Public support for unhealthy food marketing policies in Australia: A cross-sectional analysis of the International Food Policy Study 2022

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Abstract

Objective: This study aimed to explore public opinion towards food marketing policies.

Methods: In 2022, a cross-sectional online survey was completed by 3,923 adults in Australia, including 1,152 caregivers of children aged <18 years. Concern about children's exposure to unhealthy food marketing was assessed among caregivers. Public support for seven policy options to restrict unhealthy food marketing in different media and settings (broadcast, online, outdoors, packaging and retail) was quantified. Multivariable regression analyses were conducted to examine sociodemographic differences.

Results: Most caregivers (85%) reported some degree of concern about their child's exposure to unhealthy food marketing. Among all respondents, there was a high level of support or neutrality (>70%) for all policies aimed at restricting unhealthy food marketing. Respondents who were female, older, highly educated, who identified as Aboriginal and/or Torres Strait Islander, perceived their monthly income as adequate or had at least one child living in the household reported higher support/neutrality towards several of the assessed policies.

Conclusions: Most Australian adults were supportive or neutral towards policies restricting unhealthy food marketing. The level of support varied depending on the policy's target group and its setting.

Implications for Public Health: Implementing unhealthy food marketing policies in Australia would most likely have broad public support and minimal opposition.

Key words: policy, food marketing, public support, caregivers

Introduction

Dietary risks are leading contributors to poor health in Australia and internationally.[1,2] Unhealthy food environments, which favour the accessibility, affordability and marketing of unhealthy foods (i.e. highly processed and high in energy, saturated fat, added sugar and sodium), play a key role in shaping population diets.[3,4] In particular, the pervasive marketing of unhealthy foods and beverages through different strategies and channels is a powerful driver of unhealthy diets.[5,6] Unhealthy food marketing is delivered across a diverse range of settings and media, including broadcast media (e.g. television [TV] and cinema), digital media (e.g. online platforms), sponsorship of sports and other cultural events, outdoor settings (e.g. billboards and public transport), product packaging and retail settings (e.g. placement and price promotions).[5] Both children and adults are exposed to high volumes of unhealthy food marketing, which contributes to social norms towards food and brand preferences across the life course.[5–7] Exposure to unhealthy food marketing has been associated with higher intake of unhealthy foods, which increases the risk of developing diet-related chronic diseases.[8–10] Global and national recommendations urge the adoption and implementation of a comprehensive set of policies to protect the public, particularly children, from unhealthy food marketing in a range of media and settings.[11–14]

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Although many countries globally have committed to regulating food marketing, only a few have adopted or pledged to adopt comprehensive government-led responses (e.g. Chile's Food Labelling and Advertising Law[15] and England's restrictions on the placement and price promotion of unhealthy food in retail settings[16] and on unhealthy food advertising on TV before 9 pm and online[17]). To date, no country has restricted all unhealthy food marketing beyond what is expressly "intended" or "directed" at children across the different media and settings,[18,19] which implies that children remain exposed to marketing that is directed to others. In Australia, national strategies related to preventive health,[12] obesity[13] and diabetes[14] all include restricting unhealthy food marketing as a key policy goal to be delivered by the early 2030s. Although there is currently political momentum to explore regulatory options to restrict unhealthy food marketing in different media and settings,[20] no significant action has been taken to date. Public health policy processes are typically complex, with a range of considerations influencing policy development and implementation, including local evidence on the nature of the problem, and contextual factors related to potential solutions, such as cost-effectiveness, feasibility and acceptability.[19,21] In democratic societies, public opinion greatly influences the salience of policy issues and the likelihood of policy adoption.[22] Demonstrating public support for public health policies can enhance political will, help governments resist industry opposition and inform prioritisation of policy options.[23]

In the area of food policy, prior studies have shown that the public tends to support policies that are perceived as less intrusive, such as those providing information and guiding choice, than those that restrict or hinder choice.[24–27] The public is also more likely to support policies that are already implemented elsewhere and those aimed at protecting children and young people.[28–30] Whilst previous studies have quantified public support for restricting specific forms of unhealthy food marketing,[24,30] they have not investigated support for different policy options targeting diverse media and settings (e.g. broadcast, online, outdoor and retail). This study aimed to assess caregivers' concern about children's exposure to unhealthy food marketing and public support for various policies aimed at restricting unhealthy food marketing in Australia, as well as the sociodemographic factors associated with policy support.

Methods

The International Food Policy Study (IFPS) is a cross-sectional online survey conducted annually in Australia, Canada, Mexico, the United Kingdom and the United States with adults aged ≥18 years. Data from the Australian arm of the 2022 IFPS survey were used for this study. Participants were recruited through Nielsen Consumer Insights Global Panel and their partners' panels using both probability and nonprobability sampling. Email and panellist dashboard application invitations with unique survey access links were shared with a random sample of panellists for eligibility and quota requirements screening. Sampling quotas were based on age and sex according to national census estimates. Eligible participants were provided with information about the study and were asked to provide consent before completing the survey. Respondents were remunerated in accordance with their panel's usual incentive structure (e.g. point-based or monetary rewards and chances to win prizes).

A total of 94,512 invitations were sent to panellists in Australia, of which 6.2% accessed the survey link and 5.5% completed the 2022 IFPS survey (N=5,227). After excluding respondents with data quality concerns, a total of 4,206 respondents remained. A sub-sample of 3,923 respondents residing in Australia were included in the present analysis, after further excluding 283 respondents with missing data on the policy support measures and covariates of interest. Further details on the study methods are available elsewhere.[31]

Concern about children's exposure to unhealthy food marketing was assessed only among survey participants with at least one child under 18 years of age in their household (n=1,152). These participants were asked, "Are you concerned about the amount of marketing for sugary drinks and fast food that your children see?", with response options "not at all concerned", "a little concerned", "somewhat concerned", "very concerned", "don't know" and "refuse to answer".

Public support was assessed for seven policies aimed at restricting unhealthy food marketing in different media/settings and with different target groups, with response options including "support", "neutral", "oppose", "don't know" or "refuse to answer". Participants were asked if they would support or oppose a government policy that would require a ban on 1) price discounts for unhealthy food and beverages (e.g. 30% off or "buy-one-get-one-free"); 2) marketing of unhealthy food and beverages online/on the internet; 3) advertising of unhealthy food and beverages on TV before 9 pm; 4) unhealthy foods (e.g. sugary drinks, chips and chocolate) at supermarket checkouts; 5) marketing of unhealthy food and beverages to children; 6) outdoor advertisements (e.g. at bus stops and billboards) for unhealthy food and beverages; and 7) the use of cartoon characters and other elements that may appeal to children on the packaging of unhealthy foods. All participants were asked about the first four policies and were randomly assigned to answer a subset of the last three policies to minimise survey length and respondent burden. Respondents who answered "don't know" or "refuse to answer" to any of the assessed policy questions were excluded from the analysis (n=198). Remaining responses of "support", "neutral" and "oppose" were re-categorised into a binary variable for logistic regression analysis, with "support" and "neutral" grouped together as "support/neutral" and "oppose" remaining as "oppose". The rationale for combining support and neutral responses is based on the notion that political risk of policy implementation is mainly related to the percentage of the population opposing a policy.[22]

Several sociodemographic characteristics were also assessed, including sex at birth (female or male), age group (18–29 years old, 30–44 years old, 45–59 years old or >60 years old), education (low [year 12 or lower], medium [trade certificate, diploma or some university below bachelor's level] or high [bachelor's degree or more]), language spoken at home (speak only English or a language other than English), Indigeneity (Aboriginal and/or Torres Strait Islander or non-Indigenous,) and state/territory (New South Wales, Victoria, Queensland, Western Australia, South Australia, Tasmania, Australian Capital Territory or Northern Territory). Perceived income adequacy was assessed through the question "Thinking about your total monthly income, how difficult or easy is it for you to make ends meet?" (very difficult/difficult, neither easy nor difficult or easy/very easy). The number of children under the age of 18 years living in the household was assessed as a binary variable (no children or at least

one). Respondents who answered "don't know" or "refuse to answer" to any of these sociodemographic measures were excluded (n=85).

Data were weighted with post-stratification sample weights constructed using a raking algorithm based on population estimates from census data on age group, sex at birth, region, ethnicity and education. A detailed explanation of the survey weights can be found elsewhere.[28] Descriptive statistics were used to summarise the sociodemographic characteristics of the sample, caregiver's concern about their children's exposure to unhealthy food marketing and the percentage of "support", "neutral" and "oppose" responses for the assessed policies. Differences in policy support across Australia's states and territories were assessed through Pearson's χ^2 test. Multivariable logistic regression models were fitted to explore associations between sociodemographic variables (sex at birth, age, education, language spoken at home, Indigeneity, perceived income adequacy and children under the age of 18 years living in the household) and "support/neutral" responses towards assessed policies. The statistical significance level for this analysis was set at $p<0.05$. Analyses were performed using Stata statistical software version 17.0).

Results

Weighted sample characteristics are described in Table 1. The weighted mean age among all participants was 47 (standard deviation ± 19) years. The majority of respondents lived in New South Wales, Victoria and Queensland, spoke only English in their household and identified as non-Indigenous. Most respondents were classified as having a low or medium education level and reported a "neither difficult nor easy" or "very easy/easy" perceived income adequacy.

Concern about children's exposure to unhealthy food marketing

Most respondents with at least one child under 18 years of age living in their household reported some degree of concern about the amount of marketing for sugary drinks and fast food that their children see. Specifically, 19% reported being "very concerned", 33% "somewhat concerned" and 33% "a little concerned". Only 15% of caregivers reported being "not at all concerned" about their child's exposure to unhealthy food marketing.

Public opinion towards policies to restrict unhealthy food marketing

The level of support for policies restricting unhealthy food marketing ranged between 40% and 62% across the total sample, increasing to 77–89% when combining responses of "support" and "neutral" (Table 2). The percentage of support and neutral responses for the assessed unhealthy food marketing policies was similar across all Australian states and territories (Supplementary Table 1). Statistically significant differences in policy support across states and territories were only observed for bans on advertising unhealthy food on TV before 9 pm and positioning unhealthy food at supermarket checkouts, for which the Australian Capital Territory showed the highest support and neutrality (>90%). The most supported policies overall were bans on marketing unhealthy food and beverages directed to children, child-directed elements (e.g. cartoon characters) on the packaging of unhealthy foods and advertising unhealthy food on TV before 9 pm. Opposition to policy options was less than 23% across all policies.

Table 1: Sociodemographic characteristics. International Food Policy Study 2022, Adult Survey Australia (weighted); n=3,923.

	n (%)
Sex at birth	
Female	1,955 (49.8)
Male	1,968 (50.2)
Age group	
18–29 years old	747 (19.0)
30–44 years old	1,071 (27.3)
45–59 years old	930 (23.7)
≥60 years old	1,175 (30.0)
State/territory	
New South Wales	1,242 (31.7)
Victoria	1,000 (25.5)
Queensland	796 (20.3)
Western Australia	426 (10.9)
South Australia	271 (7.0)
Tasmania	103 (2.6)
Australian Capital Territory	71 (1.8)
Northern Territory	13 (0.3)
Education	
Low	1,448 (36.9)
Medium	1,261 (32.1)
High	1,214 (30.9)
Language spoken at home	
Only English	2,985 (76.1)
Language(s) other than English	938 (23.9)
Indigeneity	
Non-indigenous	3,603 (91.8)
Aboriginal and/or torres strait islander	320 (8.2)
Income adequacy	
Very difficult/difficult	1,119 (28.5)
Neither	1,394 (35.5)
Very easy/easy	1,410 (35.9)
Children under the age of 18 years in the household	
No children	2,708 (69.0)
At least one	1,215 (31.0)

As shown in Table 3, respondents who were older (>29 years old), female, more highly educated, identified as Aboriginal and/or Torres Strait Islander or had children under the age of 18 years living in their household were significantly more likely to report "support" or "neutral" responses towards the majority of the assessed policies. Those who reported a "neither difficult nor easy" perceived income adequacy were significantly more likely to report "support" or "neutral" responses towards three of the seven assessed policies.

Discussion

This study explored public support for policies aimed at curbing unhealthy food marketing across different media and settings in Australia and how different population groups perceive these policies. Firstly, findings show that an overwhelming majority of caregivers are, to some extent, concerned about their children's exposure to unhealthy food marketing. Similar concerns about children's exposure to unhealthy food marketing have been reported in other Australian studies.[29,32] Previous studies have focused on specific aspects of marketing, such as the content and frequency of unhealthy food TV

Table 2: Public opinion towards unhealthy food marketing policies among adults in Australia. International Food Policy Study 2022 (weighted).

Ban on	n	Support (%)	Neutral (%)	Support and neutral (%)	Oppose (%)
Price discounts for unhealthy food and beverages	3,923	40.3	36.6	76.9	23.1
Marketing of unhealthy food and beverages online	3,923	46.8	37.1	83.9	16.1
Advertising of unhealthy food and beverages on TV before 9 pm	3,923	54.1	32.3	86.4	13.6
Unhealthy foods at supermarket checkouts	3,923	44.7	33.7	78.4	21.6
Marketing unhealthy food and beverages to children	1,899[a]	61.7	27.5	89.2	10.8
Outdoor advertisements for unhealthy food and beverages	2,000[a]	46.8	37.3	84.1	15.9
The use of cartoon characters and other elements that may appeal to children on the packaging of unhealthy foods	1,975[a]	55.9	30.6	86.5	13.5

TV = television.
[a]Not all respondents were asked about these policies (i.e. they were randomised to a subset).

Table 3: Adjusted odds ratio (AOR) and 95% confidence intervals (CIs) of sociodemographic characteristics associated with support/neutrality towards unhealthy food marketing bans across different media and settings.

	Price discounts n=3,923	Online marketing n=3,923	TV advertising before 9 pmn=3,923	Supermarket checkouts n=3,923	Marketing directed at children n=1,899	Outdoor advertisements n=2,000	Children-appealing packaging n=1,975
Sex at birth							
Male	Reference						
Female	1.05 (0.88, 1.24)	1.21 (0.99, 1.48)	**1.36 (1.10, 1.68)**	**1.25 (1.05, 1.50)**	**1.53 (1.09, 2.15)**	**1.51 (1.15, 1.98)**	**1.57 (1.14, 2.16)**
Age group							
18–29 years old	Reference						
30–44 years old	1.11 (0.85, 1.45)	1.20 (0.88, 1.64)	**1.38 (0.99, 1 0.91)**	1.22 (0.93, 1.61)	1.28 (0.77, 2.14)	1.33 (0.85, 2.09)	**1.65 (1.03, 2.62)**
45–59 years old	**1.31 (1.03, 1.68)**	**1.39 (1.05, 1.84)**	**1.45 (1.08, 1.94)**	**1.73 (1.34, 2.23)**	**2.17 (1.31, 3.60)**	1.38 (0.93, 2.05)	**1.68 (1.11, 2.55)**
>60 years old	**1.80 (1.40, 2.30)**	**1.68 (1.27, 2.22)**	**1.86 (1.39, 2.49)**	**1.93 (1.50, 2.48)**	1.65 (1.03, 2.66)	**1.70 (1.16, 2.50)**	**2.09 (1.35, 3.25)**
Education							
Low	Reference						
Medium	1.05 (0.86, 1.28)	0.89 (0.71, 1.12)	1.11 (0.87, 1.41)	1.03 (0.84, 1.27)	**1.48 (1.00, 2.19)**	1.07 (0.78, 1.47)	1.29 (0.91, 1.84)
High	1.23 (0.98, 1.54)	1.03 (0.79, 1.34)	**1,34 (1.01, 1.77)**	**1.50 (1.18,1.91)**	**1.78 (1.16, 2.72)**	1.42 (0.99, 2.03)	**1.71 (1.14, 2.55)**
Language spoken at home							
Only English	Reference						
Other	1.22 (0.94, 1.59)	0.93 (0.70, 1.24)	1.22 (0.87, 1.67)	0.83 (0.65, 1.08)	0.91 (0.57, 1.47)	1.07 (0.71, 1.61)	0.71 (0.47, 1.07)
Indigeneity							
Non-indigenous	Reference						
Aboriginal and/or torres strait islander	**2.23 (1.47, 3.39)**	**1.94 (1.22, 3.10)**	**1.74 (1.10, 2.77)**	**1.95 (1.29, 0.2.93)**	0.76 (0.40,1.46)	1.70 (0.92, 3.14)	1.72 (0.89, 3.34)
Income adequacy							
Very difficult/difficult	Reference						
Neither	**1.25 (1.01, 1.53)**	**1.32 (1.04, 1.68)**	1.26 (0.97, 1.63)	1.16 (0.94, 1.44)	1.28 (0.87, 1.90)	1.24 (0.89, 1.74)	**1.50 (1.02, 2.20)**
Very easy/easy	1.05 (0.85, 1.31)	1.21 (0.94, 1.55)	1.09 (0.85, 1.41)	1.16 (0.93, 1.46)	1.47 (0.95, 2.26)	1.02 (0.72, 1.44)	1.08 (0.74, 1.58)
Children under the age of 18 years living in the household							
No children	Reference						
At least one	1.08 (0.87, 1.34)	**1.38 (1.07, 1.78)**	**1.06 (0.81, 1.39)**	**1.39 (1.10, 1.74)**	1.32 (0.83, 2.09)	**1.55 (1.06, 2.28)**	0.88 (0.60, 1.28)

Statistically significant values are shown in bold ($p<0.05$).
TV = television.

advertising or the positioning of unhealthy food at supermarket checkouts. These studies found that 67% to 83% of caregivers were somewhat or very concerned about these issues. In our study, when caregivers were asked about their children's exposure to unhealthy food marketing more broadly, 85% were "a little" to "very" concerned. These findings align with evidence that suggests parents believe unhealthy food marketing undermines their efforts to promote healthy eating to their children.[33]

Additionally, our study shows that around half of the respondents are supportive of policies restricting unhealthy food marketing across the different media and settings (ranging from 40% to 62%), whilst around a third are neutral (ranging from 28% to 37%). The level of public support for unhealthy food marketing policies observed in our study aligns with other national[27,30,34] and international studies.[23–25] The highest level of support was for policies directly protecting children, which included bans on unhealthy food marketing directed to children (62%), the use of cartoon characters on unhealthy food packaging (56%) and TV advertising for unhealthy food before 9 pm (54%). Prior analyses of the 2017 IFPS data[24] also found that a ban on unhealthy food marketing to children was among the policies with the highest support (57%) in Australia, indicating consistency in the findings over time. Another study[30] found that 76% of Australian adult respondents were strongly or somewhat in favour of a government ban targeting unhealthy food and drink marketing to children online. We found a lower percentage of support (47%) for a ban on all online marketing of unhealthy food (not just child-targeted online marketing). This difference could be partly due to the policy framing (aimed at protecting children) and different response options (strongly in favour, somewhat in favour, neither in favour nor against, somewhat against and strongly against).[30] Similarly, a ban on outdoor advertisements for unhealthy food and beverages was supported by 47% of respondents in our study, which is lower than in another study in Australia (79%), where the same regulation was framed in terms of protecting children.[27] These findings align with studies showing that there is generally higher support for marketing policies that protect vulnerable populations such as children.[21,34]

The lowest level of support was observed for bans restricting unhealthy food marketing in retail settings, including price discounts (40%) and product placement at checkouts (45%), though opposition to these policies remained low (below 25%). The lower support may be explained by less familiarity with these regulatory options as evidence suggests that policies that have been previously implemented elsewhere tend to be associated with higher support.[21] To date, unhealthy food retail placement and price promotion restrictions have only been enacted into law in the United Kingdom.[16] While placement restrictions in retail settings were adopted in England in 2022, price promotion restrictions have not yet been implemented, with evidence suggesting that some actors (i.e. retailers, compliance enforcers and consumers that do not usually use shopping lists) perceive that price promotion restrictions could increase food spending.[35] A study looking at public support for healthy supermarket initiatives using 2018 IFPS data[36] found that more restrictive initiatives, such as checkouts with only healthy products, generally had lower support (49%) than practices such as increasing the shelf space for fruits and vegetables (70%). Similarly, prior research in Australia found higher public support for policies that would increase the promotion of healthy food in supermarkets than for policies that would restrict unhealthy food promotions.[25] These findings could be related to the perception of choice and the resulting sense of fairness, which is an important predictor of policy acceptability.[37] The use of message framing to convey the rationale and purpose of a policy can also play a role in shaping public support.[21,38] For example, in an Australian experimental framing study, the level of support for a sugar-sweetened beverage tax was higher in the group that was presented a "supportive of food and drink companies" than in an "anti-sugary drink companies" framing.[38]

Respondents who were older (+29 years old), female, more highly educated, identified as Aboriginal and/or Torres Strait Islander, perceived their monthly income as adequate (neither difficult nor easy) or had children under the age of 18 years living in their household were significantly more likely to report "support" or "neutral" responses towards several of the assessed policies aimed at restricting unhealthy food marketing. Other studies have consistently shown that female, higher educated and older adults are more likely to support unhealthy food marketing restrictions[25] as well as other food policies.[21,24] The association between having at least one child and higher support for banning unhealthy food from supermarket checkouts aligns with earlier studies showing that parents report difficulties dealing with pester power (i.e. children's requests of promoted food products) and find checkout displays particularly troublesome.[39] To our knowledge, this was the first study that considered the influence of Indigeneity on policy support in Australia. Aboriginal and Torres Strait Islander respondents were more likely to support bans on unhealthy food price discounts, prominent placement in supermarkets and online marketing than non-Indigenous respondents. Prior research using multi-country IFPS data showed that minority ethnicity respondents in the US were more likely to support most food policies.[24] Differences in policy support based on ethnicity and Indigeneity could be related to respondents' awareness and experience of harm from the commodity being restricted by the policy, which have been associated with policy acceptability.[21] For example, support for restrictive policies targeting alcohol and tobacco has been shown to be the highest among those reporting highest levels of harm relating to the behaviour.[21] Aboriginal and Torres Strait Islander people suffer from a disproportionately higher burden of diet-related non-communicable diseases, including obesity, cardiovascular disease, type 2 diabetes and some cancers.[40] These health and diet inequalities are partly driven by the gaps in accessing healthy retail food environments and culturally acceptable food,[41] which is why, in Australia, there have been long-standing interventions in remote Aboriginal and Torres Strait Islander communities focused on making the supermarket setting healthier.[42]

Importantly, less than a quarter of the population opposes unhealthy marketing restrictions (ranging from 11% to 23%), with neutral responses ranging from 28% to 37%. The percentage of opposition and neutral responses in our study is similar to that observed in prior research evaluating public support for food policies using data from earlier IFPS waves,[24,43] although it varies across countries. Factors contributing to the opposition of food policies, such as marketing restrictions, include trust in government and voting preferences.[31] These factors are especially relevant in political climates where governments prioritise market and personal freedom, framing health and food choices as a matter of individual responsibility.[34] In Australia, where voting is compulsory, approximately 30% of the population are considered undecided voters,[44] which may be related to the level of

neutral responses observed in the current study. Overall, these findings indicate that, in all Australian states and territories, there is strong support, and little opposition, for implementing comprehensive restrictions targeting unhealthy food marketing across different media and settings.

The main strengths of this study include the assessment of public support for unhealthy food marketing policies covering a wide range of media and settings based on a relatively large sample of Australian adults across all states and territories. To our knowledge, this is the most comprehensive study in Australia exploring support for different initiatives to restrict unhealthy food marketing and considering a range of sociodemographic variables. The limitations of this study are common to those of most survey research. Respondents were recruited using non-probability-based sampling, so the findings do not necessarily provide nationally representative estimates, although the analyses were weighted by population demographic characteristics. Given the influence of framing on policy support, our findings are subject to the wording of policies assessed in the survey, which could have resulted in a lower support. It is also worth noting that this study did not consider some factors known to influence public support, including self-reported health status and dietary habits, nutrition knowledge and political ideology.

Implications

Previous studies have focused on public support for food policies including unhealthy food marketing. In our study, we not only reported on the overall support for different policy options to restrict unhealthy food marketing across diverse media and settings but also focused our analysis on combined support and neutrality to assess the proportion of the population that is opposed versus not opposed. This approach acknowledges that governments are primarily concerned about policy opposition.[22] Importantly, we found that around one-third of respondents were neutral towards food marketing regulations. Whilst this group of respondents was not opposed to the policies, they may be more easily influenced by opposing narratives from the food industry, which typically emphasise a *laissez-faire* approach to market regulation, and the notion that individuals are largely responsible for their dietary choices.[45] This finding highlights the importance of government communication with the public when announcing, developing and implementing food marketing policies. Neutral responses may also indicate a need for greater public awareness and understanding about the influence of unhealthy food marketing and the harms of unhealthy dietary patterns. Advocacy efforts can help demonstrate the public health importance and benefits of these policies.

The level of support may have also been influenced by the framing and details provided in the survey questions related to each of the policies. Message framing can completely change the way a health promotion policy is received as values, emotions and ideas shape public perceptions.[46] Therefore, using language that has positive connotations to describe policy solutions (e.g. hold food companies to a higher and healthier standard when marketing products) as opposed to the framing used in our study (e.g. ban unhealthy food marketing), which may have negative connotations, can increase public acceptability. Values-based framing, which involves engaging with people's deeply held values, has shown to be effective to build engagement and support for action in relation to public health challenges,[47] so using a less restrictive framing and providing values-based messages about the rationale and purpose of policies (e.g. improving wellbeing) could have influenced the level of public support. In this sense, it is important to consider lived experiences and public discourse to understand the way the public feels about the issue being addressed.[47] The level of support also differed across some sociodemographic factors, including sex, age, education and Indigeneity, so future studies could explore how framing and contextual information impact public support of food policies across different population sub-groups.

Conclusion

Our study found that the vast majority of caregivers are concerned about their children's exposure to unhealthy food marketing. Among all respondents, there was broad support and minimal opposition to a range of unhealthy food marketing policies targeting diverse media and settings across all Australian states and territories. These findings demonstrate that arguments related to a lack of public support or the presence of public opposition would be unsubstantiated and support government actors considering regulatory options to restrict unhealthy food marketing in Australia.

Conflicts of interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: David Hammond reports a relationship with public health authorities that includes paid expert testimony. Other authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Ethics

The study received ethics clearance through a University of Waterloo Research Ethics Committee (REB #30829).

Author contributions

Conceptualization: CGD, BK, KB; Methodology: CGD, BK, KB, LV, CMW, DH; Formal analysis: CGD; Writing—original draft preparation, CGD, FM. Writing—review and editing, BK, FM, AJC, APC, GS, LV, CMW, DH, KB; Funding acquisition, CGD, KB, DH, AJC, GS; Supervision: BK and KB. All authors have read and agreed to the published version of the manuscript.

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References

1. Australian Institute of Health and Welfare (AIHW). *Australian burden of disease study: risk factors 2018*. Canberra: AIHW; 2021. Available from: https://www.aihw.gov.au/reports/burden-of-disease/abds-2018-interactive-data-risk-factors/contents/summary.
2. Afshin A, Forouzanfar MH, Reitsma MB, Sur P, Estep K, Lee A, et al., GBD 2015 Obesity Collaborators. Health effects of dietary risks in 195 countries, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. *Lancet* 2019;**393**(10184):1958–72.
3. Swinburn BA, Sacks G, Hall KD, McPherson K, Finegood DT, Moodie ML, et al. The global obesity pandemic: shaped by global drivers and local environments. *Lancet North Am Ed* 2011;**378**(9793):804–14.
4. Baker P, Machado P, Santos T, Sievert K, Backholer K, Hadjikakou M, et al. Ultra-processed foods and the nutrition transition: global, regional and national trends, food systems transformations and political economy drivers. *Obes Rev* 2020;**21**(12):e13126.
5. Nieto C, Jáuregui A, Contreras-Manzano A, Potvin Kent M, Sacks G, White CM, et al. Adults' exposure to unhealthy food and beverage marketing: a multi-country study in Australia, Canada, Mexico, the United Kingdom, and the United States. *J Nutr* 2022;**152**(1):25S–34S.
6. Chung A, Westerman L, Martin J, Friel S. The commercial determinants of unhealthy diets. *Public Health Res Pract* 2022;**32**(3):3232221.
7. Smith R, Kelly B, Yeatman H, Boyland E. Food marketing influences children's attitudes, preferences and consumption: a systematic critical review. *Nutrients* 2019;**11**(4):875.
8. Tsochantaridou A, Sergentanis TN, Grammatikopoulou MG, Merakou K, Vassilakou T, Kornarou E. Food advertisement and dietary choices in adolescents: an overview of recent studies. *Children* 2023;**10**(3):442.
9. Bagnato M, Roy-Gagnon MH, Vanderlee L, White C, Hammond D, Potvin Kent M. The impact of fast food marketing on brand preferences and fast food intake of youth aged 10-17 across six countries. *BMC Public Health* 2023;**23**(1):1436.
10. Peeters A. Obesity and the future of food policies that promote healthy diets. *Nat Rev Endocrinol* 2018;**14**:430–7.
11. World Health Organization. *Set of recommendations on the marketing of foods and nonalcoholic beverages to children*. 2010. Geneva, Switzerland.
12. Commonwealth of Australia. *National preventive health strategy 2021-2030*. Available from: https://www.health.gov.au/sites/default/files/documents/2021/12/national-preventive-health-strategy-2021-2030_1.pdf; 2021.
13. Commonwealth of Australia. *The national obesity strategy 2022-2032*. Available from: https://www.health.gov.au/sites/default/files/documents/2022/03/national-obesity-strategy-2022-2032_0.pdf; 2022.
14. Commonwealth of Australia. *The national obesity strategy 2021-2030*. Available from: https://www.health.gov.au/sites/default/files/documents/2021/11/australian-national-diabetes-strategy-2021-2030_0.pdf; 2021.
15. Dillman Carpentier FR, Taillie LS, Correa T. Chile's comprehensive food policy offers global lesson in tackling unhealthy foods. *Health Policy Watch* 2023. Available from: https://healthpolicy-watch.news/chiles-comprehensive-food-policy/.
16. UK Government. *Promotions of unhealthy foods restricted from October 2022*. Available from: https://www.gov.uk/government/news/promotions-of-unhealthy-foods-restricted-from-october-2022.
17. Department of Health and Social Care, UK Government. *Introducing further advertising restrictions on TV and online for products high in fat, salt or sugar*. Available from: https://www.gov.uk/government/consultations/introducing-further-advertising-restrictions-on-tv-and-online-for-products-high-in-fat-salt-or-sugar-secondary-legislation; September 2024.
18. Dillman Carpentier FR, Mediano Stoltze F, Reyes M, Taillie LS, Corvalán C, Correa T. Restricting child-directed ads is effective, but adding a time-based ban is better: evaluating a multi-phase regulation to protect children from unhealthy food marketing on television. *Int J Behav Nutr Phys Activ* 2023 May 26;**20**(1):62.
19. United Nations Children's Fund (UNICEF). *Key barriers to food marketing regulation*. Global Survey Results of 24 countries; February 2023. Available from: https://www.unicef.org/media/134731/file/Global_Food_Marketing_Survey_Report.pdf.
20. Australian Government, Department of Health and Aged Care. *Public Consultation: feasibility study on options to limit unhealthy food marketing to children*. Available from: https://consultations.health.gov.au/chronic-disease-and-food-policy-branch/public-consultation-feasibility-study-on-options-t/; 2024.
21. Diepeveen S, Ling T, Suhrcke M, Roland M, Marteau TM. Public acceptability of government intervention to change health-related behaviours: a systematic review and narrative synthesis. *BMC Public Health* 2013;**13**:756.
22. Burstein P. The impact of public opinion on public policy: a review and an agenda. *Polit Res Q* 2003;**56**(1):29–40.
23. Lobstein T, Neveux M, Landon J. Costs, equity and acceptability of three policies to prevent obesity: a narrative review to support policy development. *Obes Sci Pract* 2020;**6**(5):562–83.
24. Kwon J, Cameron AJ, Hammond D, White CM, Vanderlee L, Bhawra J, et al. A multi-country survey of public support for food policies to promote healthy diets: findings from the International Food Policy Study. *BMC Public Health* 2019;**19**(1):1205.
25. Pettigrew S, Booth L, Dunford E, Scapin T, Webster J, Wu J, et al. An examination of public support for 35 nutrition interventions across seven countries. *Eur J Clin Nutr* 2023;**77**(2):235–45.
26. Morley B, Martin J, Niven P, Wakefield M. Public opinion on food-related obesity prevention policy initiatives. *Health Promot J Aust* 2012;**23**(2):86–91.
27. Sainsbury E, Hendy C, Magnusson R, Colagiuri S. Public support for government regulatory interventions for overweight and obesity in Australia. *BMC Public Health* 2018;**18**(1):513.
28. Watson W, Weber M, Hughes C, Wellard L, Chapman K. Support for food policy initiatives is associated with knowledge of obesity-related cancer risk factors. *Public Health Res Pract* 2017;**27**(5):27341703.
29. Kelly B, Chapman K, Hardy LL, King L, Farrell L. Parental awareness and attitudes of food marketing to children: a community attitudes survey of parents in New South Wales, Australia. *J Paediatr Child Health* 2009;**45**(9):493–7.
30. Nuss T, Chen YJM, Scully M, Hickey K, Martin J, Morley B. Australian adults' attitudes towards government actions to protect children from digital marketing of unhealthy food and drink products. *Health Promot J Aust* 2024;**35**(2):332–9.
31. Hammond D, White CM, Rynard VL. *International food policy study: technical report— 2022 survey (wave 6)*. University of Waterloo; 2024. Available from: https://foodpolicystudy.com/methods.
32. Morley B, Chapman K, Mehta K, King L, Swinburn B, Wakefield M. Parental awareness and attitudes about food advertising to children on Australian television. *Aust N Z J Publ Health* 2008;**32**(4):341–7.
33. Driessen C, Kelly B, Sing F, Backholer K. Parents' perceptions of children's exposure to unhealthy food marketing: a narrative review of the literature. *Curr Nutr Rep* 2022;**11**(1):9–18.
34. Cullerton K, Baker P, Adsett E, Lee A. What do the Australian public think of regulatory nutrition policies? A scoping review. *Obes Rev* 2021;**22**(1):e13106.
35. Muir S, Dhuria P, Roe E, Lawrence W, Baird J, Vogel C. UK government's new placement legislation is a 'good first step': a rapid qualitative analysis of consumer, business, enforcement and health stakeholder perspectives. *BMC Med* 2023;**21**(1):33.
36. Gomez-Donoso C, Sacks G, Vanderlee L, Hammond D, White CM, Nieto C, et al. Public support for healthy supermarket initiatives focused on product placement: a multi-country cross-sectional analysis of the 2018 International Food Policy Study. *Int J Behav Nutr Phys Activ* 2021;**18**(1):78.
37. Cullerton K, Donnet T, Lee A, Gallegos D. Playing the policy game: a review of the barriers to and enablers of nutrition policy change. *Public Health Nutr* 2016;**19**(14):2643–53.
38. Cullerton K, Demeshko A, Waller M. Effect of message framing on support for a sugar-sweetened beverage tax in Australia: a cross-sectional survey analysis. *Health Promot Int* 2024;**39**(1):193.
39. Campbell S, James EL, Stacey FG, Bowman J, Chapman K, Kelly B. A mixed-method examination of food marketing directed towards children in Australian supermarkets. *Health Promot Int* 2014;**29**(2):267–77.
40. Australian Institute of Health and Welfare (AIHW). *Determinants of health for first nations people*. Available from: https://www.aihw.gov.au/reports/australias-health/social-determinants-and-indigenous-health; 2024.
41. Luongo G, Skinner K, Phillipps B, Yu Z, Martin D, Mah CL. The retail food environment, store foods, and diet and health among Indigenous populations: a scoping review. *Curr Obes Rep* 2020;**9**(3):288–306.
42. Brimblecombe J, Miles B, Chappell E, De Silva K, Ferguson M, Mah C, et al. Implementation of a food retail intervention to reduce purchase of unhealthy food and beverages in remote Australia: mixed-method evaluation using the consolidated framework for implementation research. *Int J Behav Nutr Phys Activ* 2023;**20**(1):20.

43. Quevedo L, Jáuregui A, Nieto C, Ortiz-Panozo E, Contreras-Manzano A, Barquera S, et al. Public support for food policies in Mexican adults: findings from the international food policy study, 2017–2021. *Prev Med* 2023;**175**:107710.
44. Cameron S, McAllister I. The 2019 Australian federal election: results from the Australian election study. ANU, Canberra.
45. Lacy-Nichols J, Marten R, Crosbie E, Moodie R. The public health playbook: ideas for challenging the corporate playbook. *Lancet Global Health* 2022;**10**(7):e1067–72.
46. Common Cause Australia, VicHealth. Framing alcohol tips in action. Available from: https://www.vichealth.vic.gov.au/sites/default/files/VBM—FramingAlcohol_TipsInAction.pdf.
47. Hunt D, Lamb K, Elliott J, Hemmingsen B, Slama S, Scibilia R, et al. A WHO key informant language survey of people with lived experiences of diabetes: media misconceptions, values-based messaging, stigma, framings and communications considerations. *Diabetes Res Clin Pract* 2022;**193**:110109.

Appendix A Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.anzjph.2025.100231.