

Detailed technical report of data used in the development of the updated targets

Updated PAHO Regional Sodium Reduction Targets (2021–2025)

February 19, 2021

Submitted by the WHO Collaborating Centre on Nutrition Policy for Chronic Disease Prevention and the Department of Nutritional Sciences at the University of Toronto, Ontario Tech University, and the Costa Rican Institute of Research and Teaching in Nutrition and Health (INCIENSA)



METHODOLOGY:

Part 1: Data to preferentially consider is from BASELINE, which is 2015.

14 country study (Arcand et al. Nutrients 2019)

Countries included:

Argentina
Brazil
Chile
Costa Rica
Cuba
Ecuador
Guatemala
Jamaica
Mexico
Panama
Paraguay
Peru
Trinidad and Tobago
Barbados

ADDITIONAL DATA

2013 Canadian Data from FLIP (Arcand et al. APNM, 2016)

Canadian data is a combination of FLIP 2013 and FLIP 2017

2013 US Data (Ahuja et al. Prev Med Reports, 2015)

Other country data from the region, e.g. Colombia

mg/kcal data, retrieved from the Food Label Information Program (FLIP) database, University of Toronto, Canada.

Part 2: Data to Compare Calculated Estimates and Inform Feasibility

Categories and Subcategories are not exactly matched due to differences in the categorization method in different targets

UK Targets

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/604338/Salt_reduction_targets_for_2017.pdf

FDA Proposed Targets @ 10 years (the most stringent);

<https://www.fda.gov/media/98264/download>

% products meeting targets for different food categories

Member state national targets - Min, Median, Max

[See Appendix 3a](#)

FOP targets

[See Appendix 3b](#)

WHO Global benchmarks

Approach

- All the category data as described above were consolidated into the respective category tab.
- Using the mg/100g and mg/kcal sodium monitoring data, for each food category, the mean of the Means, Minimums, 25th percentiles, Medians (50th percentiles), 75th percentiles, and Maximums were calculated
 - Each country's data was weighted equally
 - When appropriate, a weighted mean was calculated for an individual country, which was then given an overall weight of 1 within that food category, e.g., to calculate the Canadian data for canned vegetables, the weighted mean of canned beans, canned tomatoes, etc., was calculated, then that weighted mean was given an overall weight of 1 when combined with other country data, which also were given a weight of 1.
- The monitoring data (mean of the 25th percentiles, medians, and 75th percentiles) were entered into the summary table for comparisons (with national targets, FOP thresholds, etc.) and feasibility estimates.
- To set sodium targets for new and revised food subcategories based on mg/100 g, a 15% and 30% reduction was set for 2022 and 2025, respectively, from the measured levels of sodium at the 50th percentile from the baseline data in Part 1. If the calculated value for 2025 (30% reduction) was below the 25th percentile, the 25th percentile was used as the 2025 Target. All calculated targets were assessed for feasibility, and adjusted accordingly, by comparing the calculated values to national targets in the region, to the United Kingdom targets, and to the 25th percentile which gave an indication of the overall distribution of sodium in a food subcategory. The feasibility assessment also included the known proportion of foods meeting the 2015 PAHO Sodium Targets.
- The TAG Target-setting Subgroup recommended setting a new additional and complementary set of targets based on the sodium content per calorie (mg/100 kcal). This approach aligns with the PAHO Nutrient Profile Model, which has a threshold of < 1.0 mg sodium/kcal. To set these targets, data on the distribution of sodium mg/kcal were available and used from five countries: Argentina, Canada, Costa Rica, Paraguay, and Peru.
- For foods, where the calculated 2025 sodium target exceeded >3.0 mg/kcal, these foods were identified and highlighted in red. These food subcategories should be consumed less frequently or sodium-reduced versions of these products be considered, as these foods were considered to have attributes or processing implications that would make it very difficult to reformulate to sufficiently lower levels of sodium.
- There were three primary criteria used in considering the expansion of food categories and subcategories: 1) A food category is documented as a significant source of dietary sodium in several of the countries within the region, or 2) Stakeholders requested the inclusion of food category of national relevance to dietary sodium intakes, based on stakeholder consultation, or 3) More than two countries had national-level targets for a given food category. Additionally, some existing food categories were split into multiple subcategories to increase specificity, where sufficient data was available to support the development of sodium targets for more refined sodium subcategories.

- For new subcategories for consideration, the overall data is an amalgamation of the new subcategories For consideration data only, not all subcategories typically found within that food category, e.g. fish and seafood data overall includes only new subcategory data, and not data from other fish and seafood categories such as imitation seafood or fish/seafood mousse. A49

References

1. Arcand J, Blanco-Metzler A, Benavides Aguilar K, L'Abbe MR, Legetic B. Sodium Levels in Packaged Foods Sold in 14 Latin American and Caribbean Countries: A Food Label Analysis. *Nutrients*. 2019;11(2).
2. Food and Drug Administration. Draft Guidance for Industry: Target Mean and Upper Bound Concentrations for Sodium in Commercially Processed, Packaged, and Prepared Foods for Voluntary Sodium Reduction Goals. Available at: <https://www.fda.gov/regulatory-information/search-fda-guidance-documents/draft-guidance-industry-target-mean-and-upper-bound-concentrations-sodium-commercially-processed> [Accessed July 2020].
3. Public Health England. Salt Reduction Targets for 2024; 2020. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/915406/2024_salt_reduction_targets_070920-FINAL-1.pdf [Accessed 2 October 2020].
4. Public Health England. Salt targets 2017: Second progress report; 2020. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/915371/Salt_targets_2017_Second_progress_report_031020.pdf [Accessed 2 October 2020].
5. Arcand J, Jefferson K, Schermel A, et al. Examination of food industry progress in reducing the sodium content of packaged foods in Canada: 2010 to 2013. *Applied Physiology, Nutrition, and Metabolism*. 2016;41(6):684-690.
6. Ahuja JK, Wasswa-Kintu S, Haytowitz DB, Daniel M, Thomas R, Showell B, et al. Sodium content of popular commercially processed and restaurant foods in the United States. *Prev Med Rep*. 2015;2:962-7.
7. Blanco-Metzler A, Franco-Arellano B, Vega-Solano J, Allemandi L, Sequera G, Saavedra L, et al. A comparative analysis of the proportion of commonly consumed packaged foods meeting regional sodium targets in four Latin American countries between 2015 and 2018. Not yet published.
8. Vega-Solano J, Blanco-Metzler A, Benavides-Aguilar KF, Arcand J. An Evaluation of the Sodium Content and Compliance with the National Sodium Reduction Targets among Packaged Foods Sold in Costa Rica in 2015 and 2018. *Nutrients*. 2019;11(9).
9. Nilson EAF, Spaniol AM, Goncalves VSS, Moura I, Silva SA, L'Abbe M, et al. Sodium Reduction in Processed Foods in Brazil: Analysis of Food Categories and Voluntary Targets from 2011 to 2017. *Nutrients*. 2017;9(7).
10. Christoforou A, L'Abbe M. Sodium levels in packaged foods sold in Canada in 2017. Internal data; Not yet published.
11. Ahuja JKC, Li Y, Haytowitz DB, Bahadur R, Pehrsson PR, Cogswell ME. Assessing Changes in Sodium Content of Selected Popular Commercially Processed and Restaurant Foods: Results from the USDA: CDC Sentinel Foods Surveillance Program. *Nutrients*. 2019;11(8).
12. Nieto C, Tolentino-Mayo L, Medina C, Monterrubio-Flores E, Denova-Gutierrez E, Barquera S. Sodium Content of Processed Foods Available in the Mexican Market. *Nutrients*. 2018;10(12).
13. Allemandi L, Tiscornia MV, Guarnieri L, Castronuovo L, Martins E. Monitoring Sodium Content in Processed Foods in Argentina 2017-2018: Compliance with National Legislation and Regional Targets. *Nutrients*. 2019;11(7).
14. Health Canada. Sodium Reduction in Processed Foods in Canada: An evaluation of Progress Toward Voluntary Targets from 2012 to 2016. In: Canada H, editor. Ottawa ON Canada. 2018.
15. Mora-Plazas M, Gomez LF, Miles DR, Parra DC, Taillie LS. Nutrition Quality of Packaged Foods in Bogota, Colombia: A Comparison of Two Nutrient Profile Models. *Nutrients*. 2019;11(5).
16. Barquera S, Tolentino-Mayo et al. Base de datos de alimentos mexicanos. Not yet published. January-December. 2017.

Food Categories for the Updated PAHO Regional Sodium Reduction Targets:

1. Bread, bread products, and crisp breads
 - 1a. Pantry and hearth breads, rolls, and buns
 - 1b. Tortillas (wheat), wraps, naan, and roti
 - 1c. Bread with additions
 - 1d. Other bread products
2. Cakes, biscuits, pastries, and sweet breads
 - 2a. Savory biscuits and crackers
 - 2b. Cookies and sweet biscuits
 - 2c. Pastries, squares, and quick/sweet breads
 - 2d. Cakes
3. Corn derivatives
 - 3a. Tortillas (corn)
 - 3b. Biscuits (bizcochos)
 - 3c. Tostadas
 - 3d. Arepas
4. Breakfast cereal
 - 4a. Ready to eat and hot instant breakfast cereal
5. Savory snacks
 - 5a. Nuts, seeds, and kernels, seasoned and candied
 - 5b. Chips, popcorn, and/or extruded snacks
 - 5c. Pretzels and snack mixes
 - 5d. Other savory snacks
6. Cheese
 - 6a. Fresh cheese (fresh mozzarella and others)
 - 6b. Soft cheese (unripened goat cheese and cream cheese)
 - 6c. Semi-hard cheese (mozzarella, cheddar and others)
 - 6d. Hard cheese, grated and ungrated
 - 6e. Processed cheese
7. Processed vegetables, beans, and legumes
 - 7a. Tomato paste with additions
 - 7b. Canned vegetables
 - 7c. Canned beans, chickpeas, and lentils
 - 7d. Baked and refried beans (mashed)

- 7e. Frozen potatoes and similar products
- 7f. Dry mashed or scalloped potatoes (as consumed)
- 7g. Pickled vegetables
- 7h. Sundried tomatoes
- 7i. Olives
- 7j. Vegetable juice
- 8. Processed meat and poultry
 - 8a. Packaged deli meats – fully cooked
 - 8b. Packaged dry-cured deli meats – dry cured, fermented, no thermal process
 - 8c. Sausages – uncooked
 - 8d. Sausages – cooked
 - 8e. Uncooked bacon – belly
 - 8f. Burgers, meatballs, meatloaf, and breaded meat and poultry
 - 8g. Ham, canned meat and poultry, and uncooked, pickled, cured, and smoked meats that are not deli meats
 - 8h. Patés and meat spreads
- 9. Processed fish and seafood
 - 9a. Canned fish
 - 9b. Frozen plain fish and seafood with added sodium phosphate
 - 9c. Fish and seafood cakes, fingers or burgers, seasoned, and breaded or battered or with sauces
 - 9d. Smoked, salted, pickled, and kippered fish
- 10. Soy products and meat alternatives
 - 10a. Seasoned tofu and tempeh
 - 10b. Meat analogues and other meat alternatives
- 11. Soups
 - 11a. Wet and dry soups (as consumed)
 - 11b. Noodles in broth (as consumed)
- 12. Ready-made foods, convenience foods, and mixed dishes
 - 12a. Canned chili
 - 12b. Canned stew and meatballs

- Pasta,
noodles, and
rice or grains
with sauce or
seasonings
- 12c. (as consumed)
Pasta,
noodles, and
rice or grains
with sauce or
seasonings
- 12d. (as sold)
- 12e. Stuffing mixes (as consumed)
- 12f. Pizza and pizza snacks
- 12g. Sandwiches
- 12h. Refrigerated or frozen appetizers, sides and entrées
- 13. Fresh or dried plain pasta and noodles
 - 13a. Plain pasta and noodles (as consumed or dry, uncooked)
- 14. Granola and energy bars, and nut butters/spreads
 - 14a. Granola, cereal, and energy bars
 - 14b. Nut butters and nut spreads
- 15. Fats and oils
 - 15a. Salted butter, margarine, and butter blends
 - 15b. Mayonnaise
 - 15c. Salad dressing and vinaigrette
- 16. Sauces, dips, gravy, and condiments
 - 16a. Bouillon cubes and powders (as sold)
 - 16b. Pasta sauce
 - 16c. Pesto
 - 16d. Tomato sauce
 - 16e. Ketchup, and similar tomato-type condiments (as consumed)
 - 16f. Mustard
 - 16g. Spicy sauce

- 16h. Gravy, cooking sauces, dips, and salsa (as consumed)
- 16i. Sweet oriental sauces
- 16j. Soya and other salty oriental sauces
- 16k. Marinades (as consumed)
- 16l. Dry seasoning mixes for rice and side dishes
- 16m. Dry seasoning mixes for meat and fish

Table 1.1 Bread, bread products, and crisp breads – Updated food subcategories and sodium reduction targets

Current Regional Targets	Mean Sodium Content of Foods in the Americas (mg/100 g) ^a			Sodium Targets (mg/100 g)		Mean Sodium Content of Foods in the Americas (mg/kcal) ^b			Sodium Targets (mg/kcal)		WHO Global Benchmark mg/100 g	National Sodium Reduction Targets (mg/100 g) ^c						FOPL Thresholds (mg/100 g) ^d					
	2015 PAHO Targets (mg/100 g)	2015 Targets met [%] ^e		2022	2025	25th Percentile	Median	75th Percentile	2022	2025		US-FDA Proposed 10-year Targets (2026)[2]			United Kingdom 2024 [3] 2017 [3]			Member State Targets ^f			Min	Median	Max
		25th Percentile	Median									75th Percentile	Target	Target	Target	Target	Target	Target	Target	Target			
1a Pantry and hearth breads, rolls, and buns																							
(Data from 2013, 2017, 2018)																							
Regional Target	-	-	-	341	281	1.0	1.5	1.9	1.2	1.0	330	Maximum	435	405	450	95% ^g	286	500	600	Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, Mexico, Paraguay, USA	300	400	500
Lower Target	-	-	-	340	280	-	-	-	1.2	1.0	-	Target	300	340	360	Yes ^h	330	360	470	-	-	-	
Updated Targets																							
(Data from 2013, 2017)																							
Regional Target	-	-	-	578	476	1.7	1.8	2.0	1.5	1.3	320	Maximum	700	405	450	95% ^g	540	545	550	Canada, USA	300	400	500
Lower Target	-	-	-	550	450	-	-	-	1.8	1.7	-	Target	410	340	360	Yes ^h	760	760	760	-	-	-	
Updated Targets																							
(Data from 2017)																							
Regional Target	-	-	-	422	348	1.1	1.7	2.1	1.5	1.2	N/A	Maximum	600	430	450	93% ^g	-	550	-	Costa Rica	300	400	500
Lower Target	-	-	-	420	350	-	-	-	1.5	1.2	-	Target	420	360	400	-	-	-	-	-	-	-	-
Updated Targets																							
(Data from 2013, 2015)																							
Regional Target	-	-	-	388	319	0.8	1.6	1.9	1.3	1.1	N/A	Maximum	463	410	438	90% ^g	286	503	860	(For bread, overall) Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, Mexico, Paraguay, USA	300	400	500
Lower Target	-	-	-	400	350	-	-	-	1.3	1.1	-	Target	313	341	375	-	250	470	550	-	-	-	
Updated Targets																							
(Data from 2017, 2018)																							
Regional Target	-	-	-	340	280	-	-	-	1.2	1.0	-	Maximum	435	405	450	95% ^g	286	500	600	Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, Mexico, Paraguay, USA	300	400	500
Lower Target	-	-	-	340	280	-	-	-	1.2	1.0	-	Target	300	340	360	Yes ^h	330	360	470	-	-	-	

^a Proportion of products in 14-country study [1] meeting PAHO Regional sodium reduction targets; ^b Mean sodium content calculated from available national sodium monitoring data (Tables 1.3 to 1.6); ^c Calculated as the average of relevant subcategories; ^d Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets; ^e Data extracted from final (proposed, accepted or implemented) Front-of-package label "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b; ^f Proportion of products at or below maximum; ^g Is proportion of products in 2018 at or below maximum within 5% of average sodium target ("target"); ^h Data for other bread products is a composite of data for bread (overall) (see Table 1.2).

Table 1.2 Summary of existing bread products (overall) sodium reduction targets and front-of-package label (FOPL) thresholds

Current Regional Targets	Mean Sodium Content of Foods in the Americas ^a						National Sodium Reduction Targets (mg/100 g) ^c						FOPL Thresholds (mg/100 g) ^d						
	2015 PAHO Targets (mg/100 g)	2015 Targets met [%] ^e		25th Percentile	Median	75th Percentile	US - FDA Proposed 10-year Targets (2026)[2]	United Kingdom		Member State Targets ^f		Min	Median	Max					
		25th Percentile	Median					75th Percentile	2024 [3]	2017 [3]	UK 2017 Targets Met [%]				Min	Median	Max		
Bread products (overall)																			
(Data from 2013, 2015)																			
Regional Target	600	83%	350	456	553	0.8	1.6	1.9	Maximum	463	410	438	95% ^g	286	512	860	300	400	500
Lower Target	400	34%	350	456	553	0.8	1.6	1.9	Target	313	341	375	Yes ^h	250	470	550	-	-	-

^a Proportion of products in 14-country study [1] meeting PAHO Regional Sodium Reduction Targets; ^b Mean sodium content calculated from available national sodium monitoring data (Tables 1.3 and 1.5); ^c Calculated as the average of relevant subcategories; ^d Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets; ^e Data extracted from final (proposed, accepted or implemented) Front-of-Package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b; ^f Proportion of products at or below maximum; ^g Is proportion of products in 2018 at or below maximum within 5% of average sodium target ("target"); ^h Data extracted from final (proposed, accepted or implemented) Front-of-Package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b; ⁱ Proportion of products at or below maximum; ^j Is proportion of products in 2018 at or below maximum within 5% of average sodium target ("target").

Table 1.3 Sodium content for bread (overall) – mg/100 g

Year	n	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)							
			Min	10 th	25 th	50 th	75 th	Max		
Argentina	2015	123	208 ± 146	452 ± 255	0	81	279	480	609	1200
Brazil	2015	101	198 ± 51	417 ± 128	168	270	326	414	484	847
Chile	2015	106	227 ± 89	428 ± 140	7	272	365	413	491	984
Costa Rica	2015	83	232 ± 253	435 ± 314	0	0	215	473	591	1240
Cuba	2015	24	312 ± 137	542 ± 76	381	473	479	528	601	696
Ecuador	2015	106	192 ± 136	421 ± 200	0	123	329	427	520	1023
Guatemala	2015	68	201 ± 159	519 ± 702	0	38	281	457	540	4444
Jamaica	2015	72	257 ± 160	465 ± 137	0	298	415	481	516	969
Mexico	2015	112	167 ± 122	603 ± 448	0	317	376	475	728	4000
Panama	2015	137	178 ± 98	531 ± 221	10	320	440	500	610	1270
Paraguay	2015	76	165 ± 78	388 ± 199	0	86	299	439	536	913
Peru	2015	68	286 ± 281	503 ± 249	1	222	404	486	590	1200
Trinidad and Tobago	2015	95	226 ± 138	421 ± 171	0	202	350	450	510	1000
Barbados	2015	100	211 ± 106	403 ± 134	0	227	343	410	461	740
Canada [5] ⁱ	2013	445	242 ± 100	418 ± 129	0	267	351	413	507	782
United States [6] ^j	2013	80	253 ± 4.2 ^k	490 ± 10 ^l	11	-	-	-	-	818
MEAN			222	465	36	213	350	456	553	1389

All data was from Arcand J et al. Nutrients (2019) and represents 2015 data, unless otherwise indicated; Data presented as mean ± standard deviation. ^a Packaged bread products; ^b Bread, rolls, tortillas; ^c Data presented as standard error of the mean.

Table 1.4 Sodium content for proposed bread, bread products, and crisp breads subcategories – mg/100 g

Year	n	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)							
			Min	10 th	25 th	50 th	75 th	Max		
Pantry and hearth breads, rolls, and buns										
Costa Rica [8] ^m	2018	33	-	291 ± 242	0	-	-	291	-	936
United States (SWA)[11] ⁿ	2017	21	-	482	401	-	-	-	-	554
Argentina [13] ^o	2017	23	-	440	15	-	-	67	500	783
Canada [5] ⁱ	2013	248	248	436	59	304	380	442	514	660
Brazil [9] ^p	2017	11	-	374 ± 59	270	-	-	372	-	512
MEAN			248	405	149	304	224	401	649	689
Tortillas (wheat), wraps, naan, and roti										
Canada [5]	2013	63	378 ± 132	647 ± 138	246	441	588	680	750	881
United States (SWA)[11]	2017	16	-	712 ± 105	531	-	-	-	-	873
MEAN			378 ± 132	680	389	441	588	680	750	877
Bread with additions^q										
Canada [5]	2013	36	388 ± 98	530 ± 141	18	360	464	553	604	782
Costa Rica	2018	6	130 ± 121	294 ± 258	0	-	0	403	480	480
Paraguay	2018	3	125 ± 69	639 ± 186	538	-	528	534	854	854
MEAN			181	488	182	360	331	497	646	705

Data presented as mean ± standard deviation. Sales weighted average (SWA). ^a Wholemeal bread; ^b Data was calculated as the weighted average of wheat bread, White bread and hamburger buns subcategories; ^c Toast; ^d Data was calculated as the weighted average of pantry bread, hearth bread, and pantry rolls and buns subcategories; ^e Buns; ^f Data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country (unpublished), unless otherwise specified.

Table 1.5 Sodium content for bread – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)					Proportion below PAHO Nutrient Profile Model threshold
				Min	25 th	50 th	75 th	Max	
Argentina	2018	110	1.8 ± 0.5	0.0	1.6	1.8	1.9	3.9	6.4%
Costa Rica	2018	100	1.3 ± 0.8	0.0	0.6	1.5	1.9	2.9	30%
Paraguay	2018	75	1.4 ± 0.8	0.0	0.3	1.6	2.0	2.8	32%
Peru	2018	27	1.1 ± 0.7	0.0	0.4	1.3	1.6	2.0	0%
Canada	2017	651	1.7 ± 0.5	0.0	1.3	1.6	2.0	3.8	7.1%
MEAN			1.5	0.0	0.8	1.6	1.9	3.1	N/A

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country. Data presented as mean ± standard deviation. * Products evaluated against the 2016 PAHO Nutrient Profile Model threshold for excess sodium (1 mg/kcal) included only products classified as processed or ultra-processed.

Table 1.6 Sodium content for proposed bread, bread products, and crisp breads subcategories – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)				
				Min	25 th	50 th	75 th	Max
Pantry and hearth breads, rolls, and buns								
Argentina	2018	110	1.8	0.2	1.5	1.8	1.9	3.8
Costa Rica	2018	100	1.3	0.0	0.8	1.2	1.9	2.9
Paraguay	2018	74	1.3	0.0	0.6	1.6	2.0	2.4
Peru	2018	24	1.0	0.0	0.8	1.1	1.6	1.9
Canada	2017	456	1.7	0.3	1.4	1.7	2.0	3.5
MEAN			1.4	0.1	1.0	1.5	1.9	2.9
Tortillas (wheat), wraps, naan, and roti								
Canada*	2017	62	1.7 ± 0.6	0.0	1.7	1.8	2.0	3.2
MEAN			1.7 ± 0.6	0.0	1.7	1.8	2.0	3.2
Bread with additions								
Canada	2017	129	1.9 ± 0.5	0.0	1.5	1.9	2.2	3.8
Costa Rica	2018	3	1.1 ± 1.0	0.0	0	1.5	1.9	1.9
Paraguay	2018	3	1.9 ± 0.2	1.7	1.7	1.8	2.2	2.2
MEAN			1.6	0.0	1.1	1.7	2.1	2.6

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country. Data presented as mean ± standard deviation. * Data for Argentina, Costa Rica, Paraguay, and Peru calculated as the weighted average of brown bread and white bread subcategories, and Canadian data was calculated as the weighted average of pantry bread, pantry rolls and buns, and hearth bread subcategories. † Also includes taco shells.

Table 2.1 Cakes, biscuits, pastries, sweet breads – Updated food subcategories and sodium reduction targets

	Current Regional Targets			Mean Sodium Content of foods in the Americas (mg/100 g) ^b			Sodium Targets (mg/100 g)			Mean Sodium Content of Foods in the Americas (mg/kcal) ^b			Sodium Targets (mg/kcal)		WHO mg/100 g	National Sodium Reduction Targets (mg/100 g) ^c							FOPL Thresholds (mg/100 g) ^d		
	2015 PAHO Targets (mg/100 g)	2015 Targets met [%] ^e	25th Percentile	Median	75th Percentile	2022	2025	25th Percentile	Median	75th Percentile	2022	2025	US-FDA Proposed 10-year Targets (2026)[2]	United Kingdom		Member State Targets ^g			Countries with Targets	Min	Median	Max			
														2024 [3]		2017 [3]	UK 2017 Targets met [%]	Min					Median	Max	
2a Savoury biscuits and crackers	(Data from 2017)			(Data from 2017, 2018)			(Data from 2017, 2018)			(Data from 2017, 2018)															
Regional Target	1340	97%	580	716	860	608	501	1.3	1.7	2.0	1.4	1.2	600	Maximum	760	700	700	65%	635	890	1340	Argentina, Brazil, Canada, Colombia, Costa Rica	300	400	500
Lower Target	700	59%											Target	500	530	530	N/A	600	620	640					
Updated Targets						640	580				1.5	1.3													
2b Cookies and sweet biscuits	(Data from 2013, 2017)			(Data from 2017, 2018)			(Data from 2017, 2018)			(Data from 2017, 2018)															
Regional Target	485	90%	185	265	360	225	185	0.4	0.6	0.8	0.5	0.4	265	Maximum	330	340	380	93%	265	405	485	Argentina, Brazil, Canada, Costa Rica, USA	300	400	500
Lower Target	265	48%											Target	220	220	220	40%	240	250	260					
Updated Targets						225	200				0.5	0.4													
2c Pastries, squares, and quick/sweet breads	(Data from 2013, 2018)			(Data from 2017)			(Data from 2017, 2018)			(Data from 2017, 2018)															
Regional Target	-	-	215	308	384	262	215	0.6	0.8	1.1	0.7	0.6	475	Maximum	302	276	290	85%	400	488	790	Colombia, Costa Rica, Canada, USA	300	400	500
Lower Target	-	-											Target	208	221	245	N/A	220	250	530					
Updated Targets						260	215				0.7	0.6													
2d Cakes (as consumed)	(Data from 2013, 2015)			(Data from 2017, 2018)			(Data from 2017, 2018)			(Data from 2017, 2018)															
Regional Target	400	64%	235	368	496	313	258	0.6	0.9	1.2	0.7	0.6	205	Maximum	270 ^h	265	280	94%	204	332	512	Brazil, Canada, Costa Rica, USA, USA	300	400	500
Lower Target	205	25%											Target	180 ^h	160	170	N/A	230	240	250					
Updated Targets						300	240				0.7	0.6													

^a Proportion of products in 14-country study [1] meeting PAHO Regional Sodium Reduction Targets; ^b Mean sodium content calculated from available national sodium monitoring data (Tables 2.2 to 2.6); ^c Calculated as the average of relevant subcategories; ^d Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets; ^e Data extracted from final (proposed, accepted, or implemented) Front-of-package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b; ^f Average proportion of products at or below maximum; ^g Proportion of products in 2018 at or below maximum within 5% of average sodium target ("Target"); ^h Excludes cheesecake.

Table 2.2 Sodium content for savory biscuits and crackers – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Argentina [7]	2018	25	-	852 ± 304	0	-	643	859	1124	1237
Costa Rica [7]	2018	84	-	710 ± 227	5	-	563	719	864	1433
Paraguay [7]	2018	24	-	627 ± 361	0	-	520	600	664	2000
Peru [7]	2018	2	-	700 ± 141	600	-	650	700	750	800
Canada [5] ^f	2013	301	155 ± 80	739 ± 316	0	375	525	700	900	1857
United States [6] ^g	2013	24	128	834	638	-	-	-	-	1110
MEAN			142	784	207	375	580	716	860	1406

Data presented as mean ± standard deviation. ^a Crackers; ^b Data was calculated as the weighted average of crackers, Ritter-type, and crackers, saline subcategories.

Table 2.3 Sodium content for cookies and sweet biscuits – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Costa Rica [8] ^a	2018	161	-	269 ± 155	0	-	267	-	-	1250
Brazil [9] ^b	2017	237	-	249	46	-	255	-	-	470
Costa Rica [8] ^a	2018	112	-	277 ± 336	9	-	250	-	-	3419
Canada [5] ^f	2013	398	84 ± 47	277 ± 128	0.4	100	185	286	360	667
MEAN			84 ± 47	268	14	100	185	265	360	1452

Data presented as mean ± standard deviation. ^a Dry sweet cookies; ^b Data was calculated as the weighted average of sweet biscuits and filled sweet cookies subcategories; ^c Filled sweet cookies; ^d Cookies.

Table 2.4 Sodium content for pastries, squares, and quick/sweet breads – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Pastries and quick/sweet bread										
Costa Rica [8]	2018	3	-	166 ± 233	0	-	-	66	-	432
Canada [5] ^f	2013	311	221	310	32	161	215	310	384	939
OVERALL WEIGHTED MEAN^g			221	309	32	161	215	308	384	934

Data presented as mean ± standard deviation. Sales weighted average (SWA). ^a Data calculated as the weighted average of baked desserts, tea biscuits and scones, and toaster pastry subcategories; ^b Overall mean calculated as the weighted mean due to the large discrepancy in product numbers between countries.

Table 2.5 Sodium content for cakes (as consumed) – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Argentina	2015	127	146 ± 91	323 ± 204	3	81	214	260	435	820
Brazil	2015	154	133 ± 53	324 ± 153	55	144	200	315	443	860
Chile	2015	157	149 ± 110	231 ± 180	21	73	113	183	313	1460
Costa Rica	2015	117	180 ± 114	385 ± 244	22	132	195	297	572	971
Cuba	2015	8	65 ± 31	225 ± 84	75	132	198	214	303	320
Ecuador	2015	135	192 ± 230	331 ± 333	0	50	148	258	430	2743
Guatemala	2015	96	212 ± 115	470 ± 273	22	165	253	402	701	1483
Jamaica	2015	75	302 ± 93	540 ± 234	125	267	330	595	721	947
Mexico	2015	121	171 ± 132	369 ± 232	0	143	238	324	438	1371
Panama	2015	129	222 ± 121	405 ± 235	0	124	270	380	530	1130
Paraguay	2015	35	198 ± 92	472 ± 176	120	200	368	496	577	765
Peru	2015	33	172 ± 134	425 ± 301	0	104	200	677	104	1465
Trinidad and Tobago	2015	127	240 ± 102	433 ± 255	80	190	260	330	660	1580
Barbados	2015	129	235 ± 96	505 ± 258	40	200	300	420	720	1250
MEAN			187	388	40	143	235	368	496	1226

All data was from Arcand J et al. Nutrients (2019) and represents 2015 data, unless otherwise indicated; Data presented as mean ± standard deviation.

Table 2.6 Sodium content for proposed cakes, biscuits, pastries, and sweet breads subcategories – mg/kcal¹

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)					Proportion below PAHO Nutrient Profile Model threshold ²
				Min	25 th	50 th	75 th	Max	
Savory biscuits and crackers									
Argentina	2018	25	1.9 ± 0.7	0.0	1.5	2.0	2.4	2.9	4%
Costa Rica	2018	84	2.9 ± 11.8	0.0	1.3	1.7	2.0	110.0	13%
Paraguay	2018	24	1.5 ± 0.8	0.0	1.3	1.4	1.6	4.4	8%
Peru	2018	2	1.7 ± 0.4	1.4	1.4	1.7	2.0	2.0	100%
Canada	2017	317	1.7 ± 1.2	0.0	1.1	1.5	1.9	10.8	19.2%
MEAN			1.9	0.3	1.3	1.7	2.0	26.0	N/A
Cookies and sweet biscuits									
Argentina	2018	362	0.8 ± 1.5	0.0	0.3	0.6	1.0	27.3	73.9%
Costa Rica	2018	283	0.6 ± 0.5	0.0	0.4	0.5	0.7	7.3	91.9%
Paraguay	2018	427	0.6 ± 0.4	0.0	0.4	0.5	0.7	3.1	87.4%
Peru	2018	113	0.8 ± 0.7	0.0	0.4	0.5	0.9	5.3	100%
Canada	2017	550	0.6 ± 0.3	0.1	0.4	0.6	0.8	3.2	90.9%
MEAN			0.7	0.0	0.4	0.5	0.8	9.2	N/A
Pastries, squares, and quick/sweet breads									
Canada ³	2017	316	0.8 ± 0.4	0.1	0.5	0.7	1.0	2.5	N/A
Canada ⁴	2017	14	1.9 ± 0.6	0.9	1.5	1.9	2.3	3.1	N/A
Canada ⁵	2017	11	1.0 ± 0.1	0.8	0.9	1.0	1.1	1.2	N/A
WEIGHTED MEAN		341	0.9	0.2	0.6	0.8	1.1	2.5	N/A
Cakes (as consumed)									
Argentina	2018	10	1.3 ± 0.5	0.2	1.0	1.4	1.8	1.8	20%
Costa Rica	2018	72	1.3 ± 0.9	0.1	0.6	1.2	1.5	5.1	43.1%
Paraguay	2018	140	0.8 ± 1.2	0.0	0.3	0.5	0.9	13.9	79.3%
Peru	2018	3	0.4 ± 0.2	0.3	0.3	0.4	0.7	0.7	100%
Canada	2017	327	0.8 ± 0.4	0.1	0.6	0.8	1.1	3.0	69.7%
MEAN			0.9	0.1	0.6	0.9	1.2	4.9	N/A

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean ± standard deviation. ¹

² Products evaluated against the 2016 PAHO Nutrient Profile Model threshold for excess sodium (1 mg/kcal) included only products classified as processed or ultra-processed; ³ Baked desserts; ⁴ Tea biscuits and scones; ⁵ Toaster pastries.

Table 3.1 Corn derivatives – Updated food subcategories and sodium reduction targets

Current Regional Targets	Mean Sodium Content of Foods in the Americas (mg/100 g) ¹			Sodium Targets (mg/100 g)		Mean Sodium Content of Foods in the Americas (mg/kcal) ¹			Sodium Targets (mg/kcal)		WHO mg/100 g	National Sodium Reduction Targets (mg/100 g) ²						FOPL Thresholds (mg/100 g) ⁴								
	2015 PAHO Targets (mg/100 g)	2015 Targets met [1] ³	25th Percentile	Median	75th Percentile	2022	2025	25th Percentile	Median	75th Percentile		2022	2025	US-FDA Proposed 10-year Targets (2026)[2]	United Kingdom			Member State Targets ⁵			Min	Median	Max			
															2024 [3]	2017 [3]	UK 2017 Targets met [4]	Min	Median	Max				Countries with Targets		
3a Tortillas (corn)			(Data from 2017, 2018)					(Data from 2017, 2018)						Hard taco shells												
Regional Target	-	-	33	42	171	35	29	1.0	1.0	1.3	0.9	0.7		Maximum	530	-	-	-	-	416	-		Colombia	300	400	500
Lower Target	-	-											Target	320	-	-	-	-	-	-	-					
Updated Targets						35	30				0.9	0.7														
3b Biscuits (bizcochos)			(Data from 2018)					(Data from 2018)																		
Regional Target	-	-	800	853	933	725	597	1.5	1.6	1.9	1.4	1.1		Maximum	-	-	-	-	-	-	-		N/A	300	400	500
Lower Target	-	-											Target	-	-	-	-	-	-	-	-					
Updated Targets						825	800				1.6	1.5														
3c Tostadas			(Data from 2018)					(Data from 2018)																		
Regional Target	-	-	515	849	953	722	594	1.9	3.0	3.0	2.6	2.1		Maximum	-	-	-	-	-	-	-		N/A	300	400	500
Lower Target	-	-											Target	-	-	-	-	-	-	-	-					
Updated Targets						720	600				2.6	2.1														
3d Arepas			(Data from 2018)					(Data from 2018)																		
Regional Target	-	-	0	59	71	50	41	0.0	0.6	1.1	0.5	0.4		Maximum	-	-	-	-	-	-	-		N/A	300	400	500
Lower Target	-	-											Target	-	-	-	-	-	-	-	-					
Updated Targets						50	40				0.5	0.4														

¹ Proportion of products in 14-country study [1] meeting PAHO Regional Sodium Reduction Targets; ² Mean sodium content calculated from available national sodium monitoring data (Tables 3.2 and 3.3); ³ Calculated as the average of relevant subcategories; ⁴ Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets; ⁵ Data extracted from final (proposed, accepted or implemented) national Front-of-package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b.

Table 3.2 Sodium content for proposed corn derivatives subcategories and overall mean – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Tortillas (corn)										
United States (SWA) [11] [*]	2017	17	-	341 ± 181	3	-	-	-	-	593
Costa Rica	2018	7	45 ± 39	111 ± 146	36	-	40	43	103	436
Mexico [16]	2017	23	-	113 ± 128	0	11	25	40	238	440
MEAN			45 ± 39	188	13	11	33	42	171	490
Biscuits (bizcochos)										
Costa Rica	2018	5	521 ± 695	867 ± 342	396	-	800	853	933	1354
MEAN			521 ± 695	867 ± 342	396	-	800	853	933	1354
Tostadas										
Costa Rica	2018	4	125 ± 16	927 ± 358	400	-	757	1115	1117	1117
Mexico [16]	2017	83	-	541 ± 313	0	100	275	583	788	1204
MEAN			125 ± 16	739	200	100	515	849	952.5	1160.5
Arepas										
Costa Rica	2018	3	52 ± 45	43 ± 38	0	-	0	59	71	71
MEAN			52 ± 45	43 ± 38	0	-	0	59	71	71

Data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country (unpublished), unless otherwise specified. Data presented as mean ± standard deviation. Sales weighted average (SWA). * Taco shells, corn.

Table 3.3 Sodium content for proposed corn derivatives subcategories – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)				
				Min	25 th	50 th	75 th	Max
Tortillas (corn)								
Canada [*]	2017	62	1.7 ± 0.6	0.0	1.7	1.8	2.0	3.2
Costa Rica	2018	7	0.5 ± 0.6	0.2	0.2	0.2	0.6	1.9
MEAN			1.1	0.1	1.0	1.0	1.3	2.6
Biscuits (bizcochos)								
Costa Rica	2018	5	1.7 ± 0.8	0.8	1.5	1.6	1.9	2.9
MEAN			1.7 ± 0.8	0.8	1.5	1.6	1.9	2.9
Tostadas								
Costa Rica	2018	4	2.4 ± 1.1	0.8	1.9	3.0	3.0	3.0
MEAN			2.4 ± 1.1	0.8	1.9	3.0	3.0	3.0
Arepas								
Costa Rica	2018	3	0.6 ± 0.6	0.0	0.0	0.6	1.1	1.1
MEAN			0.6 ± 0.6	0.0	0.0	0.6	1.1	1.1

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean ± standard deviation. * Data only available for tortillas, taco shells, wraps, and naan (includes corn and wheat-based tortillas and taco shells).

Table 4.1 Breakfast cereal – Updated food subcategories and sodium reduction targets

Current Regional Targets	Mean Sodium Content of Foods in the Americas (mg/100 g) ^b			Sodium Targets (mg/100 g)		Mean Sodium Content of Foods in the Americas (mg/kcal) ^b			Sodium Targets (mg/kcal)		WHO mg/100 g	National Sodium Reduction Targets (mg/100 g) ^c						FOPL Thresholds (mg/100 g) ^d									
	2015 PAHO Targets (mg/100 g)	2015 Targets met [1] ^e	25th Percentile	Median	75th Percentile	2022	2025	25th Percentile	Median	75th Percentile		2022	2025	US - FDA Proposed 10-year Targets (2026)[2]	United Kingdom 2024 [3]		2017 [3]		UK 2017 Targets met [4]		Member State Targets ^f		Min	Median	Max		
																				Min	Median	Max	Countries with Targets		Min	Median	Max
4a Ready to eat and hot instant breakfast cereals	(Data from 2013, 2015)			(Data from 2017, 2018)								280															
Regional Target	630	91%	157	312	461	265	219	0.3	0.8	1.2	0.6	0.5															
Lower Target	500	76%																									
Updated Targets			260	220							0.6	0.5															

^a Proportion of products in 14-country study [1] meeting PAHO Regional Sodium Reduction Targets; ^b Mean sodium content calculated from available national sodium monitoring data (Tables 4.2 and 4.3); ^c Calculated as the average of relevant subcategories; ^d Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets; ^e Data extracted from final (proposed, accepted or implemented) national Front-of-Package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b; ^f Proportion of products at or below maximum; ^g Proportion of products in 2018 at or below maximum within 5% of average sodium target ("Target").

Table 4.2 Sodium content for breakfast cereal – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Argentina	2015	88	95 ± 76	318 ± 253	0	46	113	277	518	1100
Brazil	2015	100	73 ± 66	224 ± 217	0	18	76	166	327	1500
Chile	2015	109	69 ± 57	213 ± 175	1	7	50	188	324	642
Costa Rica	2015	115	140 ± 63	433 ± 185	44	240	315	400	550	1067
Cuba	2015	23	175 ± 178	602 ± 708	0	150	297	450	568	2760
Ecuador	2015	100	84 ± 149	283 ± 498	0	19	200	384	384	3400
Guatemala	2015	100	133 ± 56	412 ± 188	0	183	300	433	533	800
Jamaica	2015	114	168 ± 93	456 ± 223	0	141	335	457	575	1179
Mexico	2015	104	103 ± 65	323 ± 204	0	27	99	356	467	1073
Panama	2015	190	118 ± 69	344 ± 201	0	10	220	355	493	810
Paraguay	2015	98	60 ± 63	201 ± 210	0	12	69	125	269	977
Peru	2015	91	72 ± 91	251 ± 276	0	2	7	229	378	1395
Trinidad and Tobago	2015	112	147 ± 130	406 ± 245	0	85	265	388	534	1280
Barbados	2015	113	122 ± 97	356 ± 316	0	10	70	370	510	1680
Canada [5] ^g	2013	310	119	317	0	45	124	291	480	900
United States [6]	2013	20	188 ± 2.3 ^h	443 ± 5.9 ^h	356	-	-	-	-	552
MEAN			117	351	25	65	157	312	461	1320

All data was from Arcand J et al. Nutrients (2019) and represents 2015 data, unless otherwise indicated; Data presented as mean ± standard deviation. ^g Canadian data was calculated as the weighted average of ready-to-eat and hot instant breakfast cereal subcategories; ^h Data presented as standard error of the mean.

Table 4.3 Sodium content for breakfast cereal – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)					Proportion below PAHO Nutrient Profile Model thresholds
				Min	25 th	50 th	75 th	Max	
Argentina	2018	85	0.8 ± 0.5	0.0	0.3	0.7	1.2	2.2	68%
Costa Rica	2018	135	1.1 ± 0.7	0.0	0.7	1.1	1.4	6.8	47%
Paraguay	2018	126	0.6 ± 0.5	0.0	0.2	0.5	0.9	2.2	79%
Peru	2018	79	1.0 ± 0.8	0.0	0.4	0.9	1.2	5.5	100%
Canada	2017	379	0.7 ± 0.6	0.0	0.1	0.6	1.1	2.4	67%
MEAN			0.8	0.0	0.3	0.8	1.2	3.8	N/A

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean ± standard deviation. ^a Products evaluated against the 2016 PAHO Nutrient Profile Model threshold for excess sodium (1 mg/kcal) included only products classified as processed or ultra-processed.

Table 4.1 Breakfast cereal – Updated food subcategories and sodium reduction targets

Table 5.1 Savory snacks – Updated food subcategories and sodium reduction targets

	Current Regional Targets		Mean Sodium Content of Foods in the Americas (mg/100 g) ^a			Sodium Targets (mg/100 g)		Mean Sodium Content of Foods in the Americas (mg/kcal) ^a			Sodium Targets (mg/kcal)		WHO mg/100 g	National Sodium Reduction Targets (mg/100 g) ^d						FOPL Thresholds (mg/100 g) ^e					
	2015 PAHO Targets (mg/100 g)	2015 Targets met [%] ^f	25th Percentile	Median	75th Percentile	2022	2025	25th Percentile	Median	75th Percentile	2022	2025		US-FDA Proposed 10-year Targets (2026)[2] ^g	United Kingdom			Member State Targets ^h			Min	Median	Max		
															2024 [3]	2017 [3]	UK 2017 Targets met [%]	Min	Median	Max				Countries with Targets	
5a Nuts, seeds, and kernels, seasoned and candied	(Data from 2013)					(Data from 2018)																			
Regional Target	-	-	190	312	500	265	218	0.5	1.1	1.8	0.9	0.8	280	Maximum	330	480	-	-	86	352	550	Canada, Colombia	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	Target	200	400	-	-	320	320	320					
Updated Targets	-	-	-	-	-	265	220	-	-	-	0.9	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-
5b Chips, popcorn, and/or extruded snacks	(Data from 2013, 2016, 2017)					(Data from 2018)																			
Regional Target	-	-	472	591	728	503	414	1.2	1.6	1.9	1.4	1.1	500	Maximum	646	713	883	88% ⁱ	291	600	1006	Brazil, Canada, Colombia, USA	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	Target	390	577	701	N/A	400	430	680					
Updated Targets	-	-	-	-	-	530	470	-	-	-	1.4	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-
5c Pretzels and snack mixes	(Data from 2013)					(Data from 2017)																			
Regional Target	-	-	637	957	1280	813	670	1.7	1.8	2.0	1.5	1.3	760	Maximum	1040	-	-	-	1400	1400	1400	Canada, USA	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	Target	725	-	-	-	790	815	840					
Updated Targets	-	-	-	-	-	800	670	-	-	-	1.8	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-
5d Other savory snacks^j	(Data from 2013, 2015)					(Data from 2017, 2018)																			
Regional Target	-	-	411	618	869	525	432	0.7	1.1	1.9	0.9	0.8	N/A	Maximum	693	679	883	88% ⁱ	86	532	1400	Savory snacks overall: Argentina, Brazil, Canada, Colombia, USA	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	Target	438	551	701	yes ^k	320	515	840					
Updated Targets	-	-	-	-	-	525	430	-	-	-	0.9	0.8	-	-	-	-	-	-	-	-	-	-	-	-	-

^a Proportion of products in 14-country study [1] meeting PAHO Regional Sodium Reduction Targets; ^b Mean sodium content calculated from available national sodium monitoring data (Tables 5.2 to 5.6); ^c Calculated as the average of relevant subcategories; ^d Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets. Maximum value may exceed target, as many countries only possess maximum sodium values; ^e Data extracted from final (proposed, accepted, or implemented) front-of-package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b; ^f Proportion of products at or below maximum; ^g Data for other savory snacks is a composite of data for savory snacks (overall) (see Table 5.2); ^h Proportion of products in 2018 at or below maximum within 5% of average sodium target ("target").

Table 5.2 Summary of existing savory snacks sodium reduction targets and front-of-package label (FOPL) thresholds

	Current Regional Targets		Mean Sodium Content of Foods in the Americas (mg/100 g) ^a			Mean Sodium Content of Foods in the Americas (mg/kcal) ^a			National Sodium Reduction Targets (mg/100 g) ^d						FOPL Thresholds (mg/100 g) ^e				
	2015 PAHO Targets (mg/100 g)	2015 Targets met [%] ^f	25th Percentile	Median	75th Percentile	25th Percentile	Median	75th Percentile	US-FDA Proposed 10-year Targets (2026)[2] ^g	United Kingdom			Member State Targets ^h			Min	Median	Max	
										2024 [3]	2017 [3]	UK 2017 Targets met [%]	Min	Median	Max				
Snacks (overall)	(Data from 2013, 2015)					(Data from 2017, 2018)													
Regional Target	900	75%	411	618	869	0.7	1.1	1.9	Maximum	693	679	883	88% ⁱ	86	532	1400	300	400	500
Lower Target	530	39%	-	-	-	-	-	-	Target	438	551	701	yes ^k	320	515	840			
Proposed Targets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

^a Proportion of products in 14-country study [1] meeting PAHO Regional Sodium Reduction Targets; ^b Mean sodium content calculated from available national sodium monitoring data (Tables 5.3 and 5.5); ^c Calculated as the average of relevant subcategories (includes snack puddings); ^d Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets; ^e Data extracted from final (proposed, accepted or implemented) national front-of-package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b; ^f Average proportion of products in crisps and snacks category at or below maximum; ^g Proportion of products in 2018 at or below maximum within 5% of average sodium target ("target").

Table 5.3 Sodium content for snacks (overall) – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Argentina	2015	123	223 ± 272	863 ± 1043	0	174	423	608	900	8000
Brazil	2015	198	196 ± 122	812 ± 484	20	347	517	764	1010	3516
Chile	2015	132	137 ± 71	443 ± 271	0	12	267	458	623	1300
Costa Rica	2015	206	305 ± 157	765 ± 579	0	216	395	643	956	5013
Cuba	2015	14	329 ± 83	622 ± 179	330	365	544	675	699	1023
Ecuador	2015	187	185 ± 162	591 ± 483	0	117	271	467	786	3214
Guatemala	2015	181	282 ± 880	774 ± 701	0	178	410	689	964	7000
Jamaica	2015	147	210 ± 144	671 ± 436	11	217	384	607	913	3393
Mexico	2015	211	269 ± 267	812 ± 518	0	324	500	714	975	3166
Panama	2015	207	214 ± 151	735 ± 464	0	262	410	670	1000	3230
Paraguay	2015	159	184 ± 113	670 ± 425	0	34	400	610	944	2333
Peru	2015	116	162 ± 117	584 ± 399	0	182	377	537	700	3000
Trinidad and Tobago	2015	153	213 ± 135	676 ± 357	0	250	428	635	933	1710
Barbados	2015	202	211 ± 228	907 ± 2997	0	252	430	635	910	42860
Canada [5] ^g	2013	620	267	587	161	315	415	553	720	1526
United States [6] ^h	2013	95	217	755	528	-	-	-	-	988
MEAN			211	704	66	216	411	618	869	5705

All data was from Arcand J et al. Nutrients (2019) and represents 2015 data, unless otherwise indicated. Data presented as mean ± standard deviation. ^c Canadian data was calculated as the weighted average of snack food subcategories (excluding pudding); ^g US data was calculated as the weighted average of savory snacks subcategories (excluding crackers).

Table 5.4 Sodium content for proposed savory snacks subcategories – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Nuts, seeds, and kernels, seasoned and candied										
Canada [5]	2013	158	180 ± 152	391 ± 351	0	70	190	312	500	2156
MEAN			180 ± 152	391 ± 351	0	70	190	312	500	2156
Chips, popcorn, and/or extruded snacks^a										
Canada [5]	2013	406	277	611	222	388	472	591	728	1255
Mexico [32]	2016	246	-	824	54	-	-	-	-	2400
Brazil [9]	2017	70	-	676	285	-	-	-	-	1020
United States [6]	2013	62	161	554	368	-	-	-	-	746
MEAN			219	666	232	388	472	591	728	1355
Pretzels and snack mixes										
Canada [5]	2013	56	433 ± 212	964 ± 385	175	480	637	957	1280	1720
United States [6] ^b	2013	21	352 ± 7 ^c	1240 ± 23 ^c	849	-	-	-	-	1640
MEAN			393	1102	512	480	637	957	1280	1680

Data presented as mean ± standard deviation. ^a Individual country data calculated as the weighted average of chips, popcorn, and/or extruded snacks subcategories; ^b Hard pretzels; ^c Data presented as standard error of the mean.

Table 5.5 Sodium content for snacks (overall) – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)					Proportion below PAHO Nutrient Profile Model threshold ^a
				Min	25 th	50 th	75 th	Max	
Argentina	2018	137	1.1 ± 0.4	0.1	0.9	1.2	1.4	2.6	43.1%
Costa Rica	2018	357	1.2 ± 0.9	0.0	0.5	1.0	1.6	5	49%
Paraguay	2018	382	3.7 ± 6.5	0.0	0.9	1.3	3.1	46	31.6%
Peru	2018	39	1.5 ± 1.9	0.0	0.4	1.0	1.8	11.2	100%
Canada	2017	747	1.1 ± 0.7	0.0	0.6	1.0	1.5	4.5	68.3%
MEAN			1.7	0.0	0.7	1.1	1.9	13.9	N/A

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country. Data presented as mean ± standard deviation. ^a Products evaluated against the 2016 PAHO Nutrient Profile Model threshold for excess sodium (1 mg/kcal) included only products classified as processed or ultra-processed.

Table 5.6 Sodium content for proposed savory snacks subcategories – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)				
				Min	25 th	50 th	75 th	Max
Nuts, seeds, and kernels, seasoned and candied								
Argentina	2018	43	1.8 ± 0.6	0.0	1.6	1.8	1.9	3.7
Costa Rica	2018	40	1.0 ± 0.9	0.0	0.2	0.7	1.8	2.9
Paraguay	2018	33	1.2 ± 0.9	0.0	0.1	1.4	2.0	2.6
Peru	2018	7	0.7 ± 0.8	0.0	0.0	0.4	1.6	1.7
MEAN			1.2	0.0	0.5	1.1	1.8	2.7
Chips, popcorn, and/or extruded snacks								
Argentina	2018	67	1.8 ± 0.5	0.4	1.5	1.8	1.9	3.9
Costa Rica	2018	60	1.5 ± 0.6	0.0	1.2	1.5	1.9	2.9
Paraguay	2018	41	1.4 ± 0.7	0.0	1.0	1.7	2.0	2.2
Peru	2018	17	1.1 ± 0.6	0.0	1.1	1.4	1.6	2.0
MEAN			1.5	0.1	1.2	1.6	1.9	2.8
Pretzels and snack mixes								
Canada	2017	62	1.7 ± 0.6	0.0	1.7	1.8	2.0	3.2
MEAN			1.7 ± 0.6	0.0	1.7	1.8	2.0	3.2

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country. Data presented as mean ± standard deviation.

Table 6.1 Cheese – Updated food subcategories and sodium reduction targets

Current Regional Targets	Mean Sodium Content of Foods in the Americas (mg/100 g) ^b			Sodium Targets (mg/100 g)		Mean Sodium Content of Foods in the Americas (mg/kcal) ^b			Sodium Targets (mg/kcal)		WHO	mg/100 g	National Sodium Reduction Targets (mg/100 g) ^f						FOPL Thresholds (mg/100 g) ^g				
	2015 PAND Targets (mg/100 g)	2015 Targets met [1] ^a		2022	2025	25th Percentile	Median	75th Percentile	2022	2025			US-FDA Proposed 10-year Targets (2026)[2]	United Kingdom		Member State Targets ^h			Min	Median	Max		
		25th Percentile	Median											75th Percentile	2024 [3]	2017 [3]	UK 2017 Targets met [4]	Min				Median	Max
5a Fresh cheese (fresh mozzarella and others)	(Data from 2016)					(Data from 2017, 2018)							(Cheese spread)										
Regional Target	-	-	-	483	398	1.1	1.4	1.6	1.1	0.9	190	Maximum	-	-	-	-	425	466	512	Argentina, Colombia	300	400	500
Lower Target	-	-	-									Target	-	-	-	-	496	523	558				
Updated Targets				480	400				1.1	0.9													
5b Soft cheese (unripened goat cheese, cream cheese)	(Data from 2013)					(Data from 2017)							(Cheese spread)										
Regional Target	-	-	-	387	318	0.7	0.7	0.7	0.6	0.5	190	Maximum	575	720	720	37% ^d	387	571	600	Brazil, Canada, Colombia, USA	300	400	500
Lower Target	-	-	-									Target	485	620	650	N/A	350	405	600				
Updated Targets				420	380				0.7	0.6													
5c Semi-hard cheese (mozzarella, cheddar, and others)	(Data from 2013, 2016, 2017)					(Data from 2017)							(Cheese spread)										
Regional Target	-	-	-	504	415	1.7	1.8	2.1	1.5	1.3	520-625	Maximum	736	760	800	100% ^{d,e}	-	770	-	Argentina, Canada, USA	300	400	500
Lower Target	-	-	-									Target	589	642	680	N/A	542	613	670				
Updated Targets				650	590				1.7	1.5													
5d Hard cheese, grated and ungrated	(Data from 2013)					(Data from 2017)							(Cheese spread)										
Regional Target	-	-	-	1306	1075	1.6	2.3	3.5	2.0	1.6	N/A	Maximum	1690	-	-	-	-	2530	-	Canada, USA	300	400	500
Lower Target	-	-	-									Target	1320	-	-	-	1300	1510	1720				
Updated Targets				1300	1200				2.0	1.6													
5e Processed cheese	(Data from 2013, 2015)					(Data from 2017)							(Cheese spread)										
Regional Target	-	-	-	1020	840	5.4	5.9	6.7	5.0	4.1	N/A	Maximum	1310	800	800	50% ^d	-	1670	-	Canada, USA	300	400	500
Lower Target	-	-	-									Target	1000	650	680	N/A	1040	1140	1240				
Updated Targets				1000	900				5.4	4.5													

^a Proportion of products in 14-country study [1] meeting PAND Regional Sodium Reduction Targets; ^b Mean sodium content calculated from available national sodium monitoring data (Tables 6.2 and 6.3); ^c Calculated as the average of relevant subcategories; ^d Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets. Maximum value may exceed target, as many countries only possess maximum sodium values; ^e Data extracted from final (proposed, accepted or implemented) national front-of-package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b; ^f Proportion of products at or below maximum; ^g Cheddar and other "hard pressed" cheeses.

Table 6.2 Sodium content for proposed cheese subcategories and overall mean – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Fresh cheese (fresh mozzarella and others)										
Mexico [12]	2016	35	-	498 ± 209	14	-	363	568	615	970
MEAN				498 ± 209	14	-	363	568	615	970
Soft cheese (unripened goat cheese and cream cheese)										
Canada [5] ^a	2013	25	131 ± 30	450 ± 106	267	283	367	467	536	607
Canada [5] ^b	2013	62	123 ± 72	474 ± 137	167	333	383	450	533	867
WEIGHTED MEAN		87	125	467	196	319	378	455	534	752
Semi-hard cheese (mozzarella, cheddar, and others)										
Canada [5] ^c	2013	249	188	472	152	473	594	659	701	885
Brazil [9]	2017	28	-	517 ± 132	87	-	-	527	-	797
Mexico [12]	2016	17	-	490 ± 34	417	-	-	-	-	526
MEAN			188	472	219	473	594	593	701	736
Hard cheese, grated and ungrated										
Canada [5]	2013	33	306 ± 93	1652 ± 739	643	667	1067	1536	2200	3000
MEAN			306 ± 93	1652 ± 739	643	667	1067	1536	2200	3000
Processed cheese										
Mexico [12]	2016	60	-	863 ± 421	210	-	600	780	1149	2667
Canada [5]	2013	56	383 ± 122	1525 ± 313	788	1000	1390	1619	1758	1905
MEAN			383 ± 122	1194	499	1000	995	1200	1454	2286

Data presented as mean ± standard deviation. ^a Goat cheese; ^b Cream cheese; ^c Canadian data was calculated as the weighted average of Brie and camembert and natural cheeses subcategories.

Table 6.3 Sodium content for proposed cheese subcategories – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)				
				Min	25 th	50 th	75 th	Max
Fresh cheese (fresh mozzarella and others)								
Argentina	2018	1	1.4 ± 0.0	1.4	1.4	1.4	1.4	1.4
Canada	2017	45	0.9 ± 0.7	0.0	0.4	0.9	1.5	2.3
Costa Rica	2018	30	1.7 ± 0.9	0.0	1.2	1.7	2.1	4.1
Paraguay	2018	1	1.4 ± 0.0	1.4	1.4	1.4	1.4	1.4
MEAN				0.7	1.1	1.4	1.6	2.3
Soft cheese (unripened goat cheese and cream cheese)								
Canada	2017	97	1.9 ± 0.9	0.7	0.7	0.7	0.7	0.7
MEAN				0.7	0.7	0.7	0.7	0.7
Semi-hard cheese (mozzarella, cheddar and others)								
Canada	2017	353	2.1 ± 0.9	0.6	1.7	1.8	2.1	10
MEAN				0.6	1.7	1.8	2.1	10
Hard cheese, grated and ungrated								
Canada	2017	57	2.9 ± 1.8	0.7	1.6	2.3	3.5	8.8
MEAN				0.7	1.6	2.3	3.5	8.8
Processed cheese								
Canada	2017	37	6.3 ± 1.7	3.1	5.4	5.9	6.7	10.4
MEAN				3.1	5.4	5.9	6.7	10.4

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country. Data presented as mean ± standard deviation. ^a Mozzarella mg/kcal data was included in either fresh cheese data, or cheddar, Colby, etc. data rather than its own category.

Table 7.1 Processed vegetables, beans, and legumes – Updated food subcategories and sodium reduction targets

Current Regional Targets	Mean Sodium Content of Foods in the Americas (mg/100 g) ^a			Sodium Targets (mg/100 g)		Mean Sodium Content of Foods in the Americas (mg/kcal) ^b			Sodium Targets (mg/kcal)		WHO mg/100 g	National Sodium Reduction Targets (mg/100 g) ^c							FOPL Thresholds (mg/100 g) ^d							
	2015 PAHO Targets (mg/100 g) ^e	2015 Targets met [1] ^f		2022	2025	25th Percentile	Median	75th Percentile	2022	2025		mg/100 g	US-FDA Proposed 10-year Targets [2026][2]	United Kingdom			Member State Targets ^g				Min	Median	Max			
		25th Percentile	Median											75th Percentile	2024 [3]	2017 [3]	UK 2017 Targets met [4]	Min	Median	Max				Countries with Targets		
7a Tomato paste with additions	(Data from 2013)			(Data from 2017)																						
Regional Target	-	-	-	63	469	906	399	328	1.0	3.9	5.0	3.3	2.7	330	Maximum	-	-	-	-	572	706	840	Canada, Costa Rica	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	-	-	-	-	-	470	-	-	-	-	
Updated Targets				400	320							3.3	2.7													
7b Canned vegetables	(Data from 2013, 2017, 2018)			(Data from 2017)																						
Regional Target	-	-	-	84	204	277	173	143	0.9	4.7	8.2	4.0	3.3	50	Maximum	320	50	50	62% ^f	310	310	310	Canada, USA	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	250	-	-	-	100	140	240	-	-	-	
Updated Targets				150	100							4.0	3.3													
7c Canned beans, chickpeas, and lentils	(Data from 2013, 2018)			(Data from 2017, 2018)																						
Regional Target	-	-	-	189	259	326	220	181	2.2	2.8	3.7	2.3	1.9	50	Maximum	350	-	-	-	310	310	310	Canada, USA	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	220	-	-	-	100	170	240	-	-	-	
Updated Targets				220	190							2.5	2.2													
7d Baked and refried beans (mashed)	(Data from 2013, 2017, 2018)			(Data from 2017, 2018)																						
Regional Target	-	-	-	279	336	413	285	235	2.4	2.8	3.6	2.3	1.9	510	Maximum	320	250	258	74% ^f	370	370	370	Canada, USA	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	250	240	270	N/A	250	280	310	-	-	-	
Updated Targets				280	250							2.6	2.4													
7e Frozen potatoes and similar products	(Data from 2013)			(Data from 2017)																						
Regional Target	-	-	-	76	200	365	170	140	-	-	-	-	-	180	Maximum	470	260	275	80% ^f	380	380	380	Canada, USA	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	323	155	185	N/A	170	240	380	-	-	-	
Updated Targets				170	140							N/A	N/A													
7f Dry mashed or scalloped potatoes (as consumed)	(Data from 2013)			(Data from 2017)																						
Regional Target	-	-	-	275	310	351	264	217	-	-	-	-	-	260	Maximum	295	60	60	N/A	440	440	440	Canada, USA	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	180	-	-	-	290	750	1210	-	-	-	
Updated Targets				290	270							N/A	N/A													
7g Pickled vegetables	(Data from 2013)			(Data from 2017)																						
Regional Target	-	-	-	567	800	1069	680	560	15.8	35.4	51.9	30.1	24.8	550	Maximum	550	-	-	-	700	870	1040	Canada	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	410	-	-	-	400	520	640	-	-	-	
Updated Targets				680	560							30.1	24.8													
7h Sundried tomatoes	(Data from 2013)			(Data from 2017)																						
Regional Target	-	-	-	789	1081	1550	919	757	6.0	9.2	13.0	7.8	6.4	780	Maximum	-	-	-	-	2000	-	-	Canada	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	-	-	-	-	1600	-	-	-	-	-	
Updated Targets				900	790							7.8	6.4													
7i Olives	(Data from 2013)			(Data from 2017)																						
Regional Target	-	-	-	1067	1567	1813	1332	1097	10.0	11.6	13.0	9.9	8.1	780	Maximum	1375	-	-	-	1800	1900	2000	Canada	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	1030	-	-	-	880	1240	1600	-	-	-	
Updated Targets				1300	1100							9.9	8.1													
7j Vegetable juice	(Data from 2013)			(Data from 2017)																						
Regional Target	-	-	-	160	187	241	159	131	1.3	5.3	9.6	4.5	3.7	200	Maximum	200 ^g	-	-	-	-	330	-	Canada	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	150 ^g	-	-	-	-	180	-	-	-	-	
Updated Targets				175	160							4.5	3.7													

^a Proportion of products in 14-country study [1] meeting PAHO Regional sodium reduction targets; ^b Mean sodium content calculated from available national sodium monitoring data (Tables 7.2 and 7.3); ^c Calculated as the average of relevant subcategories; ^d Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets; ^e Data extracted from final (proposed, accepted or implemented) national front-of-package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b; ^f Proportion of products at or below maximum.

Table 7.2 Sodium content for proposed processed vegetables, beans, and legumes subcategories – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Tomato paste with additions										
Canada [5]	2013	4	155 ± 156	484 ± 488	63	63	63	469	906	938
MEAN			155 ± 156	484 ± 488	63	63	63	469	906	938
Canned vegetables										
Argentina [13] ^f	2018	147	-	252	0	-	63	197	262	4760
Canada ^h	2013	300	193 ± 131	211 ± 202	0	-	104	211	292	2143
United States (SWA) [11] ^f	2017	30	-	190	107	-	-	-	-	242
MEAN			193 ± 131	218	36	-	84	204	277	2382
Canned beans, chickpeas, and lentils^h										
Canada	2013	83	311 ± 202	228 ± 179	0	-	128	194	322	1200
Costa Rica	2018	25	371 ± 288	367 ± 282	98	-	220	300	347	1078
Argentina	2018	20	301 ± 140	238 ± 105	12	-	180	243	315	462
Paraguay	2018	6	375 ± 157	279 ± 100	120	-	227	298	320	414
MEAN			284	267	58	-	189	259	326	789
Baked and refried beans (mashed)										
Canada [5]	2013	37	552 ± 174	316 ± 94	199	213	243	303	384	604
United States (SWA) [11] ^f	2017	18	-	373 ± 28	298	-	-	-	-	411
Costa Rica ^h	2018	46	425 ± 183	373 ± 119	12	-	315	368	441	754
MEAN			489	353	170	213	279	336	413	590
Frozen potatoes and similar products										
Canada [5]	2013	67	193 ± 128	232 ± 154	15	24	76	200	365	595
United States [6]	2013	6	-	370 ± 7 ^f	115	-	-	-	-	676
MEAN			193 ± 128	301	65	24	76	200	365	636
Dry mashed or scalloped potatoes (as consumed)										
Canada [5]	2013	38	476 ± 111	311 ± 68	134	223	275	310	351	449
MEAN			476 ± 111	311 ± 68	134	223	275	310	351	449
Pickled vegetables										
Canada [5] ^f	2013	153	248 ± 150	869 ± 499	17	357	567	800	1069	3500
Canada (SWA) [14] ^f	2017	-	-	506	-	-	-	-	-	-
MEAN			248 ± 150	688	17	357	567	800	1069	3500
Sundried tomatoes										

Canada [5]	2013	4	265 ± 244	1170 ± 522	650	650	789	1081	1550	1867
MEAN			265 ± 244	1170 ± 522	650	650	789	1081	1550	1867
Olives										
Canada [5] ^h	2013	90	223 ± 77	1461 ± 477	556	758	1067	1567	1813	2667
MEAN			223 ± 77	1461 ± 477	556	758	1067	1567	1813	2667
Vegetable juice										
Canada [5]	2013	41	-	184 ± 81	53	54	160	187	241	327
MEAN			-	184 ± 81	53	54	160	187	241	327

Data presented as mean ± standard deviation. Sales weighted average (SWA). ^a May include beans; ^b Data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country (unpublished); ^c US data was calculated as the weighted average of canned green beans and canned tomatoes subcategories; ^d Refried beans, canned; ^e Presented as standard error of the mean; ^f Sour pickled vegetables; ^g Sweet pickled vegetables; ^h Stuffed olives.

Table 7.3 Sodium content for proposed processed vegetables, beans, and legumes subcategories – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)				
				Min	25 th	50 th	75 th	Max
Tomato paste with additions								
Canada	2017	6	3.3 ± 1.9	1.0	1.0	3.9	5.0	5.2
MEAN			3.3 ± 1.9	1.0	1.0	3.9	5.0	5.2
Canned vegetables								
Canada ^a	2017	212	5.4 ± 4.4	0.0	1.1	4.8	8.0	21.0
Canada ^b	2017	45	6.6 ± 7.9	0.0	0.0	4.0	9.0	38.0
WEIGHTED MEAN		257	5.6	0.0	0.9	4.7	8.2	24.0
Canned beans, chickpeas and lentils								
Canada	2017	83	1.5 ± 1.8	0.0	0.5	1.1	2.3	14.3
Costa Rica	2018	25	3.9 ± 1.9	1.0	2.4	3.5	4.6	7.6
Argentina	2018	20	2.9 ± 1.3	0.2	2.4	2.8	3.9	5.9
Paraguay	2018	6	4.3 ± 3.0	1.2	3.3	3.6	3.9	10.2
MEAN			3.0	0.6	2.2	2.8	3.7	9.5
Baked and refried beans (mashed)								
Canada	2017	45	2.7 ± 1.1	0.1	2.1	2.4	3.4	5.9
Costa Rica ^c	2018	46	3.3 ± 1.6	0.1	2.6	3.1	3.8	8.9
MEAN			3.0	0.1	2.4	2.8	3.6	7.4
Frozen potatoes and similar products								
N/A	-	-	-	-	-	-	-	-
MEAN			-	-	-	-	-	-
Dry mashed or scalloped potatoes (as consumed)								
N/A	-	-	-	-	-	-	-	-
MEAN			-	-	-	-	-	-
Pickled vegetables								
Canada ^d	2017	125	48.7 ± 34.7	0.0	20.0	46.0	67.5	188.0
Canada ^e	2017	43	9.9 ± 24.1	1.1	3.7	4.5	6.7	160.0
WEIGHTED MEAN		168	38.8	0.3	15.8	35.4	51.9	180.8
OLIVES								
Canada ^f	2017	19	11.7 ± 3.2	6.7	10.0	11.6	13.0	20.7
MEAN			11.7 ± 3.2	6.7	10.0	11.6	13.0	20.7
Sundried tomatoes								
Canada ^g	2017	59	9.8 ± 5.5	2.4	6.0	9.2	13.0	38.0
MEAN			9.8 ± 5.5	2.4	6.0	9.2	13.0	38.0
Vegetable juice								
Canada	2017	60	5.5 ± 4.3	0.0	1.3	5.3	9.6	13.8
MEAN			5.5 ± 4.3	0.0	1.3	5.3	9.6	13.8

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean ± standard deviation. ^a Canned and bottled vegetables without sauce; ^b Other canned vegetables; ^c Sour pickled vegetables; ^d Sweet pickled vegetables; ^e Stuffed olives; ^f Data includes both sundried tomatoes and olives (not stuffed).

Table 8.1 Processed meat and poultry – Updated food subcategories and sodium reduction targets

Current Regional Targets	Mean Sodium Content of Foods in the Americas (mg/100 g) ¹			Sodium Targets (mg/100 g)		Mean Sodium Content of Foods in the Americas (mg/kcal) ²			Sodium Targets (mg/kcal)		WHO mg/100 g	National Sodium Reduction Targets (mg/100 g) ³							FOPL Thresholds (mg/100 g) ⁴							
	2015 PAHO Targets (mg/100 g)	2015 Targets met (%) ⁵		25th Percentile	Median	75th Percentile	2022	2025	25th Percentile	Median		75th Percentile	2022	2025	US-FDA Proposed 10-year Targets (2026[2])	United Kingdom 2024 [3]			Member State Targets ⁶			Countries with Targets	Min	Median	Max	
																2024 [3]	2017 [3]	UK 2017 Targets met [4]	Min	Median	Max					
8a Packaged deli meats – fully cooked	(Data from 2013, 2017, 2018)																									
Regional Target	-	-	-	793	857	1169	728	600	5.7	7.5	8.3	6.4	5.3	N/A	Maximum	1095	-	-	-	862	1180	1350	Brazil, Canada, Colombia, Costa Rica, USA	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	798	-	-	-	810	850	910					
Updated Targets	-	-	-	900	-	-	800	-	-	-	-	6.6	5.7	-	-	-	-	-	-	-	-					
8b Packaged dry-cured deli meats – dry cured, fermented, no thermal process	(Data from 2013, 2017, 2018)																									
Regional Target	-	-	-	1216	1583	1829	1346	1108	3.5	3.8	4.5	3.2	2.6	950	Maximum	1730	-	-	-	1140	1400	2000	Argentina, Canada, USA	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	1300	-	-	-	1080	1455	1900					
Updated Targets	-	-	-	1250	-	-	1200	-	-	-	-	3.6	3.5	-	-	-	-	-	-	-	-					
8c Sausages – uncooked	(Data from 2017)																									
Regional Target	-	-	-	-	691	-	587	484	2.4	2.6	3.6	2.2	1.8	230	Maximum	680	638	650	55% ⁷	660	665	670	Argentina, Brazil, Canada, USA	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	550	515	525	50% ⁷	690	803	970					
Updated Targets	-	-	-	600	-	-	500	-	-	-	-	2.5	2.4	-	-	-	-	-	-	-	-					
8d Sausages – cooked	(Data from 2013, 2016, 2017, 2018)																									
Regional Target	-	-	-	769	908	952	771	635	2.7	3.2	4.0	2.7	2.2	540	Maximum	975	655	680	95% ⁷	853	1355	1425	Argentina, Brazil, Canada, Colombia, Costa Rica, USA	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	740	520	550	-	720	830	850					
Updated Targets	-	-	-	840	-	-	770	-	-	-	-	3.0	2.7	-	-	-	-	-	-	-	-					
8e Uncooked bacon – belly	(Data from 2013, 2018)																									
Regional Target	-	-	-	588	820	1039	697	574	1.2	1.7	1.9	1.4	1.2	N/A	Maximum	600	-	-	N/A	-	610	-	Canada	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	450	1035	1150	50% ⁷	580	-	-					
Updated Targets	-	-	-	700	-	-	590	-	-	-	-	1.4	1.2	-	-	-	-	-	-	-	-					
8f Burgers, meatballs, meatloaf, and breaded meat and poultry	(Data from 2013, 2017, 2018)																									
Regional Target	-	-	-	498	581	675	494	407	1.6	2.4	2.9	2.0	1.7	N/A	Maximum	590	335	350	61% ⁷	470	675	808	Argentina, Brazil, Canada,	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	420	270	300	-	450	510	570					
Updated Targets	-	-	-	540	-	-	500	-	-	-	-	2.0	1.7	-	-	-	-	-	-	-	-					
8g Ham, canned meat and poultry, and uncooked, pickled, cured, and smoked meats that are not deli meats	(Data from 2013, 2016, 2017, 2018)																									
Regional Target	-	-	-	789	1039	1426	883	727	3.4	4.9	6.0	4.1	3.4	900	Maximum	1455	-	-	N/A	470	1160	2000	Brazil, Canada, Colombia, Costa Rica, USA	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	1100	650	650	-	340	815	1800					
Updated Targets	-	-	-	915	-	-	790	-	-	-	-	4.1	3.4	-	-	-	-	-	-	-	-					
8h Pates and meat spreads	(Data from 2013, 2018)																									
Regional Target	-	-	-	717	759	875	645	531	2.1	2.7	2.9	2.3	1.9	N/A	Maximum	-	-	-	-	600	-	-	Canada	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	Target	-	-	-	-	570	-	-					
Updated Targets	-	-	-	720	-	-	600	-	-	-	-	2.4	2.1	-	-	-	-	-	-	-	-					

¹ Proportion of products in 14-country study [1] meeting PAHO Regional Sodium Reduction Targets; ² Mean sodium content calculated from available national sodium monitoring data (Tables 8.2 and 8.3); ³ Calculated as the average of relevant subcategories; ⁴ Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets; ⁵ Data extracted from final (proposed, accepted or implemented) national front-of-package “high in” or “excess” sodium thresholds for prepackaged foods in Appendix 3b; ⁶ Is proportion of products in 2018 as or below maximum within 5% of average sodium target (“target”); ⁷ Proportion of products at or below maximum.

Table 8.2 Sodium content for proposed processed meat and poultry subcategories – mg/100 g

Subcategory	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Packaged deli meats – fully cooked										
Argentina [13]	2018	172	-	1079	115	-	785	993	1282	3623
Canada [5]	2013	147	545 ± 206	919 ± 205	394	667	800	891	1055	1436
United States (SWA) [11] [†]	2017	36	-	921	625	-	921	-	-	1235
Costa Rica [8]	2018	622	-	622 ± 75	569	-	623	-	-	676
MEAN			545 ± 206	885	426	667	793	857	1169	1742
Packaged dry-cured deli meats – dry cured, fermented, no thermal process										
United States (SWA) [11]	2017	13	-	1712 ± 182	1320	-	-	1712	-	1950
Canada [5] [†]	2013	118	548	1502	572	893	1216	1455	1829	2464
MEAN			548	3046	946	893	1216	1583	1829	2207
Sausages – uncooked										
Canada (SWA) [14]	2017	-	-	691	-	-	-	691	-	-
MEAN			-	691	-	-	-	691	-	-
Sausages – cooked										
Costa Rica [8] [†]	2018	20	-	1741	418	-	-	996	-	3772
Mexico [12]	2016	82	-	884 ± 204	70	-	807	897	982	1500
United States (SWA) [11] [†]	2017	30	-	910	717	-	-	910	-	1036
Canada [5]	2013	141	589 ± 216	814 ± 195	254	571	730	827	921	1436
MEAN			589 ± 216	1087	365	571	769	908	952	1936
Uncooked bacon – belly										
Mexico [12]	2016	21	-	1027 ± 585	90	-	600	1000	1318	2133
Canada [5]	2013	35	344 ± 136	649 ± 173	298	389	575	640	760	1038
MEAN			344 ± 136	838	394	389	588	820	1039	1586
Burgers, meatballs, meatloaf, and breaded meat and poultry										
Canada [5] [†]	2013	224	569	497	97	325	388	471	585	1080
Argentina [7, 13] [†]	2018	59	-	684	294	-	651	718	771	866
United States (SWA) [11]	2017	15	-	529 ± 47	440	-	529	-	-	679
Costa Rica [7]	2018	20	-	732 ± 240	375	-	543	740	904	1139
Paraguay [7]	2018	1	-	668	668	-	668	668	668	668
Peru [7]	2018	39	-	340 ± 159	1	-	241	360	446	630
MEAN			569	575	314	325	498	581	675	844
Ham, canned meat and poultry, and uncooked, pickled, cured, and smoked meats that are not deli meats										
Argentina [7]	2018	40	-	1634 ± 655	115	-	1373	1504	1740	3623
Costa Rica [7, 8] [†]	2018	57	-	1160	318	-	536	1054	2093	2376
Paraguay [7]	2018	30	-	1045 ± 555	295	-	658	904	1256	2423
United States [6]	2013	9	-	1112 ± 21 [†]	606	-	-	1112	-	2020
Canada [5]	2013	12	566 ± 277	818 ± 176	500	560	731	835	925	1107
Mexico [12]	2016	43	-	1255 ± 738	500	-	745	995	1380	2900
Canada [5]	2013	23	492 ± 173	836 ± 240	280	558	692	867	960	1404
MEAN			425	1266	373	559	789	1039	1426	2265

Pâtés and meat spreads										
Argentina [13]	2018	15	-	760	260	-	700	750	950	1050
Canada	2013	13	223 ± 32	751 ± 65	615	-	733	767	800	829
MEAN			223 ± 32	756	438	-	717	759	875	940

Data presented as mean ± standard deviation. Sales weighted average (SWA). Data calculated as weighted average of: ^a Ham deli meat and turkey deli meat, ^b Packaged deli meats – dry cured, fermented, no thermal process, and meat sticks and jerky, ^c Sausages and salchichon, ^d Beef hotdogs and pork sausages, ^e Burgers, meatballs, and meat loaf, breaded meat and poultry, and chicken wings, ^f Hamburger, and breaded meat and poultry, ^g Cured and processed meats, and ham. ^h Data presented as standard error of the mean; ⁱ Data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country (unpublished).

Table 8.3 Sodium content for proposed Processed meat and poultry subcategories – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)						
				Min	25 th	50 th	75 th	Max		
Packaged deli meats – fully cooked										
Canada	2017	123	7.0 ± 2.0	2.3	5.7	7.5	8.3	11.6		
MEAN			6.0	2.9	5.7	7.5	8.3	11.6		
Packaged dry-cured deli meats – dry cured, fermented, no thermal process										
Canada	2017	33	3.6 ± 0.9	2.3	3.3	3.5	4	7		
Canada	2017	15	5.0 ± 1.6	3.5	4	4.3	5.7	9.8		
WEIGHTED MEAN		48	4.0	2.7	3.5	3.8	4.5	7.9		
Sausages – uncooked										
Canada	2017	39	3.1 ± 1.1	1.6	2.4	2.6	3.6	5.5		
MEAN			3.1 ± 1.1	1.6	2.4	2.6	3.6	5.5		
Sausages – cooked										
Canada	2017	98	3.5 ± 1.2	1.5	2.7	3.2	4	9.7		
MEAN			3.5 ± 1.2	1.5	2.7	3.2	4.0	9.7		
Uncooked bacon – belly										
Canada	2017	38	1.7 ± 0.8	0.7	1.2	1.7	1.9	5.6		
MEAN			1.7 ± 0.8	0.7	1.2	1.7	1.9	5.6		
Burgers, meatballs, meatloaf, and breaded meat and poultry										
Argentina	2018	17	1.8 ± 0.6	0.3	1.7	2.0	2.2	2.5		
Costa Rica	2018	20	3.5 ± 1.2	1.5	2.7	3.6	4.2	5.7		
Paraguay	2018	33	2.2 ± 1.6	0.3	0.5	2.1	3.0	6.4		
Peru	2018	39	2.2 ± 1.3	0.0	1.4	2.4	2.9	5.6		
Canada	2017	185	2.0	0.3	1.5	1.8	2.3	5.6		
MEAN			2.3	0.5	1.6	2.4	2.9	5.2		
Ham, canned meat and poultry, and uncooked, pickled, cured, and smoked meats that are not deli meats										
Argentina	2018	40	5.8 ± 6.9	0.3	3.8	4.2	4.8	42.3		
Canada	2017	106	5.1 ± 1.6	2.5	4	4.7	5.8	9.5		
Costa Rica	2018	8	5.6 ± 2.6	2.3	2.8	6.5	7.5	9.1		
Paraguay	2018	67	4.8 ± 2.7	0.4	2.9	4.1	5.9	11.8		
MEAN			5.3	1.4	3.4	4.9	6.0	18.2		
Pâtés and meat spreads										
Canada	2017	25	2.6 ± 0.8	0.8	2.1	2.7	2.9	4.1		
MEAN			2.6 ± 0.8	0.8	2.1	2.7	2.9	4.1		

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean ± standard deviation.

Table 9.1 Processed fish and seafood – Updated food subcategories and sodium reduction targets

	Current Regional Targets		Mean Sodium Content of Foods in the Americas (mg/100 g) ^b			Sodium Targets (mg/100 g)		Mean Sodium Content of Foods in the Americas (mg/kcal) ^b			Sodium Targets (mg/kcal)		WHO mg/100 g	National Sodium Reduction Targets (mg/100 g) ^c							FOPL Thresholds (mg/100 g) ^d				
	2015 PAHO Targets (mg/100 g)	2015 Targets met [%] ^e	25th Percentile	Median	75th Percentile	2022	2025	25th Percentile	Median	75th Percentile	2022	2025		US-FDA		United Kingdom			Member State Targets ^f			Min	Median	Max	
														Proposed 10-year Targets (2026)[2]	2024 [3]	2017 [3]	UK 2017 Targets met [%]	Min	Median	Max	Countries with Targets				
9a Canned fish	(Data from 2013, 2017, 2018)			(Data from 2017)																					
Regional Target	-	-	278	355	458	302	249	1.9	2.4	3.0	2.0	1.7	360	Maximum	390	570	600	-	400	465	530	Canada, USA	300	400	500
Lower Target	-	-												Target	260	328	340	-	250	320	330				
Updated Targets						320	280				2.2	1.9													
9b Frozen plain fish and seafood with added sodium phosphate	(Data from 2013)			(Data from 2017)																					
Regional Target	-	-	247	420	528	357	294	2.3	3.6	5.8	3.1	2.5	N/A	Maximum	370	-	-	-	-	570	-	Canada	300	400	500
Lower Target	-	-												Target	310	-	-	-	-	220	-				
Updated Targets						350	300				3.1	2.5													
9c Fish and seafood cakes, fingers or burgers, seasoned, and breaded or battered or with sauces	(Data from 2013)			(Data from 2017)										Ready meals and meal centres (includes breaded fish)											
Regional Target	-	-	275	333	420	283	233	1.5	1.9	3.1	1.6	1.3	270	Maximum	530	360	380	88% ^g	560	560	560	Canada, USA	300	400	500
Lower Target	-	-												Target	370	240	250	N/A	330	445	560				
Updated Targets						310	280				1.7	1.5													
9d Smoked, salted, pickled, and kippered fish	(Data from 2013, 2017, 2018)			(Data from 2017, 2018)																					
Regional Target	-	-	358	634	886	539	444	1.9	3.1	5.1	2.6	2.1	800	Maximum	-	-	-	-	1000	1015	1030	Canada	300	400	500
Lower Target	-	-												Target	-	-	-	-	540	575	610				
Updated Targets						540	440				2.6	2.1													

^a Proportion of products in 14-country study [1] meeting PAHO Regional Sodium Reduction Targets; ^b Mean sodium content calculated from available national sodium monitoring data (Tables 9.2 and 9.3); ^c Calculated as the average of relevant subcategories; ^d Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets; ^e Data extracted from final (proposed, accepted or implemented) national front-of-package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b; ^f Proportion of products at or below maximum.

Table 9.2 Sodium content for proposed processed fish and seafood subcategories – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Canned fish										
Argentina [13] ^a	2018	44	-	358	195	-	250	340	439	649
Canada [5] ^b	2013	167	291	482	40	209	306	371	478	4511
United States (SWA) [11] ^c	2017	18	-	194 ± 35	112	-	-	-	-	242
MEAN			164 ± 61	289	116	117	278	355	458	1801
Frozen plain fish and seafood with added sodium phosphate										
Canada [5] ^d	2013	30	459 ± 208	408 ± 168	125	224	247	420	528	690
MEAN			459 ± 208	408 ± 168	125	224	247	420	528	690
Fish and seafood cakes, fingers or burgers, seasoned, and breaded or battered or with sauces										
Canada [5] ^e	2013	12	425 ± 130	355 ± 113	248	248	290	323	368	588
Canada [5] ^f	2013	50	763 ± 1906	740 ± 1679	100	199	259	343	472	8796
WEIGHTED MEAN		62	594	548	174	224	275	333	420	4692
Smoked, salted, pickled and kippered fish^g										
Canada [5] ^h	2013, 2017	38	486	760	280	-	601	772	937	1218
Paraguay	2018	7	399 ± 197	562 ± 305	235	-	340	601	650	1152
Argentina	2018	7	401 ± 186	777 ± 260	307	-	649	833	1000	1000
Peru	2018	2	288 ± 407	576 ± 814	1	-	1	576	1152	1152
Costa Rica	2018	20	343 ± 298	491 ± 409	80	-	200	387	691	1786
MEAN			383	633	181		358	634	886	1262

Data presented as mean ± standard deviation. Sales weighted average (SWA). ^a Calculated as weighted average of canned tuna, canned mackerel, and canned sardines subcategories; ^b Calculated as weighted average of canned tuna and other canned fish and seafood subcategories; ^c Canned tuna; ^d Seafood with sodium phosphate; ^e Fish or seafood cake or burger; ^f Seasoned or stuffed fish and seafood; ^g Data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country (unpublished); ^h Calculated as weighted average of kippered fish and smoked fish subcategories.

Table 9.3 Sodium content for proposed processed fish and seafood subcategories – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)				
				Min	25 th	50 th	75 th	Max
Canned fish								
Canada ^a	2017	53	2.4 ± 0.9	0.7	1.9	2.4	3.0	5.3
MEAN			2.4 ± 0.9	0.7	1.9	2.4	3.0	5.3
Frozen plain fish and seafood with added sodium phosphate								
Canada	2017	51	4.2 ± 2.7	0.4	2.3	3.6	5.8	12.8
MEAN			4.2 ± 2.7	0.4	2.3	3.6	5.8	12.8
Fish and seafood cakes, fingers or burgers, seasoned, and breaded or battered or with sauces								
Canada	2017	143	3.6 ± 8.9	0.4	1.5	1.9	3.1	76.5
MEAN			3.6 ± 8.9	0.4	1.5	1.9	3.1	76.5
Smoked, salted, pickled, and kippered fish								
Canada ^b	2017	48	4.0	1.1	2.2	2.9	5.1	27.1
Paraguay	2018	7	3.7 ± 1.6	2.2	2.2	3.6	5.8	5.9
Argentina	2018	7	4.7 ± 2.6	1.8	3.8	4.0	5.6	10.0
Peru	2018	2	2.9 ± 4.1	0.0	0.0	2.9	5.8	5.8
Costa Rica	2018	20	2.4 ± 1.9	0.6	1.1	1.9	3.2	7.7
MEAN			3.5	1.1	1.9	3.1	5.1	11.3

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean ± standard deviation. ^a Canned tuna; ^b Calculated as weighted average of kippered fish and smoked fish subcategories.

Table 10.1 Soy products and meat alternatives – Updated food subcategories and sodium reduction targets

Current Regional Targets	Mean Sodium Contents of foods in the Americas (mg/100 g) ^b			Sodium Targets (mg/100 g)		Mean Sodium Contents of foods in the Americas (mg/kcal) ^b			Sodium Targets (mg/kcal)		WHO mg/100 g	National Sodium Reduction Targets (mg/100 g) ^c							FOPL Thresholds (mg/100 g) ^d								
	2015 PAHO Targets (mg/100 g)	2015 Targets met [1] ^e	25th Percentile	Median	75th Percentile	2022	2025	25th Percentile	Median	75th Percentile		2022	2025	US–FDA Proposed 10-year Targets (2026)[2]	United Kingdom		Member State Targets ^f			Min	Median	Max	Countries with Targets	Min	Median	Max	
															2024 [3]	2017 [3]	UK 2017 Targets met [4]	Min	Median								Max
10a Seasoned tofu and tempeh	(Data from 2013)			(Data from 2017)			(Data from 2017)					280															
Regional Target	-	-	282	337	400	286	236	1.7	2.4	3.8	2.0		1.7	Maximum	320	475	500	68% ^f	-	530	-	Canada	300	400	500		
Lower Target	-	-												Target	240	340	360	N/A	-	100	-						
Updated Targets						350	320				2.0		1.7														
10b Meat analogues and other meat alternatives	(Data from 2013)			(Data from 2017)			(Data from 2017)					250															
Regional Target	-	-	409	473	565	402	331	2.2	2.8	4.0	2.4		2.0	Maximum	320	593	625	68% ^f	580	580	580	Canada, USA	300	400	500		
Lower Target	-	-												Target	240	340	360	N/A	380	410	440						
Updated Targets						410	370				2.5		2.2														

^a Proportion of products in 14-country study [1] meeting PAHO Regional Sodium Reduction Targets; ^b Mean sodium content calculated from available national sodium monitoring data (Tables 10.2 and 10.3); ^c Calculated as the average of relevant subcategories; ^d Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets; ^e Data extracted from final (proposed, accepted or implemented) national front-of-package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b; ^f Proportion of products at or below maximum.

Table 10.2 Sodium content for proposed soy products and meat alternatives subcategories – mg/100 g

	Year	n	Average Sodium (mg/100g)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Seasoned tofu and tempeh										
Canada [5]	2013	3	297 ± 51	340 ± 59	282	282	282	337	400	400
MEAN			297 ± 51	340 ± 59	282	117	282	337	400	400
Meat analogues and other meat alternatives										
Canada [5]	2013	70	409 ± 132	524 ± 177	290	332	409	473	565	1020
MEAN			409 ± 132	524 ± 177	290	332	409	473	565	1020

Data presented as mean ± standard deviation.

Table 10.3 Sodium content for proposed soy products and meat alternatives subcategories – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)				
				Min	25 th	50 th	75 th	Max
Seasoned tofu and tempeh								
Canada	2017	4	2.8 ± 1.4	1.7	1.7	2.4	3.8	4.6
MEAN			2.8 ± 1.4	1.7	1.7	2.4	3.8	4.6
Meat analogues and other meat alternatives								
Canada	2017	68	3.2 ± 1.4	1.4	2.2	2.8	4.0	7.1
MEAN			3.2 ± 1.4	1.4	2.2	2.8	4.0	7.1

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean ± standard deviation.

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean \pm standard deviation. * Products evaluated against the 2016 PAHO Nutrient Profile Model threshold for excess sodium (1 mg/kcal) only included products classified as processed or ultra-processed.

Table 11.6 Sodium content for noodles in broth (as consumed) – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)					Proportion below PAHO Nutrient Profile Model threshold ^a
				Min	25 th	50 th	75 th	Max	
Argentina	2018	9	3.8 \pm 0.7	2.4	3.7	4.1	4.2	4.5	0%
Costa Rica	2018	13	4.4 \pm 0.5	3.7	4.1	4.3	4.8	5.1	0%
Paraguay	2018	4	11.6 \pm 2.5	9.1	10.0	11.1	13.2	15.1	0%
Peru	2018	20	5.1 \pm 2.0	1.3	3.8	4.6	6.0	11.1	100%
Canada	2017	112	4.3 \pm 2.5	0.9	2.9	3.5	4.7	16.2	0.5%
MEAN			5.8	3.5	4.9	5.5	6.6	10.4	N/A

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean \pm standard deviation. * Products evaluated against the 2016 PAHO Nutrient Profile Model threshold for excess sodium (1 mg/kcal) only included products classified as processed or ultra-processed.

Table 12.1 Ready-made foods, convenience foods, and mixed dishes – Updated food subcategories and sodium reduction targets

Current Regional Targets	Mean Sodium Content of Foods in the Americas (mg/100 g) ^b			Sodium Targets (mg/100 g)		Mean Sodium Content of Foods in the Americas (mg/kcal) ^b			Sodium Targets (mg/kcal)		WHO mg/100 g	National Sodium Reduction Targets (mg/100 g) ^c						FOPL Thresholds (mg/100 g) ^d						
	2015 PAHO Targets (mg/100 g)	2015 Targets met [1] ^e	75th Percentile	2022	2025	25th Percentile	Median	75th Percentile	2022	2025		US-FOA Proposed 10-year Targets (2026)[2]	United Kingdom		Member State Targets ^f			Min	Median	Max				
	25th Percentile	Median	75th Percentile	2022	2025	25th Percentile	Median	75th Percentile	2022	2025		2024 [3]	2017 [3]	UK 2017 Targets met [4]	Min	Median	Max	Countries with Targets						
12a Canned chili	(Data from 2013)					(Data from 2017)					N/A													
Regional Target	-	-										Maximum	350	-	-	-	-	330	330	330	Canada, USA	300	400	500
Lower Target	-	-	252	272	316			2.4	2.7	3.0		Target	220	-	-	-	-	220	250	280				
Updated Targets	-	-																						
12b Canned stew and meatballs	(Data from 2013)					(Data from 2017)					225													
Regional Target	-	-										Maximum	350	-	-	-	-	630	-	-	Canada	300	400	500
Lower Target	-	-	439	500	580			2.7	3.8	4.4		Target	220	-	-	-	-	410	-	-				
Updated Targets	-	-																						
12c Pasta, noodles, and rice or grains with sauce or seasonings (as consumed)	(Data from 2013, 2018)					(Data from 2017, 2018)					230													
2015 pasta and noodles (as consumed) PAHO target	640	52%										Maximum	350 ^g	253	320	84% ^{h,i}	440	1140	1840 (instant pasta (noodle), Brazil)	Brazil, Canada	300	400	500	
Regional Target	-	-	347	384	429			1.7	2.1	2.8		Target	220 ^g	205	235	N/A	270	415	560					
Lower Target	-	-	440	480 ^g																				
Updated Targets	-	-																						
12d Pasta, noodles, and rice or grains with sauce or seasonings (dry mix, as sold)	(Data from 2017, 2018)					(Data from 2018)					770													
2015 pasta and noodles (dry, uncooked) PAHO target	1921	58%										Maximum	770	-	-	-	-	-	-	-	N/A	300	400	500
Regional Target	-	-	801	935	1572			2.5	2.8	5.5		Target	490	-	-	-	-	-	-	-				
Lower Target	-	-	1333	1333	88%																			
Updated Targets	-	-																						
12e Stuffing mixes (as consumed)	(Data from 2013)					(Data from 2017)					N/A													
Regional Target	-	-										Maximum	-	-	-	-	-	630	-	-	Canada	300	400	500
Lower Target	-	-	433	496	600							Target	-	-	-	-	-	500	-	-				
Updated Targets	-	-																						
12f Pizza and pizza snacks	(Data from 2013, 2016, 2018)					(Data from 2017)					450													
Regional Target	-	-										Maximum	450	475	500	87% ^h	610	610	610	Canada, USA	300	400	500	
Lower Target	-	-	466	522	644			1.8	2.1	2.5		Target	285	380	400	N/A	390	400	450					
Updated Targets	-	-																						
12g Sandwiches	(Data from 2013, 2016, 2018)					(Data from 2017)					430													
Regional Target	-	-										Maximum	517	450	475	N/A	610	610	610	Canada, USA	300	400	500	
Lower Target	-	-	466	522	644			1.8	2.1	2.5		Target	327	298	315	N/A	390	400	450					
Updated Targets	-	-																						
12h Refrigerated or frozen appetizers, sides, and entrées	(Data from 2017)					(Data from 2017)					320													
Regional Target	-	-										Maximum	290	355	380	88% ^h	340	420	500	Canada, USA	300	400	500	
Lower Target	-	-	482	681	933			1.5	1.9	2.5		Target	180	258	250	N/A	220	300	400					
Updated Targets	-	-																						

^a Proportion of butter products in 14-country study [1] meeting PAHO Regional Sodium Reduction Targets; ^b Mean sodium content calculated from available national sodium monitoring data (Tables 12.2 and 12.3); ^c Targets calculated as the average of relevant subcategories; ^d Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets; ^e Data extracted from final (proposed, accepted or implemented) national front-of-package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b; ^f Targets for shelf stable canned meals, e.g. pasta in sauce with or without meat, chili, and baked beans with or without meat; ^g Proportion of products at or below maximum; ^h Average of flavored rice, as consumed and pasta and noodles, plain and flavored; ⁱ Data extracted from final (proposed, accepted or implemented) national front-of-package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b.

Table 12.2 Sodium content for proposed ready-made foods, convenience foods, and mixed dishes subcategories – mg/100 g

Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)						
				Min	10 th	25 th	50 th	75 th	Max	
Canned chili										
Canada [5]	2013	21	737 ± 130	293 ± 75	177	196	252	272	316	437
MEAN			737 ± 130	293 ± 75	177	196	252	272	316	437
Canned stew and meatballs										
Canada [5]	2013	7	940 ± 283	519 ± 94	439	439	439	500	580	700
MEAN			940 ± 283	519 ± 94	439	439	439	500	580	700
Pasta, noodles, and rice or grains with sauce or seasonings (as consumed)										
Canada [5] [†]	2013	293	540	293	80	-	243	279	335	712
Costa Rica [7]	2018	19	-	360 ± 82	233	-	286	359	440	464
Paraguay [7]	2018	120	497 ± 432	548 ± 513	0	513	513	513	513	2035
MEAN			519	399	104	513	347	384	429	1070
Pasta, noodles, rice or grains with sauce or seasonings (dry mix, as sold)										
Canada ^g	2017	168	438 ± 171	968 ± 379	320	-	702	960	1163	2350
Argentina [7]	2018	7	-	1453 ± 777	841	-	899	969	1981	2599
MEAN			-	1210	581	-	801	935	1572	2475
Stuffing mixes (as consumed)										
Canada [5]	2013	16	574 ± 276	488 ± 126	151	350	433	496	600	756
MEAN			574 ± 276	488 ± 126	151	350	433	496	600	756
Pizza, pizza snacks, and frozen sandwiches^h										
Argentina [13]	2018	21	-	709	178	-	562	611	844	1332
Mexico [12]	2016	51	-	483 ± 119	272	-	407	473	547	934
Canada [5]	2013	54	571 ± 135	488 ± 89	338	376	430	481	542	716
United States [6]	2013	5	-	574 ± 6.9 ^h	-	-	-	-	-	-
MEAN			573 ± 135	564	263	376	466	522	644	994
Refrigerated or frozen appetizers, sides, and entrées										
Argentina [13] [†]	2018	140	-	1040	21	-	732	1044	1445	2222
Canada [5]	2013	779	554 ± 261	348 ± 168	18	189	231	317	421	1214
Colombia [15] [†]	2016	424	-	2246 ± 4314	-	-	-	-	-	-
MEAN			1205	20	482	681	933	993	1718	

Data presented as mean ± standard deviation. Sites weighted average (WMA). [†] Calculated as weighted average of pasta and noodles with sauce, and seasoned rice and grains subcategories; ^g Data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country (unpublished); ^h Data available only as combined category; ⁱ Presented as standard error of the mean; ^j Calculated as weighted average of appetizers, ready-made meals, and pre-cooked meals categories; ^k Convenience foods (e.g., ready-to-eat foods, which may also include pizza).

Table 12.3 Sodium content for proposed ready-made foods, convenience foods, and mixed dishes subcategories – mg/kcal

Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)					
			Min	25 th	50 th	75 th	Max	
Canned chili								
Canada	2017	13	3.0 ± 1.1	2.0	2.4	2.7	3.0	6.4
MEAN			3.0 ± 1.1	2.0	2.4	2.7	3.0	6.4
Canned stew and meatballs								
Canada	2017	20	3.7 ± 1.1	1.9	2.7	3.8	4.4	6.0

MEAN			3.7 ± 1.1	1.9	2.7	3.8	4.4	6.0
Pasta, noodles, and rice or grains with sauce or seasonings (as consumed)								
Canada	2017	148	2.4 ± 0.8	0.0	1.8	2.2	2.7	5.2
Costa Rica	2018	18	2.5 ± 0.7	2.2	1.7	1.9	2.7	3.4
Paraguay	2018	201	2.2 ± 1.4	0.0	1.5	2.1	2.9	7.2
MEAN			2.2	0.4	1.7	2.1	2.8	5.3
Pasta, noodles, and rice or grains with sauce or seasonings (dry mix, as sold)								
Argentina [7]	2018	7	3.8 ± 1.5	2.4	2.5	2.8	5.5	5.9
MEAN			3.8 ± 1.5	2.4	2.5	2.8	5.5	5.9
Stuffing mixes (as consumed)								
N/A	-	-	-	-	-	-	-	-
MEAN			-	-	-	-	-	-
Pizza, pizza snacks, and frozen sandwiches								
Canada	2017	204	2.1 ± 0.5	1.1	1.8	2.1	2.5	4.3
MEAN			2.1 ± 0.5	1.1	1.8	2.1	2.5	4.3
Refrigerated or frozen appetizers, sides and entrées								
Canada	2017	553	2.1	0.2	1.5	1.9	2.5	8.8
MEAN			2.1	0.2	1.5	1.9	2.5	8.8

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean ± standard deviation. a. Calculated as weighted average of Refrigerated or Frozen appetizers/sides/entrées with a serving size greater than 170g, and less than 170g.

Table 13.1 Fresh or dried plain pasta and noodles – Updated sodium reduction targets

Current Regional Targets	Mean Sodium Content of Foods in the Americas (mg/100 g) ^b			Sodium Targets (mg/100 g)		Mean Sodium Content of Foods in the Americas (mg/kcal) ^b			Sodium Targets (mg/kcal)		WHO	National Sodium Reduction Targets (mg/100 g) ^c							FOPL Thresholds (mg/100 g) ^e								
	2015 PAHO Targets (mg/100 g)	2015 Targets met [1] ^d	25th Percentile	Median	75th Percentile	2022	2025	25th Percentile	Median	75th Percentile		2022	2025	US-FDA Proposed 10-year Targets (2026)[2]	United Kingdom		Member State Targets ^d			Min	Median	Max					
															2024 [3]	2017 [3]	UK 2017 Targets met [4]	Min	Median				Max	Countries with Targets			
13a Plain pasta and noodles (as consumed or dry, uncooked)	-	-	(Data from 2013, 2018)			3	3	(Data from 2017, 2018)			0.0	0.0	-	(Pasta and noodles, plain and flavoured)		-	-	-	-	-	-	-	-	-	300	400	500
Regional Target	-	-	0	4	15	3	3	0.0	0.0	0.0	0.0	0.0	-	230	350	94%/	-	-	-	-	-	-	-	N/A	-	-	-
Lower Target	-	-	-	-	-	-	-	-	-	-	-	-	-	170	200	N/A	-	-	-	-	-	-	-	-	-	-	-
Updated Targets	-	-	0	4	15	3	3	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

^a Proportion of butter products in 14-country study [1] meeting PAHO Regional Sodium Reduction Targets; ^b Mean sodium content calculated from available national sodium monitoring data (Tables 13.2 and 13.3); ^c Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets; ^d Data extracted from final (proposed, accepted or implemented) national Front-of-Package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b; ^e Proportion of products at or below maximum.

Table 13.2 Sodium content for plain pasta and noodles (as consumed or dry, uncooked) – mg/100 g

	Year	n	Average Sodium (mg/servin)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Costa Rica [7]	2018	168	-	78 ± 266	0	-	0	0	3	2040
Paraguay [7]	2018	432	-	140 ± 416	0	-	0	10	35	2666
Canada ^a	2013	432	22 ± 80	23 ± 83	0	-	0	1	6	912
MEAN			22 ± 80	80	0	-	0	4	15	1873

Data presented as mean ± standard deviation. ^a Data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country (unpublished).

Table 13.3 Sodium content for plain pasta and noodles (as consumed or dry, uncooked) – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)					Proportion below PAHO Nutrient Profile Model threshold ^a
				Min	25 th	50 th	75 th	Max	
Costa Rica	2018	166	0.2 ± 0.8	0.0	0.0	0.0	0.0	5.1	92.8%
Paraguay	2018	433	0.4 ± 1.1	0.0	0.0	0.0	0.1	6.1	88.7%
Canada	2017	437	0.1 ± 0.4	0.0	0.0	0.0	0.0	5.3	96.8%
MEAN			0.2	0.0	0.0	0.0	0.0	5.5	N/A

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean ± standard deviation. ^a Products evaluated against the 2016 PAHO Nutrient Profile Model threshold for excess sodium (1 mg/kcal) included only products classified as processed or ultra-processed.

Table 14.1 Granola and energy bars, and nut butters/spreads – Updated food subcategories and sodium reduction targets

Current Regional Targets	Mean Sodium Content of Foods in the Americas (mg/100 g) ^b			Sodium Targets (mg/100 g)		Mean Sodium Content of Foods in the Americas (mg/kcal) ^b			Sodium Targets (mg/kcal)		WHO	National Sodium Reduction Targets (mg/100 g) ^c							FOPL Thresholds (mg/100 g) ^e						
	2015 PAHO Targets (mg/100 g)	2015 Targets met [3] ^a	25th Percentile	Median	75th Percentile	2022	2025	25th Percentile	Median	75th Percentile		2022	2025	mg/100 g	US - FDA Proposed 10-year Targets (2026)[2]		United Kingdom 2017 [3]		Member State Targets ^d			Countries with Targets	Min	Median	Max
															2024 [3]	2017 [3]	UK 2017 Targets met [4]	Min	Median	Max					
14a Granola, cereal, and energy bars	(Data from 2013, 2017, 2018)						(Data from 2017)					N/A													
Regional Target	-	-	146	201	249	171	141	0.3	0.6	0.8	0.5		0.4	Maximum	310	-	-	-	-	340	-	Canada	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-		-	Target	190	-	-	-	-	180	-	-	-	-	-
Updated Targets	-	-	-	-	-	170	150	-	-	-	0.5		0.4	-	-	-	-	-	-	-	-	-	-	-	-
14b Nut butters and nut spreads	(Data from 2013)						(Data from 2017)					N/A													
Regional Target	-	-	300	357	433	303	250	0.0	0.3	0.6	0.3		0.2	Maximum	430	-	-	-	-	430	-	Canada, USA	300	400	500
Lower Target	-	-	-	-	-	-	-	-	-	-	-		-	Target	300	-	-	-	300	320	340	-	-	-	-
Updated Targets	-	-	-	-	-	330	300	-	-	-	0.3		0.2	-	-	-	-	-	-	-	-	-	-	-	-

^a Proportion of butter products in 14-country study [1] meeting PAHO Regional Sodium Reduction Targets; ^b Mean sodium content calculated from available national sodium monitoring data (Tables 14.2 and 14.3); ^c Calculated as the average of relevant subcategories; ^d Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets; ^e Data extracted from final (proposed, accepted or implemented) national front-of-package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b.

Table 14.2 Sodium content for proposed granola and energy bars, and nut butters/spreads subcategories – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Granola, cereal, and energy bars										
Argentina [13] ^a	2018	40	-	160	0	-	105	159	194	604
Canada [5]	2013	200	83 ± 36	254 ± 99	16	150	187	243	304	553
Canada (SWA) [14] ^b	2017	-	-	407	-	-	-	-	-	-
MEAN			83 ± 36	274	8	150	146	201	249	579
Nut butters and nut spreads										
Canada [5]	2013	35	54 ± 17	343 ± 114	109	188	300	357	433	667
MEAN			54 ± 17	343 ± 114	109	188	300	357	433	667

Data presented as mean ± standard deviation. Sales weighted average (SWA). ^a Cereal bars; ^b Sweet and salty bars.

Table 14.3 Sodium content for proposed granola and energy bars, and nut butters/spreads subcategories – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)				
				Min	25 th	50 th	75 th	Max
Granola, cereal, and energy bars								
Canada	2017	400	0.6 ± 0.3	0.0	0.3	0.6	0.8	1.9
MEAN			0.6 ± 0.3	0.0	0.3	0.6	0.8	1.9
Nut butters and nut spreads								
Canada	2017	101	0.4 ± 0.5	0.0	0.0	0.3	0.6	4.0
MEAN			0.4 ± 0.5	0.0	0.0	0.3	0.6	4.0

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean ± standard deviation.

Table 15.1 Fats and oils – Updated food subcategories and sodium reduction targets

Current Regional Targets	Mean Sodium Content of Foods in the Americas (mg/100 g) ¹			Sodium Targets (mg/100 g)		Mean Sodium Content of Foods in the Americas (mg/kcal) ¹			Sodium Targets (mg/kcal)		WHO mg/100 g	National Sodium Reduction Targets (mg/100 g) ^c							FOPL Thresholds (mg/100 g) ^e								
	2015 PAHO Targets (mg/100 g)	2015 Targets met [%] ²	75th Percentile	Median	25th Percentile	2022	2025	75th Percentile	Median	25th Percentile		2022	2025	US-FDA Proposed 10-year Targets (2026)[2]	United Kingdom		Member State Targets ^d			Min	Median	Max					
															2024 [3]	2017 [3]	UK 2017 Targets met [%]	Min	Median				Max	Countries with Targets			
15a Salted butter, margarine, and butter blends	(Data from 2013, 2015) ¹			(Data from 2017, 2018)			(Data from 2017, 2018)			(Data from 2017, 2018)																	
Regional Target	800	84%											Maximum	655	568	610	76% ^g	800	800	800					300	400	500
Lower Target	500	37%	457	576	718	490	403	0.5	1.0	1.5	0.8	0.7	Target	480	445	488	-	480	510	570							
Updated Targets						510	460				0.8	0.7															
15b Mayonnaise	(Data from 2013, 2015)			(Data from 2017, 2018)			(Data from 2017, 2018)			(Data from 2017, 2018)																	
Regional Target	1050	94%											Maximum	610	500	500	67% ^g	833	840	1051					300	400	500
Lower Target	670	38%	598	750	857	637	525	1.8	2.7	3.6	2.3	1.9	Target	450	-	-	-	530	550	570							
Updated Targets						670	600				2.3	1.9															
15c Salad dressing and vinaigrette	(Data from 2017, 2018)			(Data from 2017, 2018)			(Data from 2017, 2018)			(Data from 2017, 2018)																	
Regional Target	-	-											Maximum	920	570	600	77% ^g	1130	1130	1130					300	400	500
Lower Target	-	-	736	909	1280	772	636	0.6	2.7	5.1	2.3	1.9	Target	590	-	-	-	690	725	760							
Updated Targets						800	730				2.3	1.9															

¹ Proportion of butter products in 14-country study [1] meeting PAHO Regional Sodium Reduction Targets; ² Mean sodium content calculated from available national sodium monitoring data (Tables 15.2 to 15.3); ³ Calculated as the average of relevant subcategories; ⁴ Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets; ⁵ Data extracted from final (proposed, accepted or implemented) national front-of-package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b; ⁶ Calculated as the average of butter and margarine/other spreads subcategories (See Table 15.2); ⁷ Proportion of products at or below maximum.

Table 15.2 Sodium content for salted butter, margarine, and butter blends – mg/100 g

	Year	n	Average Sodium (mg/servin)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)						
					Min	10 th	25 th	50 th	75 th	Max	
Salted butter^a											
Argentina	2015	23	21 ± 23	199 ± 228	0	20	45	120	230	720	
Brazil	2015	50	71 ± 27	710 ± 267	170	396	563	705	853	1750	
Chile	2015	50	39 ± 18	545 ± 221	9	280	415	571	617	1171	
Costa Rica	2015	43	125 ± 302	553 ± 362	0	86	368	600	679	2000	
Cuba	2015	1	36 ± 0	511 ± 0	511	511	511	511	511	511	
Ecuador	2015	32	103 ± 186	732 ± 1330	0	0	27	500	946	7636	
Guatemala	2015	68	84 ± 66	672 ± 681	0	14	428	705	785	4200	
Jamaica	2015	30	79 ± 42	595 ± 251	0	348	525	625	714	1000	
Mexico	2015	46	30 ± 72	297 ± 259	0	10	159	200	495	1020	
Panama	2015	51	84 ± 37	584 ± 258	0	0	595	640	750	300	
Paraguay	2015	17	48 ± 34	484 ± 339	96	132	200	470	670	1110	
Peru	2015	18	141 ± 179	1079 ± 1238	20	120	413	786	1173	5000	
Trinidad and Tobago	2015	28	281 ± 366	781 ± 400	0	459	573	714	841	1732	
Barbados	2015	50	82 ± 53	564 ± 286	0	200	473	620	710	1790	
Canada [5]	2013	19	67 ± 18	664 ± 188	71	550	600	600	800	950	
MEAN			86	599	58	208	393	558	718	2101	
Salted margarine											
Brazil [9]	2017	46	-	544 ± 207	10	-	-	600	-	1070	
Mexico [12]	2016	22	-	586 ± 182	400	-	440	530	735	920	
Canada [5]	2013	49	65 ± 9	653 ± 93	300	600	600	650	700	850	
MEAN			65 ± 9	594	237	600	520	593	718	947	
OVERALL MEAN			76	597	148	404	457	576	718	1524	

Data presented as mean ± standard deviation. ^a Data from Arcand J et al. Nutrients [2019][1] unless otherwise indicated.

Table 15.3 Sodium content for mayonnaise – mg/100 g

	Year	n	Average Sodium (mg/servin)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Argentina	2015	18	107 ± 26	856 ± 145	558	622	786	903	948	1067
Brazil	2015	33	107 ± 24	881 ± 208	375	545	792	975	1025	1100
Chile	2015	30	96 ± 25	759 ± 187	400	547	627	769	921	1031
Costa Rica	2015	34	114 ± 26	754 ± 162	373	493	617	833	867	933
Cuba	2015	6	80 ± 33	525 ± 140	354	374	413	531	633	696
Ecuador	2015	26	106 ± 142	559 ± 206	11	393	438	539	643	1133
Guatemala	2015	29	101 ± 37	702 ± 272	36	469	533	733	867	1250
Jamaica	2015	11	84 ± 27	571 ± 165	333	393	393	633	706	767
Mexico	2015	37	176 ± 182	763 ± 186	505	551	600	733	857	505
Panama	2015	25	105 ± 25	745 ± 213	370	490	627	770	870	1400
Paraguay	2015	18	109 ± 16	915 ± 120	610	741	883	942	988	1075
Peru	2015	20	107 ± 58	789 ± 388	96	344	598	733	1000	2000
Trinidad and Tobago	2015	20	88 ± 43	594 ± 298	0	303	400	647	713	1400
Barbados	2015	30	105 ± 30	826 ± 626	500	518	600	670	800	4000
Canada[5]	2013	124	129 ± 38	834 ± 225	267	533	656	833	1000	1467
United States[6]	2013	4	-	779 ± 4 ^b	518	-	-	-	-	1060
MEAN			108	741	332	488	598	750	857	1305

All data was from Arcand J et al. Nutrients [2019] and represents 2015 data, unless otherwise indicated; Data presented as mean ± standard deviation. ^b Mayonnaise and salad dressing. Data presented as standard error of the mean.

Table 15.4 Sodium content for salad dressing and vinaigrette – mg/100 g

	Year	n	Average Sodium (mg/100g)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Salad dressing and vinaigrette										
Canada [5]	2013	167	146 ± 67	864 ± 381	12	406	688	867	1000	2600
Argentina [13]	2018	168	-	1493	0	-	783	950	1559	7333
MEAN			146 ± 67	1179	6	406	736	909	1280	4967

Data presented as mean ± standard deviation. Sales weighted average (SWA). ¹ Includes tomato-based pasta/pizza sauce, cream sauce, and pesto subcategories; ² Canadian data was calculated as the weighted average of dips and salsa, hummus, and legume-based dips, and gravy and cooking sauces subcategories; ³ Sauces, dressings, and spreads; ⁴ Data for condiments subcategory (includes mustard).

Table 15.5 Sodium content for salted butter and margarine (overall) – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)					Proportion below PAHO Nutrient Profile Model
				Min	25 th	50 th	75 th	Max	
Argentina	2018	38	0.5 ± 0.5	0.0	0.1	0.4	0.9	2.0	78.9%
Costa Rica	2018	44	1.2 ± 0.7	0.0	0.8	1.2	1.7	2.8	38.6%
Paraguay	2018	40	1.6 ± 2.1	0.0	0.2	0.8	1.6	6.1	95%
Peru	2018	18	1.6 ± 1.4	0.0	0.7	1.5	2.0	5.7	88.9%
Canada	2017	61	1.0 ± 0.3	0.5	0.9	1.0	1.1	2.0	59%
MEAN			1.2	0.1	0.5	1.0	1.5	3.7	N/A

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean ± standard deviation. ¹ Products evaluated against the 2016 PAHO Nutrient Profile Model threshold for excess sodium (1 mg/kcal) included only products classified as processed or ultra-processed.

Table 15.6 Sodium content for salted butter – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)				
				Min	25 th	50 th	75 th	Max
Argentina	2018	19	0.2 ± 0.3	0.0	0.1	0.1	0.2	1.2
Costa Rica	2018	13	0.7 ± 0.6	0.0	0.1	0.7	1.0	1.8
Paraguay	2018	14	0.2 ± 0.2	0.0	0.0	0.1	0.2	0.8
Peru	2018	9	0.8 ± 0.9	0.0	0.0	0.7	1.7	2.1
Canada ^a	2017	28	1.0 ± 0.2	0.6	0.8	1.0	1.1	1.7
MEAN			0.6	0.1	0.2	0.5	0.8	1.5

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean ± standard deviation. ^a Salted butter and butter blends.

Table 15.7 Sodium content for salted margarine – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)				
				Min	25 th	50 th	75 th	Max
Argentina	2018	19	0.9 ± 0.5	0.0	0.4	0.8	1.3	2.0
Costa Rica	2018	31	1.5 ± 0.6	0.4	1.1	1.3	2.0	2.8
Paraguay	2018	26	2.4 ± 2.3	0.0	0.8	1.2	5.4	6.1
Peru	2018	9	2.3 ± 1.5	1.3	1.4	1.6	2.0	5.7
Canada ^a	2017	33	1.1 ± 0.4	0.5	0.9	1.0	1.1	2.0
MEAN			1.6	0.4	0.9	1.2	2.4	3.7

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean ± standard deviation. ^a Salted margarine.

Table 15.8 Sodium content for mayonnaise – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)					Proportion below PAHO Nutrient Profile Model
				Min	25 th	50 th	75 th	Max	
Argentina	2018	35	3.4 ± 1.2	1.6	2.7	3.2	4.1	7.8	0%
Costa Rica	2018	32	3.0 ± 3.0	0.8	1.3	2.3	3.4	17.7	12.5%
Paraguay	2018	55	3.8 ± 1.5	0.6	2.7	4.0	4.1	7.2	1.8%
Peru	2018	13	2.7 ± 2.6	0.0	0.8	1.8	3.4	8.5	100%
Canada	2017	188	2.3 ± 1.4	0.2	1.3	2.0	2.9	9.5	19.1%
MEAN			3.0	0.6	1.8	2.7	3.6	10.1	N/A

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean ± standard deviation. ¹ Products evaluated against the 2016 PAHO Nutrient Profile Model threshold for excess sodium (1 mg/kcal) included only products classified as processed or ultra-processed.

Table 15.9 Sodium contents for salad dressing and vinaigrette – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)				
				Min	25 th	50 th	75 th	Max
Salad dressing and vinaigrette								
Costa Rica	2018	115	5.0 ± 10.8	0.0	0.1	2.5	4.2	94.2
Paraguay	2018	35	4.4 ± 4.0	0.0	1.6	3.4	7.5	20.0
Canada	2017	235	3.2 ± 5.9	0.0	0.1	2.1	3.5	41.7
MEAN			4.2	0.0	0.6	2.7	5.1	52.0

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country; Data presented as mean ± standard deviation. ¹ Includes tomato-based pasta/pizza sauce; ² Cream sauce; ³ Tomato sauce and puree; ⁴ Dips and salsa; ⁵ Hummus and legume-based dips; ⁶ Gravy and cooking sauces; ⁷ Data for condiments subcategory (may include mustard).

Table 16.1 Sauces, dips, gravy, and condiments – Updated food subcategories and sodium reduction targets

Current Regional Targets	Mean Sodium Content of Foods in the Americas (mg/100 g) ^b			Sodium Targets (mg/100 g)		Mean Sodium Content of Foods in the Americas (mg/kcal) ^b			Sodium Targets (mg/kcal)		WHO	National Sodium Reduction Targets (mg/100 g) ¹							FOPL Thresholds (mg/100 g) ⁴						
	2015 PAHO Targets (mg/100 g)	2015 Targets met [%] ¹	25th Percentile	Median	75th Percentile	2022	2025	25th Percentile	Median	75th Percentile		2022	2025	mg/100 g	US-FDA Proposed 10-year Targets (2026)[2]	United Kingdom		Member State Targets ²			Countries with Targets	Min	Median	Max	
																2024 [3]	2017 [3]	UK 2017 targets met [%]	Min	Median					Max
16a Bouillon cubes and powders (as sold)	(Data from 2017, 2018)			(Data from 2017, 2018)			(Data from 2017, 2018)					15000	Maximum ³ 390 Target ³ 280	360	380	85% ⁴	(as consumed)			Argentina, Brazil, Canada, Costa Rica (dry-mk), USA	300	400	500		
Regional Target	20500	62%	15869	14679	22237	12477	10275	34.8	80.0	97.0	68.0			56.0	360	635	1025 (20500 - dry mix)	240	250					260	
Lower Target	18000	37%																							
Updated Targets			18000	16000							68.0			56.0											
16b Pasta sauce	(Data from 2013)			(Data from 2017)							330	Maximum 500 Target 305	330	370	83% ⁴	520	568	616	Canada, Costa Rica, USA	300	400	500			
Regional Target	-	-	292	372	468	316	260	4.0	5.1	6.1			4.3	3.6	360	520	568	616							
Lower Target	-	-														320	365	410							
Updated Targets			330	300									4.5	4.0											
16c Pesto	(Data from 2013)			(Data from 2017)							650	Maximum 640 Target 450	620	650	68% ⁴	-	1100	-	Canada	300	400	500			
Regional Target	-	-	570	956	1267	813	669	1.2	2.2	3.9			1.9	1.5	450	520	550	N/A					770		
Lower Target	-	-																							
Updated Targets			800	640									1.9	1.5											
16d Tomato sauce	(Data from 2013, 2018)			(Data from 2017)							230	Maximum 570 Target 370	-	-	-	490	490	490	Canada, USA	300	400	500			
Regional Target	-	-	231	351	385	298	245	3.5	6.7	10.0			5.7	4.7	-	-	-	250					290	330	
Lower Target	-	-																							
Updated Targets			300	240									5.7	4.7											
16e Ketchup and similar tomato-type condiments (as consumed)	(Data from 2013, 2017, 2018)			(Data from 2017)							650	Maximum 1050 ⁵ Target 760 ⁵	650	680	62% ⁴	980	990	1400	Argentina, Canada, Costa Rica, USA	300	400	500			
Regional Target	-	-	783	819	1000	696	573	6.8	7.5	11.0			6.4	5.3	-	-	-	660					770	860	
Lower Target	-	-																							
Updated Targets			800	780									7.1	6.8											
16f Mustard	(Data from 2013, 2018)			(Data from 2017, 2018)							650	Maximum 1050 Target 760	720	-	-	1400	1400	1400	Canada, USA	300	400	500			
Regional Target	-	-	886	1150	1634	978	805	8.6	11.8	16.7			10.0	8.3	-	-	-	660					760	860	
Lower Target	-	-																							
Updated Targets			1000	890									10.2	8.6											
16g Spicy sauce	(Data from 2017, 2018)			(Data from 2017, 2018)							N/A	Maximum 1050 Target 760	Condiments		Chili sauce, Thick pastes		Curry paste			Canada	300	400	500		
Regional Target	-	-	652	1315	2116	1118	920	5.3	25.2	40.9			21.4	17.7	-	-	-	3300	-					-	
Lower Target	-	-																							
Updated Targets			1100	900									21.4	17.7											
16h Gravy, cooking sauces, dips, and salsa (as consumed)	(Data from 2013, 2016, 2018)			(Data from 2017)							350	Maximum 627 Target 446	365	410	87% ⁴	670	670	670	Canada, USA	300	400	500			
Regional Target	-	-	291	413	520	351	289	2.4	4.1	9.1			3.5	2.8	-	-	-	400					465	530	
Lower Target	-	-																							
Updated Targets			350	300									3.5	2.8											
16i Sweet oriental sauces	(Data from 2013)			(Data from 2017)							360	Maximum 1690 Target 700	1150	-	-	-	350	-	-	Canada	300	400	500		
Regional Target	-	-	181	250	560	213	175	0.8	1.5	3.8			1.3	1.1	-	-	-	100	-						
Lower Target	-	-																							
Updated Targets			220	180									1.3	1.1											
16j Soya and other salty oriental sauces	(Data from 2013)			(Data from 2017)							N/A	Maximum 5870 Target 4250	-	-	-	-	4300	-	-	Canada	300	400	500		
Regional Target	-	-	1919	3433	5800	2918	2403	5.6	11.6	49.2			9.9	8.1	-	-	-	2300	-						
Lower Target	-	-																							
Updated Targets			2900	2400									9.9	8.1											
16k Marinades (as consumed)	(Data from 2013)			(Data from 2017)							N/A	Maximum - Target -	-	-	-	-	3000	-	-	Canada	300	400	500		
Regional Target	-	-	1067	2133	2867	1813	1493	5.5	16.7	22.7			14.2	11.7	-	-	-	1800	-						
Lower Target	-	-																							
Updated Targets			1800	1500									14.2	11.7											
16l Dry seasoning mixes for rice and side dishes	(Data from 2017, 2018)			(Data from 2017, 2018)							N/A	Maximum 19800 Target 9800	-	-	-	9100	26926	33100	Brazil, Canada, Costa Rica, USA* (per serving)	300	400	500			
Regional Target	33100	96%	8000	17698	25350	15043	12389	9.4	15.4	29.8			13.1	10.8	-	-	-	5100					-		
Lower Target	9100	73%																							
Updated Targets			10000	8000									13.1	10.8											
16m Dry seasoning mixes for meat and fish	(Data from 2017, 2018)			(Data from 2017, 2018)							N/A	Maximum 19800 Target 9800	-	-	-	22000	22000	22000	Canada, Costa Rica	300	400	500			
Regional Target	23000	89%	5745	12007	15658	10206	8405	15.6	32.8	50.4			27.9	23.0	-	-	-	12700					-		
Lower Target	21775	88%																							
Updated Targets			10000	8000									27.9	23.0											

* Proportion of butter products in 14-country study [1] meeting PAHO Regional Sodium Reduction Targets; ^b Mean sodium content calculated from available national sodium monitoring data (Tables 16.2 to 16.9); ^c Calculated as the average of relevant subcategories; ^d Data extracted from latest approved national sodium targets in Appendix 3a and may illustrate distinct subcategory targets; ^e Data extracted from final (proposed, accepted or implemented) national front-of-package "high in" or "excess" sodium thresholds for prepackaged foods in Appendix 3b; ^f Targets for prepared bouillon, broth and stocks (as consumed) unless otherwise specified; ^g Proportion of products at or below maximum; ^h Proportion of products in 2018 at or below maximum within 5% of average sodium target ("Target").

Table 16.2 Sodium content for proposed Sauces, dips, gravy, and condiments subcategories – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Pasta sauce										
Canada [5] ⁷	2013	228	413 ± 141	430 ± 292	70	248	292	372	468	3600
MEAN			413 ± 141	430 ± 292	70	248	292	372	468	3600
Pesto										
Canada [5]	2013	15	369 ± 223	916 ± 377	267	283	570	956	1267	1400
MEAN			369 ± 223	916 ± 377	267	283	570	956	1267	1400
Tomato sauce										
Canada [5]	2013	17	272 ± 193	297 ± 177	15	23	231	308	385	736
Costa Rica [8] ⁸	2018	93	-	462 ± 265	0	-	-	393	-	1857
MEAN			272 ± 193	380	8	23	231	351	385	1297
Ketchup										
Canada [5]	2013	20	132 ± 36	877 ± 237	300	533	783	933	1000	1400
Costa Rica [8]	2018	19	-	685 ± 337	140	-	-	627	-	1187
United States (SWA) [11] ⁹	2017	18	-	897 ± 28	860	-	-	897	-	981
MEAN			132 ± 36	820	433	533	783	819	1000	1189
Gravy, cooking sauces, dips, and salsa (as consumed)										
Canada [5] ⁷	2013	446	289	537	28	286	368	490	640	2046
Argentina [13]	2018	46	-	348	0	-	214	335	400	1320
Colombia [15] ¹⁰	2016	636	-	1108 ± 1491	-	-	-	-	-	-
MEAN			289	664	14	286	291	413	520	1683
Sweet oriental sauces										
Canada [5]	2013	29	163 ± 114	429 ± 350	90	100	181	250	560	1421
MEAN			163 ± 114	429 ± 350	90	100	181	250	560	1421

Soya and other salty oriental sauces										
Canada [5]	2013	62	689 ± 350	3783 ± 2443	283	700	1919	3433	5800	9600
MEAN			689 ± 350	3783 ± 2443	283	700	1919	3433	5800	9600
Marinades (as consumed)										
Canada [5]	2013	59	368 ± 235	2022 ± 1101	12	633	1067	2133	2867	4867
MEAN			368 ± 235	2022 ± 1101	12	633	1067	2133	2867	4867
Mustard ^d										
Canada	2017	62	78 ± 36	1436 ± 707	0	-	943	1226	2200	2830
Peru	2018	4	168 ± 102	1460 ± 567	1000	-	1095	1280	1825	2280
Paraguay	2018	20	212 ± 473	927 ± 531	80	-	583	829	1150	2200
Argentina	2018	9	113 ± 50	940 ± 419	542	-	750	750	833	1667
Costa Rica	2018	19	380 ± 580	1562 ± 800	79	-	1061	1667	2161	2700
MEAN			190	1265	340	-	886	1150	1634	2335
Spicy sauce ^d										
Canada	2017	69	269 ± 219	1993 ± 1059	40	-	1175	1921	2604	4583
Peru	2018	13	303 ± 807	1401 ± 1270	9	-	365	1400	1680	4200
Argentina	2018	7	299 ± 302	2943 ± 4468	100	-	750	1530	3120	16060
Costa Rica	2018	41	189 ± 334	1805 ± 3267	0	-	370	923	1667	18967
Mexico [16]	2017	301	-	1224 ± 1197	1	233	600	800	1507	8570
MEAN			265	1873	30	233	652	1315	2116	10476

Data presented as mean ± standard deviation. Sales weighted average (SWA). ^a Includes tomato-based pasta/pizza sauce, cream sauce, and pesto subcategories; ^b Canadian data was calculated as the weighted average of dips and salsa, hummus, and legume-based dips, and gravy and cooking sauces subcategories; ^c Sauces, dressings, and spreads; ^d Data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country (unpublished).

Table 16.3 Sodium content for bouillon cubes and powders^a – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Argentina [7]	2018	22	-	20209 ± 7964	2000	-	13968	20287	25149	23812
Brazil [9]	2017	35	-	552 ± 88	668	-	-	967	-	1057
Costa Rica [7, 8] ^b	2018	31	-	18553	1000	-	19200	20302	21200	25852
Paraguay [7]	2018	6	-	17201 ± 3491	3491	-	14440	17060	20370	20760
MEAN				14254	1790	-	15869	14679	22237	20371
Broth, as consumed										
Canada [5]	2013	110	608 ± 284	264 ± 114	16	61	213	264	350	494

All data was from Arcand J et al. Nutrients (2019) and represents 2015 data, unless otherwise indicated; Data presented as mean ± standard deviation. ^a Data are shown for both dry and as consumed bouillon cubes and/or powders. In Canada, bouillon cubes are categorized as soups but in many countries they are used as condiments; ^b Data calculated as weighted average of published data.

Table 16.4 Sodium content for dry seasoning mixes for rice and side dishes – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Brazil [9] ^a	2017	5	-	28505 ± 5238	20340	-	-	31260	-	32700
Costa Rica [8]	2018	8	-	16269 ± 9755	6000	-	8000	14622	25350	28000
Canada [10] ^b	2017	189	-	7212 ± 5638	0	-	-	7212	-	24000
MEAN				13148	8780	-	8000	17698	25350	28233

Data presented as mean ± standard deviation. ^a Rice condiments; ^b Seasoning.

Table 16.5 Sodium content for dry seasoning mixes for meat and fish – mg/100 g

	Year	n	Average Sodium (mg/serving)	Average Sodium (mg/100g)	Sodium Percentiles (mg/100g)					
					Min	10 th	25 th	50 th	75 th	Max
Argentina [7]	2018	19	-	14095 ± 446	7829	-	10156	13250	17030	23493
Costa Rica [7]	2018	45	-	8577 ± 9320	4	-	1333	5517	14286	33636
Canada (SWA) [14]	2017	-	-	17255	-	-	-	17255	-	-
MEAN				10809	3917	-	5745	12007	15658	28565

Data presented as mean ± standard deviation.

Table 16.6 Sodium content for proposed sauces, dips, gravy, and condiments subcategories – mg/kcal

	Year	n	Average Sodium	Sodium Percentiles (mg/kcal)				
				Min	25 th	50 th	75 th	Max
Pasta sauce								
Canada ^a	2017	158	6.1 ± 2.2	1.5	4.9	6.0	7.1	16.0
Canada ^b	2017	56	4.5 ± 1.8	1.4	3.1	4.2	5.1	10.9
WEIGHTED MEAN			5.3	1.5	4.0	5.1	6.1	13.5
Pesto								
Canada	2017	15	2.7 ± 1.8	0.6	1.2	2.2	3.9	6.1
MEAN			2.7 ± 1.8	0.6	1.2	2.2	3.9	6.1
Tomato sauce								
Canada ^a	2017	33	6.6 ± 4.6	0.3	3.5	6.7	10.0	16.7
MEAN			6.6 ± 4.6	0.3	3.5	6.7	10.0	16.7
Ketchup								
Canada	2017	23	8.9 ± 5.4	1.8	6.8	7.5	11.0	21.0
MEAN			8.9 ± 5.4	1.8	6.8	7.5	11.0	21.0
Gravy, cooking sauces, dips, and salsa (as consumed)								
Canada ^c	2017	198	7.2 ± 6.8	0.0	2.4	4.0	10.7	31.0
Canada ^d	2017	65	1.8 ± 0.4	0.8	1.6	1.8	2.0	3.0
Canada ^e	2017	154	9.2 ± 7.6	1.0	3.1	6.4	14.5	47.0
WEIGHTED MEAN			6.1	0.6	2.4	4.1	9.1	27.0
Sweet oriental sauces								
Canada	2017	24	3.3 ± 4.6	0.0	0.8	1.5	3.8	17.8
MEAN			3.3 ± 4.6	0.0	0.8	1.5	3.8	17.8
Soya and other salty oriental sauces								
Canada	2017	108	34.0 ± 42.5	1.7	5.6	11.6	49.2	180.0
MEAN			34.0 ± 42.5	1.7	5.6	11.6	49.2	180.0
Marinades (as consumed)								
Canada	2017	53	16.8 ± 12.5	0.1	5.5	16.7	22.7	58.0
MEAN			16.8 ± 12.5	0.1	5.5	16.7	22.7	58.0

Mustard sauce									
Argentina	2018	9	12.4 ± 4.6	4.3	12.9	12.9	12.9	18.2	
Costa Rica	2018	16	12.8 ± 7.8	0.4	8.5	12.0	17.3	26.0	
Paraguay	2018	18	11.3 ± 8.4	0.4	3.9	9.0	18.2	25.2	
Peru	2018	4	15.4 ± 4.0	10.0	12.6	16.1	18.3	19.6	
Canada	2017	53	11.2 ± 8.5	0.0	5.0	9.0	17.0	30.0	
MEAN			12.6	3.0	8.6	11.8	16.7	23.8	

Spicy sauce									
Canada	2017	46	19.9 ± 23.1	0.1	5.4	10.1	27.6	115.0	
Peru	2018	8	13.7 ± 18.3	0.1	2.6	8.1	16.0	56.0	
Argentina	2018	7	66.4 ± 37.7	12.9	12.9	79.0	98.5	102.0	
Costa Rica	2018	27	13.0 ± 19.1	0.0	0.1	3.7	21.3	83.7	
MEAN			28.3	3.3	9.3	25.2	40.9	89.2	

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country. Data presented as mean ± standard deviation. ^a Includes tomato-based pasta/pizza sauce; ^b Cream sauce; ^c Tomato sauce and puree; ^d Dips and salsa; ^e Hummus and legume-based dips; ^f Gravy and cooking sauces.

Table 16.7 Sodium content for bouillon cubes and powders^a – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)					Proportion below PAHO Nutrient Profile Model threshold ^b
				Min	25 th	50 th	75 th	Max	
Argentina	2018	17	135.5 ± 136.8	7.5	39.8	96.6	135.7	475.0	0%
Costa Rica	2018	7	75.2 ± 51.5	1.4	1.4	98.0	103.0	127.0	0%
Paraguay	2018	25	71.6 ± 19.3	38.6	62.5	72.2	84.4	114.4	0%
Peru	2018	-	-	-	-	-	-	-	-
Canada	2017	54	54.2 ± 27.2	0.2	35.3	53.2	64.7	163.0	3.7%
MEAN				11.9	34.8	80.0	97.0	219.6	N/A

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country. Data presented as mean ± standard deviation. ^a Data are shown for both dry and as consumed bouillon cubes and/or powders. In Canada, bouillon cubes are categorized as soups but in many countries they are used as condiments; ^b Products evaluated against the 2016 PAHO Nutrient Profile Model threshold for excess sodium (1 mg/kcal) only included products classified as processed or ultra-processed.

Table 16.8 Sodium content for dry seasoning mixes for rice and side dishes – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)					Proportion below PAHO Nutrient Profile Model threshold ^b
				Min	25 th	50 th	75 th	Max	
Argentina	2018	13	25.6 ± 35.5	0.0	4.2	7.8	37.5	98.5	15.4%
Costa Rica	2018	4	18.0 ± 10.1	4.0	10.6	21.2	25.3	25.3	0%
Peru	2018	-	-	-	-	-	-	-	-
Canada	2017	49	19.5 ± 8.9	6.0	13.5	17.2	26.5	40.0	2.0%
MEAN			21.0	3.3	9.4	15.4	29.8	54.6	N/A

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country. Data presented as mean ± standard deviation. ^a Products evaluated against the 2016 PAHO Nutrient Profile Model threshold for excess sodium (1 mg/kcal) only included products classified as processed or ultra-processed.

Table 16.9 Sodium content for dry seasoning mixes for meat and fish – mg/kcal

	Year	n	Average Sodium (mg/kcal)	Sodium Percentiles (mg/kcal)					Proportion below PAHO Nutrient Profile Model threshold ^b
				Min	25 th	50 th	75 th	Max	
Argentina	2018	19	68.6 ± 35.5	27.1	33.9	61.2	85.5	150.7	0%
Costa Rica	2018	33	29.7 ± 64.8	0.0	1.5	8.2	19.6	269.2	15.2%
Peru	2018	-	-	-	-	-	-	-	-
Canada	2017	43	36.8 ± 36.4	0.0	11.3	29.0	46.0	170.0	60.8%
MEAN			45.0	9.0	15.6	32.8	50.4	196.6	N/A

All data acquired from the Food Label Information Program (FLIP) database for packaged food and beverage items for the corresponding country. Data presented as mean ± standard deviation. ^a Products evaluated against the 2016 PAHO Nutrient Profile Model threshold for excess sodium (1 mg/kcal) only included products classified as processed or ultra-processed.