OBJECTIVE: To examine trends in prevalence and odds of elevated body mass index (BMI) and obesity among ethnically diverse adolescents.

Design and Setting: Data from countywide (Miami-Dade) health screenings from 1999–2005. Weight, height, days/week of vigorous activity, hours/day of sedentary activity, parental hypertension, and eating habits were reported.

Participants: 77,050 adolescents, average age 15.6 years (51% girls, 9.4% White non-Hispanic, 59.2% White Hispanic, 16.4% African American, 7% Black Hispanic, and 8% Black Caribbean).

Outcome Measures: Prevalence and ethnic differences in odds of obesity (BMI≥95th percentile) and elevated BMI (BMI≥85th percentile), adjusting for academic years, days/week of vigorous activity, and hours/day of sedentary activity.

Results: Prevalence of elevated BMI and obesity increased from 1999–2005. Overall, White non-Hispanics had lower odds of obesity and elevated BMI than African Americans and White Hispanics. African American girls displayed higher odds of obesity and elevated BMI than Black Hispanic girls and higher odds of elevated BMI than Black Caribbean girls. African American boys showed higher odds of obesity and elevated BMI than Black Caribbean boys. Black Hispanic girls had greater odds of obesity and elevated BMI than White Hispanic girls, but boys were similar.

Conclusions: This study is among the first to examine BMI status in both Black and Hispanic subgroups. Viewing Black and Hispanic ethnic subgroups as homogeneous obscures important weight-related differences. Further research is warranted to determine factors contributing to differential risk. (Ethn Dis. 2011;21(2):176–182)