Girls' Body Weight is Associated With Eating Patterns

The Girls Health Enrichment Multi-site Studies (GEMS program), sponsored by the National Heart, Lung, and Blood Institute, targeted obesity prevention among 8- to 10-year-old African-American girls.

The Agricultural Research Service's Children's Nutrition Research Center (CNRC) was one of four field centers in the United States that developed and pilot-tested separate obesity-prevention approaches. CNRC is located at Baylor College of Medicine, Houston, Texas, and is operated in cooperation with Baylor and the Texas Children's Hospital. The other centers were the University of Memphis, in Tennessee; University of Minnesota-Minneapolis; and Stanford University, in Palo Alto, California.

The pilot studies used common questionnaires to assess diet-related psychosocial factors, such as home food-preparation techniques, preferences, and availability of target foods to test the feasibility of these unique interventions. At the beginning of the study, each girl completed two 24-hour dietary recalls to measure dietary intake.

Karen Cullen, a CNRC behavioral scientist and associate professor of pediatrics at Baylor, reported some of the baseline results relating food-consumption patterns of 114 African-American girls, aged 8 to 10, to body weight.

The researchers compared the GEMS program girls' heights and weights, expressed as Body Mass Index (BMI) measurements, to their fruit, vegetable, fat, calorie, and sweetened beverage consumption.

The researchers found a significant inverse link between BMI and the amount of vegetables consumed daily by GEMS participants. That is, girls with lower BMI reported eating more vegetables.

"The relationships observed between vegetable consumption and BMI are proving to be very important," says Cullen. "Since vegetables are low in calories and an excellent source of fiber, girls who chose veggies instead of higher calorie foods may eat fewer calories during the day, which may help them maintain a healthy body weight." The girls who snacked more often consumed more sweetened beverages like soda, fruit drinks, and sweetened tea.

"Knowing what we know about the risks and dangers of an unhealthy diet—especially among African-American women—we hope that these findings will encourage families to provide vegetables and fruit as alternatives to higher calorie snacks for their children," says Cullen.

Study findings have been published in the journal *Obesity Research*.—By **Alfredo Flores,** ARS.

This research is part of Human Nutrition, an ARS National Program (#107) described on the World Wide Web at www.nps.ars.usda.gov.

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