

Abstract title:

The association between obesity and urban exposure in the Mumbai slum of Kaula Bandar [Abstract #OS25.5]

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Abstract:

Data from a 2005 cross-sectional study of noncommunicable disease in India demonstrate statistically significant higher levels of obesity in urban areas relative to rural regions. Researchers hypothesize that changes to urban diets and physical activity patterns, such as increased consumption of energy-dense foods and sedentary behavior, respectively, are partly responsible for higher levels of obesity in urban areas.

To examine the association between urban living and obesity, we use a modified migrant study that examines risk of obesity among rural-to-urban migrants. Insofar as the urban environment is conducive to practices that can increase risk of obesity, one would expect that as migrants spend more time in the urban environment, they would assume urban behaviors and thereby alter their own risk for obesity.

To test this hypothesis, we collected anthropometric and demographic data from 1,701 residents of a Mumbai slum, aged 15-49. Residents were classified as 'native-born' if they had lived in the community since birth, or as 'rural-to-urban migrants' if they had migrated from a rural environment. Migrants were further classified according to urban duration.

Using logistic regression techniques with dependent variable 'overweight/obese' vs. 'not overweight/obese', and controlling for a variety of confounders, we find that the association between urban living and obesity increases along with increasing time spent in an urban environment. Specifically, compared to migrants who had lived in the slum for 0-4 years, migrants who had lived there for 5-9 years were 1.38 (95% CI 0.86-2.22) times more likely to be overweight; migrants in the 10-14 years urban category were 2.42 (95% CI 1.54-3.81) times more likely to be overweight; and migrants in the 15+ urban category were 2.61 (95% CI 1.85-3.68) times more likely to be overweight. This suggests that the urban environment may encourage obesity, with prevalent diet and exercise patterns likely playing some role.

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