Supplementary Material

Supplementary Table S1: Chile's nutrient criteria

Solid food	Phase 1	Phase 2	Phase 3
Energy (kcal/100g)	350	300	275
Sodium (mg/100g)	800	500	400
Total sugars (g/100g)	22.5	15.0	10.0
Saturated fat (g/100g)	6.0	5.0	4.0
Liquids	**Phase 1**	**Phase 2**	**Phase 3**
Energy (kcal/100mL)	100	80	70
Sodium (mg/100mL)	100	100	100
Total sugars (g/100mL)	6.0	5.0	5.0
Saturated fat (g/100mL)	3.0	3.0	3.0

Supplementary Table S2: Missing data, by category

Category	Total n	% missing Saturated fat	% missing total sugar	% missing sodium
Baby Foods	69	57%	52%	9%
Baked Goods	317	16%	20%	18%
Bottled Water	100	84%	83%	7%
Breakfast Cereals	131	8%	8%	11%
Carbonates	240	15%	23%	25%
Concentrates	53	21%	17%	25%
Confectionery	703	14%	14%	14%
Dairy	741	39%	44%	39%
Edible Oils	193	28%	26%	30%
Energy Drinks	14	0%	0%	29%
Ice Cream	78	56%	55%	59%
Juice	458	21%	26%	32%
Other Hot Drinks	380	42%	44%	41%
Processed Fruit and Vegetables	292	33%	29%	24%
Processed Meat, Seafood and Alternatives	510	49%	50%	39%
RTD Coffee	33	9%	9%	21%
RTD Tea	26	0%	8%	8%
Ready Meals	130	22%	34%	15%
Rice, Pasta and Noodles	264	32%	31%	28%
Sauces, Dips and Condiments	750	39%	39%	37%
Savoury Snacks	663	11%	15%	14%
Soup	23	0%	4%	22%
Sports Drinks	5	0%	60%	0%
Sweet Biscuits, Snack Bars and Fruit Snacks	570	14%	14%	13%
Sweet Spreads	197	24%	40%	29%
Total	**6,940**	**28%**	**30%**	**26%**

Supplementary Table S3: Agreement between the Saudi Arabia Nutrient Profile Model and Nutri-Score

Category	Total n	Saudi Arabia NPM	Nutri-Score	% agreement	Fleiss' kappa
Baked Goods	236	13%	14%	97%	0.85
Bottled Water	10	90%	90%	100%	1.00
Breakfast Cereals	112	26%	37%	88%	0.71
Carbonates	16	69%	94%	75%	0.26
Confectionery	540	9%	10%	99%	0.93
Dairy	358	31%	25%	78%	0.45
Energy Drinks	10	20%	20%	100%	1.00
Ice Cream	32	6%	47%	59%	0.14
Juice	264	40%	24%	79%	0.53
Other Hot Drinks	108	8%	12%	93%	0.60
Processed Fruit and Vegetables	133	92%	98%	94%	0.32
Processed Meat, Seafood and Alternatives	199	65%	67%	94%	0.87
RTD Coffee	26	15%	38%	77%	0.45
RTD Tea	24	17%	33%	83%	0.57
Ready Meals	79	47%	54%	87%	0.75
Rice, Pasta and Noodles	126	80%	79%	98%	0.93
Sauces, Dips and Condiments	197	18%	22%	95%	0.84
Savoury Snacks	517	6%	12%	94%	0.62
Soup	17	94%	94%	100%	1.00
Sports Drinks	2	50%	100%	50%	0.00
Sweet Biscuits, Snack Bars and Fruit Snacks	460	10%	12%	98%	0.89
Sweet Spreads	82	0%	21%	79%	0.00
Total	**3548**	**25%**	**27%**	**91%**	**0.78**

Products in this analysis were limited to products that were able to be analyzed under both NPMs

Supplementary Table S4: Agreement between the Saudi Arabia Nutrient Profile Model and Chile HFSS model

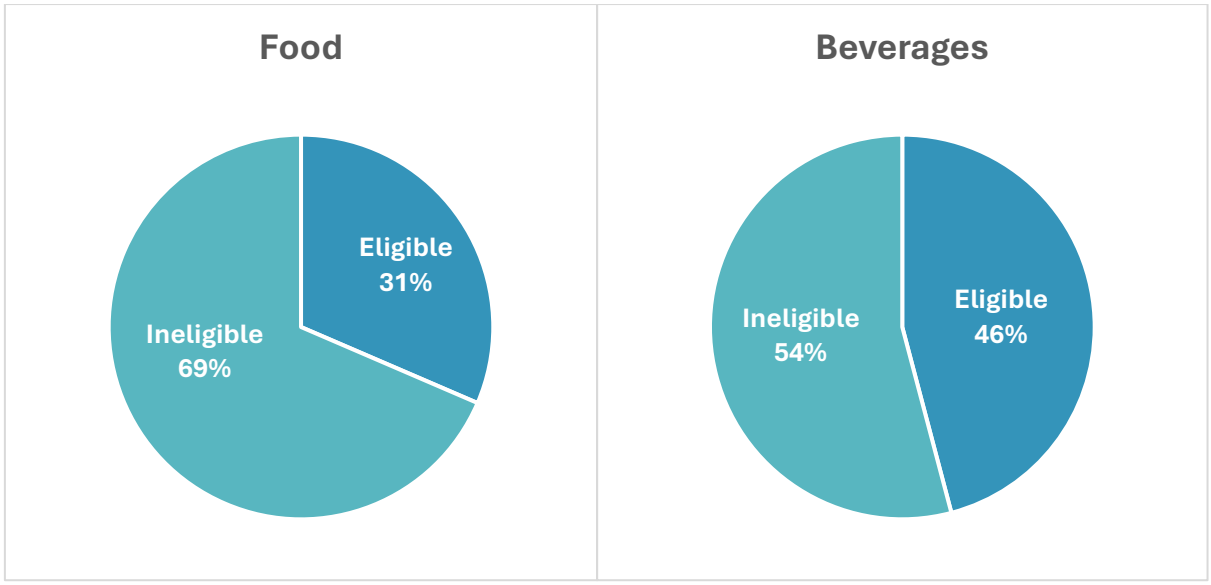
Category	Total n	Saudi Arabia NPM	Chile HFSS	% agreement	Fleiss' kappa
Baked Goods	237	13%	10%	94%	0.71
Bottled Water	10	90%	100%	90%	0.00
Breakfast Cereals	112	26%	10%	84%	0.48
Carbonates	16	69%	88%	81%	0.48
Confectionery	540	9%	9%	99%	0.94
Dairy	359	31%	21%	79%	0.46
Energy Drinks	10	20%	20%	100%	1.00
Ice Cream	32	6%	28%	72%	0.09
Juice	264	40%	13%	70%	0.28
Other Hot Drinks	109	8%	6%	95%	0.60
Processed Fruit and Vegetables	133	92%	91%	88%	0.21
Processed Meat, Seafood and Alternatives	199	65%	63%	83%	0.64
RTD Coffee	26	15%	8%	92%	0.63
RTD Tea	24	17%	17%	100%	1.00
Ready Meals	79	47%	56%	78%	0.57
Rice, Pasta and Noodles	127	80%	71%	88%	0.69
Sauces, Dips and Condiments	197	18%	14%	93%	0.76
Savoury Snacks	517	6%	10%	88%	0.21
Soup	17	94%	94%	100%	1.00
Sports Drinks	2	50%	50%	100%	1.00
Sweet Biscuits, Snack Bars and Fruit Snacks	460	10%	11%	99%	0.93
Sweet Spreads	82	0%	0%	100%	1.00
Total	**3552**	**25%**	**22%**	**89%**	**0.72**

Products in this analysis were limited to products that were able to be analyzed under both NPMs

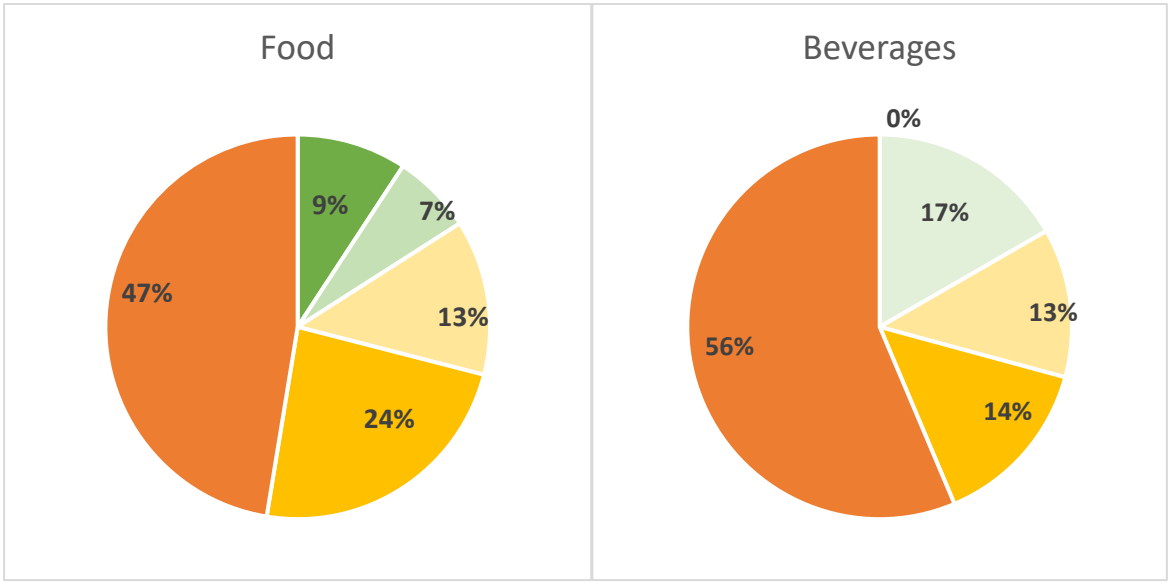
Supplementary Table S5: Agreement between Chile's HFSS NPM and Nutri-Score

Category	Total n	Chile HFSS	Nutri-Score	% agreement	Fleiss' kappa
Baked Goods	236	10%	14%	94%	0.72
Bottled Water	14	100%	93%	93%	0.00
Breakfast Cereals	112	10%	37%	73%	0.32
Carbonates	31	90%	94%	97%	0.78
Confectionery	540	9%	10%	99%	0.95
Dairy	358	22%	25%	90%	0.72
Edible Oils	64	19%	94%	22%	-0.01
Energy Drinks	10	20%	20%	100%	1.00
Ice Cream	32	28%	47%	81%	0.61
Juice	264	13%	24%	78%	0.28
Other Hot Drinks	108	6%	12%	94%	0.67
Processed Fruit and Vegetables	133	91%	98%	92%	0.27
Processed Meat, Seafood and Alternatives	199	63%	67%	84%	0.66
RTD Coffee	26	8%	38%	69%	0.24
RTD Tea	24	17%	33%	83%	0.57
Ready Meals	79	56%	54%	86%	0.72
Rice, Pasta and Noodles	159	77%	84%	93%	0.78
Sauces, Dips and Condiments	197	14%	22%	90%	0.68
Savoury Snacks	517	10%	12%	88%	0.38
Soup	17	94%	94%	100%	1.00
Sports Drinks	2	50%	100%	50%	0.00
Sweet Biscuits, Snack Bars and Fruit Snacks	460	11%	12%	97%	0.85
Sweet Spreads	82	0%	21%	79%	0.00
Total	**3664**	**23%**	**29%**	**89%**	**0.72**

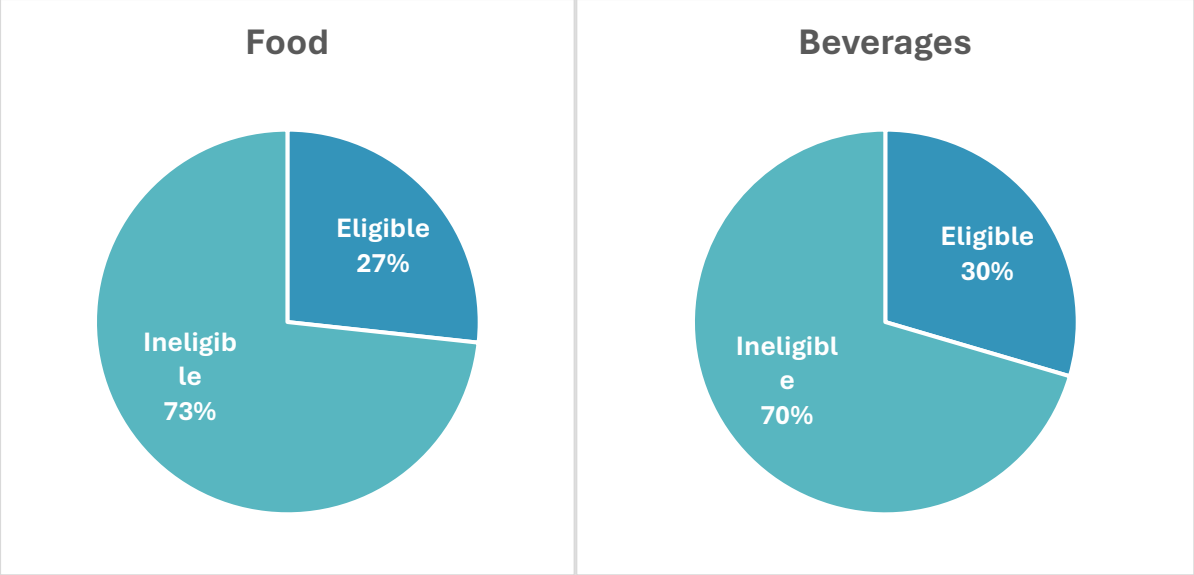
Products in this analysis were limited to products that were able to be analyzed under both NPMs



Supplementary Figure S1: Proportion of Saudi Arabian packaged food and beverage products eligible under the Saudi Arabian Nutrient Profile Model



Supplementary Figure S2: Proportion of Saudi Arabian packaged food and beverage products meeting each rating under the Nutri-Score Nutrient Profile Model



Supplementary Figure S3: Proportion of Saudi Arabian packaged food and beverage products meeting nutrient and ingredient criteria under the Chilean HFSS model