

Macroeconomic, demographic and human developmental correlates of physical activity and sitting time among South American adults

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Abstract

Background: Our aim was to investigate the association of macroeconomic, human development, and demographic factors with different domains of physical activity and sitting time among South American adults. **Methods:** We used data from nationally representative samples in Argentina (n = 26,932), Brazil (n = 52,490), Chile (n = 3866), Colombia (n = 14,208), Ecuador (n = 19,883), Peru (n = 8820), and Uruguay (n = 2403). Our outcomes included leisure time (≥ 150 min/week), transport (≥ 10 min/week), occupational (≥ 10 min/week), and total (≥ 150 min/week) physical activity, as well as sitting time (≥ 4 h/day), which were collected through self-reported questionnaires. As exposures, gross domestic product, total population, population density, and human development index indicators from the most updated national census of each country were used. Age and education were used as covariates. Multilevel logistic regressions with harmonized random effect meta-analyses were conducted, comparing highest vs. lowest (reference) tertiles. **Results:** Higher odds for transport physical activity were observed among the highest tertiles of total population (OR_{men}: 1.41; 95% CI: 1.23–1.62), OR_{women}: 1.51; 95% CI: 1.32–1.73), population density (OR_{men}: 1.36; 95% CI: 1.18–1.57, OR_{women}: 1.49; 95% CI: 1.30–1.70), and gross domestic product (OR_{men}: 1.16; 95% CI: 1.00–1.35, OR_{women}: 1.39; 95% CI: 1.20–1.61). For leisure physical activity, women living in departments with higher human development index presented 18% higher odds for being active, and for total physical activity a similar estimate in both sexes was observed among those who live in more populated areas. No consistent associations were found for occupational physical activity and sitting time. **Conclusion:** Macroeconomic, demographic and human development indicators are associated with different domains of physical activity in the South American context, which can in turn guide policies to promote physical activity in the region.

Author keywords

Environment

Epidemiology

Global Health

Latin America

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Transportation