

# Healthier Options for Public Schoolchildren Program Improves Weight and Blood Pressure In 6- to 13-Year-Olds

## ABSTRACT

Childhood obesity and related health consequences continue to be major clinical and public health issues in the United States. Schools provide an opportunity to implement obesity prevention strategies to large and diverse pediatric audiences. Healthier Options for Public Schoolchildren was a quasiexperimental elementary schoolbased obesity prevention intervention targeting ethnically diverse 6- to 13-year-olds (kindergarten through sixth grade). Over 2 school years (August 2004 to June 2006), five elementary schools (four intervention, one control, N=2,494, 48% Hispanic) in Osceola County, FL, participated in the study. Intervention components included integrated and replicable nutrition, physical activity, and lifestyle educational curricula matched to state curricula standards; modified school meals, including nutrient- dense items, created by registered dietitians; and parent and staff educational components. Demographic, anthropometric, and blood pressure data were collected at baseline and at three time points over 2 years. Repeated measures analysis showed significantly decreased diastolic blood pressure in girls in the intervention group compared to controls ( $P<0.05$ ). Systolic blood pressure decreased significantly for girls in the intervention group compared to controls during Year 1 (fall 2004 to fall 2005) ( $P<0.05$ ); while not statistically significant the second year, the trend continued through Year 2. Overall weight z scores and body mass index z scores decreased significantly for girls in the intervention group compared to controls ( $P<0.05$  and  $P<0.01$ , respectively). School-based prevention interventions, including nutrition and physical activity components, show promise in improving health, particularly among girls. If healthy weight and blood pressure can be maintained from an early age, cardiovascular disease in early adulthood may be prevented.

Hollar D, Messiah SE, Lopez-Mitnik G, Almon M, Hollar TL, Agatston AS. Effect of a school-based obesity prevention intervention on weight and blood pressure in 6-13 year olds. *Journal of the American Dietetic Association*, 2010;110 (2), 261-267.