

RESEARCH

Open Access



Unhealthy food availability, prominence and promotion in a representative sample of supermarkets in Flanders (Belgium): a detailed assessment

Stefanie Vandevijvere^{1*}, Iris Van Dam¹, Yasemin Inaç¹ and Vincent Smets¹

Abstract

Introduction The supermarket food environment is a key setting for potential public health interventions. This study assessed food availability, prominence and promotion in a representative sample of supermarkets in Flanders (Belgium).

Methods A sample of 55 supermarkets across five chains and 16 Flemish municipalities was selected in 2022, about 64% in the most deprived socioeconomic areas. Healthiness indicators related to food availability (ratio of cumulative linear shelf length for healthy versus unhealthy foods), prominence (proportion of unhealthy foods at check-outs and end-of-aisle endcaps), and promotion (food marketing on food packages) were measured.

Results Overall, the average ratio of healthy/unhealthy foods in supermarkets in Flanders was 0.36, meaning that for every 10m of shelf length of unhealthy foods there was 3.6m of healthy foods. There was a large variation in ratio's across supermarket chains. Of all foods available, 97.5% were ultra-processed at the check outs, while 72.2% and 58.5% were ultra-processed at the front and back end-of-aisle end-caps, respectively. Confectionery and sweet biscuits were the food categories with on average the highest number of marketing messages on pack per 10m of shelf length.

Conclusion Supermarket in-store food environments in Flanders were found generally unhealthy, with those located in low income areas having unhealthier in-store food environments than supermarkets located in medium and high income areas. Despite commitments of all large supermarket chains in Flanders to promote and create healthier in-store food environments, our findings indicate that currently consumers are incentivized to buy unhealthy rather than healthy food products.

Keywords Supermarkets, Food environments, Shelf length

*Correspondence:

Stefanie Vandevijvere
stefanie.vandevijvere@sciensano.be

¹Department of Epidemiology and Public Health, J. Wytsmanstraat 14,
1050 Brussels, Belgium



© The Author(s) 2023. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated in a credit line to the data.