Health Promoting Vending Machines: Evaluation of a Pediatric Hospital Intervention

Objectives:
To evaluate the impact among point-of-choice consumers of new vending machines providing only nutritious choices in a Montreal pediatric hospital on i) acceptability and ii) short term changes in behaviour, awareness, and intention with respect to healthful diets.

Methods:
Three innovative vending machines offering age-appropriate healthy snacks, meals and beverages with integrated health messages and a smartboard, replaced machines that had been offering usual high-energy, low-nutrition fare. Using a quasi-experimental design and systematic sampling, potential consumers leaving the vending machine area completed exit surveys before (n=293) and after (n=226) implementation. Purchasing behaviour, satisfaction and beliefs regarding vending machines and item selection, and intention to improve or maintain healthful diets were assessed; follow-up telephone surveys were completed 6 weeks later.

Results:
Satisfaction among pre and post subjects was equally high. Among recorded sales, purchases of dairy products and water bottles increased by 15% and 11%, respectively. Post subjects were significantly more likely to endorse the item’s nutritional content and appropriate portion size as elements that influenced their purchase. Although 70% of pre and post subjects intended to improve their diet in the following 6 months, post subjects were more likely to be confident that they will succeed in making the necessary changes. At follow-up, post subjects were more likely to maintain healthy dietary habits compared to pre subjects.

Conclusions:
Findings suggest that similar vending machine concepts can prompt consumers to make healthier purchases and may increase short term awareness and intentions regarding healthful diets. Policies guiding hospitals to re-think their food supply are needed.