

# Moving to a depressed neighborhood linked to weight gain

May 8 2015

---

Certain regions in the United States are characterized by a higher prevalence of obesity, which suggests that a person's socioeconomic, physical, and social environments can affect opportunities for healthy behaviors that might prevent excess weight gain. But what happens when people move from one neighborhood to another? A new study published in the *American Journal of Preventive Medicine* found that people who moved to more socioeconomically deprived neighborhoods gained additional weight.

Researchers used data from the Dallas Heart Survey (DHS), a probability-based sample of over 3,000 Dallas County residents aged 18-65 years. The study began between 2000 and 2002 and a seven-year follow-up was conducted between 2007 and 2009, at which time 1,835 participants completed a detailed survey, anthropometric measures, and laboratory testing. Each participant was linked to Dallas County census block groups, and a Neighborhood Deprivation Index (NDI) was calculated for each block group.

The NDI score was based on 21 variables from the 2000 U.S. Census to determine the socioeconomic status (SES) of each block group. Higher values of the NDI indicate a higher level of deprivation. Participants were asked 18 survey questions regarding their perception of the neighborhood to assess perceived neighborhood violence, physical environment, and social cohesion.

According to lead investigator Tiffany M. Powell-Wiley, MD, MPH,

Division of Intramural Research, Cardiovascular and Pulmonary Branch, National Heart, Lung, and Blood Institute, NIH, "Longitudinal studies specifically examining the relationship between neighborhood SES change and obesity as a cardiovascular risk factor are rare and have had methodologic limitations. This study sheds important light on the impact that changes in neighborhood socioeconomic deprivation by moving can have on weight change and subsequent obesity."

Among people who relocated, 263 participants moved to a higher-NDI neighborhood, 586 to a lower-NDI neighborhood, 47 participants moved but had no NDI change, and 939 participants remained in the same neighborhood. Those who moved to higher-NDI areas gained more weight compared to those who remained at the same NDI or moved to lower NDI (0.64 kg per 1-unit NDI increase).

The study also showed that among those who moved to higher-NDI neighborhoods, the impact of NDI change on weight gain increased for those who lived in a new neighborhood for more than four years, with a mean additional weight gain per 1-unit NDI increase of 0.85 kg.

The researchers concluded that "this study identifies exposure to higher-deprivation [neighborhoods](#) with moving as a risk factor for [weight gain](#), and suggests a potential source of disparities that can be addressed through focused community-based public health initiatives. More broadly, addressing neighborhood deprivation as a risk factor for obesity and obesity-related cardiovascular disease requires consideration of public policy that can address sources of deprivation."

**More information:** "Change in Neighborhood Socioeconomic Status and Weight Gain: Dallas Heart Study," by Tiffany M. Powell-Wiley, MD, MPH, Rebecca Cooper-McCann, BS, Colby Ayers, MS, David Berrigan, PhD, Min Lian, PhD, Michael McClurkin, BS, Rachel Ballard Barbash, MD, MPH, Sandeep R. Das, MD, MPH, Christine M. Hoehner,

PhD, and Tammy Leonard, PhD. It is published in the *American Journal of Preventive Medicine*, online ahead of Volume 49, Issue 1 (July 2015), DOI: [dx.doi.org/10.1016/j.amepre.2015.01.013](https://doi.org/10.1016/j.amepre.2015.01.013)

Provided by Elsevier

Citation: Moving to a depressed neighborhood linked to weight gain (2015, May 8) retrieved 11 May 2024 from <https://medicalxpress.com/news/2015-05-depressed-neighborhood-linked-weight-gain.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.