Sodium snackdown: Comparing branded vs. private label savoury snacks from 2008 and 2021 against the WHO sodium global benchmarks

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In 2021, the World Health Organisation (WHO) established global sodium benchmarks for food categories to reduce population salt intakes[1]. High dietary intakes of salt are a known risk factor for hypertension and related cardiovascular diseases which are a leading cause of death globally and in Ireland[2]. Evidence shows that lower socio-economic groups consume higher amounts of salt[3]. Private label (PL) products are on average less expensive than branded (BR) products meaning they are often recommended as a cost saving food choice for people on low incomes[4]. PL products accounts for 46% of grocery market in Ireland and market share is growing as consumers switch to PL in response to food price inflation[5]. It is important PL products are equitable from a health perspective.

The aim of this study was to determine and compare the sodium content of a convenience sample of BR and PL savoury snacks between two time points (2008 and 2021) and to subsequently compare them to the WHO Sodium Global Benchmarks.

Pre-packaged savoury snacks were sampled from Dublin-based supermarkets in 2008 and 2021. Samples were sent to the Public Analyst Laboratory in Galway for analysis of sodium (mg) content per 100 g of the food product, using atomic emission spectrophotometry. The average sodium content (mg) per 100 g of BR and PL products in 2008, 2021 and 2008 *vs.* 2021 were analysed using independent t-tests and two-way ANOVA at $p < 0.05$ level of significance (IBM SPSS version 28.01.1). In addition, each product was manually assigned to a relevant WHO Sodium Global Benchmark savoury snack subcategory and assessed against the sodium benchmark.

This study analysed n = 97 savoury snacks in 2008 (67% BR (n = 65); 33% PL (n = 32)) and n = 92 savoury snacks in 2021 (45% BR (n = 41); 55% PL (n = 51)).

In 2008, no significant difference was seen across the mean sodium content of BR of 660.92 mg (SD = 321.76) and mean sodium content of PL of 667.97 mg (SD = 385.06) ($p = 0.925$). In 2021, no significant difference was seen across the mean sodium content of BR of 681.79 mg (SD = 300.35) and mean sodium content of PL of 668.73 mg (SD = 378.62) ($p = 0.858$). Moreover, no significant difference was seen in BR and PL products between 2008 and 2021 ($p = 0.847$).

Overall, a total of 69% of savoury snacks (n = 131) from 2008 and 2021 were above the WHO Sodium Global Benchmarks; 74% BR (n = 48) and 63% PL (n = 20) in 2008, and 75% BR (n = 30) and 65% PL (n = 33) in 2021.

In conclusion, people who purchase PL savoury snacks are exposed to similar levels of sodium as those who purchase BR savoury snacks. However, both categories of savoury snacks contain too much sodium when compared to WHO Sodium Global Benchmarks demonstrating the need for manufacturers to reformulate.

References

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