

2018

How healthy are New Zealand food environments?

A comprehensive assessment 2014-2017

Executive Summary

Vandevijvere, S., Mackay, S., D'Souza, E., Swinburn, B.

Funders: Health Research Council of New Zealand,
Heart Foundation of New Zealand

Full report is available at
www.informas.org



THE UNIVERSITY OF
AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND

**MEDICAL AND
HEALTH SCIENCES**

INFORMAS

Benchmarking food environments

Executive Summary

What is the problem?

New Zealand has the third highest rate of overweight and obesity for adults and children within OECD countries. Dietary risk factors, including high body mass index, are by far the biggest contributor of health loss in New Zealand (18.6%) ahead of smoking as the next largest contributor (9.1%). Unhealthy diets are heavily influenced by unhealthy, obesogenic food environments, which in turn are influenced by the degree to which healthy food policies are implemented. Thus, it is important to closely monitor and benchmark progress on implementing recommended food policies and improving food environments to support and evaluate government and private sector actions to reduce obesity, diet-related non-communicable diseases (NCDs) and their inequalities. No country has yet undertaken a comprehensive, national food environments and policies survey, making this study an international first.



What did we do?

From 2014 to 2017, we conducted a comprehensive, national food policies and environments study, using INFORMAS methodology. INFORMAS is the International Network for Food and Obesity/NCDs Research, Monitoring and Action Support and it has developed study protocols to measure and benchmark food environments and policies globally. We created the full picture of the healthiness of New Zealand food environments by conducting multiple sub-studies using INFORMAS protocols on: healthy food policy implementation by the Government (in 2014 and 2017); commitments and disclosure of the top 25 food companies to improve population nutrition; food composition (in 13 280 foods); food labelling; food marketing to children (television, websites, magazines, food packages, social media, and in and around schools); food provision (819 schools, 28 hospitals, 70 sport centres); food retail (9674 food outlets in communities nationally and inside 204 supermarkets); and food prices (healthy versus less healthy foods, meals, and diets). We used a range of New Zealand and international systems to classify foods as 'healthier' and 'less healthy' depending on the food environment surveyed.

What did we find?

1. Government implementation of healthy food policies

In 2014 and 2017, public health experts (n=56 and 71 respectively) rated the extent of implementation of 23 policy and 24 infrastructure support good practice indicators compared to international best practice. Overall implementation scores were moderate at 43% in 2014 and 48% in 2017. Priority recommendations from the 2017 experts for the Government were:

- **Food composition:** Set targets for nutrients of concern (sodium, saturated fat, sugar)
- **Food labeling:** Strengthen the Health Star Rating System (HSR) and make it mandatory
- **Food marketing:** Regulate unhealthy food marketing to children in all media
- **Food prices:** Implement a 20% tax on sugary drinks
- **Food provision:** Ensure healthy foods in schools and early childhood education centres
- **Leadership:**
 - Strengthen the child obesity plan;
 - Set a target for reducing child obesity;
 - Set targets for intake of nutrients of concern (sodium, saturated fat, sugar);
 - Translate Eating Guidelines in the social, environment and cultural contexts
- **Monitoring:** Conduct a new national children's nutrition survey
- **Funding:** Increase population nutrition promotion funding to at least 10% of health care and productivity costs of overweight and obesity.

2. Food company commitments to improving population nutrition

The comprehensiveness and transparency of commitments of the 25 largest NZ food companies (supermarkets, food and beverage manufacturers, quick service restaurants) was assessed. There was a wide range of scores from 0% to 75% with the top five being Nestlé, Fonterra, Coca-Cola, Mars, and Unilever. The bottom five were Goodman Fielder, Hellers, Griffin's Foods, Pita Pit and Domino's. Insufficient commitments on food reformulation and restricting marketing to children and young people were prominent.

3. Composition of packaged foods

Analyses of over 13,000 NZ packaged foods (2014-2016) showed that 83% were classified as ultra-processed (industrially processed from multiple food-derived ingredients and additives), 71% were classified as not suitable for marketing to children using WHO-Europe nutrient criteria, and 59% had a HSR of <3.5 stars. Overall, the composition of packaged foods is relatively unhealthy.

4. Labelling of packaged foods

The HSR labelling system was introduced in June 2014, but by March 2016, only 5% of products carried the HSR label. Those that displayed the HSR label were healthier (median HSR of 4 stars) than those which did not show the label (2.5 stars). Over one third (35%) of all products carried nutrition claims (45% on healthier foods, 26% on less healthy foods) and 15% carried a health claim (23% on healthier foods and 7% on less healthy foods). Almost all (96%) breakfast cereal products displayed a claim with an average of four claims per product. There has been slow uptake of the HSR by companies, yet nutrition claims promoting the "healthiness" of products are widespread, even on less healthy products.

5. Unhealthy food marketing to children

Television

Average of 8.0 unhealthy food ads per hour during child peak viewing times (6-9pm).

Magazines

43% of branded food references in teen magazines were for unhealthy foods.

Company websites

18.6% of food company websites had a designated children's section.

Company Facebook pages

Popular fast food and packaged food brands used promotional strategies (41% of posts) and premium offers (34% of posts) as marketing techniques to appeal to children and adolescents.

Sports sponsorship

9.6% of the sponsors of clubs for popular children's sports were food or beverage companies.

Food packages

Of the 21% of breakfast cereals displaying promotional characters, 48% were for 'cereals for kids', and of those, 72% featured on 'less healthy' cereals.

Around schools

A median of 9 ads for unhealthy foods per km² around schools.

Overall

Overall, children were targeted for promotions for unhealthy foods through all media channels showing the failure of the self-regulatory system in place to protect children and young people.

6. Food provision in settings

Schools

Only 40% of schools had a written food policy and these policies had very low strength scores (average 3%) and comprehensiveness scores (average 16%); 42% of schools sold sugar-sweetened beverages; 68% of primary/intermediate schools and 23% of secondary schools reported being water/milk only schools; 96.5% of schools used unhealthy foods for fundraising; 58% of schools participated in food provision programs (e.g. fruit in schools) and 52% participated in nutrition programs (e.g. Health Promoting Schools). There is substantial scope to improve school food policies and practices for healthier school food environments.

Hospitals

All District Health Boards (DHBs) committed to remove sugar-sweetened beverages by January 2016 from their hospitals and premises and to develop healthy food service policies. An analysis of DHB policies in 2017 found an average strength score of 58% and comprehensiveness score of 70%. DHBs are on a strong path to improve their food environments, but on average, 54% of all foods offered were classified as unhealthy. Differing contractual arrangements for food provision on their premises created some heterogeneity in progress.

Other

53% of sport and recreation centres sold sugar-sweetened beverages. In 74% of non-chain fast food and takeaway outlets, over half the beverages for sale were sugar-sweetened.

Government food policies

- Health claims regulations
- Government transparency
- Monitoring Systems for obesity & NCDs
- Fiscal policies
- Local zoning laws
- Nutrition impact of trade policies

Local nutrition policies



95% of District Health Boards have a written nutrition policy
40% of schools reported they have a written nutrition policy

Food supply



34% is the median score for food company commitments to healthy reformulation of products

Food labelling

26% of less healthy packaged foods have a nutrition claim on the front-of-pack



2.5 Median HSR if NOT shown on label

4 Median HSR if shown on label

Less healthy foods are less likely to carry a Health Star Rating (HSR) on the label

Cost of diets



36% of the cost of the current NZ diet is for unhealthy food and drinks

While, on average, current, less healthy diets tend to be cheaper than healthy diets, there was a lot of variation of costs

Food prices

Price increases over 10 years were similar for healthy foods (20.2%) and unhealthy foods (20.6%)



Food marketing to children

8 ads per hour for unhealthy foods on TV during children's peak viewing times

72% of less healthy breakfast cereals for kids displayed a promotional character appealing to children



9 ads for unhealthy foods per km² around schools with more around schools in most deprived areas (10) than least deprived areas (8.3)

Most deprived schools

10 unhealthy food ads within 500 m

Least deprived schools

8.3 unhealthy food ads within 500 m



Retail food environments



25% of promotions in supermarket flyers are for junk foods and drinks



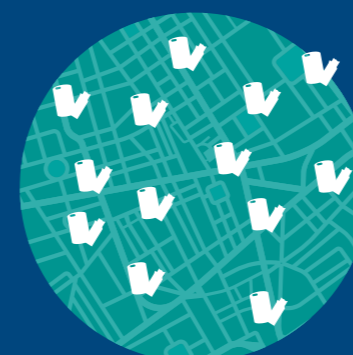
Two-thirds of food promotions in takeaway outlets are for unhealthy food and meals



In supermarkets, for every 1m of shelf of unhealthy food there is 0.4m of healthy food (using indicators of healthy and unhealthy food). In the most deprived areas this is 0.38m and 0.44m in least deprived areas.



There are 13.7 fast food and takeaway outlets per 10 000 people in the most deprived areas and 3.7 in the least deprived areas



There are 12.7 convenience stores per 10 000 people in the most deprived areas and 4.5 in the least deprived areas



53% of sport and recreation centres sell sugar-sweetened beverages



There are 2.4 convenience stores and takeaway outlets within 500 m of urban schools with more around the most deprived schools (2.4) than the least deprived schools (1.8)

School food environments

Two-fifths of schools sell sugar sweetened beverages. More of the least deprived schools (44%) sell sugar-sweetened drinks than the most deprived schools (34%).



7. Food retail within communities and inside supermarkets

Communities

The mean density (outlets/10,000 people) of all food outlets was higher in the most deprived communities than the least deprived, including supermarkets and fruit/vegetable shops (3.9 vs 1.3), fast food outlets (13.7 vs 3.7) and convenience stores (12.7 vs 4.5). There were 14% more potential ‘food swamps’ (high relative density of unhealthy food outlets) in the most deprived areas compared to the least deprived. 47% of urban schools had a convenience store and 38% had a fast food or takeaway outlet within 500m of the school, with higher numbers around the most deprived schools. People living in more deprived communities had food environments which were substantially more obesogenic compared to less deprived communities.

Supermarkets

Only 27% of supermarkets had at least 20% of checkouts free of ‘junk’ food placements. In the weekly flyers, 25% of promotions were for ‘junk’ foods, and 53% of end-cap (end of aisle) promotions were for ‘junk’ foods. The length of shelf space allocated to sets of unhealthy and healthy indicator foods showed an overall ratio of 0.42 (1m of unhealthy to 0.42m healthy indicator foods). In more deprived areas, the shelf length ratio was more weighted towards unhealthy foods (0.38) than in less deprived areas (0.44). While supermarkets are the major source of healthy food for most people, the in-store placements and promotions still favour the unhealthy food and beverages.

8. Cost of healthier versus less healthy foods, meals and diets

Foods

The prices of healthier and less healthy foods have increased in parallel over 10 years.

Meals

The dollar price of takeaway meals for a family of four was higher than the equivalent home-cooked (from scratch) or home-assembled (from pre-prepared ingredients) meals by an average of \$8.50 and \$8.20 respectively. Even with the time taken to prepare meals at home accounted for, the takeaway meals remained more expensive on average.

Diets

The average cost of diets which reflect the current New Zealand diet was somewhat cheaper than healthy diets which meet the dietary guidelines (by about \$13.50 per week for a family of four). However, there was considerable overlap in costs whereby many variations of healthy diets were comparable in costs with the average cost of the current diet. Both current and healthy diets were relatively unaffordable for families on income support or on the minimum wage where food is about half and a third, respectively, of the household budget.

Overall

Overall, healthy meals and diets can be constructed for a similar cost as takeaways and the current diet, but food in general is relatively unaffordable for those on low incomes.

9. How equitable is access to healthy food environments?

Several indicators within the food environments studies were analysed to address this issue.

As already noted above, more deprived communities had a far greater density of all food outlets but especially unhealthy food outlets. In addition, lower decile schools (more deprived) had more unhealthy food outlets and advertisements for unhealthy foods within 500m of the school compared to higher decile (less deprived) schools.

Supermarkets in more deprived areas also devoted more shelf space to unhealthy foods. The cost differentials between current versus healthy diets were similar for Māori and Pacific families as the general population, although with greater variability depending on the amount of gathered and gifted food and the frequency of takeaways included in the analyses. Overall, obesogenic food environments are much worse for those living in more deprived areas or communities.

Summary

These studies have shown that New Zealand’s food environments, especially children’s environments, are largely unhealthy, and policy implementation is low. The Government is not at the level of international best practice for most of the recommended food policies, although infrastructure support systems for policy development and implementation were rated reasonably well. Food industry commitments are relatively weak with median scores for all policy domains, except nutrition strategy and food labelling, being below 50%. More than half of the packaged food supply is in the unhealthy or less healthy range and the implementation of the HSR labelling is still low (5% in 2016) and mainly on the more healthy products. Children and young people are exposed to considerable marketing of unhealthy foods through all media channels. Less than half of all schools have nutrition policies, and existing policies are weak and not very comprehensive. Nutrition policies of DHBs are much stronger and more comprehensive. DHBs are displaying some leadership in the provision of healthy food choices. While the yearly rate of change between prices of healthier and less healthy foods was not significantly different, food prices significantly increased over a 10-year period. Healthy diets were on average more expensive than current diets but both diets were unaffordable for those on low incomes. The food retail environment is relatively obesogenic, especially in more deprived areas. Substantial inequalities in access to healthy food environments were evident across multiple indicators.

Implications

This comprehensive, national assessment of food environments and policies is an international first. It has provided a detailed and coherent picture of New Zealand’s greatest determinant of health loss. The implications from this study are several-fold.

- The reasons for New Zealand having very high rates of obesity and having unhealthy diets as the largest contributor to death and disease is obvious from the unhealthy state of the food environments within which people are making their food choices.
- Food environment inequalities, whereby people in the most deprived communities are facing the most obesogenic environments, is an undoubted driver of the well-known health inequalities for diet-related chronic diseases.
- The major players who dictate the nature of food environments, i.e. the government and major food companies, have considerable scope for lifting their efforts to create healthier food environments.
- The prioritised recommendations for government action from the participating experts in the Food-EPI sub-study and the company-specific recommendations to food companies from the BIA-Obesity sub-study are the obvious places to start to improve food environments.
- Ongoing monitoring of food environments is essential to: strengthen accountability mechanisms around the food policies and action of government and food companies; evaluate the impact of policies and actions, and; measure progress towards less obesogenic environments.

Full report available at: www.informas.org





Full report is available at www.informas.org



**THE UNIVERSITY OF
AUCKLAND**
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND

**MEDICAL AND
HEALTH SCIENCES**

INFORMAS

Benchmarking food environments