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Benchmarking the sugar and caffeine content of carbonated sugar-sweetened beverages and energy drinks on the Irish market in 2023

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Over consumption of sugar-sweetened beverages (SSBs) is associated with an increased risk of weight gain and dietary related noncommunicable diseases.⁽¹⁾ Consumption of energy drinks (EDs) by children and adolescents is linked to poor health and social outcomes.⁽²⁾ To address high sugar content in beverages in Ireland, the Sugar Sweetened Drinks Tax (SSDT) was introduced in 2018 and applies to SSBs, including EDs, with a sugar content of 5 g/100 ml or more.⁽³⁾ SSBs and EDs are also prioritised for sugar reduction in the Irish reformulation strategy.⁽⁴⁾

The aim of this study was to examine the mean analysed sugar (g) content of carbonated SSBs and EDs on the Irish market in 2023 against the Irish SSDT differential rate thresholds. A secondary aim was to determine a 2023 benchmark for the mean labelled caffeine (mg) content of EDs.

A convenience sample of SSBs (n = 67) and EDs (n = 28) were collected from Dublin-based supermarkets in 2023. Samples were sent to the Public Analyst Laboratory, Galway for sugar analysis, using high-performance anion-exchange chromatography/pulsed amperometric detection. The mean, standard deviation (SD), minimum and maximum (min-max) analysed sugar (g) per 100 ml and per suggested serving size were determined and assessed against the SSDT lower rate of 5–7.99 g/100 ml and upper rate of >8 g/100 ml. The mean, SD and min-max labelled caffeine (mg) content per serving of EDs containing caffeine (n = 18) was determined. Statistical analysis was completed using RStudio v4.3.0.

The mean analysed sugar (g) of SSBs (n = 67) and EDs (n = 28) was 4.48 g/100 ml (SD 1.53; min-max 1.6 g–10.7 g) and 6.56 g/100 ml (SD 3.31; min-max 1.5 g–14 g), respectively. In SSBs (n = 54) and EDs (n = 22) that provided a suggested serving size, the mean analysed sugar (g) was 11.17 g per serving (SD 3.75; min-max 4 g–26.75 g) and 25.93 g per serving (SD 18.17; min-max 9.75 g–70 g), respectively. In this sample 31% (n = 21) of SSBs and 50% (n = 14) of EDs had a sugar (g) content above the taxable rate. Of these, 10% (n = 2) of SSBs and 64% (n = 9) of EDs were above the SSDT upper taxable rate. Caffeine containing EDs (n = 18) had a mean labelled caffeine (mg) content of 129.17 mg per serving (SD 39.38; min-max 70 mg–160 mg).

The majority of carbonated SSBs in this sample were below the SSDT lower differential threshold.

However, the majority of EDs had a high sugar content and were liable for SSDT at the higher rate. These findings agree with a 2019 study and show EDs remain high in sugar and caffeine.⁽⁵⁾ Given their association with poor health outcomes in children and adolescents, EDs on the Irish market require additional reformulation to meet sugar reduction targets.⁽²⁾

Acknowledgments

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References

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