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Ultra-processed food consumption in cambodia in a changing food environment

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Abstract

Cambodia is currently undergoing a nutrition transition characterised by a shift from traditional diets toward energy-dense, processed foods and increasing rates of non-communicable diseases (NCDs) while undernutrition and micronutrient deficiencies persist. This study examines how changes in the food environment influence food purchasing behaviour, dietary intake, and food perceptions.

Data were collected in 2021 as part of the Multisectoral Food and Nutrition Security project in the rural provinces of Kampot and Kampong Thom and in the capital, Phnom Penh. A mixed-methods design was applied. Quantitative data were collected through a household survey with 1036 caregivers of children aged 6–59 months, assessing caregivers' and children's food consumption, perceptions of food groups, and the influence of socio-economic factors and media use on dietary patterns. The global dietary recommendation (GDR) score was used to assess food quality, a higher score indicating better adherence to healthy dietary guidelines. A food environment assessment captured vendor type and products traded. Qualitative data were obtained through 15 focus group discussions and seven expert interviews.

Children living in rural areas had a significantly higher mean GDR score than urban children (10.0 ± 1.8 vs. 9.5 ± 1.9 , $p < 0.001$). No significant correlation was found between household income and children's diet quality. In contrast, caregivers' educational level affected children's GDR scores, with higher scores among children of caregivers who had sought nutrition information. Food groups classified as healthy were largely perceived as such across all locations, whereas perceptions of unhealthy foods varied: “ultra-processed packaged salty snacks” were perceived as “healthy” or “somewhat healthy” by 21.9 % of caregivers in urban areas and 30.3 % in rural areas. Regular exposure to food advertising was associated with a more accurate perception of unhealthy food groups, yet also with higher consumption.

Lower GDR scores observed in urban areas suggest a potential shift toward less diverse, less balanced diets as urbanisation continues. The findings highlight the importance of nutrition education in promoting healthy dietary practices, preserving dietary diversity, and preventing NCDs. Special attention should be given to young children to protect and support healthy dietary development in the context of a rapidly changing food environment.

Keywords: Cambodia, Dietary Diversity, Food Environment, Non-Communicable Diseases, nutrition Transition, Ultra-Processed Food, Urbanisation