

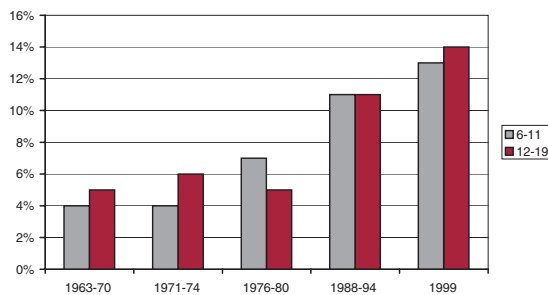
SPRC

Childhood Obesity: A Growing Problem

Precursors of heart disease are showing up in the coronary arteries of 12- and 13-year-olds—a deadly prospect. Type 2 diabetes used to be known as “adult onset diabetes,” but not anymore—it’s appearing in children and teenagers now. The cause of these conditions? Obesity.

An alarming number of American children—perhaps as many as 1 in 5—are overweight, and the problem is worsening rapidly across ALL ethnic groups and social classes. In just the last 20 years, the percentage of overweight children more than doubled, with even greater increases among children from lower-income and ethnic minority families. This epidemic of obesity is occurring worldwide—even in developing countries. Escalating obesity could be the greatest health threat the world will face in the 21st century.

Prevalence of Overweight Children in America



The percentage of American children who are overweight has tripled over the last 30 years.

Excess body weight is unequivocally linked to chronic health problems such as coronary heart disease, high blood pressure, diabetes, and even cancer. These health problems are setting in earlier and earlier as American children gain too much weight at ever-younger ages. Over \$68 billion—6% of total U.S. health care expenditure—is already spent each year on obesity-related direct health care. That doesn’t include the staggering but unquantifiable costs either to the economy as a whole or to individuals’ health and quality of life.

The good news is that researchers are starting to identify a variety of promising programs for treatment and prevention to help children and parents combat this dangerous trend.



Stanford’s Approach

The results of recent SPRC studies could catalyze a complete shift in the treatment of childhood obesity. Instead of focusing on weight loss, SPRC advocates treatment efforts that limit weight gain. In other words, currently overweight children should “grow into” an appropriate weight over time, thereby balancing existing pounds with height gain.

SPRC’s model embraces participation by the entire family and emphasizes long-term behavioral change and a broad base of social support. This means that its programs to *treat* obesity can also help to *prevent* obesity.

I like that it taught my daughter to be in control of her weight now and in the future. We no longer feel helpless and unable to stop her weight gain.

Parent

The behaviors and factors that need to be addressed and adjusted are very much the same, and many of them are rooted in the home:

- ▶ *When schedules get hectic, busy families turn to fast food.*
- ▶ *Families that live in poor neighborhoods may not have convenient access to nutritious food or safe places for physical activity.*
- ▶ *Children spend an extraordinary amount of time watching TV and playing video games, and they’re likely to be consuming soda and other junk food as they play or watch.*

SPRC researchers are trying to identify, uproot, and change all of these risky behaviors.

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Dr. Tom Robinson and Dr. Joel Killen are currently leading a study based on the hypothesis that reducing television, videotape, and videogame use can reduce the prevalence of obesity in children. This theory is currently being tested on approximately 900 third graders in Bay Area schools.

The intervention is an extension of an earlier school-based program designed by Drs. Robinson and Killen, in which 3rd and 4th graders showed a dramatic improvement in body fatness in response to a curriculum to reduce media use. In that program, teachers presented 18 classroom lessons motivating children to monitor and reduce their use of TV, videotapes, and video games; challenged them to a “TV turnoff”; and taught them to become “intelligent viewers.” The lessons extended into the home: par-

ents received an electronic television time manager and a newsletter suggesting media reduction strategies. The results were clear: children who received the curriculum reduced their TV watching by a third, and they exhibited a marked decrease in body fatness.

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Interestingly, this program—which aimed only to decrease media use—was even more successful at reducing body fatness than most past interventions that have attempted to directly increase physical exercise and decrease calorie and fat intake.

Interview with Joel Killen and Tom Robinson



Joel D. Killen, Ph.D., is a Professor of Medicine at Stanford who studies child and adolescent health. As a member of SPRC, Killen focuses on the development, implementation, and testing of school-based health promotion and disease prevention interventions. He targets obesity and eating disorders, tobacco use, and cardiovascular health.



Thomas N. Robinson, M.D., MPH, is an Assistant Professor of Pediatrics and of Medicine at Stanford. His research with SPRC encompasses both epidemiology and behavioral science as he investigates and designs school- and home-based interventions to prevent risk factors and risky behaviors among children and adolescents.

Why are public health interventions an effective tool in combating America’s weight problems?

First, medical interventions have not proven to be very effective in reducing weight over the long run. In contrast, we have shown that public health interventions to increase physical activity, reduce inactivity (e.g., TV viewing) and improve eating habits can prevent excessive weight gain in both normal weight and overweight children and adolescents. Second, overweight is so common that the numbers alone would overwhelm our medical care resources. The only way to reach all the people at risk is going to be through public health interventions.

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What mechanisms link TV viewing to childhood obesity?

To date, our studies and others’ suggest that there are multiple mechanisms. When children are watching television or playing video games, they are not doing any physical activity. As they watch, they also may tend to eat more high fat and high calorie snack foods, and they may not stop eating when they are full because of the distraction.

What other programs are you leading to combat childhood obesity?

A lot of our work is focused on applying our methods to low-income, ethnic-minority populations, those at greatest risk of overweight and the problems associated with it. We provide ethnic dance classes to girls to increase physical activity and keep them away from the TV and the refrigerator after school. We visit homes and help families take control of their televisions. We help schools deliver higher quality health education and physical education to prevent obesity, smoking, and other risky behaviors. Finally, we are studying ways to improve weight control treatments for children who are already significantly overweight.