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Not as bad as you think: a comparison of the nutrient content of best price and brand name food products in Switzerland

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ABSTRACT

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Keywords: Food categories Best price foods Food composition database Food cost Energy Several studies have shown that low-cost foods have an equivalent nutrient composition compared to high-cost foods, but such information is lacking in Switzerland. Thus, we compared the caloric and nutrient content of "best price" (BPF) and brand name foods (BNF) in Switzerland using the version 5.0 (April 2015) of the Swiss Food and Nutrient composition database.

Over 4000 processed food items were included and 26 food categories were compared regarding total energy, protein, fat and carbohydrates, saturated fatty acids, sugar, fiber and sodium.

BPF, namely core food categories like Bread, Red meat, White meat and Fish products, were 42%, 39%, 42% and 46% less expensive than their BNF equivalents, respectively. No differences were found between BPF and BNF regarding total energy and protein, fat and carbohydrates for most food categories. In the Cheese category, BPF had a lower caloric content than BNF [Median (interquartile range, IQR): 307 (249–355) vs. 365 (308–395) kcal/ 100 g, respectively, p < 0.001]; BPF also had lower fat and saturated fatty acid content but higher carbohydrate content than BNF (both p < 0.001). In the Creams and puddings group, BPF had lower fat 1.3 (0.9–1.7) vs. 6.0 (3.5–11.0) g/100 g and saturated fatty acid 0.6 (0.6–0.8) vs. 2.9 (2.3–6.0) g/100 g content than BNF (both p < 0.005). In the Tinned fruits and vegetables group, BPF had lower sodium content than BNF: 175 (0–330) vs. 370 (150–600) mg/100 g, p = 0.006.

BPF might be a reasonable and eventually healthier alternative of BNF for economically deprived people in Switzerland.

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1. Introduction

Diet is paramount for maintenance of health and prevention of most chronic diseases (World Health Organization, 1990). Several studies have reported that healthy, nutrient-rich foods such as fruits and vegetables are more expensive than energy-dense foods with low nutrient content (Drewnowski, 2010; Drewnowski and Specter, 2004; Temple and Steyn, 2011). Indeed, among economically deprived people, high price of foods is the most important barrier to a healthy diet, and two randomized controlled trials have shown that lower pricing strategies are consistently more effective than education for improving dietary habits (Ni Mhurchu et al., 2010; Waterlander et al., 2013).

Several studies conducted in Australia, the United Kingdom and France have shown that low-cost (budget) foods have an equivalent nutrient composition compared to high-cost (branded) foods (Chapman et al., 2013; Cooper and Nelson, 2003; Darmon et al., 2009). Thus,

E-mail addresses: Saman.KhalatbariSoltani@unil.ch (S. Khalatbari-Soltani), Pedro-Manuel.Marques-Vidal@chuv.ch (P. Marques-Vidal). budget foods might be more cost-effective than branded foods regarding macro- and micronutrient contents. Although budget foods are increasingly popular among consumers (Waterlander et al., 2014), it remains a common belief that budget foods are nutritionally inferior to branded equivalents; in France, over one third (36%) of consumers think in this manner (Darmon et al., 2009).

Switzerland is one of the wealthiest countries worldwide. Still, over half of its population considers that healthy eating is expensive (Lieberherr et al., 2010). In Switzerland, two major supermarket chains represent 70% of the retail food market (Stephens, 2010), and both chains offer BPF. In almost all food categories there is a "best price" food (BPF)¹ with emphasis on lower price. These BPF might represent an interesting alternative to brand name foods (BNF)² for more economically deprived people. Previous studies have shown that the compliance to nutritional guidelines is low in the Swiss population. Low cost fruit and vegetable juices could be an interesting alternative to fruit and similarly, low-cost cheese and yogurts could help increase the very low percentage of the population complying with guidelines regarding dairy

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¹ BPF, best price food

² BNF, brand name food

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Fig. 1. Percentage cost saving between brand name food (BNF) and best price food (BPF) groups in Switzerland, as of May 2015.

products. Finally, the low cost bread and bread products, as well as breakfast cereals, could help increasing the low fiber consumption of the Swiss population. However, the information regarding the nutritional content of BPF and BNF is lacking in Switzerland. So, the present study aimed to compare the nutritional content of BPF with their BNF equivalent in Switzerland.

from www.valeursnutritives.ch. It includes data for 7076 food items, 5040 (71.2%) of which from the two main supermarkets chains.

2.1. Cost of foods

For all food categories, the cost of foods was collected in May 2015 from the online store of the two main supermarket chains and expressed as Swiss Francs (CHF) per kg or per liter (1 CHF = 0.9595€ or 1.0712US\$, values as of 22 May 2015). To calculate cost saving percentage, the price difference between mean BNF and BPF price were divided by mean BNF price, then multiplied by 100.



The version 5.0 of the Swiss Food and Nutrient composition database was used for analysis. The database can be downloaded free of charge



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