

FOODSWITCH: **STATE OF THE FOOD SUPPLY**

AUSTRALIA | 2021



The George Institute
for Global Health



FOODSWITCH

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Acknowledgement of Country

The George Institute for Global Health acknowledges the Gadigal People of the Eora Nation as the Traditional Custodians of the land on which our Australian office is built and this submission is written. We pay our respect to Elders past, present and emerging.

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PURPOSE

The goal of this “FoodSwitch – State of the Food Supply Report” is to support Government, business and community efforts to help Australians eat healthier diets. This annual snapshot of the Australian food supply highlights the changing nutritional composition and labelling status of packaged foods and beverages in Australia. This year’s report benchmarks the healthiness of the food supply in 2021 and explores changes over the period 2019–2021.

The report uses four different indicators to assess healthiness: (1) The Health Star Rating nutrient profiling system is used to assess overall nutritional quality, (2) the Australian Dietary Guidelines classification of ‘core’ and ‘discretionary’ foods is used to assess foods that are a necessary part of a healthy diet, (3) the NOVA classification is used to assess the level of food processing, and (4) information on specific nutrients is used to analyse annual changes in levels of energy, total sugar, saturated fat and sodium.

Each year the State of the Food Supply ‘Spotlights’ an area in our analysis. For the first time, this year’s Spotlight focuses on uptake and use of Country of Origin Labelling (CoOL). Since 2018, new legislation has required manufacturers to update CoOL on packages to provide consumers with clearer information about where food was grown, produced, made or imported from. Although not directly health-related, CoOL improves transparency in the food supply and may also provide data to support future policies to reduce the environmental impact of specific foods.



BACKGROUND

Unhealthy diets are a leading contributor to poor health globally and in Australia. Unhealthy diets are those with low intake of fruit, vegetables, nuts, seeds, whole grains and fibre, and excess intake of unhealthy processed foods and beverages that are high in harmful fats, added sugars and salt. Unhealthy diets are associated with overweight and obesity, and are a major determining factor for non-communicable diseases such as heart disease, stroke, type 2 diabetes and some cancers. Nearly two-thirds of Australian adults are above a healthy weight, with 35.5% overweight and a further 27.9% obese.¹ If current trends continue, there will be approximately 1.75 million deaths in people over 20 years old caused by overweight and obesity between 2011 and 2050.²

The Australian Dietary Guidelines provide sensible advice about how to promote health and well-being by recommending that Australians primarily consume fresh and minimally-processed foods and beverages. Unfortunately, fewer than one in ten Australians consume a diet in line with recommendations,³ and over one third of food and beverage products consumed are classed as 'discretionary' or unhealthy.⁴ Foods and beverages identified as unhealthy comprise about one third (35%) of energy intake for Australian adults, and an even higher proportion for Australian children (39%).⁵

The widespread manufacture, marketing and consumption of unhealthy processed and pre-prepared foods and beverages is a major contributor to Australians' excess consumption of energy, harmful saturated and trans fats, added sugars and salt. Most of these unhealthy foods are purchased from Australian supermarkets.⁶ Between 2019 and 2020, packaged food and beverage sales in Australia grew by 5%,⁷ indicating a sustained demand for these products, and a need to monitor their nutritional quality. Furthermore, the online grocery shopping market in Australia increased significantly in 2020 due to the COVID-19 pandemic, further increasing the share of food sales coming from the largest supermarkets. The online retail environment may also limit consumers' access to information usually present on food labels.

The World Health Organization (WHO) recommends a comprehensive suite of evidence-based, cost-effective policies to promote healthier population diets that include measures such as improved food labelling, reformulation to reduce risk-associated nutrients, restrictions on unhealthy marketing, and fiscal policies such as taxes on sugar sweetened beverages.⁸

In Australia, federal progress towards implementing these policies remains limited. In 2014, Australia and New Zealand introduced the Health Star Rating (HSR) front-of-pack nutrition label on a voluntary basis. Its aim is to encourage consumers to choose healthier foods by providing clear and simple guidance on the front of the pack. The HSR rates foods from 0.5 to 5.0 stars based on overall nutritional quality, with 5 stars being the healthiest. In 2019, the Government concluded a five-year review of the policy which found that the HSR was working well overall, while also making recommended reforms to its scoring system and governance. Despite advocacy from public health and consumer groups in support of making HSR mandatory, the label remains voluntary, with uptake targets set for implementation to reach 70% by 2025. In 2016, the Government launched the Healthy Food Partnership⁹ to engage the food industry in agreeing voluntary targets to improve the nutritional quality of their products. Five years later, the Partnership had released two waves of voluntary reformulation targets for sodium, saturated fat and sugar.¹⁰ These targets are to be implemented over a four-year period, with a two-year review of progress.

APPROACH

The FoodSwitch Database

This report uses data collected as part of The George Institute's FoodSwitch program. The FoodSwitch program includes a bespoke technology system that enables the systematic, standardised and replicable collection and collation of data describing Australian packaged foods and beverages.¹¹ Images of food packaging are captured, stored and processed with key data extracted from food labels and secondary measures of healthiness derived.

The FoodSwitch Monitoring Dataset is generated from annual in-store surveys conducted at large grocery stores owned by ALDI, Coles, Independent Grocers of Australia (IGA) and Woolworths. The Monitoring Dataset is designed to track annual changes in the Australian packaged food and beverage supply. This report uses the 2021 Monitoring Dataset for the primary analyses. Due to COVID-19, there was no monitored dataset created in 2020, so comparison is made to the 2019 Monitoring Dataset to explore recent changes.

Foods and beverages included

All packaged foods and beverages available in-store on the days of the survey were imaged and processed using the FoodSwitch Data Collection system. Products with no Nutrition Information Panel were excluded and duplicates of an identical product in different package sizes were removed.

Results are provided for 15 major food categories and selected sub-categories. Excluded categories include alcoholic beverages, baking powders, chewing gum, cough lollies, herbs and spices, plain teas and coffees, vitamins and supplements, yeasts and gelatines, since they do not contribute significantly to nutrient intake nor are manufacturers required to display a Nutrition Information Panel for these products.

Manufacturers included

Manufacturers were included based on a 2020 retail sales value share of 1% and above and were categorised according to the primary components of their product portfolio.¹² There were 24 packaged food manufacturers that sell 58% of all packaged foods, and ten beverage manufacturers that sell 78% of all soft drinks in Australia. The four grocery retailers that manufacture a diverse range of 'own brand' products were also included, resulting in a total of 31 manufacturers for analysis.

Nutritional quality indicators

Four indicators of nutritional quality were assessed:

Health Star Rating – The Australia / New Zealand HSR system uses a nutrient profiling algorithm to assign packaged foods and beverages a rating between 0.5 (least healthy) and 5.0 stars (most healthy) in ten half-star increments.¹³ In November 2020, changes to the HSR algorithm were formally released with manufacturers allowed a two-year transition period for packaging updates. For this report, the updated HSR algorithm was used to calculate HSRs for both 2019 and 2021 data. Unlike previous State of the Food Supply reports, the HSR displayed on pack was not used to calculate HSR in the primary analysis of healthiness across the food supply due to the unknown mix of products using the old or new HSR algorithm. Products were classified as 'healthy' if the HSR was 3.5 or above based on prior research showing that an HSR of 3.5 is the

point of greatest alignment with eligibility to make a health claim on foods under legislation in Australia and New Zealand.¹⁴

Australian Dietary Guidelines – The Australian Dietary Guidelines classify foods as either ‘core’ or ‘discretionary’. Core foods are those from the five food groups: fruits, vegetables, grains, dairy and protein that form the basis of healthy diets. Discretionary foods are nutrient-poor and not necessary for a healthy diet.^{15 16}

Level of processing – The NOVA classification framework groups foods according to the extent and purpose of processing applied during food and drink manufacturing. The main classifications are ‘unprocessed or minimally processed foods’, ‘processed culinary ingredients’, ‘processed foods’ and ‘ultra-processed food and drink products’.^{14, 17} There is emerging evidence of an association between greater consumption of ultra-processed foods and adverse health outcomes.^{18 19 20}

Nutrient composition – There are robust and consistent associations between greater consumption of risk-associated nutrients such as sodium, saturated fat and sugars, and also foods with greater energy density with adverse health outcomes. Government food reformulation programs such as the Healthy Food Partnership are designed to set levels for individual nutrients in packaged food products.

Ranking the healthiness of manufacturers

The primary ranking of manufacturers was undertaken based on the mean HSR across each manufacturer’s product portfolio. Mean HSR was chosen both because the underlying nutrient profiling method is underpinned by significant nutritional research and because it is the current focus of Government and industry action on the packaged food and beverage supply in Australia.

Use of interpretive labelling on pack

The Health Star Rating

In addition to calculating an HSR for all products as a marker of nutritional quality in our ranking of manufacturers, we also used FoodSwitch data to calculate the number and proportion of products that were actually displaying an HSR on pack in 2021. This analysis provides an update on voluntary uptake of the policy overall, by category, and by large manufacturers in the seven years since implementation commenced in 2014.

Country of Origin Labelling

Each year, the State of the Food Supply report includes a special area of focus – the Spotlight analysis. This year’s Spotlight relates to Country of Origin Labelling (CoOL) requirements that were adopted by the Australian Government in 2016 and became mandatory for most foods from 1st July 2018.

The analysis looked at CoOL usage overall, by major category, and by manufacturer for the top ten Australian manufacturers based on retail share. We examined the proportion of products that were grown or produced in Australia, made in Australia using mostly Australian ingredients, made in Australia using mostly imported ingredients, packed in Australia, or wholly imported. More information about what these terms mean is included in the Spotlight section of this report.

PRODUCT HEALTHINESS FOR LEADING MANUFACTURERS

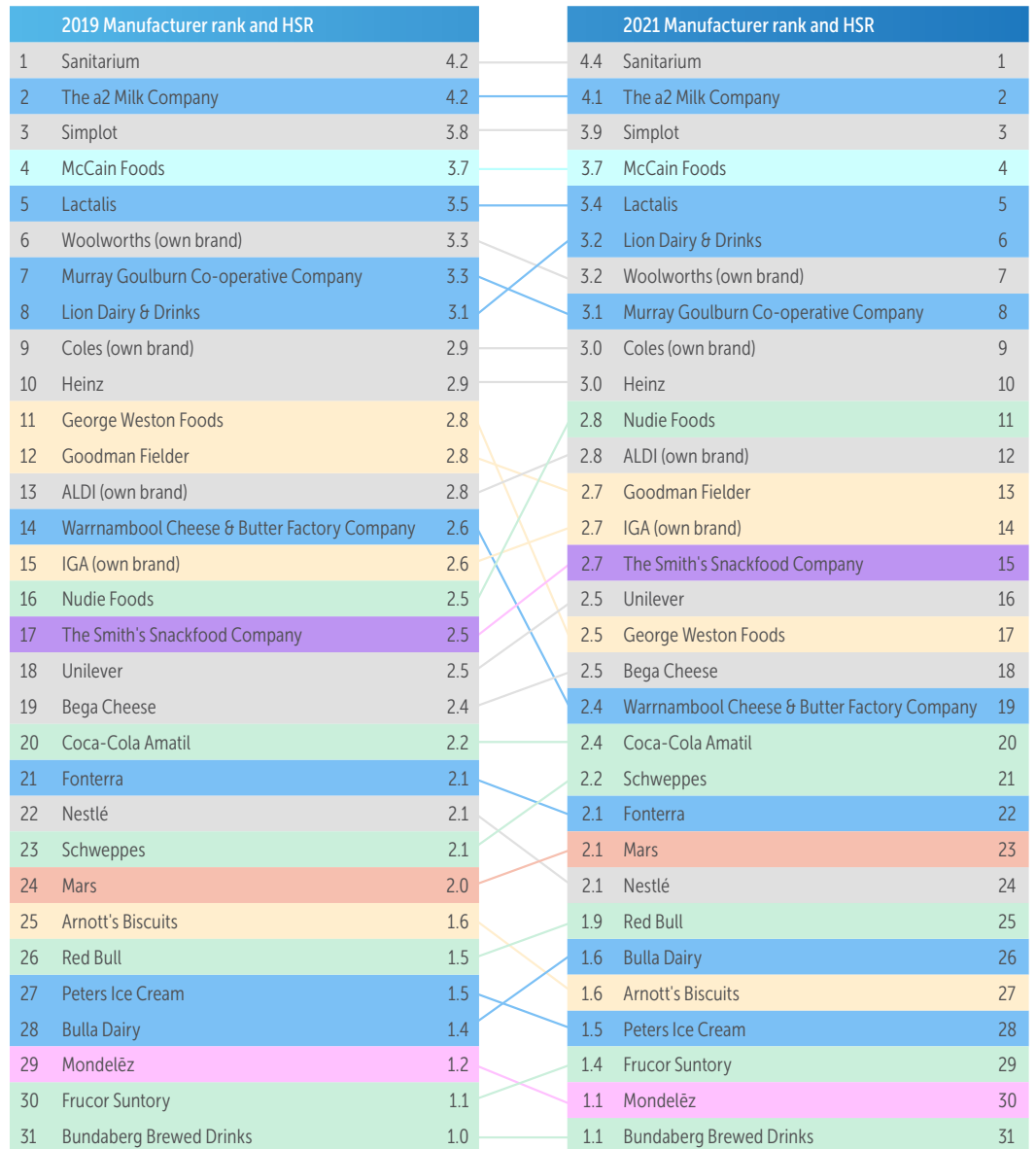
Manufacturer *	Number of products	Nutrient profiling summary score		Dietary guidelines	Extent of processing	Uptake of HSR (%)
		HSR (Mean (SD))	Proportion HSR \geq 3.5 (%)	Proportion discretionary (%)	Proportion ultra-processed (%)	
Sanitarium	61	4.4 (0.8)	93.4	6.6	75.4	98.4
The a2 Milk Company	6	4.1 (0.4)	100.0	0.0	0.0	0.0
Simplot	397	3.9 (0.8)	85.9	35.8	52.9	91.9
McCain Foods	111	3.7 (0.8)	75.7	36.0	84.7	100.0
Lactalis	130	3.4 (1.2)	63.8	23.1	63.8	0.0
Lion Dairy & Drinks	168	3.2 (1.3)	53.6	14.9	56.5	51.8
Woolworths (own brand)	1,476	3.2 (1.4)	59.5	39.1	59.0	88.7
Murray Goulburn Co-operative Company	50	3.1 (1.4)	54.0	18.0	18.0	0.0
Coles (own brand)	1,885	3.0 (1.4)	54.8	42.8	64.1	88.3
Heinz	261	3.0 (1.3)	57.1	24.9	82.4	24.9
Nudie Foods	21	2.8 (0.5)	19.0	0.0	100.0	0.0
ALDI (own brand)	1,696	2.8 (1.4)	45.1	50.8	67.9	81.0
Goodman Fielder	196	2.7 (1.2)	43.4	49.0	83.7	30.6
IGA (own brand)	154	2.7 (1.5)	45.5	44.2	56.5	0.6
The Smith's Snackfood Company	105	2.7 (1.0)	28.6	82.9	89.5	88.6
Unilever	256	2.5 (1.2)	40.6	57.0	84.8	59.4
George Weston Foods	95	2.5 (1.4)	40.0	54.7	53.7	47.4
Bega Cheese	99	2.5 (1.4)	36.4	37.4	47.5	2.0
Warrnambool Cheese & Butter Factory Company	35	2.4 (1.0)	14.3	8.6	5.7	0.0
Coca-Cola Amatil	120	2.4 (1.3)	46.7	83.3	86.7	71.7
Schweppes	133	2.2 (1.3)	38.3	90.2	96.2	76.7
Fonterra Brands	77	2.1 (1.5)	28.6	45.5	20.8	0.0
Mars	309	2.1 (1.2)	22.0	85.8	95.1	84.1
Nestlé	334	2.1 (1.5)	30.8	68.3	96.4	80.8
Red Bull	10	1.9 (1.5)	40.0	100.0	100.0	90.0
Bulla Dairy	61	1.6 (1.1)	4.9	93.4	73.8	0.0
Arnott's Biscuits	145	1.6 (1.0)	6.2	89.7	100.0	76.6
Peters Ice Cream	44	1.5 (0.8)	4.5	100.0	100.0	0.0
Frucor Suntory	19	1.4 (1.4)	31.6	100.0	100.0	78.9
Mondelēz	315	1.1 (0.9)	4.1	87.3	92.7	0.0
Bundaberg Brewed Drinks	19	1.1 (0.9)	0.0	94.7	100.0	0.0
Total for all 31 manufacturers	8,788	2.8 (1.4)	48.0	49.5	69.4	71.0

* Manufacturers ranked according to mean HSR

Overall, 71% of products from the top-selling manufacturers included in this report displayed an HSR on pack, with a mean HSR of 2.8 out of 5 stars. Just under half of all products from top-selling manufacturers were considered "healthy" (HSR \geq 3.5) and just over two thirds were considered ultra-processed. Sanitarium, The a2 Milk Company and Simplot had the healthiest mean HSRs (4.4, 4.1 and 3.9 respectively) with more than 85% of products considered "healthy" (HSR \geq 3.5). Of these three companies, Sanitarium had the highest proportion of products classed as ultra-processed (75.4%) with Simplot having the highest proportion of products classed as discretionary (35.8%). There were seven manufacturers that scored a mean HSR of less than 2.0, ranging from 1.9 (Red Bull) to 1.1 (Bundaberg Brewed Drinks and Mondelēz). Portfolios for these two manufacturers were dominated by non-alcoholic beverages and confectionery, respectively. These manufacturers also had a very high proportion of their portfolios classed as discretionary and ultra-processed.

Throughout, there were strong correlations between higher mean overall HSR and having a lower proportion of discretionary products in a manufacturer's portfolio. The correlation between these indicators and the proportion of foods classified as ultra-processed was weaker. For example, Sanitarium had the highest mean HSR (4.4) and the third lowest proportion of discretionary foods (6.6%), but also had 75.4% of its portfolio classified as ultra-processed.

MANUFACTURER RANKINGS FOR 2019 AND 2021



Manufacturer - primary portfolio:

- Bread & bakery products
- Dairy
- Snack foods
- Confectionery
- Miscellaneous
- Sauces, dressings, spreads & dips
- Convenience foods
- Non-alcoholic beverages

The annual rankings of the above leading Australian manufacturers are based on the mean HSR of their portfolios in both 2019 and 2021, using the updated HSR algorithm. The rank for the top five manufacturers remained the same between 2019 and 2021 with 12 companies improving their ranking, ten decreasing their ranking and the remaining companies showing no change in ranking between 2019 and 2021. Red Bull (+0.4), Nudie (+0.3) and Frucor (+0.3) increased their mean HSR the most, while George Weston Foods dropped six spots with a decrease in mean HSR from 2.8 to 2.5, and Warrnambool Cheese & Butter Factory Company dropped five spots with a decrease in mean HSR from 2.6 to 2.4. Of the retailers, Woolworths dropped one spot from 6th to 7th, with a decline in mean HSR from 3.3 to 3.2 though it continues to have the healthiest range of own brand products overall. Coles retained the same rank at 9th though improved its mean HSR from 2.9 to 3.0, and ALDI and IGA each improved their position by one spot with ALDI remaining level on mean HSR and IGA improving their mean HSR from 2.6 to 2.7.

THE HEALTHINESS OF FOOD CATEGORIES IN 2021

Major and minor food category	Number of products	Nutrient profiling summary score		Dietary guidelines	Extent of processing	Uptake of HSR (%)
		HSR (Mean (SD))	Proportion HSR ≥ 3.5 (%)	Proportion discretionary (%)	Proportion ultra-processed (%)	
Bread and bakery products	2,570	2.2 (1.2)	26.7	68.1	99.9	38.6
Biscuits/cookies and crackers	1,086	1.8 (1.1)	12.2	79.3	100.0	39.0
Bread	695	3.5 (0.8)	75.0	18.7	99.9	42.6
Cakes, muffins and pastries	789	1.7 (0.8)	4.1	96.1	99.9	34.6
Cereal and grain products	1,472	3.7 (1.0)	79.3	2.0	53.3	53.3
Breakfast cereals	429	4.0 (0.8)	82.5	6.3	89.3	80.2
Couscous, noodles and pasta	637	3.5 (1.0)	74.1	0.0	46.5	41.0
Other cereal and grain products	225	3.8 (1.1)	77.3	1.3	22.7	33.3
Rice and rice products	181	3.6 (0.4)	92.3	0.0	30.4	57.5
Confectionery	1,281	1.1 (0.7)	1.6	100.0	100.0	38.6
Convenience foods	1,468	3.3 (0.7)	68.1	8.9	99.0	54.4
Pizza	113	3.0 (0.5)	35.4	11.5	100.0	70.8
Pre-prepared salads and sandwiches	160	3.4 (0.8)	76.3	3.1	95.0	65.6
Ready meals, meal kits and other frozen foods	820	3.4 (0.6)	71.0	9.5	100.0	50.7
Soup	375	3.2 (0.8)	68.3	9.3	98.4	52.5
Dairy	2,115	2.9 (1.5)	44.6	33.9	54.9	31.1
Cheese	615	2.9 (1.5)	43.9	0.0	4.2	27.8
Cream	56	0.7 (0.9)	5.4	94.6	8.9	33.9
Desserts	152	2.5 (1.5)	41.4	100.0	100.0	27.0
Ice cream and edible ices	490	1.8 (0.9)	4.9	100.0	99.8	30.2
Milk	427	3.7 (1.1)	73.8	3.3	39.1	46.8
Yoghurt and yoghurt drinks	375	3.9 (1.1)	71.5	2.4	86.1	20.8
Edible oils and oil emulsions	328	2.6 (1.3)	44.8	27.1	0.3	22.6
Cooking oils	188	3.3 (1.0)	68.6	0.0	0.0	24.5
Edible oils	140	1.7 (1.2)	12.9	63.6	0.7	20.0
Egg and egg products	53	3.9 (0.5)	96.2	0.0	0.0	24.5
Fresh eggs	47	4.0 (0.0)	100.0	0.0	0.0	27.7
Other egg products	6	3.2 (1.3)	66.7	0.0	0.0	0.0
Foods for specific dietary use	285	3.2 (1.2)	43.5	88.1	100.0	23.2
Fruits, vegetables, nuts and legumes	2,211	3.8 (1.1)	72.3	27.2	17.7	54.8
Fruit and fruit products	609	3.4 (1.0)	62.6	15.3	18.1	56.3
Jam and marmalades	108	1.8 (0.5)	3.7	100.0	100.0	25.0
Nuts and seeds	427	4.4 (0.8)	91.1	5.9	0.0	63.5
Vegetables	1,067	4.1 (1.1)	77.3	35.2	16.3	53.4
Meat and meat alternatives	1,202	2.7 (1.3)	46.4	65.1	57.3	43.0
Meat alternatives	166	4.0 (0.7)	88.6	0.6	100.0	62.7
Processed meat	1,036	2.5 (1.2)	39.7	75.4	50.5	39.9
Non-alcoholic beverages	1,276	2.3 (1.3)	29.9	58.9	95.7	48.3
Breakfast beverages and milk-based protein drinks	30	4.6 (0.5)	96.7	0.0	100.0	96.7
Coffee and tea (flavoured)	59	1.3 (0.7)	1.7	100.0	100.0	20.3
Cordials and beverage mixes	164	2.1 (1.5)	27.4	65.2	92.1	31.7
Electrolyte (sports) drinks	45	1.9 (1.0)	24.4	100.0	100.0	88.9
Energy drinks	56	1.8 (1.4)	39.3	100.0	100.0	53.6
Fruit and vegetable juices	404	2.2 (1.1)	13.4	8.9	100.0	51.7
Other non-alcoholic beverages	92	2.7 (0.9)	28.3	100.0	100.0	10.9
Soft drinks	276	1.9 (1.4)	34.8	100.0	100.0	54.3
Waters	150	3.3 (1.2)	65.3	53.3	72.0	56.0
Sauces, dressings, spreads and dips	1,931	2.4 (1.3)	27.0	89.5	95.1	32.4
Mayonnaise and salad dressings	218	1.8 (0.8)	8.3	100.0	100.0	16.5
Sauces	1,243	2.3 (1.3)	25.8	93.6	97.3	38.5
Spreads and dips	470	2.8 (1.2)	38.7	73.8	87.0	23.6
Seafood and seafood products	675	3.7 (0.8)	85.8	15.0	21.5	58.1
Canned seafood	367	3.7 (0.8)	88.0	0.0	0.0	58.0
Chilled seafood	85	3.2 (1.0)	65.9	0.0	0.0	27.1
Frozen seafood	216	3.7 (0.6)	89.4	46.8	63.9	70.4
Other seafood products	7	4.1 (0.4)	100.0	0.0	100.0	57.1
Snack foods	993	2.5 (1.2)	25.9	99.3	99.7	45.9
Cereal and nut-based snack bars	255	2.7 (1.1)	27.5	99.6	100.0	49.8
Chips and similar products	575	2.5 (1.1)	25.6	99.5	99.7	45.4
Other snack foods	163	2.0 (1.3)	24.5	98.2	99.4	41.7
Sugars, honey and related products	346	1.4 (1.2)	11.6	99.7	82.9	17.3
TOTAL	18,206	2.8 (1.4)	44.4	52.4	71.9	42.6

Food Categories

Of the 15 major food and beverage categories, four had a mean HSR over 3.5, with the following having the largest proportions of products classified as healthy: eggs and egg products (96.2%), seafood and seafood products (85.8%), and cereal and grain products (79.3%). Overall, just over half (52.4%) of products were classified as discretionary, and 71.9% were ultra-processed.

CHANGES IN THE COMPOSITION AND HEALTHINESS OF FOOD CATEGORIES FROM 2019 TO 2021

Major and minor food category	Absolute change compared to 2019				
	Energy (kJ/100g)	Saturated fat (g/100g)	Sodium (mg/100g)	Total sugars (g/100g)	Mean HSR
Bread and bakery products	8	0.1	-18	-0.1	0
Biscuits/cookies and crackers	2	-0.1	-30	0.4	0
Bread	30	0	-17	0.1	0
Cakes, muffins and pastries	-5	0.3	-2	-1.2	0
Cereal and grain products	-4	0.1	9	-0.4	0
Breakfast cereals	1	0.2	7	-0.4	0
Couscous, noodles and pasta	4	0.1	-5	0	0
Other cereal and grain products	0	0	20	-0.3	0
Rice and rice products	26	0	-1	0	0
Confectionery	-25	-0.4	7	0.8	0
Convenience foods	29	0.1	-5	0.1	0
Pizza	18	0	11	-0.1	-0.1
Pre-prepared salads and sandwiches	44	0.6	30	0.3	-0.1
Ready meals, meal kits and other frozen foods	28	0	-4	0.1	0
Soup	-8	-0.1	-16	0.2	0
Dairy	-12	-0.4	-18	0.8	0
Cheese	12	0	22	0.1	0
Cream	9	0	2	-0.3	-0.1
Desserts	-5	-0.4	-11	0.5	0.1
Ice cream and edible ices	0	0.3	-2	-0.4	0
Milk	10	0	2	0.2	0
Yoghurt and yoghurt drinks	-15	-0.2	-1	-0.5	0
Edible oils and oil emulsions	39	-1.6	-14	-0.1	0.1
Cooking oils	-10	-3	-2	-0.1	0.1
Edible oils	46	1	-2	0	-0.1
Egg and egg products	33	0	72	0.1	-0.1
Fresh eggs	18	0	0	0	0
Other egg products	185	0.7	633	0.6	-1.1
Foods for specific dietary use	64	0.9	44	0.2	-0.2
Fruits, vegetables, nuts and legumes	-61	-0.2	-7	-0.1	0
Fruit and fruit products	-42	-0.8	-53	1.5	0
Jam and marmalades	-52	0.2	-9	-3.6	0.1
Nuts and seeds	15	0.3	19	0.3	0
Vegetables	32	0.2	-12	0.3	-0.1
Meat and meat alternatives	25	0.1	-12	0.1	0
Meat alternatives	72	0.4	23	0.1	-0.1
Processed meat	17	0	-19	0.1	0
Non-alcoholic beverages	-23	-0.1	8	-0.5	0
Breakfast beverages and milk-based protein drinks	-30	-0.3	3	-1.8	0.4
Coffee and tea (flavoured)	-42	-0.1	-11	-1	0.2
Cordials and beverage mixes	-150	-0.6	52	-2.2	0.1
Electrolyte (sports) drinks	2	0	-2	0.1	0
Energy drinks	-15	0	7	-0.9	0.2
Fruit and vegetable juices	3	0	0	0.1	-0.1
Other non-alcoholic beverages	21	0	2	0.9	-0.3
Soft drinks	-17	0	8	-1	0.3
Waters	-7	0	-1	-0.3	-0.1
Sauces, dressings, spreads and dips	-2	0.1	61	0.2	-0.1
Mayonnaise and salad dressings	16	0.3	122	-0.6	-0.1
Sauces	-10	0	79	0.1	0
Spreads and dips	30	0.4	-29	0.7	-0.1

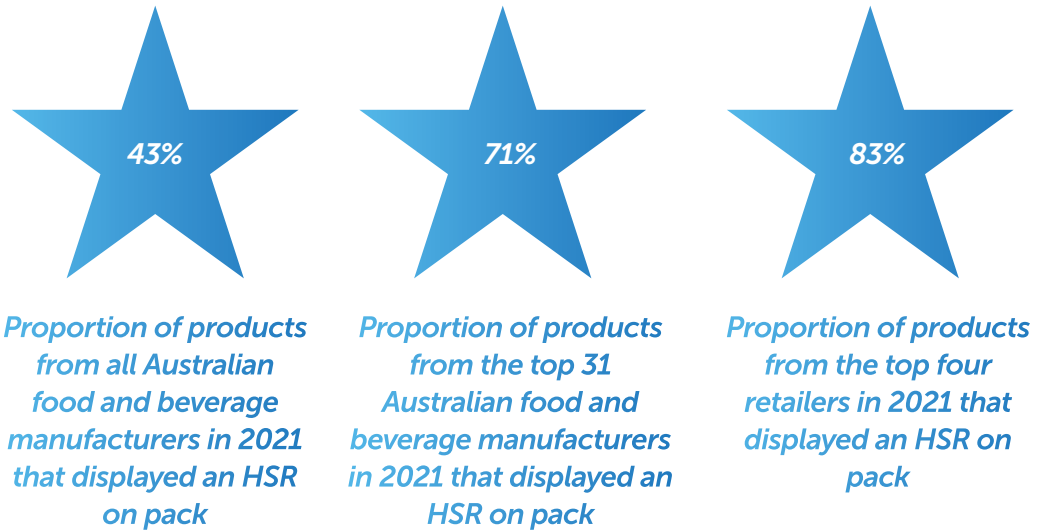
CHANGES IN THE COMPOSITION AND HEALTHINESS OF FOOD CATEGORIES FROM 2019 TO 2021 CONTINUED...

Major and minor food category	Absolute change compared to 2019				
	Energy (kJ/100g)	Saturated fat (g/100g)	Sodium (mg/100g)	Total sugars (g/100g)	Mean HSR
Seafood and seafood products	-4	-0.1	2	-0.2	0
Canned seafood	1	0	66	-0.1	-0.1
Chilled seafood	60	0.2	11	-0.3	-0.1
Frozen seafood	-48	-0.4	-79	-0.4	0.2
Other seafood products	259	1.2	-764	0.5	1.1
Snack foods	21	0.6	13	-0.5	-0.1
Cereal and nut-based snack bars	40	1	26	-1.7	0
Chips and similar products	14	0.1	-10	-0.1	-0.1
Other snack foods	58	1.3	35	1.6	-0.4
Sugars, honey and related products	-69	0.1	-61	-2.8	0.1
Meat and meat alternatives	25	0.1	-12	0.1	0
Meat alternatives	72	0.4	23	0.1	-0.1
Processed meat	17	0	-19	0.1	0
Non-alcoholic beverages	-23	-0.1	8	-0.5	0
Breakfast beverages and milk-based protein drinks	-30	-0.3	3	-1.8	0.4
Coffee and tea (flavoured)	-42	-0.1	-11	-1	0.2
Cordials and beverage mixes	-150	-0.6	52	-2.2	0.1
Electrolyte (sports) drinks	2	0	-2	0.1	0
Energy drinks	-15	0	7	-0.9	0.2
Fruit and vegetable juices	3	0	0	0.1	-0.1
Other non-alcoholic beverages	21	0	2	0.9	-0.3
Soft drinks	-17	0	8	-1	0.3
Waters	-7	0	-1	-0.3	-0.1
Sauces, dressings, spreads and dips	-2	0.1	61	0.2	-0.1
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Other snack foods	58	1.3	35	1.6	-0.4
Sugars, honey and related products	-69	0.1	-61	-2.8	0.1
TOTAL	18	-0.1	2	0.6	0.0

The table above shows the absolute change in value for each major and minor food category between 2019 and 2021. The green and red highlights denote a change that is unlikely to have occurred by chance alone based on a T-test, with green indicating an improvement and red indicating a worsening with respect to healthiness. Small but significant decreases in mean HSR were observed for both major and minor food categories. No significant increases in mean HSR were found, however significant decreases in nutrients of concern were seen in selected minor food categories. The beverages category showed the largest number of changes, with an overall decrease in energy between 2019 and 2021 (-23kJ/100mL). Significant decreases in total sugar were seen in soft drinks (-1.0g/100mL) and breakfast beverages and milk-based protein drinks (-1.8g/100mL). No significant decreases in sodium content were observed in any major or minor food category.

UPTAKE OF HSR ON PACK

Only 43% of products in the full FoodSwitch Monitoring Dataset were displaying HSR on pack in 2021. Uptake by the 31 top selling manufacturers included in this report was higher, at 71%. The four retailers (particularly Coles, Woolworths and ALDI) led the way on their own brand products, with an HSR uptake of 83%.



Only four out of the 15 major food categories had >50% of products displaying an HSR on pack, and no category had >60% of products displaying an HSR on pack. Seafood and seafood products had the highest HSR uptake (58.1%) and sugars, honey and related products the lowest (17.3%).





SPOTLIGHT: COUNTRY OF ORIGIN LABELLING

In 2016, the Australian Government updated Country of Origin Labelling (CoOL) requirements, with the aim of providing clearer information to consumers about the origins of the foods they purchase. The new label now falls under the Australian Consumer Law, governed by the Australian Competition and Consumer Commission (ACCC). The requirements were introduced in 2016, with implementation expected by 1st July 2018.²¹ Improved CoOL information is important for promoting transparency in the food supply. As the world moves towards policies that promote both healthier and more sustainable diets, CoOL may also provide data to support future policies which aim to decrease the environmental impact of food choices.

CoOL is now mandatory for most packaged food categories sold in Australia. These 'priority' foods must show one or more components of the new label design to help consumers identify where the product was grown, produced, made or packed, or from which country it was imported. For CoOL purposes, a limited number of categories are deemed 'non-priority' foods and are only expected to display CoOL voluntarily. 'Non-priority' categories include seasonings, confectionery, biscuits and snack foods, soft drinks and sports drinks, alcoholic drinks, tea and coffee and bottled water.²²

The new CoOL 'Standard mark' label has up to three components which will be displayed depending on the origin of the product:

	<p>The familiar green and gold kangaroo logo will only be found on products that were grown, produced or made in Australia – allowing quick identification of the food's Australian origin.</p>
	<p>The bar chart shows the minimum proportion of Australian ingredients in the food.</p>
<p>Text Statement</p>	<p>The text statement is used to make a claim about whether the food was grown, produced, made or packed in Australia or in another country.</p>

The aim of this Spotlight analysis was to examine the Country of Origin of the Australian food supply overall, by top ten manufacturers, and by major product categories based on the information provided by this label.

To do so, we assigned all products in FoodSwitch to one of seven groups based on information displayed by manufacturers on pack: grown in/produced in Australia; made in Australia from at least 50% Australian ingredients; made in Australia from >50% imported ingredients; packed in Australia from at least 50% Australian ingredients; packed in Australia from >50% imported ingredients; imported; no CoOL on pack. More detail on the meanings of 'grown', 'produced', 'made' and 'packed' are provided in the box below.

Key CoOL conditions
– *grown, produced,*
made and packed

'Grown in' – is generally used for fresh food (for example, fruit and vegetables, oats, sugar) and means that the food was in fact grown in the country claimed. A food with multiple ingredients can also be classified as 'grown' in a country if each of its significant ingredients were grown in that country and all its processing occurred in that country. A food can only claim to be 'Grown in Australia' if it contains exclusively Australian ingredients.

'Produced in' – this claim means that all significant ingredients in the food are from the country specified and all processing has been done in that country. This claim is commonly used on fresh and processed foods. Like 'grown in', a food can only claim to be a 'Product of Australia' if it contains exclusively Australian ingredients. The overlap between 'grown in' and 'produced in' means such claims are largely interchangeable.

'Made in' – a food is made in a country if it underwent its last substantial transformation in that country. The emphasis of this claim is on the production of the food rather than its content. A food will be substantially transformed in a country if it was grown or produced in that country, or it is, as a result of one or more processes in that country, fundamentally different in identity, nature or essential character from all of its ingredients or components that were imported into that country. For example, a cake baked in Australia for retail sale could be considered 'made in' Australia even if 100% of its ingredients were imported.

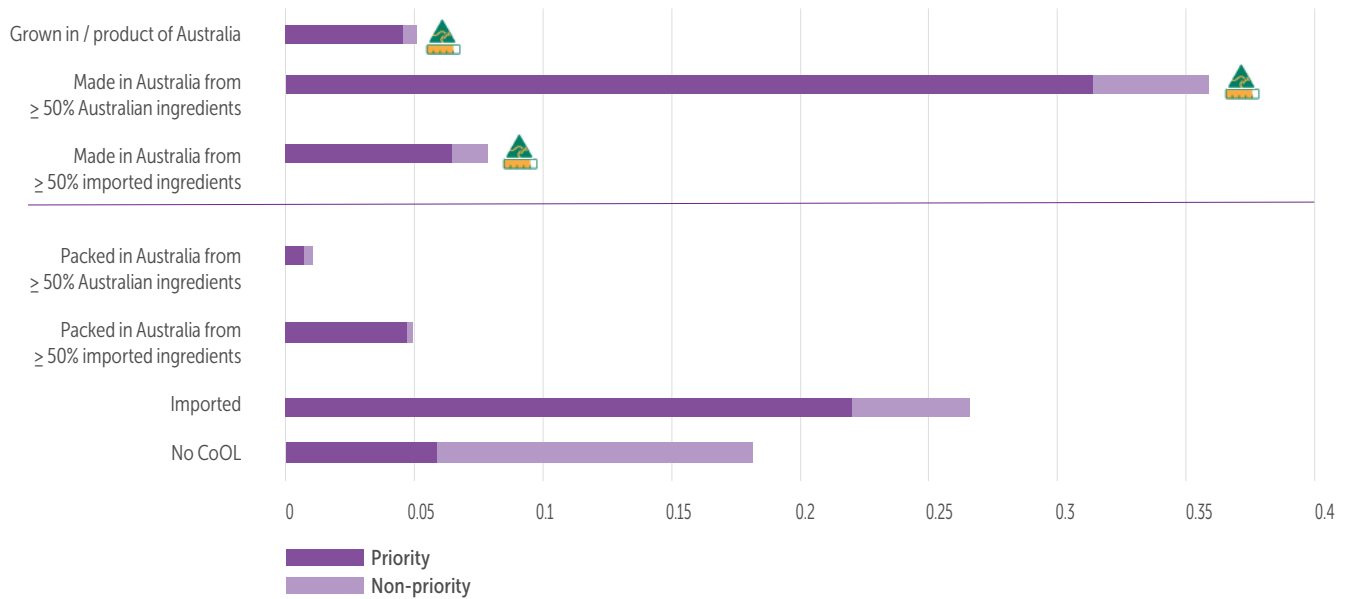
'Packed in' – some foods that cannot claim to have been 'grown', 'produced', or 'made in' a country will only be able to claim to have been 'packed in' that country.



Visual representation of key CoOL concepts, reproduced from the ACCC Guide to CoOL

Country of Origin status overall

Of all 18,171 products included in the CoOL analysis, 76% were 'priority' products and the vast majority of these were displaying CoOL. Of the remaining 'non-priority' products, the majority were not voluntarily displaying CoOL on pack. Just under half (49%) of all foods displayed the kangaroo logo, indicating that they were grown in, produced in or made in Australia. Interestingly, 8% of products displaying the kangaroo logo on pack were made up of mostly imported ingredients.



Country of Origin of product portfolio by manufacturer

Manufacturer	Number of products	Eligible to display the kangaroo logo			Ineligible to display the kangaroo logo			No CoOL
		Grown in / product of Australia	Made in Australia from ≥50% Australian ingredients	Made in Australia from >50% imported ingredients	Packed in Australia from ≥50% Australian ingredients	Packed in Australia from >50% imported ingredients	Imported	
ALDI (own brand)	1683	70 (4%)	627 (37%)	129 (8%)	40 (2%)	128 (8%)	680 (40%)	9 (1%)
Arnott's Biscuits	145	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	145 (100%)
Coca-Cola Amatil	120	0 (0%)	9 (8%)	1 (1%)	0 (0%)	0 (0%)	2 (2%)	108 (90%)
Coles (own brand)	1880	182 (10%)	925 (49%)	169 (9%)	26 (1%)	128 (7%)	450 (24%)	0 (0%)
IGA (own brand)	152	18 (12%)	65 (43%)	4 (3%)	1 (1%)	9 (6%)	43 (28%)	12 (8%)
Lion Dairy & Drinks	168	18 (11%)	126 (75%)	2 (1%)	6 (4%)	14 (8%)	0 (0%)	2 (1%)
Mondelēz	315	9 (3%)	23 (7%)	8 (3%)	6 (2%)	12 (4%)	18 (6%)	239 (76%)
Lactalis	127	15 (12%)	104 (82%)	1 (1%)	0 (0%)	4 (3%)	3 (2%)	0 (0%)
Schweppes	133	0 (0%)	3 (2%)	2 (2%)	3 (2%)	1 (1%)	0 (0%)	124 (93%)
Woolworths (own brand)	1474	139 (9%)	656 (45%)	96 (7%)	23 (2%)	173 (12%)	384 (26%)	3 (0%)

Of the top ten manufacturers, Lactalis and Lion Dairy & Drinks had the largest proportion of products eligible to display the kangaroo logo (95% and 87% respectively).

Of the retailers' own brands, Coles had the highest proportion of products eligible to display the kangaroo logo (68%) followed by Woolworths (61%), IGA (58%) and ALDI (49%).

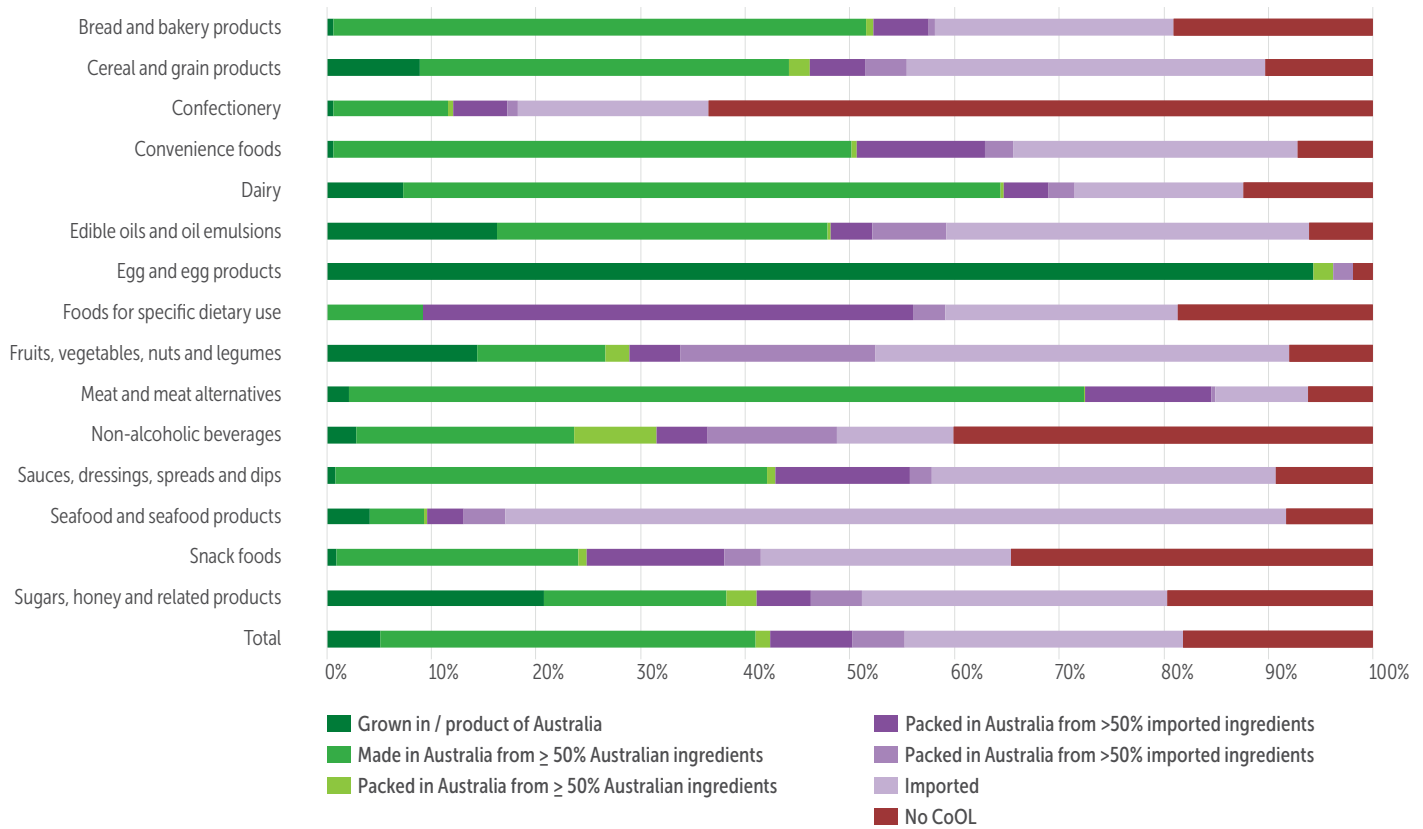
Coles (9%), ALDI (8%) and Woolworths (7%) also had the highest proportion of products displaying a 'made in' kangaroo logo but made of mostly imported ingredients.

ALDI (own brand) had the highest proportion of products labelled as imported (40%).

Four out of the top ten manufacturers made products predominantly in 'non-priority' categories and had low voluntary uptake of the updated CoOL standard mark: Arnott's (0%); Schweppes (7%); Coca-Cola Amatil (10%); Mondelēz (23%).

Among all products made by the top ten manufacturers, there were only a handful of priority products not yet displaying a new CoOL standard mark label. The vast majority products not yet displaying CoOL were from non-priority categories.

Country of Origin by category



Egg and egg products, meat and meat alternatives and dairy had the most products that were either grown in, produced in, made in or packed in Australia with a majority of Australian ingredients.

The categories with the most imported products, or products containing mainly imported ingredients, were seafood and seafood products, foods for specific dietary use, and confectionery.

Categories with mostly non-priority products such as confectionery, non-alcoholic beverages and snack foods had the highest proportion of products with no CoOL.

INTERPRETATION

Product healthiness

There was little change in the overall nutritional quality of Australian food and beverage products between 2019 and 2021. While encouragingly 15 of the 31 manufacturers included in this report showed an increase in mean HSR, the remaining 16 manufacturers either had no change or showed a decrease in mean HSR. Little change was also seen in levels of energy, saturated fat, total sugar and sodium between 2019 and 2021, although some small improvements in sugar content were observed in select beverage subcategories. Given that beverages remain the major source of excess sugar consumption in Australian diets, these changes suggest positive action is being taken by manufacturers, and also reflects the amenability of this category to reformulation. Evidence from countries such as the United Kingdom suggests that reformulation of beverages can be incentivised further by the application of taxes or levies based on sugar content of products, without harming the profits of beverage manufacturers.²³

Considering the substantial attention that sodium and sugar have been given by the Government's Healthy Food Partnership over recent years, the absence of a notable decline in sodium and sugar levels overall for the top-selling Australian manufacturers is disappointing, as it suggests that food manufacturers are not working towards meeting these voluntary targets. Moreover, recent modelling studies have shown that even if all food manufacturers met the Healthy Food Partnership reformulation targets, this would achieve only small reductions in sodium and sugar; not enough to reduce intakes in line with recommendations.²⁴ ²⁵ However, these small reductions could still save some lives²⁶ and therefore food manufacturers should be encouraged to work towards full compliance with the targets. The Healthy Food Partnership should also look to create stricter targets and broaden the scope of their reformulation program to further increase the public health impact.

The same opportunities remain for manufacturers to increase the healthiness and nutritional quality throughout their portfolio as were outlined in the 2019 State of the Food Supply report. Manufacturers can improve the average nutritional quality of their portfolios through two main approaches. Firstly, the renovation of existing products by reformulating them into healthier compositions with reduced levels of added sugars, sodium, saturated fat and/or energy. The wide range of HSRs and nutrient values for most product categories highlights the feasibility of making healthier versions of similar products. Unsalted versus salted versions of canned vegetables, for example, often have sodium concentrations with a twenty-fold difference. Secondly, manufacturers can improve the healthiness of their product portfolio by changing the 'mix' of products that are available to consumers. This can be done by either introducing healthier product lines to a company portfolio, or discontinuing/divesting unhealthy products. For example, the most recent Global Index by the Access to Nutrition Initiative showed that Nestlé increased the mean HSR of their global product portfolio substantially (from 1.8 to 2.7) between 2018 and 2021 primarily by divesting their US ice cream and confectionery businesses.²⁷ The same report also showed that Campbell's decreased the healthiness of their global product portfolio due to acquiring less healthy snack food brands between 2018 and 2021.

Uptake of the Health Star Rating

The need exists for more widespread implementation of the HSR system. Results from this report show that progress in the uptake of the HSR by Australian food and beverage manufacturers has slowed, with only 43% of eligible products overall displaying an HSR on pack. This is an increase of only 2.3% since 2019,²⁸ and means that seven years since the HSR was introduced, consumers still do not have the benefit of this front-of-pack labelling on the majority of packaged food and beverage products. An HSR on every product in the supermarket would enable customers to make meaningful comparisons between similar products, and to identify and avoid products that are less healthy. The Australian Government has released uptake targets for the HSR to remain voluntary, with a goal of 50% of products displaying the label by November 2023 and 70% by 2025.²⁹ Our results suggest that at the current uptake rate, further incentives will be required for manufacturers to reach these targets. At the conclusion of the Five Year Review, the independent reviewer recommended that if the HSR system continued to perform well but a target of 70% was not met, that the HSR should be mandated.³⁰ Mandatory front-of-pack nutrition labels have now been implemented in at least eight other countries worldwide.

Country of Origin Labelling

Our analysis is the first to systematically examine the use of CoOL across the Australian food supply since requirements were updated in 2016. We found that about half (49%) of the packaged food supply was eligible to display the kangaroo logo, and could therefore be considered as originating from Australia under current legislation. However, consumers may not be aware that the kangaroo logo does not necessarily relate to the provenance of ingredients and they may be surprised to know that 8% of all products were 'made in' Australia but from mostly imported ingredients.

Our results show that in priority categories where CoOL is mandatory, most manufacturers, particularly the top ten largest manufacturers, have updated packages to display a new standard mark label. However, where CoOL is voluntary, as with HSR, uptake remains limited. Four out of the top ten manufacturers (Arnott's, Coca-Cola Amatil, Mondelēz and Schweppes) have portfolios mostly containing products considered 'non-priority' foods for the purposes of CoOL. In the vast majority (87%) of cases, these products are not displaying the full detail provided by the new CoOL requirements and have instead opted to provide only a text statement of where products are from. This denies consumers the benefit of full transparency around the origin of product ingredients. For example, Arnotts Biscuits' portfolio consists of 100% 'non-priority' foods which the company may state are 'made in Australia' but we have no idea whether their ingredients are locally sourced. Little information is publicly available in policy documentation to justify the determination of 'priority' CoOL status. Making CoOL mandatory for all products would improve its utility to consumers.

As our results suggest, the primary information currently provided by CoOL in Australia pertains to the degree to which a product can be considered 'Australian.' As the world shifts towards dietary recommendations to support both healthier and more sustainable diets, it is also worth considering CoOL's relevance to supporting future policies that link the provenance of foods to their environmental impact. For example, France's recently developed Eco-Score label produces an

overall rating based on factors including the country of origin of ingredients, the mode of production, packaging and the seasonality of the product.³¹

Strengths and Limitations

This report benefits from the highly standardised approach to the collection, processing and evaluation of the data across the years and the very large range of products captured. The preparation of the report independent of interested parties, in particular the food industry, is an important additional strength.

The report must, however, be interpreted in light of some limitations. While the data are representative of what was on the shelves of the sampled stores during the survey period, they do not represent every food and beverage available in every store throughout the year. The analyses rely upon the data reported on pack by manufacturers. As some dietary components necessary for the calculation of an HSR are not reported on pack, imputation of these components was required. In addition, the data illustrate what is available for sale in stores but not what is purchased or consumed. Finally, the data here identify only recent changes in the quality of the food supply. Additional insights might be obtained from a longer-term evaluation of the food supply.



RECOMMEN- DATIONS

Government should require mandatory on-pack labelling of all foods and beverages with an HSR label and the data required to calculate the HSR – consumers have the right to know about the healthiness of the foods they are purchasing.

Government should also extend the mandatory application of CoOL to all foods to avoid significant gaps in consumer's visibility of the provenance of their foods.

Government must increase the scope and speed of the work being done by the Healthy Food Partnership. Monitoring of progress and accountability is required to incentivise food manufacturers to reformulate their products to targeted levels – real action across the whole food supply will be the most effective way of curbing the epidemic of obesity and diet-related ill health blighting Australia.

Food manufacturers (including retailers with own brand products) should benchmark the nutrient composition of their portfolios against best-in-category equivalents for levels of energy, saturated fat, sugar and sodium. They should also aim to meet the Partnership's sodium and saturated fat targets across their entire product range – food manufacturers must take responsibility for the healthiness of all the foods they are making and marketing.

Food retailers should take a more active role in improving the healthiness of the Australian food supply. Retailers could set minimum requirements for the healthiness of the foods they stock and promote in-store and could provide HSR shelf labelling for all products – as the gatekeepers to Australian food purchases, retailers have the opportunity to help every Australian buy healthier.

CONCLUSIONS

Packaged foods and beverages available in Australia include many products that are excessively energy dense, with high levels of saturated fat, sugar and salt, and little improvement has been made over the past two-years. The Australian food and beverage industry has a responsibility to improve the healthiness of what it manufactures and to make it easier for their customers to identify the healthier options available. With less than half of all products available in Australian supermarkets displaying an HSR, it is likely that rapid and substantive gains will be achieved only with significantly upgraded Government leadership in this area. With our Spotlight analysis showing a high uptake of CoOL by Australian manufacturers, it is clear that industry, when required, can and will provide important information to consumers through product labelling. Given the huge burden of diet-related disease borne by Australians, and the limited progress made by voluntary implementation of both the Healthy Food Partnership and Health Star Rating system, further consideration must be given by Government to strengthening both policies by making them mandatory too. Considering the vast majority of foods consumed by Australians are purchased in supermarkets, actions that improve the quality of packaged foods and beverages have the potential to reduce overweight, obesity and premature death and disability amongst millions of Australians.

REFERENCES

- 1 Australian Institute of Health and Welfare. Australia's Health 2018. Canberra: AIHW; 2018.
- 2 Gray V, Holman C. Deaths and premature loss of life caused by overweight and obesity in Australia in 2011–2050: benefits from different intervention scenarios: Report for the National Preventative Health Taskforce. Perth; 2009.
- 3 Australian Bureau of Statistics (ABS). Australian health survey: Consumption of Food Groups from the Australian Dietary Guidelines, 2011-12. Canberra: Australian Government; 2011.
- 4 Australian Institute of Health and Welfare. Diet: Australian Government; 2021 [Available from: <https://www.aihw.gov.au/reports/australias-health/diet>].
- 5 Australian Bureau of Statistics. Australian Health Survey: Nutrition First Results - Foods and Nutrients, 2011-12. Consumption of Sweetened Beverages. Report No> 4364.0.55.007. In: Australian Bureau of Statistics, editor. Canberra, Australia.2016.
- 6 idib.
- 7 Euromonitor International. Packaged Food in Australia. Euromonitor International; 2020.
- 8 World Health Organization. 'Best buys' and other recommended interventions for the prevention and control of noncommunicable diseases, Updated (2017) Appendix III of the Global Action Plan for the Prevention and Control of Non-Communicable Diseases 2013-2020. Geneva, Switzerland; 2017.
- 9 Department of Health. Healthy Food Partnership. About the Partnership 2021 [Available from: <https://www1.health.gov.au/internet/main/publishing.nsf/Content/about-the-partnership>].
- 10 Department of Health. Healthy Food Partnership. Reformulation Targets 2021 [Available from: <https://www1.health.gov.au/internet/main/publishing.nsf/Content/reformulation-targets>].
- 11 The George Institute for Global Health. FoodSwitch 2017 [Available from: <https://www.georgeinstitute.org/projects/foodswitch>].
- 12 idib.
- 13 Dunford E, Huang L, Peters S, Crino M, Neal B, Ni Mhurchu CJN. Evaluation of Alignment between the Health Claims Nutrient Profiling Scoring Criterion (NPSC) and the Health Star Rating (HSR) Nutrient Profiling Models. 2018;10(8):1065.
- 14 idib.
- 15 National Health and Medical Research Council. Australian Dietary Guidelines. Canberra, Australia.: NHMRC; 2013.
- 16 Australian Bureau of Statistics. Australian Health Survey: Users' Guide, 2011-13 – Discretionary Food List. Australian Bureau of Statistics.; 2014.
- 17 CA Monteiro, G Cannon, R Levy, JC Moubarac, P Jaime, AP Martins, et al. NOVA. The star shines bright. World Nutrition. 2016;7:28-38.
- 18 RD Mendonca, AM Pimenta, A Gea, C de la Fuente-Arrillaga, Martinez-Gonzalez M, AC Lopes, et al. Ultraprocessed food consumption and risk of overweight and obesity: the University of Navarra Follow-Up (SUN) cohort study. The American journal of clinical nutrition. 2016;104(5):1433-40.
- 19 Fiolet T, Srour B, Sellem L, Kesse-Guyot E, Allès B, Méjean C, et al. Consumption of ultra-processed foods and cancer risk: results from NutriNet-Santé prospective cohort. BMJ. 2018;360:k322.
- 20 RD Mendonca, AC Lopes, AM Pimenta, A Gea, Martinez-Gonzalez M, M Bes-Rastrollo. Ultra-processed food consumption and the incidence of hypertension in a Mediterranean cohort: The Seguimiento Universidad de Navarra Project. American Journal of Hypertension. 2017;30(4):358-66.
- 21 Australian Competition and Consumer Commission. Country of Origin Food Labelling 2021 [Available from: <https://www.accc.gov.au/system/files/Country%20of%20origin%20food%20labelling.pdf>].
- 22 idib.
- 23 Pell D, Mytton O, Penney TL, Briggs A, Cummins S, Penn-Jones C, et al. Changes in soft drinks purchased by British households associated with the UK soft drinks industry levy: controlled interrupted time series analysis. bmj. 2021;372.
- 24 Daisy H. Coyle, Maria Shahid, Elizabeth K. Dunford, Jimmy Chun Yu Louie, Kathy Trieu, Matti Marklund, et al. Estimating the potential impact of the Australian government's reformulation targets on household sugar purchases. International Journal of Behavioral Nutrition and Physical Activity. 2021;18.
- 25 Daisy Coyle, Maria Shahid, Elizabeth Dunford, Cliona Ni Mhurchu, Sarah Mckee, Myla Santos, et al. Estimating the potential impact of Australia's reformulation programme on households' sodium purchases. BMJ Nutrition, Prevention & Health. 2021;4.
- 26 Kathy Trieu, Daisy Coyle, Ashkan Afshin, Bruce Neal, Matti Marklund, Jason H. Y. Wu. The estimated health impact of sodium reduction through food reformulation in Australia: A modeling study. PLoS Med. 2021;18(10).
- 27 Access to Nutrition Initiative. Global Index 2021 2021 [Available from: <https://access tonutrition.org/index/global-index-2021/>].
- 28 Shahid M, Neal B, Jones A. Uptake of Australia's Health Star Rating System 2014–2019. Nutrients. 2020;12(6):1791.
- 29 Health Star Rating. Targets and Intended Products 2021 [Available from: <http://www.healthstarrating.gov.au/internet/healthstarrating/publishing.nsf/Content/target-and-intended-products>].
- 30 MP Consulting. Health Star Rating System Five Year Review Report. 2019.
- 31 Open Food Facts. Eco-Score: the environmental impact of food products 2021 [Available from: <https://world.openfoodfacts.org/eco-score-the-environmental-impact-of-food-products>].

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DECLARATION OF INTEREST

The George Institute for Global Health is a not-for-profit health and medical research institute, with a mission to improve the health of millions of people worldwide by focusing on the world's biggest killers. The Institute works with industry, Government and community partners where it can advance this mission and engagement does not conflict with our ability to further our public good research goals. The George Institute has had multiple interactions with Australian industry, Government and consumers in regard to the quality of Australian foods. This report was prepared independent of interested organisations and provides an objective evaluation of the state of the Australian food supply.

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