



Preventing Obesity in High Risk Families

This project has identified factors that contribute to obesity in young children and have developed innovative strategies and initiatives to help prevent and decrease obesity, especially in low-income and minority families with children.

Who cares and why?

The proportion of the U.S. population that is overweight and the proportion that is obese have reached epidemic levels. By 2002, 65% of U.S. adults were overweight and 31% were obese. Obesity has also become the most prevalent nutritional disease of children and adolescents. These rising rates are cause for concern because excessive body weight is connected to increased risk of chronic disease. Since obesity was first declared a public health concern in 1952, billions of dollars have been spent on prevention and intervention efforts; however, most campaigns and programs have had little discernible effect. A variety of genetic, environmental, and cultural factors (such as race/ethnicity, gender, socioeconomic status, eating habits, and physical activity) have been linked to body weight; however, data on many of these factors are limited or weak. Furthermore, there have been relatively few studies on how the family shapes behaviors that lead to obesity. Appropriate tools and measures are needed in order to gather useful data on the factors that contribute to excessive weight gain in children. Otherwise, prevention and intervention programs may be misdirected, funds misused, and groups of people overlooked. By shedding light on the complex connections between physical, behavioral, social, and environmental variables, multidisciplinary research can help parents, educators, and governments understand how to address obesity risks.



W-1005 studied key behaviors related to weight gain in children, including high intakes of sweetened beverages and high-calorie/low-nutrient foods, low intakes of fruits and vegetables, large portion sizes, few family meals, sedentary behaviors, and excessive TV/media viewing. Photo to the left courtesy of UA Cooperative Extension.

What has the project done so far?

This project has brought together scientists from multiple disciplines and parts of the U.S. to study key behaviors associated with obesity in children ages three to 10. The team has also conducted almost 300 surveys of young children and their mothers that showed how parenting styles and feeding practices are related to perceived and actual weights. Several W-1005 researchers have helped federal agencies conduct 200 interviews that examined resilience to obesity among families exposed to factors that typically promote obesity. W-1005 researchers have also investigated what parents think about currently-used programs and messages. This research has stimulated new approaches for prevention programs and intervention strategies. For example, a W-1005 member now chairs a national expert panel convened to develop ways to integrate the “dynamic energy balance” approach into training programs for practitioners and into nutrition and physical activity educational programs for the public. Furthermore, surveys have pointed out what changes individuals and families are willing and able to make and which methods and tools will be needed for successful interventions. Over 75 interviews with low-income parents have demonstrated how obesity prevention programs can be more successful in limited-resource communities. W-1005 researchers have shared their findings and recommendations in numerous journal articles, conferences, and seminars.

Impact Statements

Advanced the science of child obesity prevention, particularly about parenting, energy dynamics, and lifestyle factors. By focusing on these factors, child obesity prevention programs can be more effective in family and community settings.

Shed light on parenting styles, feeding practices, and other key behaviors that protect children from becoming obese. This information can help determine which aspects of nutrition education and assistance programs help individuals and families acquire the skills, knowledge, attitudes, and means to prevent obesity.

Advanced obesity research methods by identifying accurate ways to assess behaviors that contribute to obesity in children and by improving field methods for measuring body size and weight, fitness, physical activity, and metabolism. Improved methods allow more refined studies and help identify risk factors for obesity and chronic disease in children and families in school and community settings.

Determined how to appropriately and effectively measure differences in parent-child interactions among low-income families. Improved understanding of these differences can lead to programs that are better tailored for families with limited resources.

Provided insights about how obesity prevention messages are interpreted by parents, suggesting ways to design more effective educational campaigns and enhance participation in prevention programs.

Helped schools, families, and communities increase physical activity, choose healthy foods, and meet their wellness goals through a wide variety of programs launched or supported by W-1005 members and their institutions.



Children with low levels of physical activity face increased risk of childhood obesity. W-1005 members have been working with schools, communities, and state and federal agencies to design programs that encourage physical activity, curiosity about food, and healthy lifestyles. For example, All 4 Kids®, which features the work of several W-1005 members, is a nationally-acclaimed, award-winning preschool obesity prevention program.

What research is needed?

Additional research should focus on identifying potential training, programming, and policy needs that will help educators and parents follow established national guidelines. This research is needed in order to help parents provide the environment, support, and examples that will promote a healthier lifestyle for their children. Researchers need to continue evaluating the factors that influence excessive gains in body weight by young children, especially factors related to parenting practices and styles and energy balance, so that sustainable behavior changes can be made.

Want to know more?

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