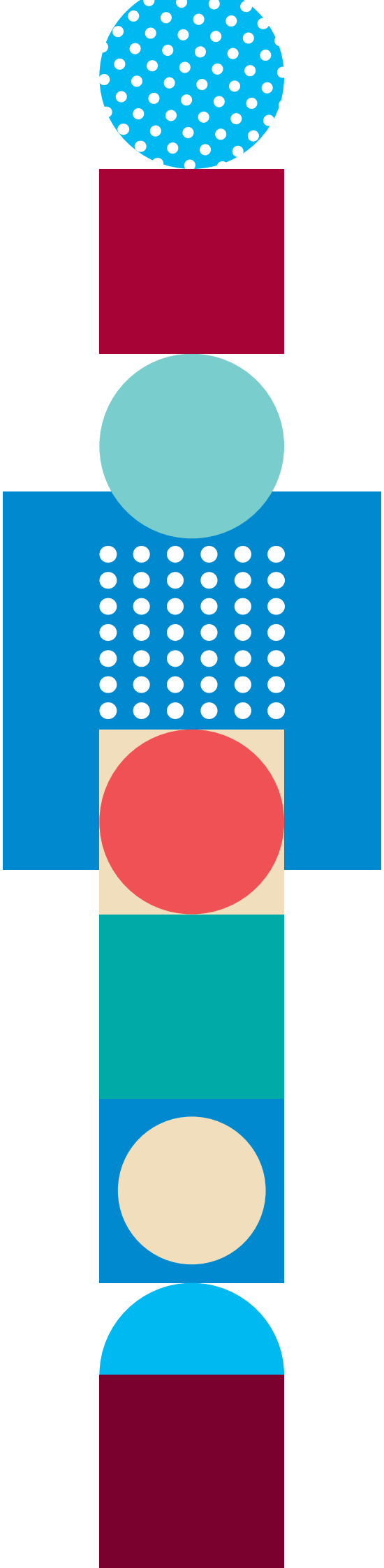

WHO global sodium benchmarks for different food categories

World Health Organization

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Executive summary

The World Health Organization (WHO) started to develop global benchmarks for sodium levels in foods across different food categories in 2020. This builds on the work and experiences of countries and regions in setting targets for sodium levels in different food categories, as part of national and regional efforts to reduce population salt intake, reduce the burden of diet- and nutrition-related noncommunicable diseases (NCDs), and achieve the global NCD target for a 30% relative reduction in mean population intake of salt, with the aim of achieving a target of less than 5 g of salt (i.e. <2 g of sodium) per day by 2025 *(1)*. Furthermore, as a range of stakeholders come together to transform food systems through the United Nations Food Systems Summit, to be held in September 2021, there is now an unprecedented opportunity to scale up these national and regional efforts to tackle unhealthy diets and to improve the global food environment, to ensure access to safe and nutritious food for all.

An estimated 11 million deaths globally are associated with poor diet, 3 million of which are attributable to high sodium intakes *(2)*. Excess dietary sodium intake increases blood pressure and consequently increases the risk of cardiovascular diseases *(3)*. Cardiovascular diseases are the leading cause of NCD deaths worldwide, responsible for 32% of all deaths *(4)*.

Reducing sodium intake is an effective way to lower blood pressure and thus reduce NCDs such as cardiovascular diseases; it also reduces other complications associated with high sodium intakes such as chronic kidney disease, obesity, gastric cancer and liver diseases. The importance of reducing sodium intake was highlighted in WHO's 2012 guideline on sodium intake for adults and children *(5)*. The World Health Assembly has also recognized the importance of sodium reduction; in 2013 it adopted the target of a 30% reduction in mean population intake of salt/sodium *(6)*, but the world is not currently on track to meet this goal *(7)*.

In many high-income countries, and increasingly in low- and middle-income countries, a significant proportion of sodium in the diet comes from manufactured foods such as bread, cereal and grains, processed meats and dairy products *(8)*. An effective way to reduce population sodium intake is through lowering the sodium content of foods that are consumed frequently and are therefore contributing to increased sodium intake.

To drive progress on tackling unhealthy diet, WHO and Chatham House convened a roundtable in June 2018 on strengthening the role and contribution of the food and non-alcoholic beverage industry in addressing the burden of NCDs. At that meeting, WHO set out its specific expectations for industry commitments to adopting standardized targets for sodium levels for the food and beverage categories that are

the highest contributors to sodium intake, and commitments to implementing those targets by 2025 (applicable across all food industries – manufactured, retail, out-of-home and food services). In discussion, private sector representatives agreed that it would be important to develop targets based on categories.

The setting of global sodium benchmarks is, therefore, an important step to drive forward progress in sodium reduction. Global benchmarks will help countries to set national policies and act as a basis for ongoing dialogue between WHO and the private sector at the global level.

To move forward with the process of developing global sodium benchmarks, WHO convened a virtual technical consultation on 21–23 October 2020. That consultation was followed by a series of virtual expert meetings, extended through an online consultation, between November 2020 and March 2021. The meetings involved technical experts with direct experience in setting sodium targets or with knowledge and understanding of the technological aspects of salt use and sodium reduction.

To inform the discussions, WHO compiled and analysed data on existing sodium targets. In total, data were collected from sodium targets set in 41 countries, one WHO region, and one WHO subregion. A food categorization system was then developed, building on the work undertaken to develop WHO regional nutrient profile models. Existing target data were used to identify the most common food categories for sodium targets. Initially, subcategories for which five or more countries had set a sodium target were selected, resulting in a list of 45 subcategories in 18 food categories. However, the experts considered this list of subcategories too limited, and it was decided to review all 18 categories and 97 subcategories to assess whether a global benchmark is needed.

Based on the outcome of the technical consultation, and building on the WHO compilation and analysis of national and regional data on existing sodium targets, the following approach was employed:

- definition of benchmarks in the form of *maximum targets* – this type of target was considered to be the most feasible approach for global benchmarks;
- setting of benchmarks at the level of *subcategories* – main food categories are too heterogeneous for meaningful targets to be set; and
- establishing benchmark values based on the *lowest value for each subcategory* from existing national and regional targets, and case-by-case review of each proposed value by the experts, to ensure that the target is appropriate for all products in the subcategory.

As a result of this process, a set of food categories, subcategories and global benchmarks has been established. These global benchmarks are intended to complement national and regional efforts to set sodium targets. Countries and regions remain free to set targets for products that are not included in these global benchmarks but that are important sources of sodium in their context.

1. Background

The World Health Organization (WHO) started to develop global benchmarks for sodium levels in foods across different food categories in 2020. This builds on the work and experience of countries and regions in setting targets for sodium levels in different food categories, as part of national and regional efforts to reduce population salt intake, to reduce the burden of diet- and nutrition-related noncommunicable diseases (NCDs) and to achieve the global NCD target for a 30% relative reduction in mean population intake of salt, with the aim of achieving a target of less than 5 g of salt (i.e. <2 g sodium) per day by 2025 *(1)*. Furthermore, with a range of stakeholders coming together to transform food systems through the United Nations Food Systems Summit, to be held in September 2021, there is now an unprecedented opportunity to scale up these national and regional efforts to tackle unhealthy diets and to improve the global food environment, to ensure access to safe and nutritious food for all.

An estimated 11 million deaths globally are associated with poor diet, 3 million of which are attributable to high sodium intakes *(2)*. Excess dietary sodium intake increases blood pressure and consequently increases the risk of cardiovascular diseases *(3)*, which are the leading cause of NCD death worldwide, responsible for 32% of all deaths *(4)*. Reducing sodium intake is an effective way to lower blood pressure and thus reduce NCDs such as cardiovascular diseases; it also reduces other complications associated with high sodium intakes such as chronic kidney disease, obesity, gastric cancer and liver diseases. The importance of reducing sodium intake was highlighted in WHO's 2012 guideline on sodium intake for adults and children *(5)*

In many high-income countries, and increasingly in low- and middle-income countries, a significant proportion of sodium in the diet comes from manufactured foods such as bread, cereal and grains, processed meats and dairy products *(8)*. An effective way to reduce population sodium intake is through lowering the sodium content of foods that are consumed frequently and are contributing to increased sodium intake. Reducing sodium intake will not only contribute greatly to preventing cardiovascular diseases but also to accelerating progress towards achieving several global NCD targets and the Sustainable Development Goals (SDGs) target for reducing mortality from NCDs.

WHO recommends that individuals consume less than 5 g of salt (i.e. <2 g of sodium) per day, meaning that the population average intake should be well below that level *(1)*. The World Health Assembly has recognized the importance of sodium reduction; in 2013 it adopted the target of a 30% reduction in mean population intake of salt/sodium, as part of the *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020 (6)*. However, global progress towards this target is insufficient and the world is not currently on track to meet that goal *(7)*.

Clearly, strong, multipronged and multisectoral actions are now needed; thus, WHO included "reduction of salt intake through the reformulation of food products to contain less salt and the setting of target levels for the amount of salt in foods and meals" as a "best buy" in its menu of cost-effective interventions for reducing unhealthy diet to prevent NCDs *(9)*. The importance of salt reduction was also reinforced in WHO's General Programme of Work 2019–2023 *(10)*. In general, current reformulation efforts have been inadequate, but country experience suggests that well-designed strategies with clear targets can lead to considerable progress *(11–12)*.

To drive progress on tackling unhealthy diet, WHO and Chatham House convened a roundtable in June 2018 on strengthening the role and contribution of the food and non-alcoholic beverage industry to respond to the 2011 *Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of NCDs (13)*.

At that meeting, WHO set out its specific expectations for industry commitments on salt/sodium reductions. These were:

- *Reformulation of foods to lower sodium concentrations* – Adopt standardized targets for sodium levels for the food and beverage categories that are the highest contributors to sodium intake and implement them by 2025 (applicable across all food industries – manufactured, retail, out-of-home and food services). A global common set of targets will be established through a dialogue with WHO.
- *Sodium content labelling* – Provide the on-pack sodium data required by Codex (all food services and manufacturers in every jurisdiction). Food services and restaurant chains should also provide these data in store, on packaging or online.

In discussion, private sector representatives agreed that the development of it would be important to develop targets based on categories. WHO is already engaged in dialogue with the International Food and Beverage Alliance (IFBA) in relation to improving the nutritional quality of food and drink products. At a meeting in May 2019 between the Director-General of WHO and high-level representatives of IFBA member companies (which account for about 13% of global packaged food sales), the companies committed to not exceeding 2 g of industrially produced *trans*-fatty acids per 100 g of oils and fats in their products worldwide by 2023 *(14)*.

At that meeting in May 2019, WHO indicated that sodium consumption is still high, that salt is the most important of the dietary risk factors and that commitment to reducing sodium contents needs to be global. WHO also pointed out that it would be important to agree on benchmarks for product categories, and ensure that the products have the same sodium content across all countries. The industry representatives declared that they are committed to reducing sodium contents in their products and have already reduced sodium content in most of their products; they also confirmed that they are ready to collaborate further with WHO and governments on sodium reduction.

Setting sodium benchmarks is, therefore, an important step towards reducing sodium intake. Global sodium benchmarks will be useful for countries in setting national policies and strategies, and for the ongoing dialogue between WHO and the private sector at the global level.

2. Consultative process for developing global sodium benchmarks

To move forward with the process of developing global sodium benchmarks, WHO convened a virtual technical consultation on 21–23 October 2020. To facilitate learning from and building on national and regional efforts to set national sodium targets, six countries and one WHO regional office shared their experience and lessons learned. In addition, results of a preliminary compilation and analysis of existing country information and data on sodium target setting were presented. The technical consultation included in-depth working group discussions on various issues related to the setting of benchmarks. Issues discussed included the challenges of defining food categories and subcategories that are appropriate across all contexts; the relative merits of the different types of targets (e.g. maximum level, simple average, sales-weighted average and percentage reduction); and approaches to defining benchmark levels and timelines for achievement *(15)*.

To follow up from the technical consultation, WHO convened virtual expert meetings on 19–20 November 2020 and 26 January 2021. Consultation with the experts was then extended through an online platform throughout February and March 2021. The meetings involved technical experts with direct experience in setting sodium targets in their countries, or with understanding of the technological aspects of sodium use and sodium reduction in different food categories. The meetings had the following aims:

- review the outcomes of the technical consultation;
- review the results of the final analyses of the existing country data;
- assess priority food categories for which global sodium benchmarks should be developed; and
- assess and finalize draft global sodium benchmarks for identified priority food categories.

2.1 Compilation and analysis of national and regional sodium targets

For the compilation and analysis of existing sodium targets, the following information about the approach taken by countries to set the targets was collected:

- the agency or organization taking the lead;
- voluntary or mandatory targets;
- types of targets (maximum level, simple average, sales-weighted average or percentage reduction);
- timelines to achieve targets;

- food categories for which targets were set;
- values of targets;
- dietary intake assessment (top five contributors of salt to the diet); and
- evaluation of changes of sodium levels in food.

In total, data were collected on sodium targets set in 41 countries, one WHO region (the WHO Region of the Americas), and one WHO subregion (the Pacific Islands, a subregion of the WHO Western Pacific Region). The countries from which data were collected, by WHO region, were:

- **WHO African Region**: South Africa;
- **WHO Region of the Americas**: Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, Mexico, Paraguay, United States of America and Uruguay;
- **WHO Eastern Mediterranean Region**: Bahrain, Islamic Republic of Iran, Kuwait, Oman, occupied Palestinian territory, Qatar, Saudi Arabia, Tunisia and United Arab Emirates;
- **WHO European Region**: Austria, Belgium, Bulgaria, Czech Republic, Germany, Greece, Hungary, Ireland, Italy, Montenegro, Netherlands, Norway, Portugal, Slovenia, Spain, Switzerland, Turkey, and United Kingdom of Great Britain and Northern Ireland; and
- **WHO Western Pacific Region**: Australia, Fiji and New Zealand.

The compilation of existing sodium targets was used to identify the most common food categories in which targets have been established. A food categorization system was then developed, building on the work undertaken to develop WHO regional nutrient profile models, supplemented with the subcategories that were used by the WHO Regional Office for the Americas/Pan American Health Organization for collecting information on sodium targets. The resulting categorization system comprised 18 overall food categories and 97 subcategories.

3. Methodology for defining global benchmarks

Based on the outcome of the technical consultation, and building on the WHO compilation and analysis of country data on existing sodium targets, the approach outlined below was used for development of the benchmarks.

3.1 Type of target

The benchmarks are in the form of *maximum targets* because this was considered to be the most feasible approach for global benchmarks. There is also a large amount of country experience and available data for such targets, compared with simple average, sales-weighted average or percentage reduction targets. The benchmarks are set as single values, rather than as a range of acceptable values, because it is considered important to be working towards a single, harmonized global goal.

3.2 Food categories

Benchmarks are set at the level of *subcategories* because the main food categories are too heterogeneous for meaningful targets to be set. Setting targets at the overall food category level would result in targets that are too high for some products in the category and too low for others – this would render the targets meaningless and could risk undermining country progress. It was acknowledged, however, that a workable set of global benchmarks requires the number of subcategories to be limited, with a focus on those that are the highest contributors to sodium intakes. The subcategories were selected from the list of 18 food categories and 97 subcategories identified through the compilation and analysis of existing national and regional sodium targets (as explained above). Initially, subcategories for which five or more countries had set a sodium target were selected, resulting in a list of 45 subcategories in 18 food categories. The experts considered this too limited, however, and it was decided to review all 18 categories and 97 subcategories to assess whether benchmarks are needed.

3.3 Global benchmark values

Benchmark values are based on the *lowest maximum value for each subcategory from existing national or regional targets*. Feasibility for these targets has been demonstrated in a number of countries, and it is appropriate that the WHO global benchmarks should reflect the lowest maximum value. Benchmarks are defined for products "concentrated" or "not concentrated", rather than "as sold" or "as consumed", because this is a more transparent approach and will be easier to monitor and evaluate.

3.4 Case-by-case review of the benchmarks and subcategories

The experts reviewed the subcategory definitions and the benchmarks on a case-by-case basis. This included verifying that the description of each benchmark subcategory is well matched with the description of the subcategory from which the proposed target is derived. This is important because of the potentially different product mixes between countries. Where a mismatch was found, the next lowest target that aligned well with the subcategory in question was selected. In addition, to deal with difficulties in setting appropriate benchmarks where subcategories remained too wide-ranging and diverse, subcategories were further reviewed and sometimes redefined.

The proposed food categories, subcategories and global benchmarks are shown in **Annex**, along with the national or regional lowest maximum target on which each benchmark is based. These *global* benchmarks are intended to complement national and regional efforts to set sodium targets. Countries and regions remain free to set targets for other products that are not included in these global benchmarks but that are important sources of sodium in their context. No appropriate benchmark was identified from existing country examples for the following six subcategories: 1a. Granola and cereal-type bars; 1b. Nut butters; 2g. Dry-mixes for making cakes, sweet biscuits, pastries and other sweet bakery wares; 8d. Extra-hard ripened cheese; 8f. Mould ripened cheese, blue; and 8h. Brine-stored cheese. This was because the existing lowest maximum levels were considered too high, especially since there are products that contain much lower sodium on the market today. Review of possible alternative methods (including market data analysis) is being carried out at present to explore the possibility of setting a global benchmark.

4. Conclusion

Reducing sodium intake is an effective way to reduce the burden of cardiovascular diseases and other diet- and nutrition-related NCDs. However, accelerated progress is needed to meet the globally agreed goals for reducing sodium intakes and NCD burden. There is now a great opportunity to boost progress towards achievement of the SDGs and the global sodium reduction target by setting global benchmarks for sodium in a wide range of food categories. The efforts of Member States and several WHO regional offices have shown that it is feasible to reduce sodium levels in processed foods by setting national or regional sodium targets for food product reformulation. Building on this work, a set of global sodium benchmarks is established.

These benchmarks are intended to serve as a basis for dialogue with the food and beverage industry to improve the food environment at the global level, following on from the constructive dialogue on reduction of industrially produced *trans*-fatty acids.

The global benchmarks are also developed to call for accelerated action from Member States in scaling up their efforts to reduce their populations' sodium intake. They are designed to be complementary to existing and ongoing national and regional efforts and initiatives, and are intended to serve as a reference for such initiatives, where needed.

The global sodium benchmarks will be particularly pertinent, as an effective game-changing solution, to discussions as part of the United Nations Food Systems Summit in September 2021, which presents an opportunity to seek commitments from food systems actors to create healthier food environments, contribute to food system transformation and ensure access to safe and nutritious food for all.

Annex: WHO global sodium benchmarks

Main food category	Subcategory	Subcategory description	Global benchmark (mg / 100 g)	Lowest maximum target on which the benchmark is based
1. Chocolate and sugar confectionery, energy bars, and sweet toppings and desserts	1a. Granola and cereal-type bars	Granola bars (plain and coated), fruit filled bars and muffin-type bars.		No appropriate benchmark was identified from existing country examples as the lowest maximum levels were considered too high, especially since there are products that contain much lower sodium on the market today. Review of possible alternative methods (including market data analysis) is being carried out at present to explore the possibility of setting a global benchmark. In the meantime, no global benchmark is established at this stage.
	1b. Nut butters	Nut butters (e.g. peanut, almond, cashew and soy). Excludes unsalted nut butters and tahini.		No appropriate benchmark was identified from existing country examples as the lowest maximum levels were considered too high, especially since there are products that contain much lower sodium on the market today. Review of possible alternative methods (including market data analysis) is being carried out at present to explore the possibility of setting a global benchmark. In the meantime, no global benchmark is established at this stage.
2. Cakes, sweet biscuits and pastries; other sweet bakery wares; and dry-mixes for making such	2a. Cookies/sweet biscuits	Shelf-stable, frozen and refrigerated products. Filled and unfilled sweet cookies, biscuits, tea biscuits and dough. Excludes crackers/savoury biscuits (see 3a). Excludes dry-mixes (see 2g).	265	Brazil/WHO Regional Office for the Americas: Filled cookies (*Biscoito Recheado*)/ cookies and sweet biscuits, 265 mg
	2b. Cakes and sponges	Shelf-stable, frozen and refrigerated products. Cakes, snack cakes, doughnuts (yeast and cake types), brownies and squares, muffins and pastry dough. Excludes dry-mixes (see 2g).	205	Brazil: Cake rolls (*Rocambole*), 204 mg (benchmark is rounded up to the nearest 5 mg)

	2c. Pies and pastries	Shelf-stable, frozen and refrigerated products. Pies, fruit crisps, pastries, toaster pastries with fruit or other fillings, Danish pastry, cinnamon rolls and pastry dough. Excludes dry-mixes (see 2g).	120	United Kingdom: Sweet pies and other shortcrust or choux pastry-based desserts, 120 mg
	2d. Baked and cooked desserts	Shelf-stable, frozen and refrigerated products. Puddings, custards, crème brûlée, flans and cheesecakes. Includes non-baked cheesecakes. Excludes dry-mixes (see 2g).	100	United Kingdom: All other processed puddings, 100 mg
	2e. Pancakes, waffles and French toast	Shelf-stable, frozen and refrigerated products. Includes crumpets. Excludes dry-mixes (see 2g).	330	United States: Prepared breakfast bakery products, 330 mg
	2f. Scones and soda bread	Shelf-stable, frozen and refrigerated products. Scones (including US biscuits), soda bread and dough.	475	United Kingdom: Morning goods – powder raised, 475 mg
	2g. Dry-mixes for making cakes, sweet biscuits, pastries and other sweet bakery wares	Dry-mixes for cookies/sweet biscuits, cakes, sponges, pies, pastries, baked and cooked desserts, pancakes, waffles, French toast, scones and soda bread. Excludes ready-made products (see 2a-2f).		No appropriate benchmark was identified from existing country examples as the lowest maximum levels were considered too high, especially since there are products that contain much lower sodium on the market today. Review of possible alternative methods (including market data analysis) is being carried out at present to explore the possibility of setting a global benchmark. In the meantime, no global benchmark is established at this stage.
3. Savoury snacks	3a. Crackers/savoury biscuits	Plain (i.e. flavoured only with salt) or flavoured crackers, sandwich crackers, puffed cakes (e.g. cheese crackers, soda crackers and rice cakes). Includes dry breads such as Melba toast, rusks, breadsticks, pita or baguette chips, and other crisp breads. Excludes unsalted products.	600	Paraguay: Baked goods (*Productos panificados*), 600 mg
	3b. Nuts, seeds and kernels	Popcorn, nuts, peanuts and seeds (seasoned with salt or flavour). Excludes unsalted products.	280	Colombia: Light peanuts (Mani light – reduced sodium), 279 mg (benchmark is rounded up to the nearest 5 mg)

Main food category	Subcategory	Subcategory description	Global benchmark (mg / 100 g)	Lowest maximum target on which the benchmark is based
3. Savoury snacks	3c. Potato, vegetable and grain chips	Chips made of potato, vegetables and grains (e.g. corn, wheat, multigrain and rice). Includes all flavours (including salt and vinegar flavours). Includes both reformed chips/crisps and sliced chips.	500	Australia: Potato snacks, 500 mg
	3d. Extruded snacks	Sheeted, reformed, puffed or pelleted snacks made from starch-rich materials (e.g. corn, maize, wheat, rice or potato flour) or legume flours. Includes all flavours (including salt and vinegar flavours). Excludes chips (see 3c) and pretzels (3e).	520	New Zealand: Sheeted/reformed snacks, 520 mg
	3e. Pretzels	Salted hard pretzels. Includes sweet and savoury flavoured, filled and unfilled pretzel snacks (e.g. chocolate covered pretzels and pretzels filled with cheese).	760	United Kingdom: Extruded, sheeted snacks, 760 mg
4. Beverages				No global benchmarks to be established at this stage
5. Edible ices				No global benchmarks to be established at this stage
6. Breakfast cereals	6a. Minimally processed breakfast cereals (includes all types – prepared, ready-made and dry-mixes)	Prepared, ready-made or dry-mix minimally processed cereals, such as steel-cut, rolled or instant oats for preparing oatmeal, and muesli (i.e. made with oats and a mixture of unsalted nuts and seeds and/or dried fruit) with no added sodium, fat or sugars (or non-sugar sweeteners). May or may not require cooking. Includes porridge mix and hot instant cereals. Excludes highly processed cereals including granola (see 6b).	100	United States: Prepared cooked cereal, 100 mg

	6b. Highly processed breakfast cereals	Highly processed, ready-to-eat breakfast cereals including shredded, flaked, puffed or extruded cereals, and cereals with added nutrients such as sodium, fat, sugars (or non-sugar sweeteners), fibre or various vitamins and minerals. Includes granola.	280	Slovenia: Breakfast cereals (e.g. cornflakes), 280 mg
7. Yoghurt, sour milk, cream and other similar foods				No global benchmarks to be established at this stage
8. Cheese	8a. Fresh unripened cheese	Unripened cheese (e.g. cream cheese, mozzarella, ricotta and cottage cheese).	190	United Kingdom: Cottage cheese – plain and flavoured (fresh cheeses), 190 mg
	8b. Soft to medium ripened cheese	All soft to medium firm textured ripened cheese, often with a relatively short ripening period (e.g. Emmental, Colby, Monterey Jack, young Gouda and mild Cheddar).	520	Canada: Swiss, 520 mg
	8c. Semi-hard ripened cheese	All semi-hard to hard-textured ripened cheese, often with a relatively long ripening period (e.g. matured Gouda, matured Cheddar, Gruyere and Provolone).	625	United States: Cheddar and Colby cheese (hard), 625 mg
	8d. Extra-hard ripened cheese	All extra-hard-textured ripened cheese (e.g. Parmesan, Romano and Pecorino).		No appropriate benchmark was identified from existing country examples as the lowest maximum levels were considered too high, especially since there are products that contain much lower sodium on the market today. Review of possible alternative methods (including market data analysis) is being carried out at present to explore the possibility of setting a global benchmark. In the meantime, no global benchmark is established at this stage.
	8e. Mould ripened cheese, white and red	All white and red mould cheese such as white and red surface-mould cheese (e.g. Brie and Munster).	510	United States: Brie and other ripened cheese (soft), 510 mg

Main food category	Subcategory	Subcategory description	Global benchmark (mg / 100 g)	Lowest maximum target on which the benchmark is based
8. Cheese	8f. Mould ripened cheese, blue	All blue mould cheese (e.g. Roquefort and Gorgonzola).		No appropriate benchmark was identified from existing country examples as the lowest maximum levels were considered too high, especially since there are products that contain much lower sodium on the market today. Review of possible alternative methods (including market data analysis) is being carried out at present to explore the possibility of setting a global benchmark. In the meantime, no global benchmark is established at this stage.
	8g. Processed cheese	All processed and melt cheese, cheese analogues (including plant-based), dairy-free cheese and spreads.	720	United Kingdom: Cheese spreads, 720 mg
	8h. Brine-stored cheese	Cheese stored in brine (e.g. feta and halloumi).		No appropriate benchmark was identified from existing country examples as the lowest maximum levels were considered too high, especially since there are products that contain much lower sodium on the market today. Review of possible alternative methods (including market data analysis) is being carried out at present to explore the possibility of setting a global benchmark. In the meantime, no global benchmark is established at this stage.
9. Ready-made and convenience foods and composite dishes	9a. Canned foods	Shelf-stable vegetarian and meat chilli, stew, meatballs and curries; and baked beans and refried beans. Excludes canned vegetables and legumes (see 16a).	225	United Kingdom: Baked beans in tomato sauce without accompaniments, 225 mg
	9bi. Pasta, noodles, and rice or grains with sauce or seasoned (prepared)	Shelf-stable, frozen and refrigerated products. Ready-to-serve pasta, noodles, and rice or grain mixes with sauce or seasonings (e.g. macaroni with cheese sauce, noodles in tomato sauce and teriyaki noodles).	230	United Kingdom: Pasta and noodles, plain and flavoured, 230 mg

	9bii. Pasta, noodles, and rice or grains with sauce or seasoned (dry-mix, concentrated)	Dry-mixes for shelf-stable pasta, noodles, and rice or grain mixes with sauce or seasonings sold in concentrated form (e.g. macaroni with cheese sauce, noodles in tomato sauce and teriyaki noodles). Includes instant noodle with soup or seasonings.	770	United States: Grain-based meals/entrees, dry-mix, 770 mg
	9c. Pizza and pizza snacks	Frozen and refrigerated pizza, pizza snacks and calzones. Excludes sandwiches and wraps (see 9d).	450	Australia: Pizza (commercially produced pizza dough, with toppings), 450 mg
	9d. Sandwiches and wraps	Frozen and refrigerated sandwiches, wraps, burritos, tacos, enchiladas, hamburgers and hot dogs.	430	United States: Beef/pork-based sandwiches, 430 mg
	9e. Prepared salads	Frozen and refrigerated prepared salads (e.g. potato salad, coleslaw, pasta salad, vegetable salad, bean salad, couscous and rice salad).	390	Canada: Refrigerated prepared salads, 390 mg
	9f. Ready-to-eat meals composed of a combination of carbohydrate and either vegetable or meat, or all three combined	Frozen and refrigerated dinner entrées, meal sides, meal centres and appetizers. Excludes all other items listed in the main category 9.	250	Australia: Ready meals, 250 mg
	9gi. Soups (ready-to-serve, canned and refrigerated soups)	Canned and refrigerated, ready-to-serve broth and broth-based soup. Excludes ready-made noodles with sauce (see 9bi), dry soups (9gii), and bouillon and soup stock (not concentrated) (see 18ai).	235	United Kingdom: Soups (as consumed), 235 mg
	9gii. Soups (dry soup only) (concentrated)	Dried broth and broth-based soup (concentrated). Excludes instant noodles with soup or seasonings (see 9bii), ready-to-serve soups (9gi), and bouillon and soup stock (concentrated) (see 18aii).	1200	Czech Republic: Dry soup and sauces, 1200 mg

Main food category	Subcategory	Subcategory description	Global benchmark (mg / 100 g)	Lowest maximum target on which the benchmark is based
10. Butter and other fats and oils	10a. Salted butter, butter blends, margarine and oil-based spreads	Flavoured butter, butter blends and margarine. Includes vegetable oil spreads such as olive oil spreads. Excludes unsalted butter.	400	New Zealand: Edible oil spreads – margarine/oil-based spreads, 400 mg
11. Bread, bread products and crisp breads	11a. Sweet and raisin breads	All types of sweetened bread (e.g. brioche, sweet buns, and raisin breads/toast – i.e. breads with dried fruit and/or nut inclusions). Includes refrigerated and frozen dough.	310	United States: Sweet rolls, 310 mg
	11b. Leavened bread	All types of yeast-leavened breads, including sourdough breads. Includes breads made with all types of cereal flours (e.g. white or whole grain wheat, spelt and rye). Includes all types of shapes and baking traditions (e.g. pan baked, hearth baked, large loafs, baguettes, rolls and buns). Includes all types of artisanal, pre-packaged sliced breads, par-baked bread and rolls, bagels, English muffins, pizza crusts, and diet or low-calorie breads. Includes breads with and without additions (e.g. herbs, nuts, olives, onion and cheese). Also includes refrigerated and frozen dough. Excludes dough for cookies (see 2a), cakes and sponges (see 2b), pastries (see 2c) and scones (see 2f). Excludes flatbreads that are leavened such as naan (see 11c).	330	Hungary: White and half brown bread (*Fehér és félbarna kenyér*), 332 mg (benchmark is rounded down to the nearest 5 mg)

	11c. Flatbreads	All types of leavened and non-leavened flat breads. Fresh baked, refrigerated and shelf-stable plain (i.e. flavoured only with salt) or flavoured tortillas, wraps, pita, Greek flatbreads or naan. Includes refrigerated and frozen dough. Excludes pancakes (see 2e).	320[a]	Qatar: Bread, 320 mg
12. Fresh or dried pasta, noodles, rice and grains				No global benchmark to be established at this stage
13. Fresh and frozen meat, poultry, game, fish and similar				No global benchmarks to be established at this stage
14. Processed meat, poultry, game, fish and similar	14a. Canned fish	Canned tuna, canned salmon, water and oil packed fish, sauce packed fish, fish/seafood salad and shellfish (e.g. sardines, mackerel, shrimp, crab, clams and smoked oysters). Includes retort packed products. Excludes canned anchovies (see 14c).	360	Fiji: Canned sardines, 360 mg
	14b. Processed fish and seafood products, raw	Unprepared fish and seafood products, cakes and burgers; and seasoned (with sauce or seasoning), breaded, battered and stuffed fish. Includes restructured, simulated or imitation seafoods such as surimi. Also includes fish and seafood-based mousse, spread and dips.	270	Australia: Seafood (crumbed and battered proteins), 270 mg
	14c. Processed fish and seafood products, non-heat-treated	Fish and seafood products with non-heat preservation methods, such as brining, fermenting and air drying (e.g. smoked fish, kippered fish, salmon jerky, anchovies and dried fish).	800	Canada: Smoked fish, 800 mg

[a] The target of 200 mg/100 g product is used in countries such as Bahrain, Oman and United Arab Emirates. It was considered too low and not applicable to flatbreads in general that are consumed worldwide. However, wherever and whenever possible, countries must strive to lower their target for this subcategory as much as possible to the level of 200 mg/100 g, especially in countries where the product contributes greatly to the population sodium intake.

Main food category	Subcategory	Subcategory description	Global benchmark (mg / 100 g)	Lowest maximum target on which the benchmark is based
14. Processed meat, poultry, game, fish and similar	14d. Raw meat products and preparations	Unprepared meat products and burgers, and fresh sausages. Includes marinated, flavoured, moisture enhanced and breaded meat products.	230	United States: Boneless, non-breaded/battered, uncooked poultry, 230 mg
	14ei. Whole muscle meat products, heat treated (frozen and canned products)	Frozen and canned whole muscle (e.g. beef, lamb, chicken and turkey).	270	United Kingdom: Whole muscle, 270 mg
	14eii. Whole muscle meat products, heat treated (refrigerated products)	Refrigerated whole muscle (e.g. beef, lamb, chicken and turkey).	600	Ireland: Uncured cooked meat products e.g. typically poultry and some beef products, 600 mg
	14f. Whole muscle meat products, non-heat preservation	Air-dried, cured, entire meat pieces (e.g. Parma and Serrano ham). Brined meat products (e.g. pastrami and bacon).	950	Canada: Preserved meat – uncooked, 950 mg
	14g. Comminuted meat products, heat treated (cooked)	Cooked sausages (including hotdogs), cooked meatloaf balls, corned beef, luncheon meats and pâté. Includes canned sausages and luncheon meats.	540	United Kingdom: Comminuted or chopped reformed meat, 540 mg
	14h. Comminuted meat products, non-heat preservation	Air-dried, cured and/or fermented sausages (e.g. salami, jerky and biltong).	830	Colombia: Chorizos, 831 mg (benchmark is rounded down to the nearest 5 mg)
15. Fresh and frozen fruit, vegetables and legumes				No global benchmarks to be established at this stage
16. Processed fruit, vegetables and legumes	16a. Canned vegetables and legumes	Canned vegetables and legumes (e.g. potatoes, tomatoes, corn, peas, green beans, mushrooms, mixed vegetables, beets [plain and pickled], kidney beans, chickpeas, lentils and bean salads).	50	United Kingdom: Canned and bottled vegetables, 50 mg

	16b. Pickled vegetables	Shelf-stable sour pickled vegetables (e.g. cucumbers, onions, peppers, sauerkraut and other vegetables) and shelf-stable sweet pickled vegetables (e.g. cucumbers, onions, relish and other vegetables).	550	United States: Pickled vegetables, 550 mg
	16c. Olives and sundried tomatoes	Shelf-stable unstuffed and stuffed olives, tapenade and sundried tomatoes.	780	United States: Olives without additions, 780 mg
	16d. Vegetable juice and cocktail	Vegetable juice and vegetable juice cocktail (e.g. tomato juice, carrot juice, and tomato and clam juice). Excludes vegetable and fruit juice blends.	200	United States: Vegetable juice, 200 mg
	16e. Frozen vegetables and legumes	Frozen vegetables and legumes in sauce and/or seasoning. Excludes frozen French fries (see 16f).	180	United States: Frozen vegetables and legumes, 180 mg
	16f. Frozen potatoes and other potato products (ready-to-eat)	Plain (i.e. flavoured only with salt) and seasoned French fries/chips, sweet potato fries, hash browns and potato patties.	260	United Kingdom: Other processed potato products, 260 mg
	16g. Battered or breaded vegetables	Fried or baked vegetables (e.g. onion rings, fried jalapeños and fried green beans).	510	United States: Battered/Breaded vegetables, 510 mg
17. Plant-based food/ meat analogues	17a. Tofu and tempeh	Savoury, marinated and seasoned tofu and tempeh. Excludes plain tofu, tofu-based desserts and plain tempeh.	280	Canada: Seasoned tofu and tempeh, 280 mg
	17b. Meat analogues	Frozen and refrigerated meat analogues (e.g. veggie patties, burgers, veggie dogs, meatballs and deli-style slices). Excludes dairy-free cheese (see 8g).	250	United Kingdom: Plain meat alternatives, 250 mg
18. Sauces, dips and dressings	18ai. Bouillon and soup stock (not concentrated)	Liquid broth and soup stock. Includes gravy stock. Excludes soups (ready-to-serve, canned and refrigerated soups) (see 9gi).	350	Netherlands: Soup and bouillon, 350 mg

Main food category	Subcategory	Subcategory description	Global benchmark (mg / 100 g)	Lowest maximum target on which the benchmark is based
18. Sauces, dips and dressings	18aii. Bouillon and soup stock (concentrated)	Bouillon cubes and soup stock powders. Includes gravy stock. Excludes concentrated, dry soups (see 9gii).	15 000	South Africa: Stock cubes, stock powders, stock granules, stock emulsions, stock pastes or stock jellies, 15 000 mg
	18b. Cooking sauces including pasta sauces and tomato sauces (not concentrated)	All cooking sauces (e.g. pasta sauce, curry and Mexican). These are major characterizing components of a meal and are designed to be added to foods during preparation, rather than at the table. Also includes gravies and finishing sauce products which are designed to be added to food upon serving or as food finishes cooking. Products in this category do not require reconstitution or the addition of liquids. Excludes condiments including pesto (see 18e), soy sauce and fish sauce (see 18f), other Asian-style cooking sauces (see 18g), and marinades and thick pastes (see 18h).	330	United Kingdom: All cook in and pasta sauces (except pesto and other thick sauces and pastes), 330 mg
	18c. Dips and dipping sauces	All dips (e.g. salsa, chutney and guacamole, bean-based dips such as hummus, and sweet sauces such as plum sauce, cherry sauce and pineapple sauce). Excludes cream- and cheese-based dips (see 18d) and fish and seafood-based mousse, spread and dips (see 14b).	360	United Kingdom: Dips, 360 mg
	18d. Emulsion-based dips, sauces and dressings	Cream or cheese dips and sauces, standardized salad dressing (including mayonnaise-based dressing, refrigerated and shelf-stable oil and vinegar-based dressings, and creamy dressings), and mayonnaise. Includes mayo-type spreads. Includes low-fat and fat-free versions.	500	United Kingdom: Mayonnaise (not reduced fat/calorie), 500 mg

	18e. Condiments	Tomato ketchup, brown sauce (e.g. BBQ sauce, Worcestershire sauce, steak sauce and curry-flavoured sauces), chilli sauce including Sriracha chilli sauce, sweet chilli sauce and mustard. Also includes pesto.	650	United Kingdom: Tomato ketchup, 650 mg
	18f. Soy sauce and fish sauce	Soy sauce, fish sauce and other fermented sauces.	4840	Fiji/WHO Western Pacific Regional Office: Asian sauces, 4840 mg
	18g. Other Asian-style sauces	Asian-style sauces and condiments (e.g. teriyaki, black bean, hoisin, stir-fry, duck and oyster sauces). Excludes sweet sauces (see 18c) and chilli sauce including Sriracha chilli sauce and sweet chilli sauce (see 18e) and soy sauce and fish sauce (see 18f).	680	Australia/New Zealand: Asian-style cooking sauces/Asian sauces, 680 mg
	18h. Marinades and thick pastes	Shelf-stable marinades, and thick pastes such as curry pastes (e.g. Thai and Indian).	1425	United Kingdom: Thick pastes, 1425 mg

BBQ: barbecue; United Kingdom: United Kingdom of Great Britain and Northern Ireland; United States: United States of America; US: United States; WHO: World Health Organization.

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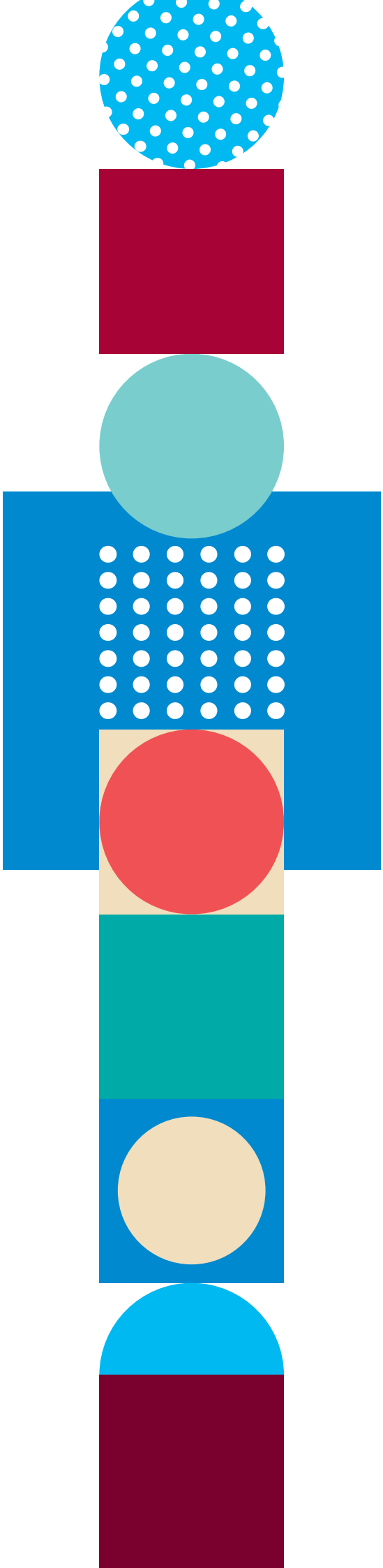

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