

A School-Based Intervention to Reduce Risk for Obesity and Diabetes

The intervention modestly reduced the prevalence of obesity.

Can a comprehensive school-based intervention reduce the prevalence of overweight (body-mass index [BMI] >85th percentile) and obesity (BMI >95th percentile) in children? This cluster-randomized trial involved 4603 sixth grade students (about 50% overweight or obese and >50% black or Hispanic). Students received either assessment only or a 3-year curriculum that focused on nutrition, physical activity, and behavioral knowledge and skills about self-monitoring and goal setting. The nutrition component involved improving the quality of food served throughout the school (e.g., in the cafeteria, from vending machines).

At the end of eighth grade, the primary outcome — change in the prevalence of overweight and obese children — did not differ significantly in the intervention and control groups (–4.5% vs. –4.1%; $P=0.92$). The change in the prevalence of obesity alone in the intervention group just reached statistical significance (–5.5% vs. –3.8%; $P=0.05$). Some secondary outcomes favored the intervention group, including percentage of students with waist circumference >90th percentile and mean fasting insulin level.

Comment: Is this intervention a success? Although the study results are encouraging, important questions remain about the long-term effects of the intervention as children enter the teenage years and whether lessons taught during the intervention years are incorporated into long-term lifestyle changes.

— [Howard Bauchner, MD](#)

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