

Obesity inequality among adults in Latin America and the Caribbean



Compared with other regions of the world, the Americas has a doubly dubious distinction: the Americas have the highest prevalence of adult obesity in the world¹ and considerable inequalities in wealth distribution exist within the region.² Since 1980, obesity has been increasing to epidemic proportions,¹ whereas economic inequalities—despite some improvement in the first decade of the 21st century—have remained stagnant.³ Similar to that seen for other chronic disease risk factors,⁴ the convergence of increasing obesity prevalence and persistent socioeconomic disparities is not surprising: the burden of obesity, which was once regarded as a sign of affluence,⁵ might gradually shift to the poorest sectors of society. A 2004 review indicated that this shift was already occurring in low-income and middle-income countries, especially among women.⁶

In *The Lancet Global Health*, Safia Jiwani and colleagues investigate the shift in age-standardised obesity prevalence and the associated inequality among adults in several Latin American and Caribbean countries.⁷ The authors analysed obesity prevalence data in adult women from 23 national health surveys from 13 countries, and adult men from 11 national health surveys from seven countries (including five countries with trend data for women and two countries for men) stratified by three socioeconomic status measures (wealth, education, and area of residence) for the period 1998–2017. Although Jiwani and colleagues did not report overall summary estimates of country-level obesity prevalence in adults over time, obesity prevalence among women increased in almost every subgroup studied, especially among the poor, whereas among men, obesity prevalence only increased substantially in Argentina. The authors also assessed the distribution of age-standardised obesity prevalence across quintiles of wealth and education, and across areas of residence (rural and urban). Jiwani and colleagues identified three patterns in the distribution of obesity across socioeconomic status: in some countries prevalence was highest among the high-income and high-education groups, whereas in others it was concentrated in middle wealth and education groups, and in others among the low wealth

and education groups. The authors also identified a gradual, concomitant transition of countries from lower to higher levels of human development across the three patterns of obesity burden concentration. Jiwani and colleagues concluded that “the increase in obesity in the Latin American and Caribbean region has been paralleled with an unequal distribution and a shifting burden across socioeconomic groups”.⁷

Considering the relevance of their findings with regard to the question of how social inequalities in nutrition evolve over time, a point of contention might arise from the unconventional choice of inequality measures used in the study. The inequality gap was defined as “the absolute difference in percentage points between the highest and lowest most extreme obesity prevalence estimates within each socioeconomic status measure”,⁷ which does not account for the natural ordering of wealth (from poorest to richest) or education (from the least to the most educated). Such a summary measure does not fully capture the socioeconomic dimension that applies to inequalities in health, which is considered a minimal requirement for a good summary measure of health inequality.⁸ Although the authors’ approach might help to identify populations in which obesity is prevalent among the middle socioeconomic groups, their method could be supplemented with a more standard set of summary inequality measures, which account for the full distribution of the sample.

For this purpose, we used Jiwani and colleagues’ data⁷ to calculate two complex measures of inequality: the slope index (absolute gradient) and the concentration index (relative gradient).⁹ These measures, by contrast to simple absolute and relative gap measures, are unaffected by the choice of quantiles, account for the whole distribution of a sample (as opposed to the pairwise comparison of extreme quintiles), and also consider the size of each group. Both summary measures range from –100 (prevalence concentrated among the lowest wealth quintiles) to +100 (prevalence concentrated among the highest wealth quintiles). We assumed that 20% of the samples belonged to each wealth quintile, and the summary measures are presented in the appendix. Our results show that, with

See [Articles](#) page e1644

See [Online](#) for appendix

the exception of Argentinian women, among whom obesity is concentrated among the poor, in all other studies obesity is highest among the highest wealth quintiles or, in a few instances, obesity has similar prevalence in all wealth quintiles.

Our analyses of whether the distribution of obesity is mostly concentrated in high or low wealth quintiles complements the findings of Jiwani and colleagues⁷, whereby the highest absolute obesity prevalence is often observed in one of the intermediate wealth quintiles.

This study highlights the necessity of applying an equity lens to better understand and to tackle one of the most important and complex public health problems in the region of the Americas. The Commission of the Pan American Health Organization on Equity and Health Inequalities in the Americas acknowledges that, “Obesity has multiple causes, including unhealthy diet and physical inactivity, which are closely linked to an increasing ‘obesogenic environment’ and are associated with social determinants such as poverty, low education, food insecurity, more sedentary working practices, cultural norms that encourage certain diets, and lifestyle influences”.¹⁰ The authors’ analyses show that although the prevalence of obesity seems to shift to lower wealth quintiles as countries become more developed, the social pattern remains variable between countries, highlighting the importance of monitoring levels and trends to tailor pro-equity policies and interventions, to ensure that no one is left behind.

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