



FEEDcities project

The food environment in cities in eastern Europe and central Asia

Armenia

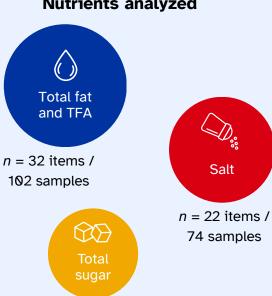
Goal of the study

Characterize the food environment in Yerevan, Armenia to assess the content of *trans-fatty* acids (TFA), salt, and total sugars in ready-to-eat (RTE) and non-ready-to eat (non-RTE) food items offered in fast-food outlets, kiosks and supermarkets.

Characteristics of the study

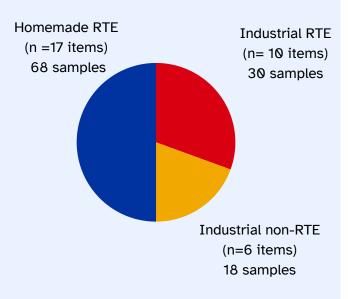
| Study area | Study period | Included vendors | Samples collected |
|---------------------------|----------------------------------|--|-------------------|
| Yerevan (capital city) | September 2024 – January 2025 | Kiosks, fast-food outlets, bakeries and supermarkets | 116 |
| | | | |

Nutrients analyzed



n = 17 items / 48 samples

Food categories per collected samples



Results

Five food items (alone or in combination) with the highest values in each nutrient category are presented below

Grams of TFA per serving 0.4 0.34 g 0.33 g 0.28 g 0.3 0.22 g 0.20 g 0.2 0.1 0.0 One One One hot-dog One lahmajo Ice cream khachapuri chocolate (263 g); (133 g);(industrial) (198 g) croissant one kebab/ pizza (110 g); (105 g) (140 g) shawarma milk chocolate (297 g) (49 g)

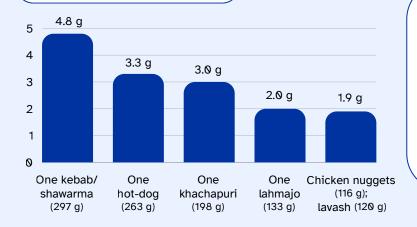
WHO recommendation for TFA intake (1)

Less than **1% of total energy** (less than **2.2 g per day** for a 2000-calorie diet)

WHO best-practice recommendation (2)

2 g of iTFA per 100 grams of total fat in all foods

Grams of salt per serving



WHO recommendation for salt intake (3)

Less than **5 g of salt per day** (equivalent to less than 2 g of sodium, or just **under a teaspoon**)

Grams of sugar per serving



WHO recommendation for free sugars intake (4)

Less than 10% of total energy (50 g or 12 teaspoons); less than 5% of total energy intake for additional health benefits



Implications for real life



While most of the food items tested in this study for TFA, salt and sugar do not exceed recommended maximum daily intake, their cumulative intake throughout the day might result in excess.

Two options of plausible diet using the combination of the food items tested in this study are illustrated below to demonstrate the total cumulative intake of TFA, salt and sugar in a day.

Option 1

Option 2

TFA

(g)

Salt

(g)

Sugar

(g)





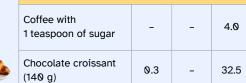
| | Breakfast | | | |
|---|--|-----|-----|------|
| | Lavash (200 g) | 0.0 | 3.5 | - |
| 1 | Cheese (50 g) | - | 1.2 | - |
| | Coffee with a piece of milk chocolate (50 g) | 0.2 | _ | 24.1 |
| | Lunch | | | |



Snack

| Burger (230 g) | 0.2 | 3.5 | _ |
|----------------------|-----|-----|-----|
| French fries (170 g) | 0.1 | 8.0 | _ |
| Ketchup (40 g) | 0.0 | 0.8 | 3.1 |





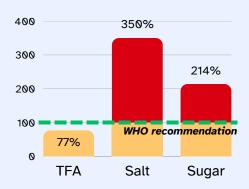


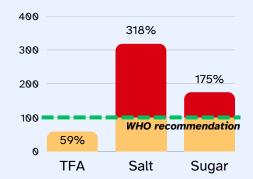
| Dinner | | | |
|-------------------------|-----|-----|--|
| Two lahmajos (260 g) | 0.4 | 4.2 | |
| Chicken nuggets | 0.1 | 1.9 | |



| (120 g) | | | |
|-------------------|-----|------|------|
| Ice cream (100 g) | 0.2 | - | 23.8 |
| Total in grams | 1.3 | 15.9 | 87.5 |







Policy recommendations



Introduce national sodium reduction targets for processed and homemade foods, supported by national benchmarks (3, 5).



Conduct consumer awareness campaigns and nutrition education to increase public knowledge on healthy eating and empower individuals to make informed choices.



Improve food labelling by mandating the disclosure of salt, sugar, saturated fat, and TFA content, and considering front-of-pack nutrition labelling systems (6).



TFA by limiting them to no more than 2% of total fat content in all foods, and establish mechanisms for monitoring and enforcement (1, 2).



Engage food vendors and manufacturers to promote healthier cooking practices and improve access and affordability of healthy fats and oils.



Explore fiscal policies such as taxes on sugar-sweetened beverages and other unhealthy products to reduce consumption and promote reformulation (4, 7, 8).



Foster cross-sectoral collaboration to integrate these measures within national strategies on health, food safety, and education, ensuring coherence and sustainability of policy actions.

References

- 1. Saturated fatty acid and trans-fatty acid intake for adults and children: WHO guideline. Geneva: World Health Organization; 2023 (https://iris.who.int/handle/10665/370419). License: CC BY-NC-SA 3.0 IGO.
- 2. REPLACE trans fat: an action package to eliminate industrially-produced trans-fat from the global food supply: trans fat free by 2023. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/331303). License: CC BY-NC-SA 3.0 IGO.
- 3. Guideline: sodium intake for adults and children. World Health Organization; 2012 (https://iris.who.int/handle/10665/77985).
- 4. Guideline: sugars intake for adults and children. Geneva: World Health Organization; 2015 (https://apps.who.int/iris/handle/10665/149782).
- 5. WHO global sodium benchmarks for different food categories. Geneva: World Health Organization; 2021 (https://iris.who.int/handle/10665/341081). Licence: CC BY-NC-SA 3.0 IGO.
- Manual to develop and implement front-of-pack nutrition labelling: guidance for countries on the selection and testing of evidence-informed front-of-pack nutrition labelling systems in the WHO European Region. Copenhagen: WHO Regional Office for Europe; 2020 (https://iris.who.int/handle/10665/336988). Licence: CC BY-NC-SA 3.0 IGO.
- 7. WHO manual on sugar-sweetened beverage taxation policies to promote healthy diets. World Health Organization; 2022 (https://iris.who.int/handle/10665/365285). License: CC BY-NC-SA 3.0 IGO.
- 8. Food taxes for a healthy diet: time for action. Copenhagen: WHO Regional Office for Europe; 2025 (https://iris.who.int/handle/10665/382433). License: CC BY-NC-SA 3.0 IGO.

© World Health Organization 2025. Some rights reserved. This work is available under the CC BY-NC-SA 3.0 IGO license.

4 November 2025