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In Reply

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Drs Savaia and Byers raise concerns about not including socioeconomic status in our analyses of trends in obesity using NHANES data. The objectives of these articles were to present the most recent national estimates of obesity prevalence and analyze trends between 1999–2000 and 2009–2010. Reducing disparities by race and ethnicity is a national priority¹ and monitoring trends by these characteristics² is important. However, the intent of our study was not to examine the determinants of obesity.

The relationship between socioeconomic status and obesity is complex and may not always be reflected in an inverse association. Published NHANES data show an inverse association between obesity prevalence and socioeconomic status (measured as income or education) in some groups but not in others. For example, among boys, girls, and women, there is an inverse association between obesity prevalence and income or education of the head of the household,³ but there is no difference among men in obesity prevalence between income groups and no difference in obesity prevalence between college graduates and those with less than a high school education.³ Moreover, among non-Hispanic black men there is a positive association between obesity and income; in 2005–2008, 44.5% of non-Hispanic black men with higher incomes were obese compared with 28.5% of those with low incomes.³

Where racial/ethnic disparities exist, socioeconomic status alone does not explain the disparities in obesity prevalence. In 2009–2010, the prevalence of obesity among non-Hispanic white women was 33% compared with 49.6% in non-Hispanic black women. The disparity remained among higher-income women; in 2005–2008, the prevalence of obesity was 27.5% in higher-income non-Hispanic white women and 47.6% in higher-income non-Hispanic black women.³

Analysis of trends within socioeconomic status groups is important independent of whether it explains the racial/ethnic differentials, and such analyses can be done using NHANES data. For example, the prevalence of obesity among higher-income men was 18% in 1988–1994 and 32.9% in 2005–2008. The increase in obesity prevalence was 14.9 percentage points, significantly higher than the increase among low-income men (8.1 percentage points).³ Analysis of trends within income or other socioeconomic status-related subgroups

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from cross-sectional data, however, should be interpreted with caution because the groups themselves may not be comparable over time.⁴

NHANES data are publicly available at no charge. The data include information that can be used for multiple constructs for socioeconomic status and social position. Researchers are encouraged to conduct their own analyses.

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