

THE PREVALENCE AND CHARACTERISTICS OF CHILDHOOD OVERWEIGHT IN A MULTIETHNIC, SCHOOL-BASED HEALTH SETTING

Objective: The prevalence and correlates of overweight and the risk of overweight in minority children attending urban school-based health centers remains poorly characterized. The purpose of our study was to examine the prevalence and characteristics of overweight and at risk for overweight in low socioeconomic status minority children enrolled in East Harlem school-based health centers in New York City.

Design: A retrospective cross-sectional study during the period of September 2002 to August 2003.

Setting: Four Pediatric School-based Health Centers in East Harlem.

Participants: Children and adolescents, aged 5 to 18 years.

Main Outcome Measures: We examined presence of overweight or the risk of overweight based on body mass index (BMI) percentile and other clinical characteristics. Bivariate and multivariate analyses were performed to assess the relationship between demographics and clinical characteristics with overweight and the risk of overweight.

Results: Of the 491 children enrolled, 45.8% were either overweight or at risk for overweight, with the highest risk observed in Hispanic/Latino children. This latter relation remained significant after adjusting for age, sex, and birthweight status. In addition, high screening office blood pressure was related to overweight status and higher BMI percentile.

Conclusions: A large proportion of minorities, especially Hispanic/Latino children, attending school-based health centers in an urban community sample, are overweight or at risk for overweight. Elevated screening blood pressure was also a common co-morbidity. Further research should determine the predictors and correlates of overweight, and effective targeted school-based interventions should be tested in this high-risk population. (*Ethn Dis.* 2008;18:98-103)

Key Words: Obesity, Child, Ethnic Groups, Epidemiology

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INTRODUCTION

In the United States, the prevalence of overweight in children, defined as a body mass index (BMI) ≥ 95 th percentile for age and sex,¹ is a public health problem.² Overweight is a risk factor of incident cardiovascular disease events later in life and of chronic conditions, including dyslipidemia, hypertension, asthma, obstructive sleep apnea, and steatohepatitis as well as the onset of type 2 diabetes mellitus in youth.^{3,4} Severely overweight children and adolescents may have a health-related quality of life comparable to those who have cancer.⁵ These trends create an exceptional burden to children's health and health care costs.⁶

National Health and Nutrition Examination Survey (NHANES) data indicate that >23% of Mexican American and non-Hispanic Black 12- to 19-year-olds are overweight, in comparison to 12.7% of non-Hispanic Whites. Similarly, among 6- to 11-year-olds, 21.8% of Mexican Americans and 19.8% of non-Hispanic Blacks are overweight, compared with 13.5% of non-Hispanic Whites.¹ Children of low socioeconomic status (SES) are also disproportionately represented in the overweight category.^{7,8}

Schools have been recognized as key structures for public health strategies;⁹⁻¹¹ one third of the Year 2010 national health objectives are achievable via school

health programs.^{11,12} School-based health centers (SBHCs) provide comprehensive primary and preventive health services to students and may be ideal environments to provide effective strategies to prevent overweight in children and their parents. School-based interventions have the potential to be successful because they provide initiatives that co-exist within current institutional infrastructures.¹¹ According to the State Survey of SBHC Initiatives, there are 1,500 SBHCs in the United States,¹³ 61% of which are in urban areas.¹⁴ Most SBHCs are located in New York State, 70% of which are in New York City.¹⁵

Despite the presence of SBHCs, the prevalence and characteristics of overweight among low-SES minority children who use them are poorly understood. Before recommending specific school-based strategies to prevent overweight, a policy that would have widespread economic and public health implications, the prevalence and characteristics of overweight must be better studied in this population. In the present study, we examine data from East Harlem pediatric SBHCs in New York City, which has a large population of low-SES minority children, with the aim to determine the prevalence and

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