ASSESSING THE IMPACT OF SUPERMARKETS LOCATION IN CHILDREN’S WEIGHT STATUS

a comparison between Portugal and Brazil

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Purpose

To analyse the association between the weight status of schoolchildren and the location of supermarkets by comparing the results among children from Belo Horizonte, Brazil and Lisbon, Portugal.

Methods

• Study design: cross-sectional
• Setting: 24 private/public schools from Lisbon (Pt) and 17 schools Belo Horizonte (Br)
• Sample: 697 children from Lisbon and 320 from Belo Horizonte, between 8 and 13 years
• Variables: BMI; number of supermarkets in different distances buffers around homes; the distance to the nearest supermarket from home (ArcMap (v.10.4.1)); and sociodemographic information.
• Statistical analysis: partial correlation test and binary logistic regression models (adjusted for children’s sex, age and SES (using mother schooling level as proxy).

Results/Findings

• In both municipalities the partial correlation between BMI and the distance to nearest supermarket shows a positive and significant correlation.
• In Belo Horizonte having a supermarket within 750m or more protects children from obesity and in Lisbon the same result is found only to distances of 250m.

Conclusions

• Children weight status is influenced by the presence and distance to supermarkets both in Belo Horizonte and in Lisbon, in different ways.
• Thus, the association between specific aspects of the food environment and children weight status varies according to other local environment features.

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This work was funded by the Foundation for the Science and Technology, Portugal (PTDC/DTP-SAP/1520/2014 and grant SFRH/BD/133140/2017).