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WACPRU

WA Cancer Prevention Research Unit

Food Advertising on School Buses

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Introduction

Overweight and obesity rates in Western Australia (WA) continue to climb. Currently in WA, just over one-quarter (26.3%) of children are overweight or obese[1] and nearly 70% of adults are overweight or obese.[1] Collectively, the independent risk factors of overweight and obesity, physical inactivity, and inadequate diet are second only to tobacco as modifiable risk factors for cancer.[2]

Large international reviews of many studies have concluded that food marketing has an influence on children's nutrition knowledge, preferences, purchase behaviour, consumption patterns and diet-related health.[3–5] The recommendation of these reviews has been to implement policies which constrain food and beverage promotions to children. However, little progress has been made towards achieving this.[3]

In WA, there are currently no regulations restricting advertising of unhealthy food around schools. Restrictions on junk food advertising on all state and local government assets would reduce exposure of unhealthy food advertising to young people and bring WA in line with other Australian jurisdictions that have reduced children's and young people's exposure to unhealthy food advertising. For example, Queensland recently introduced restrictions on junk food advertising on all government owned advertising spaces and the ACT has had a ban on junk food advertising on all government run bus services since 2015. A ban on junk food advertising would also be in line with the following recommendations:

- The WA Health Promotion Strategic Framework 2017-2021 called for stronger controls across all levels of government to reduce exposure to the marketing and promotion of discretionary food and drinks, particularly for children.[6]
- Removal of unhealthy food and drink promotions from state assets was a domain for action which came out of the WA Preventive Health Summit Summary Report.[7]
- Recommendation 2(a) in the Final Report of the Sustainable Health Review includes banning unhealthy food and drink promotions from all State premises.[8]
- Removing unhealthy food and drink promotions from all State premises was also a recommended action for WA in the Food Policy Index Progress Update 2019.[9]

WA has restricted alcohol advertising on government owned buses, trains and train stations. Extending the restriction to junk food and on all government owned assets would put WA at

the forefront of restricting unhealthy food and drink marketing to children.

Aim

The aim of this study was to understand the amount of unhealthy food advertising displayed at the train station and on buses stopping at a sample of Perth high schools during the time most children arrive at school.

Method

Between 8 – 9am on the 3rd of February (the first day of school for public schools), advertisements displayed on buses stopping at 5 high schools across Perth and advertisements displayed in Perth train station were recorded. The schools included in this study were selected as they have a large number of students (>1,000 students) and/or vary in terms of the proportion of students classified as being relatively more advantaged/disadvantaged. Table 1 contains information on the schools included in this study. Perth train station was selected as another observation site since many children connect to school buses/trains via this station.

Table 1. School information

School	Suburb	Student population[1]	Student ICSEA distribution[1,2]		Buses routes
			Bottom quarter (%)	Top quarter (%)	
Churchlands SHS	Churchlands (6018)	2,850	4	53	84, 412, 998, 999
Kent St Senior High School	East Victoria Park (6101)	992	24	17	960
Bob Hawke College	Subiaco (6008)	250	No data		28, 728
Shenton College	Shenton Park (6008)	2,215	2	72	28, 998, 999
John Forrest Secondary College	Morley	1,122	24	17	342, 345, 950, 955

[1] Data obtained from www.det.wa.edu.au

[2] Data obtained from www.myschool.edu.au. Shows the distribution of students in a school according to their classification in the Index of Community Socio-Educational Advantage (ICSEA) in the bottom quarter (representing relative disadvantage) and the top quarter (representing relative advantage).

Two data collectors were present at each school bus stop and at Perth train station and they

recorded their observations though a coding framework (shown in Appendix A). For buses, only ads shown on the door-entry side and back of the bus were recorded (i.e., those that are visible to passengers boarding and disembarking the bus). At the train station, all static food ads that appeared within the confines of the train station were recorded. If the same ad appeared more than once on a bus/train platform, each appearance was recorded as an individual data point.

For the purposes of this study, 'food ads' refer to ads for food and drink products (e.g., corn flakes), retailers (e.g., supermarkets), restaurants (the Shoe Bar) and quick service restaurants (e.g., Hungry Jacks), food delivery (e.g., Uber eats) and meal kits (e.g., Hello Fresh). Food ads were classified according to the Australian Dietary Guidelines as healthy (core foods), unhealthy (discretionary foods), mixed (containing or referring to both healthy and unhealthy foods) or other (e.g., tea). Table 2 shows how the different food types were classified, replicating the protocol used in past Western Australian research.[10] If an ad contained foods from multiple healthiness categories, it would be coded according to the least healthy category of food pictured.

Table 2. Classification of foods

Healthiness	Foods
Unhealthy/discretionary foods	Alcohol, sugar-sweetened beverages, milk-based drinks, quick service restaurants, savoury snacks and sides, confectionery, cakes, dessert and ice cream
Healthy/core foods	Breakfast cereals, meat, juices, zero sugar drinks, health foods
Mixed	Restaurants, supermarkets, meal kits, food delivery apps
Other	Tea, coffee, gum

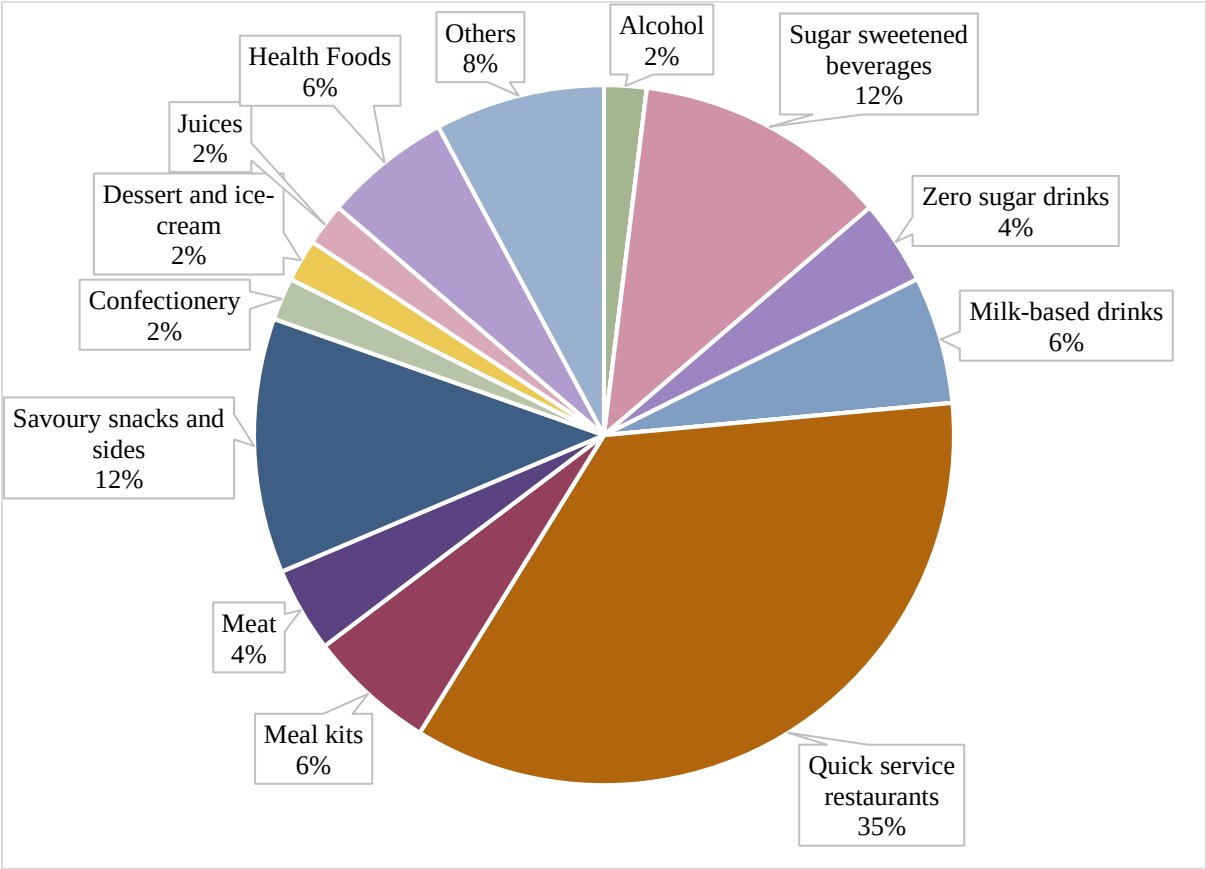
Results

A total of 90 ads were recorded across all 5 schools and the train station between 8 and 9am[1]. Of the 55 ads on buses, 35% were ads for food or drink and 65% were ads for non-food products (e.g., films). Of the food and drink ads observed on buses and within the train station, 17% were classified as healthy, 6% were classified as mixed and 77% were classified as unhealthy. Figure 1 contains a breakdown of food and drink ads by type. Among ads for

[1] Only food ads were coded at the train station

drinks, 23% were for healthy drinks and 77% were for unhealthy drinks. Thus ads for unhealthy food and drink were higher than ads for healthy food and drink.

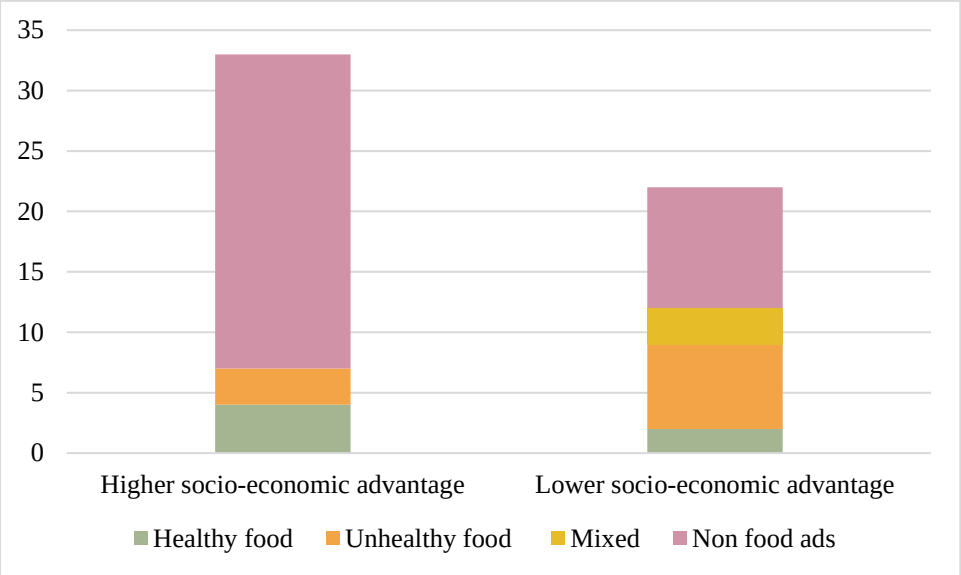
Figure 1. Types of food ads observed on buses and at the train station



Note: restaurants, supermarkets, food delivery apps, breakfast cereals and cakes are not included above as there were no ads from these categories.

Across the 5 schools sampled, 55 ads were recorded on buses over the hour. Of these, 11% were for healthy foods, 18% were for unhealthy foods, 5% were mixed and 65% were for non-food products. A difference was noted in the proportion of unhealthy food and drink ads on buses. Namely, the buses stopping at Kent Street Senior High School and John Forrest Secondary College (the schools with relatively higher levels of socio-educational disadvantage) displayed a greater number of unhealthy food ads than those stopping at Bob Hawke College, Shenton College and Churchlands Senior High School (namely, the schools with relatively greater socio- educational advantage). This is show in Figure 2 below.

Figure 2. Frequency of food ads displayed on buses according to a school's level of advantage/disadvantage



Discussion

Observations of ads displayed on buses stopping at 5 select high schools in Perth and at Perth train station, on the first day back for public schools, revealed that children are indeed exposed to a high proportion of ads for unhealthy food and drinks. Over the hour in which children would typically commute to their school, three quarters of the food ads they would have potentially been exposed to were for unhealthy food and drink. Quick service restaurants (e.g., McDonalds, KFC, Red Rooster) were by far the most frequently advertised form of unhealthy food, making up just over a third of all unhealthy food ads appearing on buses and at the train station. Among ads for drinks, sugar sweetened beverages made up the majority of ads.

A greater proportion of food ads, and unhealthy food ads in particularly, were displayed on buses stopping at schools with relatively high socio-educational disadvantage than schools with relatively high socio-educational advantage. This is concerning given that children in developed countries living in areas of economic disadvantage are at greater risk of being overweight and obese.[11,12] Given the strength of research showing that food marketing influences children's food purchases, consumption and diet-related health,[3–5] it is critical to

have policies in place to constrain food and beverage promotions to children, particularly in places where they will be exposed to these ads (i.e., on their commute to school). No such restrictions exist in Western Australia even though there have been many calls for this to happen (e.g., though the WA Health Promotion Strategic Framework, the WA Preventive Health Summit Summary Report, the Final Report of the Sustainable Health Review, and the Food Policy Index Progress Update). Imposing a ban on unhealthy food advertising on government assets, particularly those positioned in areas where children gather would allow Western Australia to lead the way in reducing children's exposure to a well-established risk factor for overweight and obesity.

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Appendix A

Location Bus no. or Bus stop	Type of ad Billboard or poster, etc	Brand Name	Product Name	Type of the advertisement															Non-food ad
				Alcohol	Restaurant	Supermarket	Sugar-sweetened beverage	Zero sugar drinks	Milk-based drinks	Breakfast cereals	Quick service restaurants	Food delivery app	Savoury snacks and sides	Confectionery	Cakes	Dessert+ ice cream	Juices	Health Foods	Others	

Appendix B


It's just
not cricket...
without
Macca's.


KFC
STREETWISE
FEAST
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Pringles
minis
BIG
*KINDA
mini chip multipacks now instore