



**Title** Systematic Review of the Effectiveness and Cost Effectiveness of Weight Management Schemes for the under Fives: A Short Report

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## Aim

To search for, review, and synthesize studies of the effectiveness and cost effectiveness of weight management schemes for the “under fives”.

## Conclusions and results

We found no controlled trials addressing the issue of treating obesity, or evidence of cost-effectiveness studies, in the under-five population. Apart from the larger US trial, the interventions in 3 prevention studies showed no statistically significant differences in BMI and weight between the intervention and control groups. Firm conclusions are difficult to draw, based on only 3 dissimilar studies. Further research is needed, i.e. UK-based randomized controlled trials (RCTs) of weight management schemes aimed at preventing obesity in preschool children, combined with cost-effectiveness studies with long-term follow-up. One RCT was from the UK. It measured the effects of a physical activity intervention for children in nurseries combined with home-based health education for their parents; this was compared to usual care. The main outcome measure was body mass index (BMI); secondary measures were weight and physical activity. At 12-month follow-up, no statistically significant differences were found between the groups on any measure. However, a trend favoring the intervention was found for BMI and weight. Two RCTs were from the USA. The larger trial investigated the effects of a combined preschool and home intervention in African American and Latino communities. Nutrition education and physical activity programs targeted under fives in preschool. The home component consisted of related health education and homework for parents, who received a small financial reward on completion. Compared to the results at baseline, the 1- and 2-year results for the African American sites showed a significantly slower rate of increase in BMI for the intervention group than for the control group. However, in the Latino communities no such differences were found. The second US trial was a smaller home-based parental education program in Native American communities in

the USA and Canada. The intervention consisted of a course for parents to improve diet and physical activity in their children.

## Recommendations

Controlled trial evidence of weight management schemes and interventions aimed at preventing obesity in the under fives is scarce. Apart from the Hip-Hop Jr trial (African American sites), it is difficult to draw conclusions from the sparse evidence from prevention studies, since the interventions showed no statistically significant differences in BMI and weight between the intervention and control groups.

## Methods

See Executive Summary link at [www.hta.ac.uk/project/1891.asp](http://www.hta.ac.uk/project/1891.asp).

## Further research/reviews required

Further research is urgently needed, in particular: 1) well-designed, UK-based RCTs of weight management schemes aimed at preventing obesity, which combine with cost-effectiveness studies targeted at preschool children (under fives) with long-term follow-up (>12 months). 2) Well-designed UK-based RCTs of weight management schemes that address the issue of treating overweight and obesity in the under fives, which combine with cost-effectiveness studies targeted at preschool children (under fives) with long-term follow-up (>12 months).