

Poverty Research Flash

Highlighting New Poverty Research

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The West Coast Poverty Center's **POVERTY RESEARCH FLASH** highlights new research by faculty affiliates and others on causes, consequences, and effective policy responses to poverty, with an emphasis on changing labor markets, demographic shifts, family structure, and social and economic inequality.

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Longitudinal Associations between Poverty and Obesity from Birth through Adolescence

Background. The link between obesity and poverty among adults has been well-established. Research suggests that the relationship between low-income and obesity may begin in childhood. Low-income children are much more likely to be obese than children from families with higher incomes. International studies have provided some evidence that poverty in early childhood may be associated with obesity, but no longitudinal evidence from the U.S. has been available. It is important to understand when children are at greatest risk of becoming obese so programs and policies can attempt to interrupt these processes.

Methods. With data from the National Institute of Child Health and Human Development's (NICHD) Study of Early Child Care and Youth Development (SECCYD), WCPC affiliate Hedy Lee and colleagues Megan Andrew, Achamyelah Gebremariam, Julie C. Lumeng, and Joyce M. Lee studied the relationship between the timing of poverty and the onset of obesity. The SECCYD collected data on over 1,300 newborns from 10 sites across the country and followed them until age 15.5. The data include measures of family poverty, birth weight, body mass index (BMI) and various maternal and family characteristics. For purposes of this study, families were considered poor if they reported income below 200 percent of the federal poverty line for their family size. Children were classified as obese if they had an age- and gender-adjusted BMI at or greater than the 95th percentile. The researchers examined the link between the first incidence of obesity after age three and family income in the prior measurement period.

Findings. By age 15.5, over one quarter (27 percent) of the sample had family income below 200 percent of the federal poverty line, although a majority of the children in the sample experienced poverty at some time between birth and age 15.5. At age 15.5, 13 percent of the sample was classified as obese, although 30 percent of the sample had been obese at some point between ages 3 and 15.5. Children who experienced poverty were more likely to become obese. However, when controlling for a number of demographic and familial controls as well as the timing of poverty, only the association between very early poverty and obesity remained: children who experienced poverty prior to age 2 were 1.66 times as likely to become obese by age 15.5 compared with children who did not experience poverty during this period. There were no differences in the effect of poverty by gender. Although the relationship between poverty in very early childhood and later obesity was robust across various models, the researchers note potential limitations of this data and these analyses. Most importantly, the researchers were unable to study potential differences between racial/ethnic groups because there were not enough racial/ethnic minorities included in the sample.

Childhood poverty might influence body weight through various related mechanisms. Additional research can help sort out which of these pathways are most important. Even in the absence of information about the specific ways in which poverty contributes to obesity, these results suggest that addressing poverty in early childhood could be one intervention to help combat adult obesity.