

Abstract

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Nutritional composition and healthiness of out-of-home food and drink: cross-sectional and retrospective longitudinal analyses of best-selling menu items in the UK, 2021-2023/24

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The out-of-home (OOH) food sector has a growing importance on the UK population diet, but the nutritional quality of the most influential OOH menu items has not yet been comprehensively characterised⁽¹⁾. It is also unclear how OOH food healthiness should be assessed. The primary study objectives were to assess the compliance of best-selling menu items in the UK with the ongoing calorie, salt, and sugar reduction programmes⁽²⁾ and to compare the use of UK official healthiness assessment models and metrics,^(3,4) using data collected in 2023/24. A secondary objective was to examine item-level changes in nutritional composition over time using 2021 data for a subset of menu items.

A cross-sectional survey of the 10 best-selling menu items of the 20 largest OOH companies in the UK was conducted online between September 2023 and March 2024, with manual imputation of missing nutrition data. Candidate healthiness assessment approaches included the UK Nutrient Profile Model (NPM)⁽³⁾, Multiple Traffic Light Labelling (MTL),⁽⁴⁾ and the targets, guidelines, and levy threshold included in the UK calorie, salt, and sugar reduction programmes.⁽²⁾ Longitudinal item-level changes in nutrition composition were assessed retrospectively using archived August 2021 web-extracted data.

After excluding items where data imputation was not possible, 189 menu items were included in 2023/24, consisting mostly of main meals (25%), starter/side dish/small plates (18%), and sandwiches (18%). 59% of 184 products met their respective maximum calorie, salt, and/or sugar target/guideline; and 8 of the 20 applicable average target/guidelines were achieved. Depending on the healthiness assessment approach used, 46-78% of the menu items would not be deemed healthy. The NPM yielded the most lenient assessment due to not accounting for portion size; combining it with either category-specific or across-the-board maximum thresholds resulted in more stringent assessments. 117 food and 23 drink menu items could be tracked from 2021 to 2023/24; an increase in the median [interquartile range] salt content per serve was found in food (from 2.0g [1.3-3.7g] to 2.2g [1.4-3.8g], $p=0.004$). No other change in nutrition composition was observed over time at the menu item level.

This study comprehensively highlights the generally poor nutritional quality of best-selling OOH menu items in the UK, the lack of success of current voluntary programmes in driving impactful OOH product reformulation, and the limitations of the NPM for OOH application. Limitations include uncertainty around nutrition data accuracy (as either extracted from company websites or estimated using single purchases) and assessment of compliance with the calorie, salt, and sugar reduction programmes based solely on reformulation or portion size adjustments, not capturing mechanisms such as shifting sales. Our findings suggest that healthiness assessment in the OOH sector requires using either category-specific or across-the-board maximum thresholds for energy and 'negative' nutrients (e.g., salt, sugars) per serve.

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