

FOOD ENVIRONMENTS TO GUIDE NUTRITIOUS FOOD CHOICES

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BACKGROUND

The current nutrition situation of malnutrition (including deficiencies, as well as overweightness and obesity) and nutrition-related non-communicable diseases are the consequence of broken food systems and unhealthy diets. Food systems shape producers' decisions and consumers' food choices. Current food systems are not nutrition or health driven and thus do not enable people to make healthy food choices.

In high-income countries, food environments could broadly be described as to support unhealthy eating patterns and sedentary behaviour—obesogenic food environments. In low and middle-income countries (LMIC), the food environments have changed in recent years with increased penetration of formalised supermarkets and branded processed foods into peri-urban and rural areas.

FOOD ENVIRONMENTS AND CONSUMER FOOD CHOICES

Food environments set the context within which food acquisition occurs, including availability, accessibility, affordability, desirability, convenience, marketing, as well as characteristics of food sources and products.

Food environments influence consumer choices and have an influence on global food system shifts in food production, transportation, storage, transformation and retail.

Food environments both restrain and prompt food choices because food environments determine what foods are consumed at any given time, at what price and with what effort and convenience.



Transformation of food systems not only implies a change in production, but also a change in the food environment including policy interventions, advertising, food choices and behaviour. Recognised strategies that could address food environment transformation guidance are discussed at the consumer level to make healthy food choice behaviour more of a default and effortless, thereby relying less on individual self-control and more on changes in environment and social standards.

This article does not pretend to cover all aspects of the food system related to nutritious food choices and diets but focuses mainly on guidance towards attainable transformations within a short to medium timeframe.

FISCAL POLICY INTERVENTIONS

A mechanism to influence consumer purchasing behaviour: Decrease the amount of cognitive control required to buy healthier food so that it consistently become more preferable

Studies to determine the effect of food price manipulation reported that consumers do respond as anticipated, whether at individual or collective levels⁽¹⁾.

- On average a 10% decrease in price, increased the consumption of healthy foods by 13%. Fruits and vegetables were the most common target.
- On average a 10% increase in price, decreased the consumption of unhealthy foods by 6%. Investigating the impact of the tax on sugar sweetened
- beverages (SSBs) in Mexico has shown a 12% decrease in the purchase of SSBs, with a 17% decrease in the purchase of SSBs seen in the poorest households⁽²⁾.

A combination of different tax and subsidy policies might be the most effective way to improve diets and decrease diet-related chronic diseases

- Food subsidies, eg Foodstuffs tax exempted
- Food taxation, eg Taxation of sugar sweetened beverages

Political environment, industry pushback and legal challenges to efforts to address the availability of unhealthy food and drinks are hurdles that need to be considered. Generated income through fiscal policies needs to be directed in transparent ways towards improving public health and must not merely be a means of generating government income.

NUTRITION LABELLING AND FRONT OF PACK LABELS

Nutrition labelling and front of pack labels (FOPs) can contribute to a healthy food environment by:

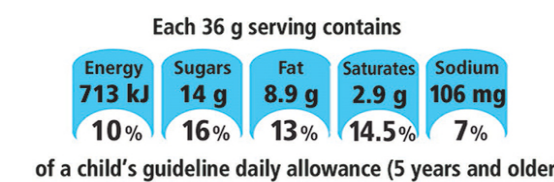
- providing information to the consumer about the nutrient content of foods
- assist consumers in making food choices to meet their health needs
- drawing consumer attention to the benefits and risks of particular nutrients or ingredients of public health concern - both "positive" and "negative" nutrients
- motivating manufacturers to produce foods that have healthier nutrition profiles⁽³⁾.

Standardised schemes that provide consistent information in the same format are recommended:

- To prevent consumers becoming overwhelmed
- For ease of comparison

PRACTICAL BARRIERS TO LABEL USE⁽⁴⁾:

- Literacy
- Legibility
- Language
- Presence / placement of food label
- Socio-economic situation



ADVERTISING, INTERNET, SOCIAL MEDIA AND DIGITAL MARKETING OF FOODS

As technology becomes an important part of the daily life, there has been a substantial shift in media practices, from the dominance of television to increased time spent online, including social media, online gaming and content-sharing platforms. The increase in digital food and beverage marketing has attracted significant attention to this type of exposure as a modifiable risk factor for unhealthy food choices, health and well-being of not only adults, but also of children and adolescents^(5,6). The foods most frequently marketed to children are consistently shown to be foods such as sugary breakfast cereals, sugar-sweetened beverages, confectionery and savoury snack foods that are high in fat, sugar and/or salt, as well as noncore foods (HFSS foods)⁽⁷⁾.

Children are specifically vulnerable due to their cognitive developmental stage and inability to always discriminate between healthy and unhealthy messages. HFSS food marketing strategies imply emotional benefits from consumption, as illustrated by successful adolescent-targeted campaigns and amplified by social media. Positive emotional responses to food are associated with more frequent consumption of these foods⁽⁶⁾. Parents were also found to be largely unaware of the many food advertising and marketing strategies that are used online to promote HFSS foods⁽⁷⁾. While chronic diseases may not emerge until adulthood, health risk behaviours often develop in childhood and adolescence. Patterns of diet and sedentary behaviour have been found to track from childhood into adulthood, emphasising the importance of targeting prevention early in life⁽⁸⁾.

Although regulatory policies exist, critical limitations have been identified. Many policies have limited scope that only include broadcast advertising or are "general" in nature and do not explicitly address the advertising of HFSS or are not applicable to many current media channels and marketing practices⁽⁷⁾. The food industry also sponsored a range of poverty alleviation, community and sports events. These were usually heavily branded, with promotional material and hand-outs targeted at children. This contradicts the policy and creates brand awareness and positive emotions towards HFSS foods⁽⁹⁾.

CONCLUSIONS

The consumers of today do not instinctively make healthy food choices. For the food system to become more sustainable and nutritious, the environment in which consumers' choices are shaped and informed has an important influence on their diet. Health-positive policies and regulations can support investment into fruits, vegetables, legumes and whole grains.

Patterns of diet and sedentary behaviour have been found to track from childhood into adulthood, emphasising the importance of targeting prevention early in life⁽⁸⁾. Therefore, more must be done, and quickly, to ensure that children and adolescents can participate readily in the digital world, benefiting from the information age to the maximum degree, without their dietary health being adversely affected.

Efforts to regulate the marketing of commercial products and services can be highly controversial, but they have been shown to be effective in driving food choices. As each country is unique, it is imperative to study the market and consumer perceptions before implementation of such strategies.

REFERENCES

1. HLPE. Nutrition and Food Systems; High Level Panel on Food Security and Nutrition of the Committee on World Food Security: Rome, Italy, 2017.
2. Afshin, A.; Penalvo, J.L.; Del Gobbo, L.; Silva, J.; Michaelson, M.; O'Flaherty, M.; Capewell, S.; Spiegelman, D.; Danaei, G.; Mozaffarian, D. The prospective impact of food pricing on improving dietary consumption: A systematic review and meta-analysis. PLoS ONE 2017, 12, e0172277.
3. Lartey, A.; Hemrich, G.; Remans, R.; Grace, D.; Albert, J.; Fischer, C.; Garnett, T. Influencing Food Environments for Healthy Diets; Food and Agriculture Organization of the United Nations: Rome, Italy, 2016.
4. Franco-Arellano, B.; Vanderlee, L.; Ahmed, M.; Oh, A.; L'Abbé, M. Influence of front-of-pack labelling and regulated nutrition claims on consumers' perceptions of product healthfulness and purchase intentions: A randomized controlled trial. Appetite 2020, 149, 104629.
5. Boyland, E.; Thivel, D.; Mazur, A.; Ring-Dimitriou, S.; Frelut, M.L.; Weghuber, D. Digital food marketing to young people: A substantial public health challenge. Ann. Nutr. Metab. 2020, 76, 6–9.
6. Harris, J.L.; Yokum, S.; Fleming-Milici, F. Hooked on Junk: Emerging Evidence on How Food Marketing Affects Adolescents' Diets and Long-Term Health. Curr. Addict. Rep. 2021, 8, 19–27.
7. WHO. Tackling Food Marketing to Children in a Digital World: Trans-Disciplinary Perspectives; World Health Organisation Regional Office for Europe: Copenhagen, Denmark, 2016.
8. Mayne, S.L.; Viruodachalam, S.; Fiks, A.G. Clustering of unhealthy behaviors in a nationally representative sample of US children and adolescents. Prev. Med. 2020, 130, 105892.
9. Mialon, M.; Crosbie, E.; Sacks, G. Mapping of food industry strategies to influence public health policy, research and practice in South Africa. Int. J. Public Health 2020, 65, 1027–1036.

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