

Food environments underlying dietary intake in lower socioeconomic groups

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What is already known on this topic

Inequalities in dietary outcomes and the role of the food environment

- Inequalities in dietary outcomes are suggested to stem partly from differential exposure and increased vulnerability to adverse food environments.
- The situational, social, cultural and economic factors that influence the demand for high-quality food in low-income households are very complex.
- There is a growing consensus that we can conceptualise the phenomenon of dietary intake in low-income groups as an 'emergent property of a complex adaptive system'



What our studies add

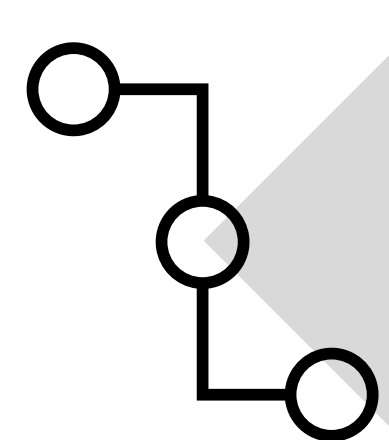
Food environments in low-income groups through a systems lens

- Determinants and associations between determinants of the food environment were extracted from literature via a systematic umbrella review, discussed and further refined with an expert panel and presented in a systems map.
- Our systems-based analyses made it possible to identify the connections and structures that sustain and reinforce a food environment that influences dietary intake in low-income groups.

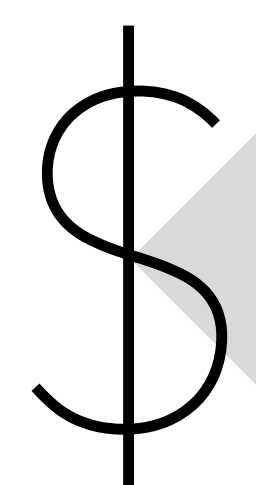
Multiple interconnected feedback loops shape an adverse food environment for low-income groups.

- The system was interpreted as operating within an economic paradigm with a structure of multiple sub-systems working towards goals that create and sustain a food environment that increases the relative accessibility, availability, affordability and acceptability of unhealthy foods compared with healthy foods.
- The economic basis results in a ubiquitous supply of energy-rich, nutrient-poor and ultra-processed foods, fuelling the demand for these products based on their social and cultural significance, availability and affordability.

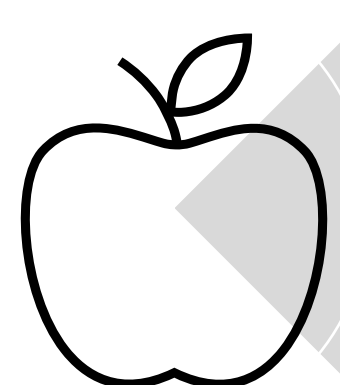
Policy recommendations



A systems-based model can help to identify interventions that can have desirable knock-on effects on other parts of the system or to show how multiple interventions together can contribute to a change in the system works; overall, it is unlikely that a sustainable effect on dietary intake will be achieved through isolated interventions aiming to increase the accessibility, availability, affordability or acceptability of healthier products.



In order to have most impact on the mechanisms driving this interconnected system, interventions could either use structural actions (that do not call on personal agency) to circumvent social, cultural and individual dynamics underlying dietary intake (such as encouraging reformulation of food composition through taxation or bans) or modify the dynamics steering cost-determined purchases towards unhealthy foods.



In order to reshape system dynamics driving unhealthy food environments, simultaneous, diverse and innovative strategies are needed to facilitate longer-term management of household finances and socially-oriented practices around healthy food production, supply and intake. Ultimately, such strategies must be supported by a system paradigm which prioritises health.

Reference

Sawyer ADM, Lenthe FJ van, Kamphuis CBM, Terragni L, Roos G, Poelman MP, Nicolaou M, Waterlander W, Djojoseparto SK, Scheidmeir M, Neumann-Podczaska A, Stronks K. Dynamics of the complex food environment underlying dietary intake in low-income groups: a systems map of associations extracted from an umbrella literature review. *IJBNPA* 2021; 18: 96.