

Supplementary Table 1. Comparison of Kantar WorldPanel sample to Chilean sample from 2017 Chilean Census: Sample characteristics compared to the general population

	Country 2017	Kantar sample 2015-2017	2017
Region (% households)			
Norte	12.0	11.2	10.7
Valparaiso	10.9	11.2	12.3
Santiago	40.2	43.0	41.8
Centro Sur	11.7	11.6	11.6
Sur	25.1	23.0	23.6
Household size (mean ± SD)	3.1*	4.1 ± 1.7	4.1 ± 1.7
Head of household education level (% households)			
<High school	32.6	28.9	27.4
High school	42.3	38.7	38.8
>High school	25.2	32.4	33.8

Sources: Census 2017 for region and household size and OECD for head of household education (estimates).

Notes: Harmonized regions for comparison purposes (Norte: Arica y Parinacota, Tarapaca, Antofagasta, Atacama and Coquimbo; Valparaiso: Valparaiso; Santiago: Metropolitana de Santiago; Centro Sur: Liberator General Bernardo O'Higgins and Maule; Sur: Nuble, Biobio, La Araucania, Los Rios and Los Lagos). Education level for the general population is for all adults aged 25 to 64 years.

*SDs (standard deviations) were not available for country means on household size.

Supplementary Table 2. Nutrient thresholds and implementation dates of the Chilean Labeling and Advertising Law

Solid food	26 June 2016	26 June 2018	26 June 2019
Energy (kcal/100g)	350	300	275
Sodium (mg/100g)	800	500	400
Total sugars (g/100g)	22.5	15	10
Saturated fats (g/100g)	6	5	4

Liquids	26 June 2016	26 June 2018	26 June 2019
Energy (kcal/100g)	100	80	70
Sodium (mg/100g)	100	100	100
Total sugars (g/100g)	6	5	5
Saturated fats (g/100g)	3	3	3

Supplementary Table 3. Food and beverage groupings²

Foods

Sub-category	Description and examples
Grains, pasta, and dough	Flour, dough, rice, pasta and noodles
Packaged bread and rolls	Packaged sliced bread, packaged buns
Breakfast cereals	Ready-to-eat breakfast cereals, oat cereals (not ready-to-eat)
Grain-based desserts and snacks	Savory crackers (e.g., wheat-based crackers), sweet cookies, sweet bakery products (e.g., cakes, muffins); cereal, granola, or protein bars
Sweets and non-grain-based non-frozen desserts	Sweet spreads, gelatin, dairy-based non-frozen desserts (e.g., flan)
Frozen desserts	Dairy-based frozen desserts (e.g., ice cream) and non-dairy frozen desserts (e.g. water-based popsicles)
Meat, poultry, and meat substitutes	Frozen, raw, processed, cured chicken or other poultry, beef, pork, and other meats; meat substitutes (e.g., soy, tofu, vegetable-based)
Fish and seafood	Processed fish
Dairy products and dairy substitutes	Milk cream, condensed and evaporated milk, sour cream, packaged spreadable cheeses, and dairy substitutes
Yogurt	Plain yogurt, flavored yogurt, yogurt with fruits, nuts, or cereal
Fruits and vegetables	Processed fruit purees (does not include fresh, frozen, canned, picked or dried fruits); unprocessed vegetables
Condiments and sauces	Mayonnaise, ketchup, tomato-based sauces, and dairy-based sauces
Spices, seasoning, and stock	Plain spices as well as industrialized or processed seasonings (does not include table salt), bouillon, stock
Soups	Dry soups
Butter, lard, and margarine	Butter, margarine, and lard
Traditional mixed dishes	Pasta based mixed dishes such as filled pastas and macaroni & cheese

Beverages

Sub-category	Description and examples
Soda	Carbonated soft drinks
Industrialized fruit and vegetable drinks	Industrialized fruit-flavored drinks, including powdered drinks, nectars, and ready-to-drink
Dairy-based beverages and dairy substitutes	Plain and flavored milks, dairy substitutes, and other dairy drinks, including powdered and ready-to-drink
Waters	Plain and flavored waters, mineral water, sparkling water, including powdered and ready-to-drink
Coffee and tea	Instant coffee, roasted coffee, ground coffee, RTD tea, and powdered tea
100% fruit and vegetable juice	100% fruit and vegetables juices, no additives
Sports drinks	Powdered and ready-to-drink sports drinks
Formula	Toddler/child formula, infant/baby formula, and maternal/elderly formula

Some subgroups were excluded within each category due to having missing or inconsistently collected data. This includes Kantar's category for snacks, which was not collected in 2015; this includes plain nuts and seeds, processed nuts and seeds, and dried fruit; savory snacks such as ramitas, corn-based snacks, tortilla chips and potato chips; and chocolates and candies, as well as a small proportion (1.2%) of sweet cookies. Among beverages, energy drinks were excluded (Kantar does not collect data) as were loose-leaf tea and tea bags (due to inconsistent or insufficient nutrition facts panel data).

Supplementary Table 4. Euromonitor and Kantar data comparison of foods and beverages — brands

To understand how well each food and beverage group in Kantar represented sales in Chile, we used sales data from Euromonitor International's Passport database¹ from 2015, 2016 and 2017 to compare brand representation of foods and beverages in each dataset. For most food groups, Kantar had 78%–100% of brands in Euromonitor. Only fruits and vegetables (36%) had fewer, but these groups have among the smallest purchase volumes in our analytical dataset (due in part to the fact that bulk products could not be included in our analyses). Further, all Kantar food categories had the five brands with the most sales in Euromonitor (except for fruits and vegetables).

Foods	Euromonitor brands (N)	Euromonitor brands appearing in Kantar (N)	Euromonitor brands appearing in Kantar (%)	Of the top 5 Euromonitor brands, number that appear in Kantar (N)
Cereal-based Foods	25	24	96.0	5
Breakfast cereals	23	23	100.0	5
Grain-based Desserts	34	29	85.3	5
Sweets and Non-Grain-based Desserts	44	40	90.9	5
Snacks	5	5	100.0	5
Meat, Poultry and Meat Substitutes	22	19	86.4	5
Fish and seafood	2	2	100.0	N/A*
Dairy Products and Dairy Substitutes	20	19	95.0	5
Fruits, Vegetables, and Mushrooms	14	5	35.7	1
Condiments and sauces	23	21	91.3	5
Salt and seasoning	3	3	100.0	N/A*
Soups	9	9	100.0	5
Oils and Fats	18	18	100.0	5
Traditional Mixed Dishes	3	3	100.0	N/A*

* Euromonitor data available for less than five brands. Fish & Seafood and Fruits, Vegetables & Mushrooms categories not representative in Kantar. Notes: Euromonitor brands with no data, unspecific brand names (e.g., private label, others), and brand duplicates (same brand, but different product type, manufacturer or distributor, and Euromonitor subcategory) excluded from brand analysis. Kantar oils category excluded from brand analysis. Original UNC categories were used for this comparison, hence slight differences between the food and beverage groups shown here and those used in the food/beverage group-level analyses and shown in Supplementary Table 3 above.

For most beverage groups, Kantar had 75%–100% of brands in Euromonitor. Only sports and energy drinks (0%) had fewer, but sports and energy drinks have among the smallest purchase volumes in our analytical dataset (in part because energy drinks are not included), comparably low purchases overall in Euromonitor sales data as well, and there were only 2 brands included in Euromonitor data. All Kantar beverage categories had four to five brands with the most sales in Euromonitor (except for sports and energy drinks).

Beverages	Euromonitor brands (N)	Euromonitor brands appearing in Kantar (N)	Euromonitor brands appearing in Kantar (%)	Of the top 5 Euromonitor brands, number that appear in Kantar (N)
Water*	20	19	95.0	5
Sodas	17	17	100.0	5
Industrialized Fruits and Vegetable Juice	17	14	82.4	4
100% Fruit and Vegetable Juice	8	6	75.0	5
Dairy-based Beverages and Dairy Substitutes**	29	24	82.8	5
Formula	11	9	81.8	4
Sport and energy drinks	2	0	0	N/A***

* Includes plain water, mineral water, and ready & non-ready to drink industrialized flavored waters (powder concentrates); ** Includes milk, dairy drinks, drinkable yogurt, dairy beverage substitutes, and milk modifiers;

*** Euromonitor data available for less than five brands. Sports and energy drinks category not representative in Kantar

Notes: Euromonitor brands with no data, unspecific brand names (e.g., private label, others), and brand duplicates (same brand, but different product type, manufacturer or distributor, and Euromonitor subcategory) excluded from brand analysis.

Kantar coffee category excluded from brand analysis due to Euromonitor data available only for foodservice sales.

¹ Euromonitor International. Passport Global Market Information Database. 2019.

Supplementary Table 5. Relative contribution of food groups to total sales (Euromonitor) and total food purchases (Kantar) in Chile: Total volume and total sales shares by food/beverage group in Kantar sample vs. Euromonitor

When comparing the relative contribution of food and beverage groups by volume and by expenditures to the total volume of foods purchased (Kantar) or sold (Euromonitor), most groups were similar in share of contribution both by sales and by volume, suggesting that the overall profile of purchases in Kantar is similar to that being sold in the market during this time period. The biggest differences observed were that, among foods, Kantar had a higher percent contribution from cereal-based foods relative to Euromonitor, and among beverages, Kantar had a higher percent contribution from dairy-based beverages, and a lower contribution from sodas and bottled water.

UNC food/ beverage category	Corresponding food/beverage categories in Euromonitor	Volume			Sales		
		Kantar (%)	Euromonitor (%)	Difference (pp)	Kantar (%)	Euromonitor (%)	Difference (pp)
Breakfast cereals	Breakfast cereals	3.0	2.5	0.5	5.0	3.6	1.5
Cereal-based foods	Dried pasta; packaged flat bread; packaged leavened bread; rice	37.4	27.5	10.0	22.1	15.6	6.4
Condiments and sauces	Dry sauces; ketchup; mayonnaise; tomato pastes and purees	10.8	6.1	4.8	9.8	4.2	5.6
Dairy products and dairy substitutes	Cream; flavored yoghurt; plain condensed milk; plain yoghurt; spreadable processed cheese	16.2	22.0	-5.8	13.9	14.3	-0.4
Fish and seafood	Frozen processed seafood	0.0	0.1	-0.1	0.0	0.2	-0.1
Fruits, vegetables and mushrooms	Shelf-stable fruit	0.2	2.4	-2.3	0.2	1.5	-1.2
Grain-based Desserts	Packaged cakes; sweet biscuits	3.8	9.0	-5.2	7.0	15.0	-8.0
Meat, poultry and meat substitutes	Chilled processed meat; frozen meat substitutes; frozen processed meat	10.5	6.4	4.1	15.8	15.4	0.4
Oils and fats	Butter; margarine and spreads	4.9	6.1	-1.2	8.2	9.4	-1.3
Salt and seasoning	Other sauces, dressings and condiments	0.1	0.0	0.0	0.3	0.0	0.2
Snacks	Rice snacks; savory biscuits	1.3	2.5	-1.2	2.0	3.8	-1.8
Soups	Dehydrated soup; instant noodle cups; instant soup; stock cubes and powders	1.2	0.8	0.4	3.4	2.0	1.4
Sweets and non-grain- based desserts	Chilled dairy desserts; dessert mixes; flavored condensed milk; jams and preserves; multi-pack water ice cream; take-home dairy ice cream	10.3	14.4	-4.1	12.0	14.9	-2.9
Traditional mixed dishes	Chilled pasta	0.3	0.1	0.2	0.5	0.2	0.2
Total foods		100.0	100.0		100.0	100.0	
100% fruit/vegetable juices	100% juice	0.0	0.2	-0.1	0.1	0.9	-0.7
Dairy-based beverages and dairy substitutes	Cow's milk; dairy-only flavored milk drinks; drinking yoghurt; milk alternatives	31.2	8.5	22.6	40.3	16.7	23.5
Formula	Powder follow-on milk formula; powder growing-up milk formula; powder special baby milk formula; powder standard milk formula	2.0	0.2	1.9	3.2	3.8	-0.6
Industrialized fruit/ vegetable juices	Juice drinks; nectars	7.6	8.2	-0.6	10.6	10.8	-0.3
Sodas	Carbonates; flavored bottled water	34.4	47.0	-12.6	35.4	51.1	-15.6
Sports and energy drinks	Sport drinks	0.1	0.9	-0.8	0.0	1.8	-1.8
Water	Carbonated bottled water; flavored bottled water; still bottled water; concentrates	24.6	35.1	-10.4	10.4	14.8	-4.5
Total beverages		100.0	100.0		100.0	100.0	

Notes: As-purchased volume for foods and as-consumed volume for beverages. The category 'Coffee and tea' was excluded because there was no Euromonitor sales data for coffee products similar to those included in Kantar, and no tea products were included in the sample because of insufficient NFP data. The Euromonitor category 'Flavored bottled water' includes both still water (in UNC category 'Water') and carbonated water (in UNC category 'Sodas'); for the purpose of this table volumes and sales were apportioned equally between 'Water' and 'Sodas'. The original UNC categories were used for this comparison, hence slight differences between the food and beverage groups shown here and those used in the food/beverage group-level analyses and shown in Supplementary Table 3 above.

Supplementary Table 6. Comparison of published analyses with [pre-specified analytical plan](#) and explanation of changes

Pre-registered analysis plan	Changes	Reason for changes
<i>Primary outcomes.</i> Primary analyses will focus on calories, sugars, saturated fat, and sodium per capita per day from food purchases; we will present secondary analyses for overall (foods and beverages) purchases.	Primary analyses now focus on overall purchases, with results for foods and beverages separately also presented.	Reviewer’s request and consensus among co-authors that these were the most relevant outcomes to focus on for informing public health policy.
<i>Inclusion and exclusion criteria.</i> Savory snacks, chocolate and candy with sugar, and some grains will be excluded because of inconsistent data collection by Kantar on these product types.	<ul style="list-style-type: none"> • All products in Kantar’s category for snacks were excluded. • Grain products previously excluded were included. • Households with a zero monthly weight were excluded for that particular month. 	<ul style="list-style-type: none"> • Kantar only started collecting data on snacks in 2016 and no product in this category was found in any other category in 2015. • Upon further investigation, we found no indication that the grain products previously excluded should be excluded. • Observations with a zero monthly weight were excluded because the corresponding households either did not respond in the months in question or did not fulfill Kantar’s basic basket of goods inclusion criteria.
<i>Adjusted analyses.</i> Covariates will include: a binary variable for the time period after the law was passed; a linear time trend as captured by a variable identifying the panel period (month); the interaction of these two variables to allow a change in the trend after the law was passed; the local monthly unemployment rate (15 unemployment regions matched to households by commune); household composition; the head of household’s education level (less than high school, high school, more than high school); the age of the main shopper (under 30, 30 or over and under 60, 60 or over); socioeconomic status as captured by Kantar’s measure (four categories).	<ul style="list-style-type: none"> • We used a continuous variable for the age of the main shopper (with sensitivity analyses adding a squared term to allow a quadratic effect). • Kantar’s socioeconomic measure was replaced by sample tertiles of a household assets index constructed by factor analysis using the numbers of bedrooms, bathrooms, and cars. 	<ul style="list-style-type: none"> • A continuous variable for age was used in the previously published study on beverage purchases, so the same was done here for consistency across studies. • Tertiles of household assets index allowed us to maintain consistency with our previously published analysis. In addition, Kantar’s socio-economic status measure is based on a number of characteristics that include the education level of the head of household, which is already included separately in our models. Furthermore, this measure may change in the future, and it is not clear whether consistency in definition will be maintained.
<i>Analyses at the food group level.</i> We will examine sample proportions of households that consumed products in a given food group in a given month as well as sample means for calories, sugars, saturated fat, and sodium per capita per day (overall and by regulation status). We will also conduct counterfactual analyses. We will not examine food groups with average purchases less than 1 g/capita/day.	These analyses were restricted to comparing the sample proportions of consumers before and after the law was implemented. Beverage groups and all food and beverage groups with existing data were analyzed.	This change was to keep the length of the study acceptable, in part due to shifting the focus of the study to overall purchases with separate results for food purchases and beverage purchases. Moreover, a detailed counterfactual analysis at the food and beverage group level was deemed beyond the scope of this study. In particular, such analysis should account for interdependencies between food groups, possibly in a structural model.
<i>Sensitivity analyses.</i> For sensitivity analyses, we will: estimate our main models with shorter pre and post time periods; estimate conditional fixed-effects Poisson models with the same set of covariates as our linear models to address skewness and non-negativity of our outcomes and possibly multiplicative associations (as opposed to additive associations as imposed by our linear models); and conduct sensitivity analyses for our food group analyses.	<ul style="list-style-type: none"> • We did not conduct sensitivity analyses for our food group analyses. • For our main outcomes (calories per capita per day from food and beverage purchases, overall and by regulation status), we conducted additional sensitivity analyses by estimating a number of alternative specifications, including inclusion of different covariates. We also estimated our main models on data excluding observations in the bottom and top 1% of total calories purchased. 	<ul style="list-style-type: none"> • Sensitivity analyses at the food group level were no longer necessary given the descriptive nature of the food group analyses. • Additional sensitivity analyses were done as further robustness checks and per reviewer request.

Supplementary Table 7. Unadjusted mean calories, sugars, saturated fat and sodium per person per day and % of consumers before and after policy implementation

	Overall					High-In					Not High-In				
	Before	After	Change	% change	p-value	Before	After	Change	% change	p-value	Before	After	Change	% change	p-value
Foods and Beverages															
Calories (kcal)	492.4	451.2	-41.2	-8.4	<0.0001	216.0	158.2	-57.9	-26.8	<0.0001	276.4	293.0	16.6	6.0	<0.0001
Sugars (kcal)	122.3	101.5	-20.8	-17.0	<0.0001	83.0	57.1	-25.9	-31.2	<0.0001	39.3	44.4	5.1	12.9	<0.0001
Saturated fat (kcal)	56.2	53.6	-2.6	-4.6	<0.0001	39.2	33.1	-6.1	-15.6	<0.0001	17.0	20.5	3.6	21.0	<0.0001
Sodium (mg)	643.3	562.1	-81.2	-12.6	<0.0001	283.1	166.2	-116.9	-41.3	<0.0001	360.2	395.9	35.7	9.9	<0.0001
% Consumers*						99.9	99.6	0.0	-0.3	<0.0001	99.8	99.8	0.0	0.0	0.58
Foods															
Calories (kcal)	381.4	359.5	-21.9	-5.7	<0.0001	157.1	122.4	-34.6	-22.1	<0.0001	224.3	237.1	12.7	5.7	<0.0001
Sugars (kcal)	45.4	42.1	-3.3	-7.3	<0.0001	28.7	23.1	-5.6	-19.4	<0.0001	16.8	19.0	2.3	13.5	<0.0001
Saturated fat (kcal)	46.5	44.8	-1.8	-3.8	<0.0001	38.2	32.9	-5.2	-13.7	<0.0001	8.4	11.8	3.5	41.5	<0.0001
Sodium (mg)	572.3	499.8	-72.5	-12.7	<0.0001	264.1	156.9	-107.2	-40.6	<0.0001	308.2	342.9	34.7	11.2	<0.0001
% Consumers	99.9	99.8	-0.001	-0.1	0.0020	99.2	98.5	-0.007	-0.7	<0.0001	99.4	99.4	0.000	0.0	0.76
Beverages															
Calories (kcal)	111.1	91.7	-19.3	-17.4	<0.0001	59.0	35.8	-23.2	-39.4	<0.0001	52.1	56.0	3.9	7.4	<0.0001
Sugars (kcal)	76.9	59.3	-17.5	-22.8	<0.0001	54.3	34.0	-20.3	-37.5	<0.0001	22.6	25.4	2.8	12.4	<0.0001
Saturated fat (kcal)	9.7	8.9	-0.8	-8.3	<0.0001	1.1	0.2	-0.9	-83.4	<0.0001	8.6	8.7	0.1	1.1	0.50
Sodium (mg)	71.0	62.4	-8.6	-12.1	<0.0001	19.0	9.4	-9.7	-50.7	<0.0001	52.0	53.0	1.0	2.0	0.079
% Consumers	99.7	99.6	-0.001	-0.1	0.15	93.6	81.4	-0.122	-13.0	<0.0001	97.6	98.5	0.010	1.0	<0.0001

Obtained from OLS regressions on a policy period binary variable with standard errors clustered at the household level to account for intra-household correlation. Purchase data provided by Kantar WorldPanel Chile.

* For the “overall” column for overall foods and beverages, the percentage of consumers is always 100% since households with no reported purchases in a given month are excluded from the sample in that month.

Supplementary Table 8. Percent of households that purchased from a food or beverage group in the post-policy period compared to the counterfactual post-policy period, by food or beverage group

	Overall					High-in					Not high-in				
	Pre (%)	Post (%)	Change (%)	95% CI	p-value	Pre (%)	Post (%)	Change (%)	95% CI	p-value	Pre (%)	Post (%)	Change (%)	95% CI	p-value
Foods															
Breakfast cereals	49.4	47.2	-2.3	(-3.2%, -1.3%)	<0.0001	41.3	30.6	-10.8	(-11.7%, -9.8%)	<0.0001	14.2	25.5	11.3	(10.4%, 12.2%)	<0.0001
Butter, lard & margarine	82.1	80.7	-1.4	(-2.2%, -0.7%)	<0.0001	81.5	73.8	-7.7	(-8.6%, -6.8%)	<0.0001	2.0	16.7	14.7	(13.9%, 15.5%)	<0.0001
Condiments & sauces	86.0	84.8	-1.2	(-1.8%, -0.6%)	<0.0001	62.9	30.0	-32.9	(-34.0%, -31.9%)	<0.0001	71.1	80.4	9.4	(8.6%, 10.2%)	<0.0001
Soups	44.1	41.5	-2.5	(-3.5%, -1.6%)	<0.0001	NA	NA	NA	NA	NA	44.1	41.5	-2.5	(-3.5%, -1.6%)	<0.0001
Frozen desserts	35.9	33.8	-2.1	(-2.9%, -1.3%)	<0.0001	35.6	30.3	-5.3	(-6.2%, -4.5%)	<0.0001	0.8	6.9	6.1	(5.7%, 6.5%)	<0.0001
Fruits & vegetables	4.4	4.4	0.0	(-0.5%, 0.4%)	0.90	NA	NA	NA	NA	NA	4.4	4.4	0.0	(-0.5%, 0.4%)	0.90
Grains, pasta, & dough	93.4	91.8	-1.6	(-2.0%, -1.2%)	<0.0001	0.2	0.1	-0.2	(-0.2%, -0.1%)	<0.0001	93.4	91.8	-1.6	(-2.0%, -1.1%)	<0.0001
Meat, poultry, & meat substitutes	85.6	83.9	-1.7	(-2.3%, -1.0%)	<0.0001	78.5	67.3	-11.3	(-12.2%, -10.3%)	<0.0001	45.7	61.2	15.6	(14.5%, 16.6%)	<0.0001
Dairy products & dairy substitutes	56.6	56.2	-0.4	(-1.3%, 0.5%)	0.43	42.7	41.3	-1.3	(-2.3%, -0.4%)	0.0042	30.0	31.0	1.0	(0.2%, 1.9%)	0.018
Packaged bread & rolls	35.6	36.8	1.2	(0.2%, 2.2%)	0.014	1.7	1.7	0.1	(-0.2%, 0.3%)	0.51	34.7	36.0	1.3	(0.4%, 2.2%)	0.0072
Fish & seafood	0.6	0.4	-0.2	(-0.3%, 0.0%)	0.043	NA	NA	NA	NA	NA	0.6	0.4	-0.2	(-0.3%, 0.0%)	0.043
Grain-based desserts & snacks	82.2	81.0	-1.2	(-1.9%, -0.4%)	0.0015	82.1	80.8	-1.3	(-2.0%, -0.6%)	0.00047	0.6	2.1	1.4	(1.2%, 1.7%)	<0.0001
Spices, seasoning, & stock	44.1	40.4	-3.7	(-4.6%, -2.8%)	<0.0001	6.3	4.4	-1.9	(-2.4%, -1.4%)	<0.0001	41.5	38.3	-3.2	(-4.1%, -2.3%)	<0.0001
Sweets & non-grain-based non-frozen desserts	76.6	76.3	-0.4	(-1.2%, 0.4%)	0.39	63.6	55.4	-8.2	(-9.2%, -7.2%)	<0.0001	47.2	55.2	7.9	(6.9%, 8.9%)	<0.0001
Traditional mixed dishes	6.9	6.1	-0.8	(-1.2%, -0.3%)	0.0015	NA	NA	NA	NA	NA	6.9	6.0	-0.9	(-1.3%, -0.4%)	0.00019
Yogurt	80.3	79.3	-1.0	(-1.8%, -0.3%)	0.0082	NA	NA	NA	NA	NA	80.3	79.3	-1.0	(-1.8%, -0.3%)	0.0082
Beverages															
100% fruit and vegetable juice	0.5	0.6	0.2	(0.0%, 0.3%)	0.033	NA	NA	NA	NA	NA	0.5	0.6	0.2	(0.0%, 0.3%)	0.033
Coffee & tea	52.5	51.2	-1.2	(-2.1%, -0.4%)	0.0059	0.8	0.0	-0.8	(-0.9%, -0.6%)	<0.0001	52.2	51.2	-1.0	(-1.8%, -0.1%)	0.036
Dairy-based beverages & dairy substitutes	88.6	87.1	-1.5	(-2.2%, -0.9%)	<0.0001	52.5	21.8	-30.7	(-32.0%, -29.5%)	<0.0001	81.0	85.5	4.5	(3.7%, 5.3%)	<0.0001
Formula	5.7	5.4	-0.3	(-0.8%, 0.3%)	0.32	NA	NA	NA	NA	NA	5.7	5.4	-0.3	(-0.8%, 0.3%)	0.32
Industrialized fruit & vegetable drinks	60.8	62.5	1.7	(0.8%, 2.7%)	0.00041	50.8	4.1	-46.7	(-47.8%, -45.6%)	<0.0001	23.9	61.6	37.6	(36.5%, 38.8%)	<0.0001
Sodas	89.1	87.3	-1.8	(-2.4%, -1.2%)	<0.0001	80.6	76.1	-4.5	(-5.3%, -3.7%)	<0.0001	37.3	41.1	3.9	(2.9%, 4.8%)	<0.0001
Sports drinks	0.8	0.7	-0.1	(-0.3%, 0.1%)	0.37	NA	NA	NA	NA	NA	0.8	0.7	-0.1	(-0.3%, 0.1%)	0.37
Waters	75.0	71.8	-3.2	(-4.1%, -2.4%)	<0.0001	6.4	1.3	-5.1	(-5.6%, -4.6%)	<0.0001	73.7	71.6	-2.1	(-2.9%, -1.2%)	<0.0001

¹ Estimates derived from OLS regressions on a post policy period indicator variable with standard errors clustered at the household level to account for repeated measures.

Purchase data provided by Kantar WorldPanel Chile.

² Change is percentage point difference.

Supplementary Table 9. Mean Differences between the estimated adjusted post-policy food purchases and estimated adjusted counterfactual post-policy food purchases¹

	Overall						High-In						Not High-In					
	Predicted	Counterfactual	Absolute difference	95% CI	p-value	% Difference	Predicted	Counterfactual	Absolute difference	95% CI	p-value	% Difference	Predicted	Counterfactual	Absolute difference	95% CI	p-value	% Difference
Foods and Beverages																		
Calories (kcal)	451.2	467.6	-16.4	(-27.3, -5.6)	0.0031	-3.5	158.2	207.6	-49.4	(-55.1, -43.7)	<0.0001	-23.8	293.0	260.0	33.0	(25.8, 40.2)	<0.0001	12.7
Sugars (kcal)	101.5	112.9	-11.5	(-14.6, -8.4)	<0.0001	-10.2	57.1	77.8	-20.7	(-23.4, -18.1)	<0.0001	-26.7	44.4	35.1	9.3	(8.0, 10.5)	<0.0001	26.3
Saturated fat (kcal)	53.6	55.8	-2.2	(-3.8, -0.5)	0.0097	-3.9	33.1	39.2	-6.2	(-7.5, -4.8)	<0.0001	-15.7	20.5	16.6	4.0	(3.3, 4.7)	<0.0001	23.9
Sodium (mg)	562.1	589.8	-27.7	(-46.3, -9.1)	0.0035	-4.7	166.2	262.8	-96.6	(-105.3, -87.8)	<0.0001	-36.7	395.9	327.0	68.9	(54.6, 83.2)	<0.0001	21.1
Foods																		
Calories (kcal)	359.5	365.9	-6.4	(-15.4, 2.6)	0.16	-1.7	122.4	155.6	-33.1	(-37.7, -28.6)	<0.0001	-21.3	237.1	210.3	26.8	(20.6, 32.9)	<0.0001	12.7
Sugars (kcal)	42.1	44.6	-2.4	(-3.7, -1.1)	0.00032	-5.4	23.1	29.8	-6.7	(-7.8, -5.7)	<0.0001	-22.6	19.0	14.7	4.3	(3.7, 4.9)	<0.0001	29.4
Saturated fat (kcal)	44.8	46.4	-1.7	(-3.1, -0.2)	0.023	-3.6	32.9	38.3	-5.4	(-6.7, -4.1)	<0.0001	-14.2	11.8	8.1	3.8	(3.3, 4.2)	<0.0001	46.6
Sodium (mg)	499.8	524.0	-24.3	(-41.9, -6.6)	0.0070	-4.6	156.9	246.3	-89.4	(-97.9, -80.9)	<0.0001	-36.3	342.9	277.7	65.2	(51.6, 78.7)	<0.0001	23.5
Beverages																		
Calories (kcal)	91.7	101.7	-10.0	(-13.4, -6.6)	<0.0001	-9.9	35.8	52.0	-16.3	(-18.7, -13.9)	<0.0001	-31.3	56.0	49.7	6.3	(4.1, 8.5)	<0.0001	12.6
Sugars (kcal)	59.3	68.4	-9.1	(-11.5, -6.6)	<0.0001	-13.2	34.0	47.9	-14.0	(-16.2, -11.8)	<0.0001	-29.2	25.4	20.4	4.9	(4.0, 5.9)	<0.0001	24.1
Saturated fat (kcal)	8.9	9.4	-0.5	(-1.0, 0.0)	0.048	-5.6	0.2	0.9	-0.7	(-0.8, -0.6)	<0.0001	-80.3	8.7	8.5	0.2	(-0.3, 0.7)	0.432	2.4
Sodium (mg)	62.4	65.8	-3.4	(-5.8, -1.1)	0.0045	-5.2	9.4	16.5	-7.2	(-8.0, -6.3)	<0.0001	-43.3	53.0	49.3	3.7	(1.6, 5.9)	<0.0001	7.6

¹Estimates derived from fixed effects models comparing post-policy nutrient content of purchases to counterfactual post-policy nutrient content of purchases based on pre-policy trends. Purchase data provided by Kantar WorldPanel Chile

Supplementary Table 10. Sample mean total food and beverage calories purchased¹ by household education level and household assets

	Overall				High-In				Not High-In			
	Pre	95% CI	Post	95% CI	Pre	95% CI	Post	95% CI	Pre	95% CI	Post	95% CI
Education												
<High School	486.9	(465.3, 508.5)	451.6	(431.9, 471.3)	208.1	(198.1, 218.1)	156.1	(148.0, 164.2)	278.8	(265.4, 292.1)	295.5	(281.9, 309.0)
High School	466.9	(451.3, 482.5)	434.6	(419.9, 449.3)	208.3	(200.6, 216.0)	154.6	(148.4, 160.8)	258.6	(248.9, 268.4)	280.0	(270.0, 289.9)
College or Greater	528.6	(506.2, 551.0)	470.4	(453.2, 487.7)	233.0	(223.2, 242.9)	164.1	(157.4, 170.8)	295.6	(281.7, 309.5)	306.3	(294.0, 318.6)
Household Assets												
Low	488.2	(468.9, 507.6)	446.2	(429.6, 462.9)	210.1	(201.2, 219.1)	155.6	(148.9, 162.3)	278.1	(266.2, 290.1)	290.6	(279.1, 302.2)
Middle	477.6	(459.2, 495.9)	448.8	(432.1, 465.6)	209.2	(200.8, 217.6)	157.1	(150.5, 163.6)	268.3	(256.7, 280.0)	291.8	(280.0, 303.5)
High	511.1	(492.0, 530.2)	459.0	(442.8, 475.2)	228.9	(219.8, 238.1)	162.1	(155.1, 169.1)	282.2	(270.6, 293.8)	296.9	(285.8, 308.0)

From OLS regressions on an interaction of education or assets with policy period, with standard errors clustered at the household level to account for intra-household correlation.

¹ Purchase data provided by Kantar WorldPanel Chile.

Appendix 1. Sensitivity analyses

We conducted sensitivity analyses to check the robustness of results to our analytical approach including model type and how covariates were specified, as well as variations in the underlying data, including using different time windows around the law’s implementation and exclusion of outliers (households at the top and bottom 1% of calories purchased). We also explored the effect of linking purchases from July to December 2016, in the first 6 months after the law was implemented, to NFP data collected in 2017 (which assumes reformulation occurred at the date of implementation and provides an upper bound for our estimates) v. linking these purchases to NFP data collected in 2016, which assumes reformulation only occurred beginning in 2017 (providing a lower bound for our estimates).

With regards to changes in our modeling approach, we conducted two sets of sensitivity analyses, focusing on calories from total food and beverage purchases, overall and by regulation status. In a first set of sensitivity analyses, we estimated alternative models and compared them to our benchmark model by means of their AIC and BIC (Akaike’s and Schwarz’s Bayesian information criteria), and for the linear fixed-effects models their root mean squared error and R-squared (defined as the square of the correlation coefficient between the fitted and observed values, with the fitted values excluding the unobserved household-level time-invariant effects). For reference, the benchmark model was a linear fixed-effects model with the following covariates: an indicator variable for the post period, a linear time trend, their interaction, month dummies, the monthly unemployment rate (across 15 geographical areas), household composition (number of household members by age and gender), the head of household’s education level (three categories), the main shopper’s age, and the household’s assets tertile. We also compared the average difference between predicted and counterfactual calories in the period after the law was passed. Most of these models are also linear fixed effects models but differ from our benchmark model in their covariates. We also estimated a conditional fixed-effects Poisson model to address the skewed and non-negative nature of our dependent variables and potential violations of linearity as imposed by our benchmark model.

In summary, these variations are:

Benchmark specification	Variation
Month dummies	1. Quarter dummies
Household assets tertiles; education level of the head of household	2. Kantar’s socio-economic measure (which is based on a number of household characteristics, including the head of household’s education level)
Household assets tertiles	3. (Continuous) regression predictions from factor analysis of household assets
Main shopper’s age	4. Adding age squared
Household assets tertiles; education level of the head of household; main shopper’s age	5. Excluded (jointly not statistically significant for overall calories, high-in calories, or not high-in calories)
Household composition variables (number of household members by age and gender)	6. Household size and its square
Household assets tertiles; education level of the head of household; household composition	7. A combination of (2) and (6)
Interaction between the post period indicator and the linear time trend	8. Excluded (not statistically significant in a preliminary model for calories with only time controls, i.e. a post period dummy, a linear time trend, their interaction, and month dummies)
Linear fixed-effects model	9. Conditional fixed-effects Poisson model

We did not include alternative functional forms for the secular trend in our sensitivity analyses because visual inspection of the data did not suggest a non-linear trend. A linear time trend is also a sensible choice because our sample only spans three years.

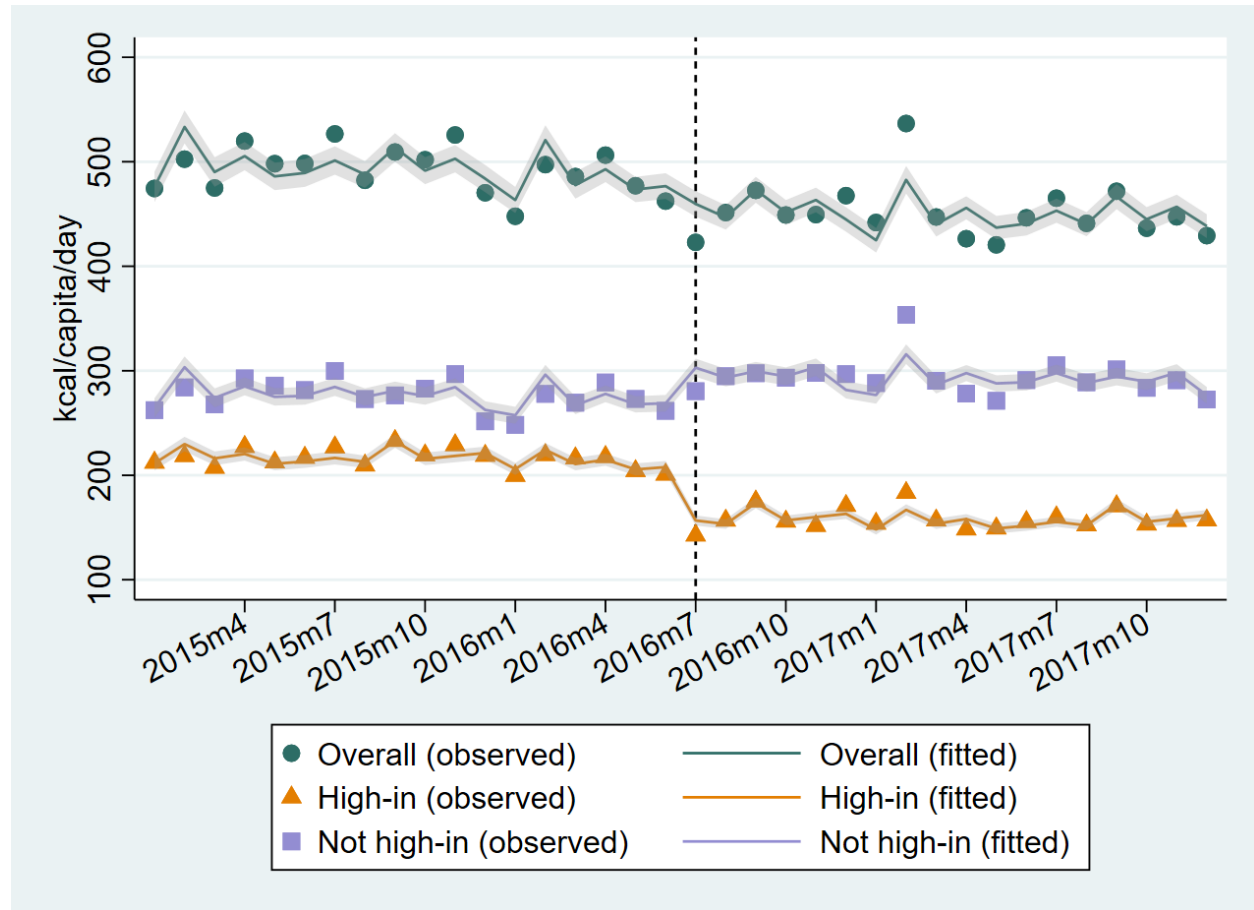
In a second set of sensitivity analyses, we estimated our benchmark model on variations of our dataset. First, instead of linking purchases in the second half of 2016 to the 2017 NFP data, which assumes that any reformulation of products that took place between 2016 and 2017 occurred at the passing of the law (providing an upper bound for our estimates), we linked those purchases to the 2016 NFP data, assuming reformulation only occurred in 2017 (providing a lower bound for our estimates). We also restricted the estimation sample to shorter time windows around the passing of the regulations (until 13-month time windows, after which perfect collinearity between the various time variables prevent identification of the effect of interest) and excluded household-month observations in the bottom and top 1% of the distribution of calories.

Overall, our findings were robust to the alternative model specifications, with most estimates of the difference between observed and counterfactual calories falling within ± 1 kcal/capita/day of our benchmark estimate (with no substantial changes in precision), except for a specification imposing the same slope for the linear time trend before and after implementation (-30.8 [-38.5, -23.2], compared to our benchmark estimate of -16.4 [-27.3, -5.6]). Matching purchases in the second half of 2016 to 2017 NFP data yielded a slightly reduced estimate (-13.2 [-24.0, -2.3]), suggesting reformulation played an important role. Using shorter time windows around the passing of the regulations produced less precise estimates (with no statistically significant difference when using less than 17-month time windows). Lastly, excluding extreme calories values left the estimate largely unchanged.

	TOTAL OVERALL CALORIES					Predicted		Absolute difference		p-value	% difference
	RMSE	AIC	BIC	N	R-sq	Counterfactual	95% CI				
Benchmark specification	216.57	922903	923149	67,890	0.139	451.2	467.6	-16.4	(-27.3, -5.6)	0.0031	-3.5
Specification checks											
Month dummies ← quarter dummies	216.98	923154	923327	67,890	0.138	451.2	468.3	-17.1	(-27.9, -6.3)	0.0020	-3.7
Household assets tertile and education level ← Kantar's SES measure	216.51	922864	923102	67,890	0.129	451.2	467.6	-16.4	(-27.2, -5.5)	0.0031	-3.5
Household assets index tertile ← factor analysis regression prediction	216.57	922902	923139	67,890	0.139	451.tertile	-16.4	(-27.3, -5.6)	0.0030	-3.5	
Add age squared	216.57	922904	923159	67,890	0.139	451.2	467.7	-16.4	(-27.3, -5.6)	0.0030	-3.5
Household assets index tertile, education level and age excluded (not jointly statistically significant for any outcome)	216.58	922903	923103	67,890	0.136	451.2	467.2	-16.0	(-26.8, -5.2)	0.0038	-3.4
Household composition tertile, household size and its square	215.16	922012	922213	67,890	0.164	451.2	468.4	-17.2	(-27.9, -6.5)	0.0016	-3.7
Household composition, household assets index tertile and education level ← household size, household size squared and Kantar's SES measure	215.12	921983	922174	67,890	0.160	451.2	468.3	-17.1	(-27.8, -6pooled .4)	0.0017	-3.7
Term for linear trend change excluded (not statistically significant in seasonally adjusted, uncontrolled interrupted time series analysis by OLS)	216.61	922925	923162	67,890	0.139	451.2	482.0	-30.8	(-38.5, -23.2)	<0.0001	-6.4
Linear FE ← Poisson FE	n/a	5673447	5673693	67,835	n/a	451.3	468.6	-17.3	(-28.2, -6.3)	0.0020	-3.7
Other robustness checks (benchmark specification, R-sq and information criteria not reported)											
Data from 2016Q3-Q4 linked to pre-regulation NFP						454.5	467.7	-13.2	(-24.0, -2.3)	0.017	-2.8
Changing time windows for data included pre- and post- policy:											
Data from 02/15 to 11/17						452.5	467.9	-15.4	(-26.3, -4.5)	0.0057	-3.3
Data from 03/15 to 10/17						452.8	455.1	-2.2	(-13.4, 8.9)	0.70	-0.5
Data from 04/15 to 09/17						453.9	446.4	7.5	(-3.9, 19.0)	0.20	1.7
Data from 05/15 to 08/17						452.7	449.0	3.7	(-8.0, 15.4)	0.54	0.8
Data from 06/15 to 07/17						453.6	455.0	-1.4	(-14.2, 11.4)	0.83	-0.3
HH-month observations in the bottom or top 1% of calories per capita per day purchases excluded						444.5	462.4	-17.9	(-26.9, -9.0)	<0.0001	-3.9

RMSE = Root mean squared error; AIC = Akaike's information criterion; BIC = Schwarz's Bayesian information criterion; N = N for BIC (note: 55 households were only observed for one month; they are included in the linear FE models (contributing to the overall means) but drop out of the Poisson FE model's estimation sample); R-sq = Square of the correlation coefficient between fitted (excluding the household-level time-invariant effect) and observed values.

Supplementary Figure 1. Unadjusted weighted monthly mean purchases of calories for total foods and beverages and regression results for the significance of a linear time trend in the pre-policy period



	All purchases	High-in purchases	Not high-in purchases
Policy period (b)	-38.7	-61.0	22.4
SE	10.4	4.4	7.6
p-value	0.00020	<0.0001	0.0031
Month (b)	-1.0	-0.5	-0.6
SE	0.4	0.2	0.2
p-value	0.0061	0.016	0.014
Policy period * month (b)	0.5	0.3	0.2
SE	0.5	0.2	0.3
p-value	0.30	0.12	0.63

Results are from OLS regression of calories per person per day on a linear time trend (month), a policy indicator variable (Policy period) and their interaction, as well as indicator variables for month to control for seasonality (not shown), with cluster-robust standard errors at the household level, overall and by high-in status. B is beta coefficient, SE is standard error, and p is p-value for the statistical significance of the beta coefficient. Month is a count variable (1-36) treated as a continuous variable. Monthly dummies and intercept not shown.