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## What's in store for you? Identifying effective initiatives used in supermarkets to improve consumer purchasing: a systematic review

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Supermarkets have been described as having unprecedented and disproportionate power in the food system, influencing population diets through the products they have for sale, their price, store layouts, and other marketing activities<sup>(1)</sup> There is growing evidence to suggest that changing the retail food environment to be more health-enabling via in-store interventions is possible. The purpose of this study was to review the available high-quality evidence reporting on the effectiveness of real-world supermarket-based interventions on improving the healthiness of consumer purchases and consumption. First, a systematic search across seven electronic databases was completed in April 2023 to identify reviews describing the effects of intervention strategies that aimed to improve the healthiness of consumer purchasing in supermarkets and grocery stores (overview of reviews). The methodological quality of reviews was assessed using the Risk of Bias In Systematic Reviews for systematic and scoping reviews, and the Scale for the Assessment of Narrative Review Articles for narrative reviews. Review findings were synthesised narratively. Next, high-quality, primary studies from these reviews were further inspected (review of primary studies). In-store interventions were categorised by strategy type<sup>(2)</sup>, and outcome effects were coded as effective (positive/promising), ineffective or mixed/unclear<sup>(3)</sup>. Results were synthesised narratively, and separately for population subgroups. Thirty-eight reviews published between 1989 and 2023 met the inclusion criteria. Most were systematic reviews (n = 29, 76%). The number of primary studies included in reviews ranged between eight and 211. Prompting (n = 19, 50%) and pricing (n = 15, 40%)were the most assessed strategy type, either alone or in combination with another strategy. From the overview of reviews, pricing strategies appeared to be the most promising at improving consumer purchasing. Twenty-three high-quality primary studies met the inclusion criteria for further review. In most studies (n = 21, 91%), the goal was to increase sales of healthy products, most commonly fruit and vegetables, or products with a higher nutritional ranking. Only two studies (9%) aimed to exclusively reduce sales of unhealthy/ less healthy products. Promotion was the most assessed strategy type (n = 11, 48%), either alone or in combination with another strategy. Common promotion strategies included providing education to customers about the health benefits of selected products, offering samples of products and giving food demonstrations. From the review of primary studies, promotional strategies used in combination with another strategy appeared to be most successful in the general population, and pricing was successful in subgroups of the population, including socioeconomically disadvantaged individuals, and those living in regional/remote areas. Overall, the evidence reviewed shows that the implementation of health-promoting supermarket interventions are more likely to be successful if they include a substantial pricing initiative (particularly for some subgroups), or the inclusion of promotion in combination with another strategy.

Keywords: supermarket; retail food environment; public health; health promotion

## **Ethics Declaration**

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