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Density of outdoor food and beverage advertising around schools in Ulaanbaatar (Mongolia) and Manila (The Philippines) and implications for policy

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Abstract
Children's exposure to unhealthy food marketing is recognised by leading international health organisations as a probable causal factor for obesity. Outdoor advertising near schools embeds commercial food messages into children's everyday lives and acts as a cue for food purchases. This project aimed to describe food advertising in the area around schools in two demographically and culturally disparate cities in the Asia Pacific Region. Data on outdoor food advertising were collected from the area within 500 m of 30 primary schools in each of two cities: Ulaanbaatar, Mongolia and Manila, The Philippines. For each food advertisement, information was collected on: distance from the school (within 250 or 500 m); size, setting, type and position of the advertisement; and the food/drink product type promoted (core/healthy, non-core/unhealthy and miscellaneous). Density of advertisements was calculated per 100 m². The density of food advertising was twice as high in the area closest to schools compared to the area further from schools (.9 vs. .5 in Ulaanbaatar and 6.5 vs. 3.3 advertisements per 100 m² in Manila). Almost all food advertisements were for non-core/unhealthy foods/drinks (92% in Ulaanbaatar and 85% in Manila), and soft drinks were most frequently promoted. Children in Ulaanbaatar and Manila are exposed to large numbers of advertisements for unhealthy foods/drinks on their way to and from school, and these are particularly clustered within the immediate vicinity of schools. Clear directions for policy development are outlined to reduce children's exposure to this marketing, including restricting the placement and content of outdoor advertising.

Keywords
food, outdoor, density, advertising, around, beverage, policy, manila, implications, philippines, schools, ulaanbaatar, mongolia

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RESEARCH ARTICLE

Density of outdoor food and beverage advertising around schools in Ulaanbaatar (Mongolia) and Manila (The Philippines) and implications for policy

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Abstract

Introduction: Children’s exposure to unhealthy food marketing is recognised by leading international health organisations as a probable causal factor for obesity. Outdoor advertising near schools embeds commercial food messages into children’s everyday lives and act as a cue for food purchases. This project aimed to describe food advertising in the area around schools in two demographically and culturally disparate cities in the Asia Pacific Region.

Methods: Data on outdoor food advertising were collected from the area within 500m of 30 primary schools in each of two cities: Ulaanbaatar, Mongolia and Manila, The Philippines. For each food advertisement, information was collected on: distance from the school (within 250m or 500m); size, setting, type and position of the advertisement; and the food/drink product type promoted (core/healthy, non-core/unhealthy and miscellaneous). Density of advertisements was calculated per 100m².

Results: The density of food advertising was twice as high in the area closest to schools compared to the area further from schools (0.9 vs. 0.5 in Ulaanbaatar, and 6.5 vs. 3.3 advertisements per 100m² in Manila). Almost all food advertisements were for non-
core/unhealthy foods/drinks (92% in Ulaanbaatar and 85% in Manila), and soft drinks were most frequently promoted.

**Conclusion:** Children in Ulaanbaatar and Manila are exposed to large numbers of advertisements for unhealthy foods/drinks on their way to and from school, and these are particularly clustered within the immediate vicinity of schools. Clear directions for policy development are outlined to reduce children’s exposure to this marketing, including restricting the placement and content of outdoor advertising.

**Key words:** Food; Beverage; Advertising; Marketing; School; Children
Introduction

Unhealthy diet is a significant and modifiable risk factor for non-communicable diseases (NCDs), and improving population nutrition is a key NCD prevention strategy (World Health Organization, 2004). Improving population nutrition involves comprehensive strategies to encourage and support reduced consumption of energy-dense, nutrient poor (EDNP) foods and non-alcoholic beverages, including environmental changes to reduce availability and cues for consumption of these foods. As presented in the Global Strategy on Diet, Physical Activity and Health, one component of a comprehensive approach comprises reducing the marketing of EDNP foods and non-alcoholic beverages (World Health Organization, 2004). In 2010, the World Health Assembly endorsed a set of recommendations on the marketing of foods and non-alcoholic beverages to children (World Health Organization, 2010). These recommendations aim to guide Member States in developing new and/or strengthening existing policies on food and non-alcoholic beverage marketing to children.

Internationally, there is an accumulating body of research on the nature and extent of food marketing to children, indicating the predominance of marketing for EDNP foods and beverages. While most studies, to date, have focused on television, food marketing is widespread across other media. Outdoor advertising in particular works by integrating branded messages into daily activities and the cultural landscape, and also serves as an immediate cue for purchase when this is viewed in connection with food stores (Kelly et al., 2013). There have been four published studies specifically on outdoor food advertising: one study from Sydney, Australia (Kelly, Cretikos, Rogers, King, 2008), one conducted in 4 cities in the USA (Hillier et al., 2009), one in Northern England (Adams, Ganiti, White, 2011), and a forth in Wellington, New Zealand (Walton, Pearce, Day, 2009). These studies have consistently found that the majority of outdoor food advertisements are for unhealthy
foods/drinks, and that the density of advertisements varies by neighbourhood characteristics. Two of these studies (from Australia and New Zealand) have examined the area around schools and found unhealthy food marketing to be prevalent in the vicinity of schools (Kelly et al., 2008; Walton et al., 2009). While information on the prevalence of food and beverage marketing in low and middle income countries is limited, with only a few studies available that measured advertising on television (Consumers International, 2008; Kelly et al., 2010), it has been suggested that children in developing countries may be more vulnerable to food promotion because they have been traditionally less familiar with, and potentially less critical of, advertising (Hastings, McDermott, Angus, Stead, Thomson, 2006).

To contribute to the process for implementing the *Global Strategy on Diet, Physical Activity and Health* (World Health Organization, 2004) and the WHO set of recommendations on food marketing to children (World Health Organization, 2010), health professionals in a number of countries raised concerns about the prevalence of unhealthy food advertising around schools at a regional consultation meeting convened by WHO (World Health Organization Western Pacific Region, 2012). As part of a suite of actions with potential to promote children’s nutrition, the meeting identified the need for local information on the extent and nature of food marketing, in order to guide locally relevant and feasible policy actions. In particular, government delegates from Mongolia and The Philippines initiated an assessment of outdoor advertising around schools, in collaboration with the regional office of the WHO. In both of these countries, there was no information available on the extent of children’s exposure to food and beverage marketing generally, including outdoor advertising, which is required to guide any policy in this area.
The aims of each country-based project were to identify, describe and quantify the volume of food and beverage advertisements around schools; with projects conducted in the capital city of each of these two demographically and culturally disparate cities in Asia. Information on the volume of unhealthy food and beverage advertisements in the area near primary schools provides an indication of the extent of children’s exposure to this form of marketing and the need for policy interventions. Specific information on the types of products promoted and the nature of these promotions, including their format and placement, are necessary to inform any regulations or guidelines in this area.

**Methods**

**Sampled sites**

Data were collected in two cities: Ulaanbaatar (Mongolia) and Manila (The Philippines). In each city, 30 primary schools (public and private) were randomly selected from lists of all schools within sampled areas (N = 200 in Ulaanbaatar and 156 in Manila). Where the study area of two schools overlapped, a replacement school was identified. In Ulaanbaatar, schools were selected from six districts, covering all of the main city areas. Five schools from each district were included: three schools from ‘apartment areas’ and 2 schools from ‘ger areas’. Apartment areas are located in the central area of the city, have a higher population density and are wealthier. Ger areas comprise those locations with traditional housing and lower density, and relatively lower socio-economic status (Kamata, Reichert, Tsevegmid, Yoonhee, Sedgewick, 2010). In Manila, schools were selected from four cities within the Greater Manila area: Las Pinas, Makati, Manila and Marikina, and the municipality of Taytay in Rizal Province. The distribution of ‘poverty incidence’ across these areas ranges from 1.4% in Makati to 3.2% in Taytay (Philippine Statistics Authority, 2009). Poverty incidence refers to the proportion of households with per capita income/expenditure less than the minimum
income/expenditure required for a family/individual to meet the basic food and non-food requirements. Four public and two private schools were randomly selected within each city/municipality.

Data collection and coding

An ‘advertisement’ was defined as signs with branded information, pictures or logos. This included billboards, posters, free standing signs, neon signs, stickers, electronic boards, banners, bus shelter signs and signs on outdoor furniture, bridge/awning signs and painted buildings. Signage, defined as symbols or words that are used mainly for store identification, were excluded. However, store signage that also had a product logo and served not just as a store identifier but also as promotional material for a product, were considered advertisements. All branded references to food and drink products that fitted the above specifications were considered to be food advertisements.

For each school, a map was generated using Google Maps, with concentric circles marked to indicate the distance within 250m and 500m from the centre of the school property. All streets within these radii of selected schools were surveyed. In each country, surveys were conducted by three teams, each comprising two locally recruited members.

A standard template for recording the outdoor food and drink advertisements was used. The information collected comprised: distance of food/drink advertisement from school (within 250m or 500m); size of advertisement (small ($\geq 21\text{cm} \times 30\text{cm} \text{ but } < 1.3\text{m} \times 1.9\text{m}$); medium ($\geq 1.3\text{m} \times 1.9\text{m} \text{ but } < 2.0\text{m} \times 2.5\text{m}$); and large ($\geq 2\text{m} \times 2.5\text{m}$)); setting of advertisement (shop, street etc); type and position of advertisement (neon sign, billboard etc); whether the subject
of the advertisement was single or multiple foods; and food/drink brand name and product type.

Advertised foods and drinks were classified as core/healthy, non-core/unhealthy and miscellaneous based on a classification system used in previous research on outdoor advertising (Kelly et al., 2008) and international research on television food advertising (Kelly et al., 2010). This classification system was refined to include a wider range of traditional Asian foods available in Mongolia and The Philippines (Table 2).

In each country, a pilot survey was conducted as part of the training for field teams, and to check coding reliability. Responses by the principal investigator were compared to all other research assistants individually. Inter-rater reliability ranged from 40% to 80% (Mongolia) and 54% to 86% (The Philippines). Further training was provided to field teams in Mongolia and data collectors were paired to maximize the reliability of data collection. In The Philippines, training was followed by a review and discussion of the pilot survey coding. Data collection ran from 21 - 30 May, 2012 (Mongolia) and 13 – 25 August, 2012 (The Philippines).

Data analysis

Data were entered into SPSS for Windows version 17.0 (SPSS Inc., Chicago, IL.) and Stata version 10 (StataCorp LP., College Station, TX) by research groups in each country and checked for data entry errors by the lead researchers at each site. For each country, two data sets were generated: one related to the advertisements observed, and one for the food products depicted in the advertisements (as some advertisements promoted more than one product type). Density of advertisements were calculated per 100m², to enable standardised
comparisons of advertising rates in the area closest to, and further away, from schools. For each site, descriptive analyses were conducted to determine the frequency of food/drink advertisements by school areas, product type, and location, type and size of advertisements.

Results

1. Mongolia

A total of 1,459 food and beverage advertisements were identified in the area around sampled schools. Most outdoor advertisements featured a single food product, although 11% of advertisements promoted two or more branded food products, and single advertisements were found to promote up to 24 products.

The mean number of food advertisements within 250m of each school was 18, compared to 31 advertisements in the area further from schools. However, while there were more food advertisements in the area between 250m and 500m from schools, the density of food advertisements was 0.9 ads/100m² in the area closest to schools (up to 250 m) compared to 0.5 ads/100m² in the area 250-500 m from schools (Table 1). The overall density of food and beverage advertisements was more than twice as high in Apartment areas, which have a greater population density and less social disadvantage, compared to Ger areas.

| Insert Table 1 about here |

Most food advertisements were located in shopping areas (59%), or attached to restaurants or cafes (17%). In terms of display type, most advertisements were on awnings (46%), such as above shop entrances, or on billboards (25%). Half of all advertisements were medium in size, while 34% were large and 16% were small.
Types of advertised foods and beverages

Most advertised products were non-core food/drinks (92%) (Table 2), with an average of 66 non-core products advertised around each school (Table 3). This pattern of predominantly non-core food advertising was found across all school districts, ger and apartment areas, across settings and positions, and regardless of advertisement size. The food and beverage types most commonly advertised were sugar sweetened drinks (52%), followed by fruit juice/drinks (10%). Coca Cola (35%) and Pepsi (10%) were the food/drink brands most commonly advertised.

Insert Tables 2 and 3 about here

2. The Philippines

A total of 9,687 food advertisements were identified around sampled schools. Again, the density of advertising was highest in the area closest to schools, with 6.5 advertisements per 100m² compared to 3.3 per 100m² in the area between 250m and 500m from schools (Table 1). The mean number of food advertisements within 250m of each school was 128, compared to 195 advertisements in the area further from schools.

Most advertisements were small in size (86%), located in shopping areas (defined as a cluster of at least five stores) (86%), and promoted a single product (99%). Advertisements were mostly in the form of banners (32%), posters (29%), store signage with a brand logo (26%), and in-store merchandising (e.g. branded refrigerators, bins, chairs and umbrellas) (9%).

Types of advertised foods and beverages
The majority of advertised foods/drinks were non-core (85%), with an average of 282 non-core food/drink products promoted in the area around each school. Non-core product promotions were more densely displayed in the area closest to schools (Table 3). More than half of non-core food/drink promotions were for sugar sweetened drinks (Table 2). Of these advertised drinks, soft drinks comprised 83%, energy drinks 14% and sweetened tea 3%. The most frequently promoted brand was Coca Cola (32% of all promotions), followed by a local soft drink manufacturer, RC Cola (8%). The density of non-core food/drink promotions was higher around private schools (4.4 promotions per 100m² vs. 3.2 for public schools).

**Discussion**

The vast majority of foods and beverage advertisements around schools in Ulaanbaatar, Mongolia and Manila, The Philippines were for non-core products (92% and 85% respectively). This is similar to the proportion of these non-core products promoted on food advertisements in Sydney (80%) (Kelly et al., 2008), and in the UK, where only 11% of food advertising space (frequency x size of all food advertisements) was for core food products (Adams et al., 2011).

The density of food advertising in the immediate area of schools, within 250m, was almost double that in the area further away from schools (0.9 vs. 0.5 in Ulaanbaatar, and 6.5 vs. 3.3 advertisements per 100m² in Manila). Similar patterns were observed in an earlier study in Sydney, Australia using a similar methodology (1.2 vs. 0.6) (Kelly et al., 2008). While in each location there were larger numbers of food and beverage advertisements in area within 250 and 500m from schools, this comprised an area three times larger than the area within 250 m of schools. The density of food advertising around schools is of concern in both Manila and Ulaanbaatar. However food advertising density was particularly high in Manila,
with an average of 323 food advertisements within 500m of each school. This compares to an average of 49 food advertisements per school in Ulaanbaatar and 57 per school in Sydney (Kelly et al., 2008). This type of monitoring data on food marketing is necessary for determining the extent and nature of current marketing to children, and for identifying priority areas for policy action (World Health Organization, 2012). This data will be useful in contributing to the International Network for Food and Obesity / non-communicable diseases Research, Monitoring and Action Support (INFORMAS) initiative, which aims to monitor and benchmark countries in aspects of food environments, including food marketing, and ultimately develop a global database to assess changes to these environments over time and across regions (Swinburn et al., 2013).

This study has demonstrated that unhealthy food and beverage advertisements are highly prevalent around schools and are particularly dense in the immediate vicinity of schools (within 250m). This means that children are repeatedly and frequently exposed to these advertisements each school day on their way to and from school. Outdoor advertising provides cues for the purchase and consumption of products, and makes the brands and products highly familiar and desirable to children. For example, one study from the USA found that sixth-grade children who were exposure to advertisements for alcoholic beverages within 1,500 feet of their schools were more likely to have positive attitudes and behaviours about drinking when they reached the eighth grade (Pasch, Komro, Perry, Hearst & Farbakhsh, 2007). The prevalence of advertising for alcoholic beverages near schools (7% of all promoted products in Manila and 4% in Ulaanbaatar) is of particular concern. Similarly, given efforts to include nutrition education in school curricula, and to disseminate healthy eating guidelines to community members in both of the study countries (World Health
Organization Western Pacific Region, 2012), the frequent exposure to advertisements for unhealthy foods can be seen as contradicting and undermining educational initiatives.

In both Manila and Ulaanbaatar, soft drinks were the most heavily promoted products in the area around schools, with the majority of advertised products were from one large multi-national company. Sugar-sweetened soft drinks have been identified by the WHO as a probable causal factor in weight gain and obesity (World Health Organization, 2003).

A large proportion of food advertisements in this study were found around shops and commercial areas near schools, where advertising is used to promote the products that are available in-store. Outdoor food advertising appears to be closely associated with the population density of areas and the presence of shops. These findings are congruous with other studies which had found clustering of advertising around high traffic areas. Hillier et al. (2009) found that land use variables, such as major streets, shops and bus stops explained some of the clustering around child-institutions, and that variations between cities were partially explained by land use and outdoor advertising regulations. In Ulaanbaatar, these high population density areas were also those areas of lower social disadvantage. That is, were apartment building existed rather than traditional Ger housing. These observations are aligned with disease patterns in developing countries, where increasing wealth is associated with ‘Westernised’ and higher fat diets (Stuckler, McKee, Ebrahim & Basu, 2012).

Land use regulations, including zoning, offers a key tool for limiting children’s exposure to unhealthy food advertising. While mixed land use may be desirable for promoting active travel, the co-location of shops and schools appears to be associated with high exposure to unhealthy food and beverage advertising. Advertising regulations may apply to off-premise
(not located on shops) and on-premise signage and advertising. In the USA, since 2008 Los Angeles has prohibited any new off-premise billboards, while Austin has banned any new billboards since 1983 (Hillier et al., 2009). While the majority of food advertisements in Manila and Ulaanbaatar comprised on-premise advertising, in the form of branded store signage, posters and branded merchandise, there is still clearly scope for these jurisdictions to adopt similar regulations to control outdoor off-license advertising as a starting point.

Current marketing regulations in both Mongolia and The Philippines are inadequate in limiting children’s exposure to outdoor advertising for unhealthy foods and beverages. In The Philippines, industry self-regulatory pledges only make provisions to preclude the promotion of products or services that are not suitable for children or which might cause them physical, mental, psychological or moral harm from being broadcast in or adjacent to children’s television programs (Outdoor Advertising Association of the Philippines, 2006). No specific regulations relating to the content and volume of outdoor food advertising near and around schools are available. By comparison, no specific government or industry regulations on food marketing exist in Mongolia. While international industry pledges exist, such as from the International Council of Beverages Associations Council’s Marketing to Children Guidelines (ICBA Pledge) and the International Food and Beverage Alliance Global Policy on Marketing and Advertising to Children (IFBA Pledge), these do not apply to outdoor advertising (Yale Rudd Center for Food Policy and Obesity).

Policies in Mongolia and The Philippines could focus on introducing regulations related to higher population density areas, including apartment areas in Ulaanbaatar and urbanized cities in Manila. The proposal to limit unhealthy food advertising around schools is consistent with the ‘green food zone’ operating in South Korea, which involves limiting the availability
and advertising of unhealthy foods within 200m from schools (Korean Ministry of Food and Drug Safety). Such regulations to limit outdoor advertising of unhealthy foods could be integrated into development plans and urban planning initiatives. The Health Promoting School concept and the WHO School Policy Framework (World Health Organization, 2008) also suggest taking measures to create a supportive environment in the area around schools, by limiting the availability of unhealthy foods and drinks in these vicinities. Outdoor food marketing also has relevance to the WHO concept of ‘Healthy Cities’, which seeks to encourage inter-sectoral health promotion efforts to create social, physical and economic environments conducive to health on an urban scale, and encompasses the extent to which physical infrastructure supports health (Flynn, 1996). Thus outdoor advertising of unhealthy foods is inconsistent with the basic premise and aim of Healthy Cities. It is recommended that any policies to reduce unhealthy food advertising encompass a comprehensive range of food products high in sugar, fat and salt. However, the predominance of advertising for sugar-sweetened drinks suggests that reducing children’s exposure to these advertisements is a priority.

Policies that limit the promotion of unhealthy food and beverages, including outdoor advertising, should be supported by broader synergistic regulations to decrease the accessibility of unhealthy choices, such as sugary drinks. For example, introducing taxes on sugary drinks may reduce demand for these products (Cabrera Escobar, Veerman, Tollman, Bertram, Hofman, 2013). Zoning regulations could also limit the placement of food outlets selling unhealthy foods, such as fast food restaurants, from the area around schools, given that these outlets have been associated with higher consumption of sugary drinks and greater odds of obesity (Davis & Carpenter, 2009). School policies should support the availability and promotion of healthy food and beverage choices within school grounds, with Japan and
Hong Kong providing good examples of how these school policies can be implemented (World Health Organization Western Pacific Region, 2012).

A strength of this project was the use of consistent methods across countries. The methods involved thorough training of research staff in data collection, which included pilot field work and reliability testing. This ensured that data was collected consistently across research teams. The food classification tool was also piloted and revised to ensure that this was relevant to each country. The study is limited by its cross-sectional design, whereby data were only captured on outdoor advertising at one point in time. Seasonal differences in advertising patterns are likely in the two study locations. Mongolia experiences extremely cold winters and so advertisements for drinks may be reduced at that time. As this study was conducted in summer, it may have overestimated the prevalence of sugar sweetened drinks in Mongolia compared to other times of the year. In The Philippines, the study was conducted during the wet season, when extra-large billboards are dismantled to prevent their collapse onto roads and buildings. Further, massive flooding occurred in the week prior to data collection, which may have destroyed some outdoor advertisements. Therefore, the number of food advertisements observed in Manila was likely to be a conservative estimate compared to typical conditions in The Philippines.

Conclusion

This project indicates that children in Ulaanbaatar, Mongolia and Manila, The Philippines are exposed to large numbers of advertisements for unhealthy foods on their way to and from school. These advertisements are clustered within 250m of school grounds. Notably, sugar-sweetened drinks, and particularly cola drinks, are heavily promoted near schools. These advertisements encourage the purchase and consumption of these beverages, which have been
identified as a probable causal factor in weight gain and obesity. There is clear scope to reduce children’s exposure to advertising for unhealthy foods in both Mongolia and The Philippines through land use and advertising regulations.
References


Table 1: Mean number of food advertisements per school and per 100m$^2$, by distance from school and high/low population density areas

<table>
<thead>
<tr>
<th>Demographic area</th>
<th>Mean (ads/100m$^2$) food ads &lt;250m from schools</th>
<th>Mean (ads/100m$^2$) food ads 250-500m from school</th>
<th>Mean total food ads (ads/100m$^2$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mongolia</td>
<td>18 (0.9)</td>
<td>31 (0.5)</td>
<td>49 (0.6)</td>
</tr>
<tr>
<td>Ger (low density)</td>
<td>11 (0.6)</td>
<td>13 (0.2)</td>
<td>25 (0.3)</td>
</tr>
<tr>
<td>Apartment (high density)</td>
<td>22 (1.1)</td>
<td>42 (0.7)</td>
<td>65 (0.8)</td>
</tr>
<tr>
<td>Philippines</td>
<td>128 (6.5)</td>
<td>195 (3.3)</td>
<td>323 (4.1)</td>
</tr>
<tr>
<td>Makati (high density)</td>
<td>202 (10.3)</td>
<td>291 (4.9)</td>
<td>494 (6.3)</td>
</tr>
<tr>
<td>Manila (high density)</td>
<td>130 (6.6)</td>
<td>293 (5.0)</td>
<td>424 (5.4)</td>
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<tr>
<td>Marikina (high density)</td>
<td>112 (5.7)</td>
<td>141 (2.4)</td>
<td>253 (3.2)</td>
</tr>
<tr>
<td>Las Piñas (low density)</td>
<td>59 (3.0)</td>
<td>90 (1.5)</td>
<td>149 (1.9)</td>
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<tr>
<td>Taytay (low density)</td>
<td>136 (6.9)</td>
<td>158 (2.7)</td>
<td>294 (3.8)</td>
</tr>
<tr>
<td></td>
<td>Mongolia</td>
<td>Philippines</td>
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<td>n (%)</td>
<td>n (%)</td>
<td></td>
</tr>
<tr>
<td><strong>Core foods</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plain bread and cereal products</td>
<td>62 (3)</td>
<td>142 (1)</td>
<td></td>
</tr>
<tr>
<td>Bottled water</td>
<td>22 (1)</td>
<td>105 (1)</td>
<td></td>
</tr>
<tr>
<td>Meat and meat alternatives</td>
<td>13 (1)</td>
<td>105 (1)</td>
<td></td>
</tr>
<tr>
<td>Healthy oils and low fat savoury sauces</td>
<td>14 (1)</td>
<td>0 (0)</td>
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</tr>
<tr>
<td>Low fat dairy and alternatives, and</td>
<td>11 (1)</td>
<td>76 (1)</td>
<td></td>
</tr>
<tr>
<td>probiotic drinks</td>
<td></td>
<td></td>
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<tr>
<td>Fruits</td>
<td>12 (1)</td>
<td>12 (0)</td>
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<tr>
<td>Low fat/salt meals</td>
<td>12 (1)</td>
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<td>Vegetables</td>
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<td><strong>Non-core foods</strong></td>
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<tr>
<td>Sugar sweetened drinks</td>
<td>1,115 (52)</td>
<td>5612 (56)</td>
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<tr>
<td>Fruit juice/drinks</td>
<td>207 (10)</td>
<td>596 (6)</td>
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<td>Fast food</td>
<td>110 (5)</td>
<td>449 (5)</td>
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<tr>
<td>Processed meat/alternatives</td>
<td>106 (5)</td>
<td>218 (2)</td>
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<tr>
<td>Chocolate and candy</td>
<td>101 (5)</td>
<td>0 (0)</td>
<td></td>
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<tr>
<td>Sweet breads, glutinous rice, pies and pastries</td>
<td>78 (4)</td>
<td>0 (0)</td>
<td></td>
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<tr>
<td>Ice cream</td>
<td>29 (1)</td>
<td>640 (6)</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Count (Number of Ads)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other non-core drinks</td>
<td>0 (0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other non-core foods</td>
<td>144 (6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td>85 (4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td><strong>14 (1)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restaurant (not fast food) and coffee shops</td>
<td>0 (0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tea and coffee</td>
<td>2 (0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convenience store</td>
<td>0 (0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food supplement</td>
<td>0 (0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condiments, seasonings and recipe additions</td>
<td>11 (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baby and toddler milk formulae</td>
<td>1 (0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,137 (100)</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total**                                     | **9,936 (100)**        

Note: Some advertisements depicted more than one food or beverage product.
Table 3: Mean number of food products promoted per school and per 100m², by distance from school and food category

<table>
<thead>
<tr>
<th>Site</th>
<th>Mean (per 100m²) food products promoted &lt;250m from schools</th>
<th>Mean (per 100m²) food products promoted 250-500m from schools</th>
<th>Mean total products promoted (per 100m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mongolia</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core</td>
<td>2 (0.1)</td>
<td>3 (0.1)</td>
<td>5 (0.1)</td>
</tr>
<tr>
<td>Non-core</td>
<td>24 (1.2)</td>
<td>42 (0.7)</td>
<td>66 (0.8)</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>&lt;1 (0.0)</td>
<td>&lt;1 (0.0)</td>
<td>1 (0.0)</td>
</tr>
<tr>
<td><strong>Philippines</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core</td>
<td>6 (0.3)</td>
<td>10 (0.2)</td>
<td>15 (0.2)</td>
</tr>
<tr>
<td>Non-core</td>
<td>115 (5.8)</td>
<td>168 (2.8)</td>
<td>282 (3.7)</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>12 (0.6)</td>
<td>22 (0.4)</td>
<td>33 (0.4)</td>
</tr>
</tbody>
</table>

Note: Some advertisements depicted more than one food or beverage product