

# Behind the Numbers



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## OBESITY PREVENTION

Eighty-five percent of American adults feel that obesity has become an epidemic in this country, according to a poll taken in July 2007.<sup>1</sup> The facts support this belief. A quick look at Figures 1 and 2 reveals that, since the 1971-1974 time period:

- the percentage of adults considered overweight or obese has gone up 41% (from 47.7% to 67.1%);
- the percentage of adolescents considered overweight has almost tripled (from 6.1% to 17.4%); and
- the percentage of children considered overweight has more than quadrupled (from 4.0% to 18.8%).

A closer look at Figure 2 shows that the percentage of overweight (but not obese) adults has remained essentially constant for this time period with the growth being almost entirely due to those adults considered obese. That percentage has more than doubled, rising from 14.6% to 33.9%.

With these facts in mind, it is no wonder that America's perception of an epidemic and its concern for children who are overweight are well-founded. After all, overweight children are at increased risk of having high cholesterol, liver abnormalities, diabetes, asthma, bone and joint problems, sleep problems, high blood pressure, early onset of puberty, psychological problems...the list seems endless.<sup>2,3</sup> Knowing that overweight children also face the possibility of becoming overweight adults and suffering additional, chronic health problems—heart disease, stroke, certain types of cancer, arthritis<sup>4</sup>—is enough to give energy to the county-wide initiative being launched. (See pg. 6.)

That initiative gains urgency when the local extent of the problem is considered. In the 2004-2005 school year, the Ohio Department of Health conducted a statewide survey of third-graders

who, with their parents' consent, had their heights and weights measured.<sup>3</sup> The sample size was large enough to permit 14,451 valid body mass index calculations – enough to make statewide estimates and estimates for most of Ohio's counties. The results are eye-opening – 24.9% of Montgomery County's third-graders were determined to be overweight, compared to 20.6% of third-graders statewide. Altogether, 41.5% of the county's third-graders were either overweight or at risk for becoming overweight, compared to 37.6% of the state's third-graders.

What else did we learn about Ohio's third-graders that might be useful locally?

- There was a slight but statistically insignificant difference between boys and girls in the prevalence of overweight.
- White, non-Hispanic third-graders had a slightly lower prevalence of overweight than black, non-Hispanic third-graders, and this difference was statistically significant.
- Third-graders who were eligible for the free and reduced price meal program were significantly more likely to be overweight or at risk of becoming overweight than third-graders who were not eligible.

The Ohio Department of Health plans to repeat this survey every five years, thus allowing local communities – including Montgomery County's initiative – to track its efforts to fight this epidemic. Some other key findings from the national opinion survey mentioned above<sup>1</sup> may be instructive as these efforts are organized:

- Despite the rising prevalence of obesity, most Americans have discussed issues like

weight management and exercise with their health care provider and know how much physical activity is recommended.

- 51% say the primary responsibility comes from a combination of individuals and government, while 45% believe that the families and individuals are most responsible.
- 81% believe that the government should have some role in fighting this problem.
- Less than one-third think that children get enough physical activity during the school day, and only 42% think school lunches are nutritious enough.
- 60% favor a proposal to allow schools to do annually the BMI calculations that the Ohio Department of Health is planning to do every five years.

In conjunction with this public opinion survey, a separate survey was conducted in July 2007 involving state public health professionals across the country. Asked to name the barriers to fighting the epidemic of overweight and obesity in children and adults successfully, the ones that were deemed most significant included:

- lack of funding;
- lack of political leadership; and
- unhealthy settings in which children, adolescents and adults live day-to-day.

<sup>1</sup> F as in Fat: How Obesity Policies are Failing in America, 2007. Trust for America's Health. August 2007. Report available at [www.healthymamericans.org](http://www.healthymamericans.org).

<sup>2</sup> Health, United States 2006, National Center for Health Statistics, Hyattsville, MD: 2006

<sup>3</sup> A Report on Body Mass Index of Ohio's Third Graders: 2004 – 2005, Ohio Department of Health.

<sup>4</sup> Overweight Among U.S. Children and Adolescents, National Center for Health Statistics Data Brief, 2002.

While surmounting the first two barriers may require sustained and focused effort at a state or national level, some aspects of the third barrier may be more amenable to local solutions. The phrase “unhealthy settings” captures a multitude of deficiencies – workplaces not being conducive to physical activity; people having limited access to safe, well-maintained parks and playgrounds; etc. – but one in particular may offer a starting point for a local response. It has to do with the eating habits and physical activity levels that children, especially the youngest ones, see modeled in their homes by their parents and older siblings.

Can parents be taught skills that better equip them to promote a healthy family lifestyle, especially in the areas of diet and physical activity? Some recent research suggests the answer is “yes.”<sup>5</sup> Families with overweight children 6 – 9 years old were recruited via media publicity and school newsletters and screened for the willingness of at least one caregiver to attend a number of sessions at a local teaching hospital. One group of parents received parenting-skills training and a second group received the same training plus additional sessions focusing on lifestyle knowledge and skills – healthy eating, reading labels, managing appetite and snacks, modifying recipes, being physically active, etc. BMI scores and other health information for family members in both groups, as well as a third control group, were collected over the course of a year.

The results, briefly, were that children in families receiving both trainings showed the biggest drop in their BMI scores and in their waist circumferences. The positive effects were especially noticed in boys. The conclusion is that this may be an effective way to promote weight management for young children.

Individuals live in families and we have just seen that families (parents) can have an influence on their children’s weight. Families live in neighborhoods. Do neighborhoods have an influence on people’s weight? The answer to that intriguing question is also “yes.”<sup>6</sup> Surveying thousands of people from 65 neighborhoods in Los Angeles, researchers found a significant relationship between collective efficacy – “the willingness of community members to look out for each other

and intervene when trouble arises” – and BMI, being at risk of overweight, and being overweight. In their words, “future interventions to control weight by addressing the social environment *at the community level* (emphasis added) may be promising.”

Therefore, the overall efforts of the FCFC and others in the community to promote healthy families and thriving neighborhoods can properly be seen as important components in fighting the overweight and obesity epidemic in Montgomery County.

## GLOSSARY

**BMI or Body Mass Index** is a mathematical formula showing the relationship between a person’s weight and height.

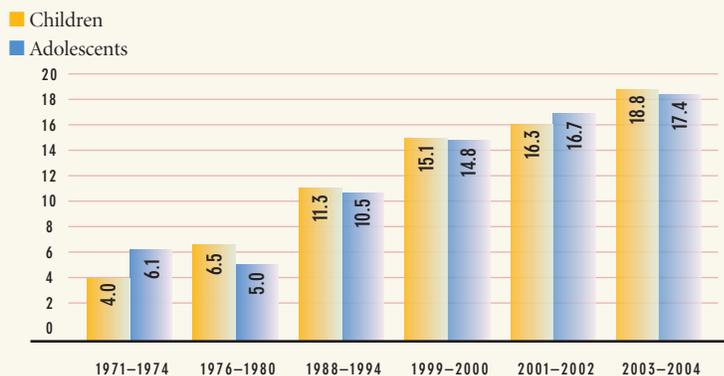
$$\text{BMI} = \frac{(\text{Weight in pounds})}{(\text{Height in inches}) \times (\text{Height in inches})} \times 703$$

**Overweight** for adults refers to a BMI greater than or equal to 25. For children and adolescents it refers to a BMI at or above the gender- and age-specific 95th percentile points on growth charts prepared by the US Centers for Disease Control (CDC). Overweight is typically used for assessing trends for children and youth rather than obesity.

**Obese** for adults refers to a BMI greater than or equal to 30. Obese is generally not defined for children and adolescents.

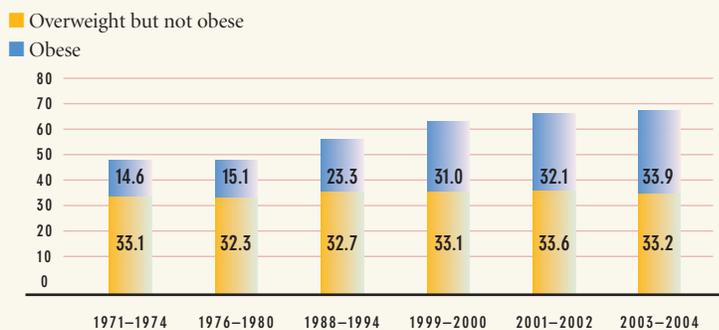
**At risk for overweight** is a term used for children and adolescents and refers to a BMI at or above the gender- and age-specific 85th percentile on the CDC charts but below the 95th percentile.

FIGURE 1. OVERWEIGHT CHILDREN AND ADOLESCENTS, UNITED STATES 1971–2004



The percentages of children (ages 6 – 11 years), adolescents (ages 12 – 19 years) and adults (ages 20 – 74 years) who are considered overweight or obese have steadily risen in the US over the last several decades. These data are from Health, United States 2006 from National Center for Health Statistics, Hyattsville, MD: 2006.

FIGURE 2. OVERWEIGHT AND OBESE ADULTS, UNITED STATES 1971–2004



<sup>5</sup> Golley, R.K., Magarey, A.M., Baur, L.A., Steinbeck, K.S., and Daniels, L.A. Twelve-Month Effectiveness of a Parent-Led, Family-Focused Weight-Management Program for Prepubertal Children: A Randomized, Controlled Trial. *Pediatrics*. 2007;119:517-525.

<sup>6</sup> Cohen, D.A., Finch, B.K., Bower, A. and Sastry, N. Collective efficacy and obesity: The potential influence of social factors on health. *Social Science and Medicine*. 2006; 62:769-778.