

Title: Screening for Overweight and Its Consequences in Pediatric Primary Care

Authors & Institutions: R Grant, S Goldsmith, D Krol (The Children's Health Fund); A Shapiro (Children's Hospital at Montefiore/Albert Einstein College of Medicine); I Redlener (Mailman School of Public Health/Columbia University)
New York, New York

Description of Presentation and Content:

National data show that 64% of adults – nearly two-thirds - are overweight (Body Mass Index, BMI, ≥ 25); and 31% are obese (BMI ≥ 30). An estimated 47 million American adults show signs of “the metabolic syndrome” (insulin resistance, elevated blood sugar and triglycerides, high cholesterol, and hypertension) and are at risk of type 2 diabetes. Prevalence rates are higher for racial-ethnic minority groups and those with less than a high school education. This “pandemic” is a public health crisis. It is estimated that the health care cost for an individual diagnosed with diabetes is 380% higher than for those not so diagnosed.

Increasingly the consequences of poor nutrition and inactivity are pediatric problems, especially affecting poor and minority youth. The rate of pediatric overweight (BMI $\geq 95^{\text{th}}$ percentile for age and gender) more than doubled between 1980 and 2000 among children (6-11 years) and tripled for adolescents (12-19). Pediatric overweight is associated with adult obesity, type 2 diabetes (T2DM), and early onset cardiovascular disease.

This workshop will begin with data that demonstrate the scope of the problem in a high-risk inner city community health center setting. It will then focus on techniques that may be integrated in primary care practices to screen children overweight or at risk of overweight and its associated morbidities. The importance of using BMI as a screening indicator will be stressed. To facilitate the transition to use of the new (2000) CDC growth charts, shortcuts to calculate BMI will be presented. We will disseminate an algorithm to identify children at highest risk for T2DM. This algorithm combines history and physical findings to better identify children at the highest risk for T2DM than do currently accepted screening protocols, which may over-identify poor and minority children for screening and are also not designed specifically for pediatrics. We will also discuss (per American Academy of Pediatrics recommendations) primary care provider messages that may be used to inform families of the health risks associated with pediatric overweight; descriptions of family-centered nutrition counseling; and methods to better integrate health care providers with community-based agencies that may provide their patients with better opportunities of safe and age-appropriate physical activity. Since our focus is on practical information that can be integrated into the pediatric primary care setting, we will also discuss billing and reimbursement issues that may be obstacles to effective screening and preventive intervention – such as the lack of a pediatric billing diagnosis of “obesity.”

The presentation will be done by an inter-disciplinary team consisting of a pediatrician, a registered dietitian/clinical nutritionist, and a researcher.

Learning Objectives:

1. At the end of this workshop, participants will better understand the urgency of the problem of pediatric overweight and obesity;
2.participants will understand how to use the new (2000) Centers for Disease Control growth charts to calculate BMI and plot for percentile for age and gender;
3.participants will understand steps they can take in their pediatric practice to effectively screen and intervene for patients at high risk for type 2 diabetes and other morbidities associated with overweight and obesity.

Results to Date:

We conducted a random chart review of 195 patients between the ages of 6 and 19 years at a community health center in the South Bronx. These ages were selected for comparability with national (CDC) data. The demographics of the patient population are as follows: Age: 6-11, 53%; 12-19, 47%. Gender: male 52%. Race-ethnicity: black, 30%; Hispanic, 67%, other, 3%.

Clinical findings: Overall, 25% of patients had a BMI \geq 95th percentile for age; 19% had a BMI between 85th and 94th percentile. The rate of overweight was higher for age 6-11 (27% compared to 22%). The degree of overweight was greater for patients 12-19 years (mean BMI 31 compared to 25, $p < 0.01$). Sixty percent of adolescents 12-19 with a BMI \geq 95th percentile had a body mass index >30 , i.e., met adult criteria for obesity.

For children 6-11, prevalence of overweight and risk of overweight was higher among Hispanics (54%) than blacks (32%). Overall, this pediatric population exceeds national rates for overweight (6-11, 27% to 15%; and 12-19, 22% to 15%) or children 6-11, prevalence of overweight and risk of overweight were higher among Hispanics (54%) than blacks (32%). This population exceeds national rates for overweight (6-11, 27% to 15%; and 12-19, 22% to 15%). The data suggest that intervention for children 6-11 years of age who are overweight or at-risk of overweight may prevent adolescent overweight; and that overweight adolescents in this population are at high risk for related health morbidities.