £9,971
Public health interventions	£285 to £3,018

Figure 1: Illustrative cost effectiveness plane



RESULTS

Interventions considered within the NICE guidance were grouped into 4 broad categories. The range of cost effectiveness values reported in the NICE guidance for each category is reported in the Table 1.

All the interventions considered fall below the accepted NICE threshold of £20,000 - £30,000 per quality adjusted life year (QALY).

Non-pharmacological interventions and public health interventions generate lower cost effectiveness thresholds than surgery and pharmacotherapy. However, there is a higher degree of uncertainty for the cost effectiveness of these interventions, as displayed by the range of values reported in Table 1.

Comparisons of the groups of interventions are complicated as pharmacological and surgical interventions typically result in higher QALYs gained but at substantially higher costs than non-pharmacological or public health interventions. The level of evidence on these interventions also tends to be more rigorous. An illustration of how these interventions might look when plotted on a cost effectiveness plane is provided in Figure 1.

SUMMARY

Non-pharmacological and public health interventions to help prevent and manage weight loss have been shown to be cost effective. The cost effectiveness ratios for these interventions are typically lower than those for surgical or pharmacotherapy however, some caution needs to be taken in the interpretation of these findings.

Commissioners of weight management services should acknowledge the need to provide services to support both treatment and prevention of overweight and obesity. Commissioning decisions should be supported by evidence on the clinical and cost effectiveness of weight loss interventions.

Published evidence on commercial weight loss programmes suggests that they can lead to significant and sustained weight loss. Some of the programmes report sustained weight loss for up to 5 years follow-up.

Commissioners should consider whether commercial weight loss programmes can work alongside services provided by the NHS to help address the growing demand for weight management services.

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