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Trends in Obesity Disparities During Childhood

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In this issue of *Pediatrics*, Cunningham et al[1] explore obesity incidence trends in school-aged children from kindergarten through fifth grade in 2 cohorts of the Early Childhood Longitudinal Study (ECLS). The earlier cohort was followed from 1998 to 2004 and the later cohort from 2010 to 2016. The ECLS results show an increase in incidence of obesity in the 2010 cohort compared with the 1998 cohort. Moreover, among children who entered kindergarten without obesity, 29% more non-Hispanic Black children developed obesity by fifth grade in the later cohort compared with the earlier one, whereas obesity incidence remained unchanged or decreased in other race and ethnicity groups.

Examining obesity trends before kindergarten reveals a different part of the story. Figure 1 shows smoothed obesity (including high weight-for-length for <2 years) prevalence by race and Hispanic origin from birth to age 20 years in a cross-sectional analysis of data from the National Health and Nutrition Examination Survey (NHANES)[2] 2015 to 2018. By age 2, Hispanic children had a substantially higher prevalence of obesity than did non-Hispanic White, non-Hispanic Black, and non-Hispanic Asian children. Differences in obesity prevalence between non-Hispanic Black and non-Hispanic White children, on the other hand, begin to emerge around the age of 4.5 to 5 years, just before entry to kindergarten. By age 11, the prevalence of obesity among non-Hispanic Black children is similar to the prevalence among Hispanic children, with prevalence estimates of more than 25%. The prevalence estimates from NHANES suggest that before children reach kindergarten, a rise in new obesity cases, relative to non-Hispanic White children, has already begun in Hispanic children. On the other hand, a rise in new cases among non-Hispanic Black children occurs at an older age.

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In their study, Cunningham et al[1] suggest that interventions in kindergarten through fifth grade may have a larger impact in non-Hispanic Black children because they are at highest risk of developing obesity during this period. However, race and ethnic patterns in obesity prevalence from birth throughout childhood reveal that by the time children enroll in kindergarten, an important period for starting interventions in Hispanic children has already passed. This finding supports the American Academy of Pediatrics recommendation of a life-course approach to identify children "early on the path to obesity" for primary prevention of obesity.[3] Race and ethnicity-specific trends in obesity prevalence across childhood and adolescence provide additional context for identifying individuals and communities at highest risk of developing obesity.

ABBREVIATIONS

ECLS	Early Childhood Longitudinal Study
NHANES	National Health and Nutrition Examination Survey

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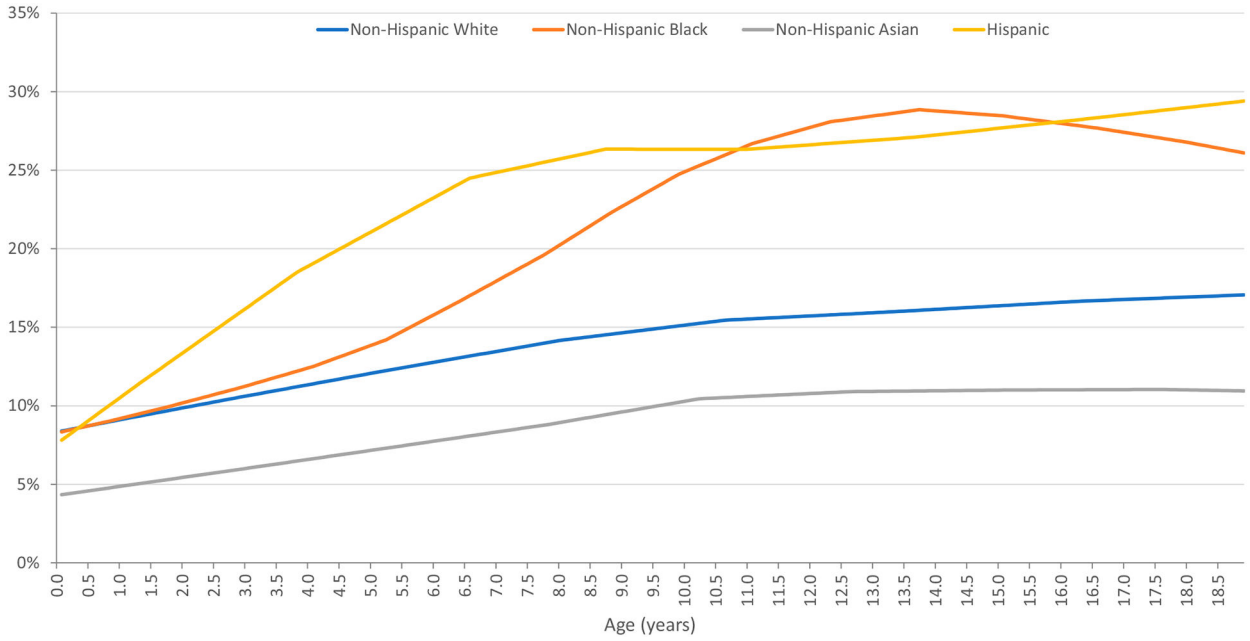

FIGURE 1.

Obesity prevalence in children and adolescents, by age, race, and Hispanic origin, United States, 2015 to 2018. NHANES 2015 to 2018, $n = 6710$. Weighted estimates were smoothed using locally estimated scatterplot smoothing. Obesity (including high weight-for-length) was defined as ≥95th percentile of body mass index-for-age Centers for Disease Control and Prevention growth charts 2 to 20 years and weight-for-height ≥97.7th percentile of WHO growth charts birth to 2 years.