Association between environmental factors and individual factors with obesity in Brazilian adults
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Background
Obesity is a serious public health problem and has a great impact on the disease patterns of populations. The characteristics of the environment in which people live play an important role in obesity in many countries. Our objective was estimate the association between environmental factors and individual factors with obesity in adults.

Methods
This cross-sectional epidemiological study, developed using the Protective and Risk Factors for Chronic Diseases by Telephone Survey database (Vigitel 2008–2010) from Belo Horizonte. Obesity was defined as a BMI ≥ 30 kg/m². To characterize the built and social environments, we developed a georeferenced database with environmental data. The data analysis included multilevel logistic regression. The area covered by the basic health units was defined as a neighbourhood unit.

Results
A total of 5,273 individuals were evaluated. The increase in the number of establishments that sell healthy food (OR = 0.88, 95% CI: 0.80 to 0.96), number of restaurants (OR = 0.97, 95% CI: 0.96–0.99), number of places for physical activity (OR = 0.89, 95% CI: 0.84–0.95) and total income (OR = 0.96, 95% CI: 0.94–0.98) is associated with lower odds of obesity, in addition, these associations remained significant after adjustment for age, gender, education and food consumption.

Conclusions
These findings contribute to a better understanding of the complex relationship between environmental and individual determinants of obesity, which can play an important role in the development of effective interventions and expand obesity control programs in large cities.

Key message
- Obesity has significant health consequences and there is a complex relationship between environmental and individual determinants of obesity