



Changes in household food and drink purchases following restrictions on advertising across the Transport for London network

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About the research

Advertising of foods and drinks with a high fat, salt and sugar (HFSS) content is associated with obesity. Many governments and local authorities are considering advertising restrictions to reduce consumption of HFSS products as part of obesity prevention strategies. However, evidence of the effectiveness of such policies in reducing purchases of HFSS products is limited.

In February 2019, the Mayor of London introduced restrictions on the advertisement of HFSS products (as defined by the UK's Nutrient Profiling Model) across the Transport for London (TfL) network. The TfL's advertising space is worth £152.1 million and accounts for ~40% of London's outdoor advertising spend.

In this study, we estimated the impact the TfL advertising policy had on household purchases of HFSS products using food and drink purchase data from 1,970 households enrolled on the Kantar Fast Moving Consumer Goods panel. We compared weekly household purchases in London following the introduction of the policy to an estimate of what would have happened without the policy. This estimate was based on the trend in London before the policy was introduced and the changes in a control area, North of England, after the policy was introduced.

Policy implications

- This study provides evidence to support the introduction of outdoor advertising restriction policies as an effective and feasible way of reducing purchasing of HFSS products.
- The largest reductions were observed for chocolate and confectionery. In these cases the brand advertising also disappeared as there were no 'healthier alternatives' for that product that would be compliant with the restriction. This highlights the potential importance of regulating brand advertising, in addition to product advertising.
- There was some indication that reductions in HFSS purchasing were largest in households where the main food shopper was living with obesity, indicating a well-targeted policy. Further studies are needed to confirm this and explore the impacts on dietary inequalities.
- This policy was associated with moderating the growth of HFSS purchases rather than achieving absolute reductions in HFSS purchasing. This highlights the importance of deploying multiple policies that intervene across the whole of the food environment to reduce HFSS purchasing and improve population health.

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Key findings

- **Reductions in calorie purchases** – average weekly household purchases of energy from HFSS products were 1,001 kcal (6.7%) lower among intervention households following the introduction of the intervention, compared to expected
- **Reductions in nutrients** – similar reductions in fat (57.9 g), saturated fat (26.4 g) and sugar (80.7 g) from HFSS products purchased were seen
- **Greatest reductions were for chocolate and confectionery** – weekly household purchase of energy from chocolate and confectionery fell by 317.9 kcal (19.4%) compared to expected levels
- **Sub-group differences** – there was some indication that reductions were greater among households where the main food shopper was living with overweight or obesity
- **Reductions were relative, not absolute** – all reductions were relative as HFSS purchases increased in both the intervention and control areas over the study period

Contact the researchers

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Further information

The *PLOS Medicine* article detailing this work can be found here:

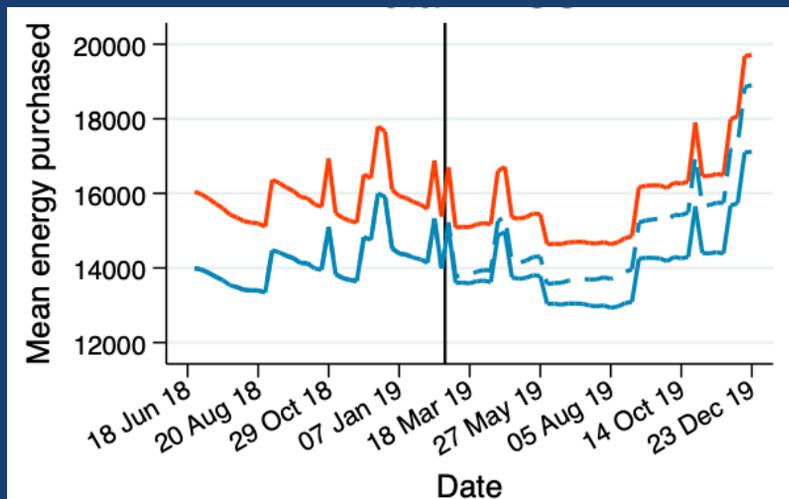
<https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1003915>

This work forms part of the NIHR School of Public Health Research work on [evaluating the impact of the removal of 'junk-food' advertising on public transport networks in London](#).

About the School

The NIHR School for Public Health Research is a partnership between the Universities of Sheffield; Bristol; Cambridge; Imperial; and University College London; The London School for Hygiene and Tropical Medicine (LSHTM); LiLaC – a collaboration between the Universities of Liverpool and Lancaster; and Fuse - The Centre for Translational Research in Public Health a collaboration between Newcastle, Durham, Northumbria, Sunderland and Teesside Universities.

Fig 1. Adjusted weekly household mean energy purchased from HFSS products in London, the North of England and estimated purchases without the policy



Solid blue line=Observed purchases in London

Solid orange line=Observed purchases in the North of England

Dotted blue line=Estimated purchases in London had the policy not been introduced