Objective: The metabolic syndrome is associated with a high risk of diabetes and cardiovascular disease, and Hispanics in the United States have higher rates than do other ethnic groups. We assessed the prevalence of the metabolic syndrome and its individual components in Puerto Rican adults.

Methods: We conducted a cross-sectional study that used a probability cluster design to select a sample of households of the San Juan metropolitan area from 2005 through 2007. A total of 859 persons aged 21–79 years completed a face-to-face interview, blood pressure and waist circumference measurements, and blood sampling. Our primary outcome measure was metabolic syndrome as defined by the updated NCEP-ATP criteria.

Results: Prevalence of the metabolic syndrome was 43.3%; 45.3% for men and 42.2% for women ($P>.05$). Prevalence significantly rose with age, from 12.8% among participants aged 21–29 years to 58.2% for participants aged 70–79 years ($P<.001$). Corresponding increases in the prevalence of the metabolic syndrome in both men and women were also observed; the prevalence peaked in men aged 50–59 years (62.6%) and in women aged 70–79 years (65.2%). Elevated glucose (49.8%) and abdominal obesity (49.0%) were the most common components of the metabolic syndrome, followed by elevated blood pressure (46.1%), reduced high-density lipoprotein cholesterol (46.0%), and elevated triglycerides (31.3%). Substantial variations were found between men and women in the prevalence of individual components.

Conclusions: Puerto Ricans have a high prevalence of the metabolic syndrome. This health disparity has implications for diabetes and cardiovascular prevention programs. (Ethn Dis. 2008;18:434–441)

Key Words: Metabolic Syndrome, Puerto Ricans, Hispanics, Updated NCEP-ATP III

INTRODUCTION

The metabolic syndrome is emerging as a major public health issue because it is a risk factor for cardiovascular disease and type 2 diabetes. The prevalence of the metabolic syndrome varies by ethnicity, but differences in the clinical criteria used may account for some of this variation. Using the revised National Cholesterol Education Program-Adult Treatment Panel (NCEP-ATP) III criteria, the National Health and Nutrition Examination Survey (NHANES) 1999–2002 found that the age-standardized prevalence of the metabolic syndrome in the population aged ≥20 years in the United States was 34.6%. The standardized prevalence increased with age and varied from 24.5% among African American men to 44.0% among Mexican American women. Those data are consistent with previous studies that have shown that, compared with Whites, Mexican Americans are more prone to develop hyperinsulinemia, insulin resistance, and an unfavorable distribution of body fat, all central components of the metabolic syndrome. The age-standardized prevalence in women increased from 27.0% in NHANES III to 32.9% in NHANES 1999–2002; however, a nonsignificant increase was observed among men (31.4% in NHANES III to 31.8% in NHANES 1999–2002).

NHANES has documented the prevalence of the metabolic syndrome among US Whites, African Americans, and Mexican Americans. The latter group is oversampled in NHANES, but Puerto Ricans residing in the United States are not, and, as a jurisdiction, is excluded from NHANES. Health behaviors and outcomes vary considerably across Hispanic subpop-