

Rapid Evidence Synthesis: Implementing policies that restrict the use of outdoor spaces for advertising harmful commodities

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Cite as:

Shi, C., Dumville, J., Long, H., Cullum, N. (2024). Rapid Evidence Synthesis: Implementing policies that restrict the use of outdoor spaces for advertising harmful commodities. NIHR ARC for Greater Manchester: University of Manchester.



Rapid Evidence Synthesis:

Rapid Evidence Syntheses (RES) are produced by the National Institute for Health and Care Research (NIHR) Applied Research Collaboration for Greater Manchester (ARC-GM). The methods used are based on a framework set out in Norman et al. 2022 and previously registered on the Open Science Framework (OSF).^{1,2}

RES use evidence synthesis approaches and draws on the GRADE Evidence to Decision framework³ to provide rapid assessments of the existing evidence and its relevance to specific decision problems. In the first instance, they focus on evidence from guidance and existing evidence syntheses. They are undertaken in a real-time context of decision-making around adoption of innovative health technologies and are designed to provide a “good-enough” answer to inform decision problems in a short timescale. RES methods are flexible and adaptive. They have evolved in response to user feedback and differ depending on the nature of the assessment undertaken.

RES is not intended to serve as a substitute for a full systematic review.

We welcome feedback and are particularly interested to hear how you have used this Rapid Evidence Synthesis.

Please send any queries or comments to:

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This work was undertaken by the National Institute for Health Research (NIHR) Applied Research Collaboration for Greater Manchester (ARC-GM). The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care.

¹ Norman, G. *Rapid evidence synthesis to support health system decision making*. OSF registration. 2020 [cited 2023]; Available from: osf.io/hsxk5

² Norman, G., et al., *Rapid Evidence Synthesis To Enable Innovation And Adoption in Health and Social Care*. Systematic Reviews, 2022. **11**: p. 250. <https://doi.org/10.1186/s13643-022-02106-z>

³ Alonso-Coello, P., et al., *GRADE Evidence to Decision (EtD) frameworks: a systematic and transparent approach to making well informed healthcare choices. 1: Introduction*. BMJ, 2016. **353**: p. i2016.

1. Summary

There is some **limited** research evidence regarding the implications of policies that restrict the use of outdoor spaces for advertising alcohol and gambling. We found no research evidence regarding policies to restrict advertising for payday loans.

Limited evidence suggests that implementing restrictions on alcohol marketing in outdoor places may reduce the awareness of alcohol advertising in adults, whilst it is **uncertain** if restricting or banning alcohol advertising could reduce alcohol consumption in adults and adolescents. There is **consistent evidence** on the causal relationship between exposure to advertising of gambling commodities and positive attitudes towards gambling, intentions to gamble and increased gambling activity.

Possible facilitators for implementing advertising restriction policies include:

- Wide-spread support among stakeholders and the public,
- A shared commitment amongst local authorities to reduce health inequalities,
- Pre-existing policies that ban the advertising of product types rather than companies.

Barriers to implementing advertising restriction policies include the lack of workforce to implement and monitor adherence to them.

We summarise below the research evidence identified in this area. More details are in [Section 3 Results](#).

Review questions	Multiple types of harmful commodities	Alcohol	Payday loans	Gambling
Do policies restricting the advertising of harmful commodities reduce people’s exposure to outdoor marketing and/or its persuasive effects?	The real-world evidence is unclear, but evidence from studies that model different advertising policy scenarios suggests that banning harmful commodities’ advertising within 400m of bus stops and schools, and residential bans, may reduce exposure rates in children.	Implementing restrictions on alcohol marketing in outdoor places where young people spend time, on public transport or at transport hubs, or at the cinema may reduce adults’ awareness of alcohol advertising at the cinema and on public transport but not on outdoor posters or billboards, but the evidence has some uncertainties.	Not available	Not available
Does restricting harmful commodities’ advertising in outdoor spaces impact on the purchase and consumption of commodities?	Not available	Uncertain evidence whether restricting or banning alcohol advertising reduces alcohol consumption in adults and adolescents. Evidence consistent that exposure to alcohol advertising may increase the likelihood of adolescents and young adults starting to drink alcohol and increase consumption if they already drink alcohol.	Not available	Evidence consistently suggests a causal relationship between exposure to advertising of gambling commodities and positive attitudes towards gambling, intentions to gamble and increased gambling activity.
Does restricting harmful commodities’ advertising in outdoor spaces impact on population health outcomes?	Not available	Not available	Not available	Not available

Do policies restricting advertising of harmful commodities in outdoor spaces have financial impacts for authorities?	Not available	Not available	Not available	Not available
What are the facilitators for restricting the use of outdoor spaces for advertising harmful commodities?	Not available	Widespread support among stakeholders and local authorities' shared commitment to address health inequalities; pre-existing policies that ban the advertising of product types rather than companies.	Not available	Not available
What are the barriers to restricting the use of outdoor spaces for advertising harmful commodities?	Not available	Weak or unclear mechanisms for monitoring and enforcement.	Not available	Not available

2. Methods

2.1 Description of the Intervention

Outdoor advertising often uses public spaces such as public transport, billboards, street posters and screens to market alcohol, payday loans and gambling. Exposure to outdoor advertising of these harmful commodities may influence people's attitudes, preferences, and behaviours and encourage their consumption, adversely affecting health. Implementing national or local government policies has been suggested as a way of decreasing the frequency, reach and power of this advertising so potentially minimising the negative health impacts of these harmful commodities.

2.2 Search

We searched Medline (Ovid) and the Epistemonikos database in May 2024. Our searches were based on key terms related to alcohol, gambling, payday loans, advertising, and outdoor or public assets. We also searched the reference lists of the included reviews and used Google Scholar to identify further related articles.

2.3 Key Questions

Q1. What is the evidence for the impact of local or national government policies to restrict advertising of alcohol, payday loans and gambling commodities in public spaces e.g. on public transport, billboards, on people of any age, in terms of:

- advertising's frequency, reach and power outcomes,
- people's behavioural outcomes,
- health outcomes, and
- economic impacts?

Q2. What are the barriers and facilitators to the implementation of government-led policies that restrict the advertising of harmful commodities in public spaces?

2.4 Inclusion Criteria

2.4.1 Participants

We included evidence about impacts on people of any age. We did not limit the countries where the included studies were conducted, but we considered the evidence to be directly relevant to this RES if the studies were conducted in the UK.

2.4.2 Interventions

We included evaluations of the impact of any *policy* that aimed to restrict the advertising of any harmful commodities of the following forms in public spaces:

- Any alcoholic drinks such as beer, lager, cider, wine, spirits, mixtures of alcohols;

- Any types of gambling companies including betting, lottery, online gambling commodities;
- Any payday or short-term loans companies that lend small amounts of money to consumers.

We excluded studies on the advertising of high-risk investment commodities (e.g. cryptocurrencies), and of consumer credit activities other than lending money (e.g. selling goods or services on credit, hiring or leasing out goods, issuing credit cards).

We acknowledge that it is challenging to define the range of the three types of harmful commodities. We accepted the definitions given by the authors of the included studies.

We define policies as laws, formal guidelines, rules, initiatives, or recommendations that are initiated, led or approved by central or local governments. We considered the following categories of policies to be eligible:

- Policies that aim to ban the advertising of harmful commodities in public spaces,
- Policies that restrict the use of public spaces for advertising harmful commodities, with no restriction to the advertising content,
- Policies that permit restricted use of public spaces for advertising harmful commodities, with advertising modified in terms of their frequency and/or reach, the persuasive content and strategies used, or timing such as permitting the advertising after a specific time,
- Policies that support promotional material discouraging consumption of harmful commodities.

We acknowledge that some studies evaluated the impacts of advertising *restriction policies* on outcomes whilst others evaluated the impacts of harmful commodities' *advertising* on outcomes. We considered studies that evaluated policy restrictions to be a source of *direct* evidence. Where direct evidence was unavailable, we included studies that evaluated advertising, but considered their evidence to be *indirectly* relevant to this RES.

It is also challenging to define public spaces, and we accepted the author's definitions as long as the spaces can provide unrestricted public access. We excluded studies that investigated alternative approaches to the advertising of harmful commodities alone, such as TV, social media, and websites, newspapers. We included studies of these alternative approaches if they also studied outdoor advertising, but considered the evidence to be indirectly relevant to this RES.

2.4.3 Comparators

We considered reviews and studies with any comparator group, including no intervention, and alternative interventions.

2.4.4 Outcomes

For Q1 we included various outcomes, which reflect the potential impact of the interventions in four domains:

- **Exposure to advertising.** Specific outcomes can be related to the frequency and reach of advertising and its persuasive effects as defined by the authors of the included research.

- **Psychological and behavioural outcomes.** Specific outcomes can be related to the attitudes, preferences, and behaviours towards consuming harmful commodities.
- **Health outcomes.** We did not limit this RES to specific health outcomes. However, for alcohol-related commodities, we particularly looked for evidence of impact on mental health disorders (including addiction), obesity, and related co-morbidities such as diabetes, liver disease and cardiovascular disease. For payday loans and gambling, we looked for evidence of the impact on mental health disorders including addiction. We also looked for evidence of differences in health outcomes by inequity-related characteristics that include place of residence, race/ethnicity/culture/language, occupation, gender/sex, religion, education, socioeconomic status, and social capital.
- **Economic implications** of restricting the advertising of harmful commodities.

For Q2 we considered evidence about the barriers and facilitators to implementing government policies to restrict advertising of harmful commodities in public spaces.

2.4.5 Study design

In the first instance, we considered existing evidence syntheses, including overviews of reviews, systematic and scoping reviews of any primary study design. We included quantitative, qualitative, and mixed-methods research. We used a broad definition of systematic reviews as having a systematic search and clear inclusion criteria.

Where we were unable to identify relevant evidence syntheses, or where directly relevant review evidence was limited, we considered primary studies, looking at the most robust primary study designs first. For Q1 this is quantitative research that evaluates the implementation of restriction policies (as defined in **2.4.2. Interventions**), compared with alternative policies or no implementation. Such research should follow up with clearly defined participants for some time and adjust for confounding in the analysis or by study design. These include controlled before-after studies, controlled interrupted time series studies, and studies with regression discontinuity designs. For Q2 these are well-conducted qualitative or mixed methods studies. Studies using other designs were considered only in the absence of well-designed quantitative or qualitative research.

In summarising the evidence identified, we followed the GRADE approach to categorising the certainty of evidence into four levels:

- **high** certainty, indicating that we are confident that the research findings reflect a true effect;
- **moderate** certainty, indicating that we are fairly confident that the finding reflects a true effect;
- **low** certainty, indicating that we have limited confidence in the findings, and more research is likely to change them;
- **very low** certainty, indicating that there are no clear findings.

We followed general GRADE criteria in assessing the certainty of evidence without performing a full GRADE assessment of the evidence.

3. Results

3.1 Results of search

We identified 522 records from database searches and included five systematic reviews or overviews of reviews [1-5] and six primary studies [6-11] in this RES.

3.2 The implications of advertising restriction policies (Q1)

Eight publications report evidence about the impact of advertising restriction policies on multiple types of harmful commodities, alcohol commodities and gambling commodities [1-8]. We found no evidence regarding payday loans.

3.2.1 Policies related to multiple types of harmful commodities

Liu and colleagues report a quantitative study investigating children's exposure to the advertising of multiple types of harmful commodities (alcohol, unhealthy food, and gambling) in outdoor places in Wellington, New Zealand[8]. They used a modelling approach to evaluate the impact of different hypothetical approaches to banning harmful commodities' advertising, on exposure rates in children [8].

Of all the types of harmful commodities considered, banning advertising within 400m of bus stops had the largest impact on reducing rates of exposure to advertising, followed by bans in residential areas and within 400m of schools. Data used in this study were from 122 children aged 11 to 13 years old. Thus, the evidence might have **some limitations in transferability** to children of other age groups. The evidence is from modelling-based evaluation, and real-world evidence is **unclear** for the different policy scenarios that Liu et al. evaluated.

3.2.2 Policies related to alcohol commodities

Influences on advertising exposure

Two primary studies report evidence that is **directly relevant** to this RES [6, 7]. These studies used cross-sectional surveys to investigate adults' awareness of alcohol marketing activities on public transport, cinema, and outdoor posters or billboards in Ireland before (surveyed in 2019) and after (surveyed in 2020 and 2021) implementing Ireland's Public Health (Alcohol) Act. It is worth noting that this Act not only restricts alcohol marketing in youth orientated-outdoor places, public transport, transport hubs, and at the cinema, but also included other measures e.g., minimum pricing, mandatory product labelling, and price promotion restrictions.

Both studies suggested that implementing the Public Health (Alcohol) Act in Ireland was associated with reduced awareness of alcohol advertising at the cinema and on public transport, but not on

outdoor posters or billboards. The evidence however has **some uncertainties** due to the methodological limitations in both studies: (1) the use of self-reported awareness measures is subject to recall bias, and (2) they did not collect data on other factors that may explain or confound changes in awareness between the repeated surveys.

Impacts on behaviour-related outcomes

Four reviews present evidence on this topic. The evidence is largely **indirectly relevant** to this RES as reviews evaluated not only outdoor advertising but also advertising of other formats such as TV and social media. Of the four reviews, a Cochrane Review published in 2014 focused on restricting or banning alcohol advertising [5], whilst the other three concerned advertising exposure as the risk factor under investigation rather than restriction policies [1-3].

The Cochrane Review included one small RCT (80 male student participants from the Netherlands) and three interrupted time series studies (general population from Canada) [5], and it suggested that the evidence for restricting or banning alcohol advertising to reduce alcohol consumption in adults and adolescents is **uncertain**. The review authors concluded that there is no robust evidence for or against recommending restricting alcohol advertising.

The three reviews on exposure to alcohol advertising all focused on alcohol consumption behaviours in adolescents and young adults. These reviews included either longitudinal studies, cross-sectional studies or both, and the review authors largely rated the included studies as **moderate or good quality**. The evidence **consistently** suggested that exposure to alcohol advertising increases the likelihood of adolescents starting to drink alcohol, and increased consumption if they already drink alcohol. We judge the evidence to be of **low certainty** given it is **indirectly relevant** to this RES.

3.2.3 Policies related to gambling commodities

McGrane and colleagues report an overview of eight reviews on the impacts of gambling advertising policies on attitudes, intentions and behaviours [4].

The eight included reviews **consistently** show a causal relationship between exposure to advertising of gambling commodities and positive attitudes (impression, feelings) towards gambling, intentions to gamble and increased gambling activity. There was more evidence for the impact on children and young people and for those already at risk from current gambling activity, with those most vulnerable more likely to be influenced.

According to the rating of McGrane and colleagues, all included reviews had **methodological limitations**. The evidence is somewhat **indirectly relevant** to this RES as the factor under investigation is the exposure to gambling advertising commodities. The evidence may be transferrable to governments' restriction policies. The evidence may be supportive of implementing restriction policies to mitigate the impact of gambling advertising on the public.

3.3 Barriers and facilitators to the policy implementation (Q2)

Three primary studies, all **directly relevant**, were identified on this topic. Two of these studies focused on policies that restrict the advertising of unhealthy commodities in Bristol and South Gloucestershire [9, 11]. These two studies explored the barriers and facilitators to implementing the Bristol Advertising and Sponsorship Policy that restricts high fat, salt or sugar foods and drinks; alcohol; gambling and payday loans across council-owned advertising spaces. The initial facilitators identified include:

- The support of the public in Bristol for progressive policies,
- A shared commitment amongst local authorities to address health inequalities,
- The Transport for London's pre-existing policy which bans advertising of product types rather than banning specific companies.

The initial barriers identified are:

- a relatively small proportion of the advertising space owned by Bristol Council,
- lack of workforce to implement and monitor adherence to the policy.

A case study summarised the experience of implementing a ban on the use of billboards for the outdoor advertising of alcohol and tobacco in Baltimore City, U.S.A. [10] This study suggested that community engagement and organising were important facilitators for enacting and enforcing the ban policy.

4. References

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Produced by the NIHR Applied Research Collaboration Greater Manchester
16 May 2024.

The information in this report is correct at the time of printing.

