

Relationship Between Low Income and Obesity is Relatively New

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It's a fact: poverty and obesity are intimately connected.

But this relationship is only about 30 years old, according to a new study coauthored by UT researchers and published in *Palgrave Communications*, an open-access, online journal.

“We found that the relationship between low income and high rates of adult obesity in the U.S. is not observable until the early 1990s,” said Alex Bentley, head of UT Department of Anthropology and coauthor of the study. “As

recently as 1990, this was not a detectable problem,”

For the research, scientists analyzed obesity data collected by the Centers of Disease Control and the Robert Wood Johnson Foundation between 1990 and 2017 at state level, and 2004 and 2013 at county level. Researchers then compared these obesity rates with the median household income from the U.S. Census.

The study shows that since 1990, the correlation between household income and the obesity rate has grown steadily, from virtually no correlation to a very strong correlation by 2016.

Poor people in America are disproportionately affected by obesity. In the decade from 2004 through 2013, obesity increased about one percent on average among the top 25 wealthiest U.S. counties. Averaged among the 25 poorest U.S. counties, the obesity increase for that decade was more than 10 percent.

Bentley and his team speculate that high-fructose corn syrup, a common ingredient in processed foods beginning in the 1970s, may play a role in the increase.

“We’re now investigating the effect of processed sugars on generations who were entering adulthood by 1990, when high obesity rates began to correlate with low household incomes,” he said.

According to the CDC, over 93 million adults in the United States—nearly 40 percent—were affected by obesity in the 2015-16 period. This is a significant increase from 30 years ago. In Tennessee alone, the obesity rate more than tripled, from about 11 percent in 1990 to almost 35 percent in 2016.

“If 2016 turns out to be the peak in obesity rate,” Bentley said, “that is coincidentally one generation after the peak in the use of high-fructose corn syrup,” which has declined in use since its peak in the 1990s.

Because fresh produce and healthy foods are expensive, “the poorer the household, the worse the options are, both in terms of cost and what foods choices are actually available in the community,” he added.

For Damian Ruck, post-doctoral research fellow in the UT Department of Anthropology and coauthor of the study, the emergence of this correlation between income and obesity is a radical departure from what has been usual for most of human history.

“The fact that rich people are now the skinny ones is the opposite to what has been true in most cultures for most of the time,” he said.

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Media coverage: [UPI](#), Tauren Dyson, Dec. 11; [Psych Central](#), Traci Pedersen, Dec. 17; [Big Think](#), Derek Beres, Dec. 26

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