LSSS guideline launch event
Monday 27 January, 2025

Overview of the WHO guideline on lower-sodium salt substitutes

Rain Yamamoto

Scientist

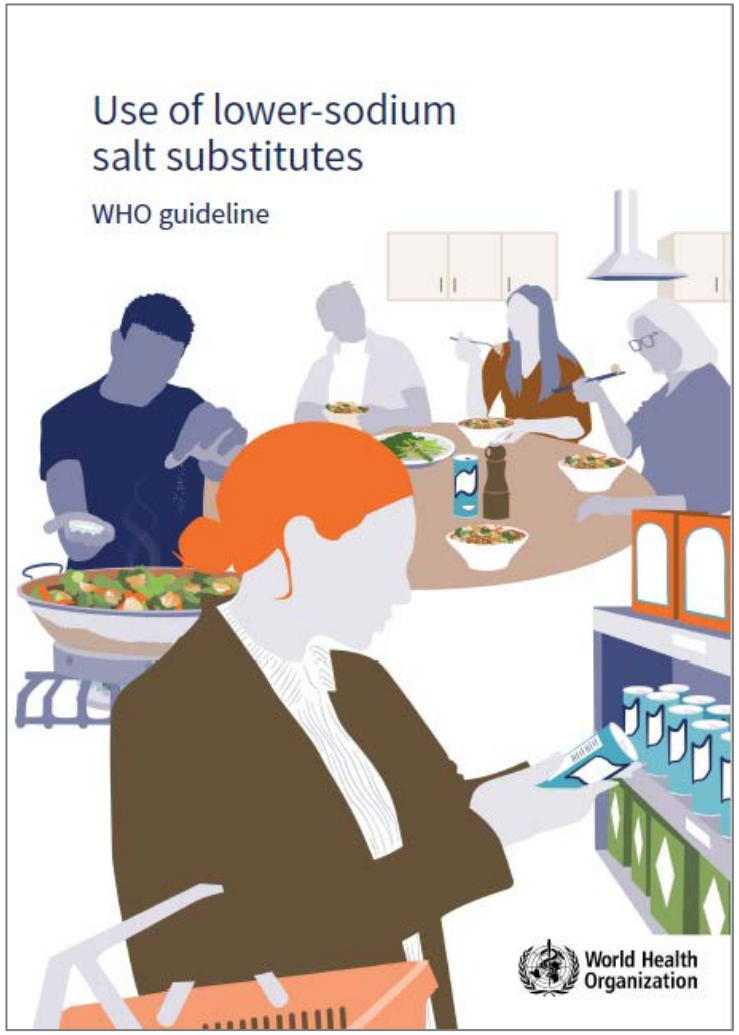
Department of Nutrition and Food Safety

World Health Organization

World Health Organization

Objective of the LSSS guideline

To provide guidance on the use of lower-sodium salt substitutes (LSSS) for **policy-makers, programme managers, health professionals and other stakeholders in their efforts to reduce sodium intake and associated risks through a range of policy actions and public health interventions.**



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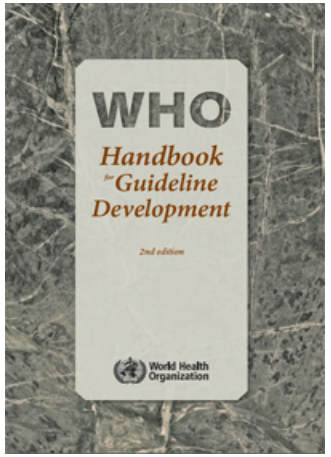
WHO guideline development



WHO steering group

GRADE

GRADE CERQual

Scope the guideline

Set up guideline development group (GDG)

Manage declarations of interest (DOI)

Formulate PICO questions

GRC approval - Proposal

Evidence retrieval, assessment, synthesis

Review evidence, appraise certainty of evidence

GRC approval - PICO, GDG, DOI

Formulate recommendations

Include explicit consideration of:

- Benefits and harms
- Resource use/feasibility
- Health equity/non-discrimination
- Human rights/sociocultural acceptability

Public consultation

External peer-review

GRC approval Final guideline

Disseminate, implement

Evaluate impact

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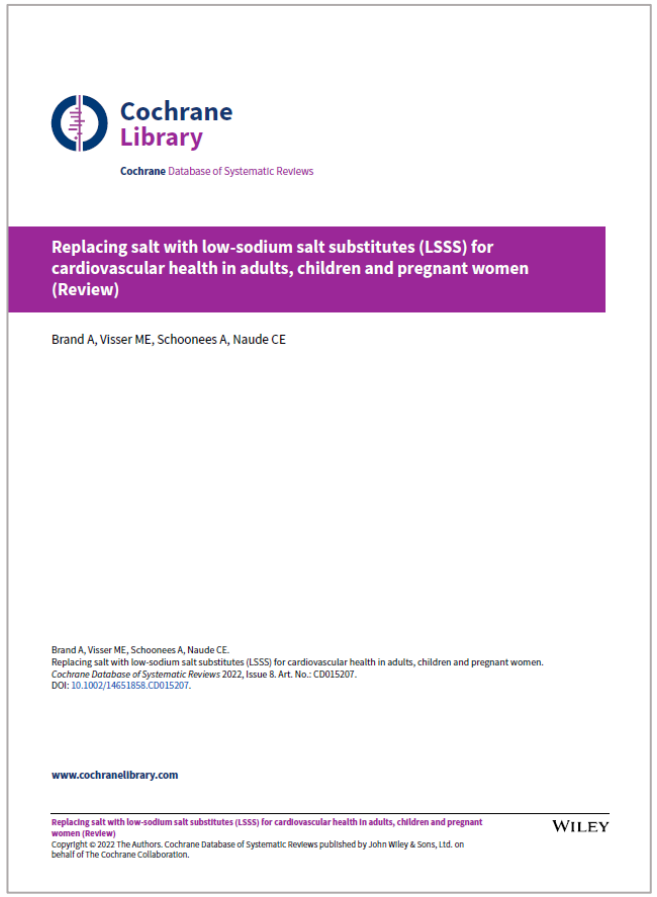
(GRC = Guideline Review Committee)

Evidence base – Systematic review


Cochrane Library

Cochrane Database of Systematic Reviews

Replacing salt with low-sodium salt substitutes (LSSS) for cardiovascular health in adults, children and pregnant women (Review)

Brand A, Visser ME, Schoonees A, Naude CE

Brand A, Visser ME, Schoonees A, Naude CE.
Replacing salt with low-sodium salt substitutes (LSSS) for cardiovascular health in adults, children and pregnant women.
Cochrane Database of Systematic Reviews 2022, Issue 8. Art. No.: CD015207.
DOI: 10.1002/14651858.CD015207.

www.cochranelibrary.com

Replacing salt with low-sodium salt substitutes (LSSS) for cardiovascular health in adults, children and pregnant women (Review)
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- Systematic review of 26 RCTs involving 34,961 adults and 92 children.
- Most trials mainly restricted participants to those at high baseline cardiovascular risk (e.g. hypertension, elevated stroke risk).
- All trials in the review excluded people for whom increased potassium intake could potentially cause harm (e.g. kidney disease).
- LSSS interventions of any type were included. (Most trials investigated the effects of LSSS with potassium.)
- LSSS interventions of any duration were included (ranging from 56 days to 5 years).
- Critical health outcomes considered for adults were blood pressure, serum potassium, hyperkalaemia, hypokalaemia, stroke, cardiovascular events and mortality.

Brand A, Visser ME, Schoonees A, Naude CE. Replacing salt with low-sodium salt substitutes (LSSS) for cardiovascular health in adults, children and pregnant women. Cochrane Database Syst Rev. 2022, Issue 8.

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Evidence base – Contextual factor narrative review

The review looked at additional contextual factors related to the implementation of LSSS:

- Priority of the problem being addressed
- Values and preferences related to the health outcomes
- Resource implications
- Cost–effectiveness
- Equity and human rights
- Acceptability to key stakeholders
- Feasibility of implementing the intervention

Review of contextual factors to inform the development of the WHO guideline on the use of low-sodium salt substitutes. Geneva: World Health Organization; 2023.

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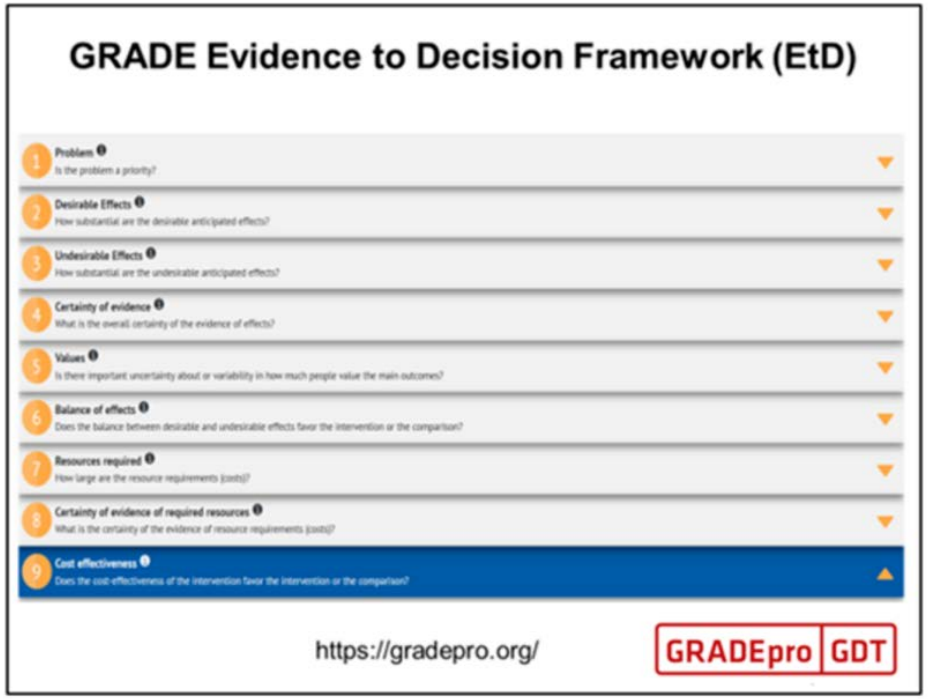
Evidence to recommendation

- The NUGAG Subgroup on Diet and Health assessed the evidence in the context of the certainty in the evidence, desirable and undesirable effects of the intervention, and contextual factors.
- The GRADE Evidence to Decisions Framework was used.



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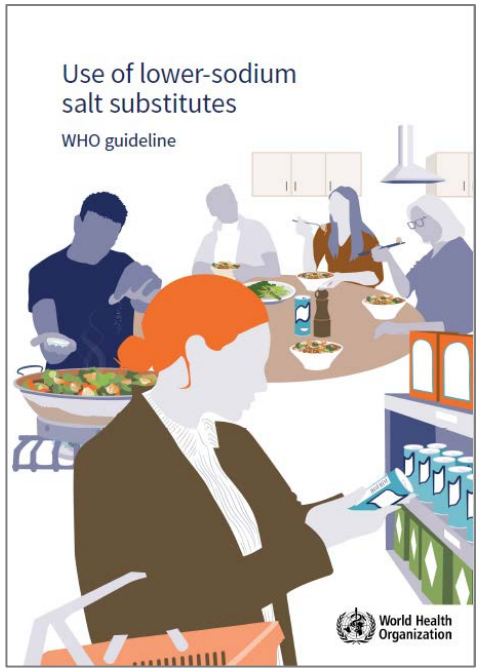

WHO recommendation on LSSS use

To reduce blood pressure and risk of cardiovascular diseases, WHO has recommended reducing sodium intake to less than 2 g/day (*strong* recommendation). In this context, using less regular table salt is an important part of an overall sodium reduction strategy.

If choosing to use table salt, WHO suggests replacing regular table salt with lower-sodium salt substitutes that contain potassium (*conditional* recommendation).

This recommendation is intended for adults (not pregnant women or children) in general populations, excluding individuals with kidney impairments or with other circumstances or conditions that might compromise potassium excretion.

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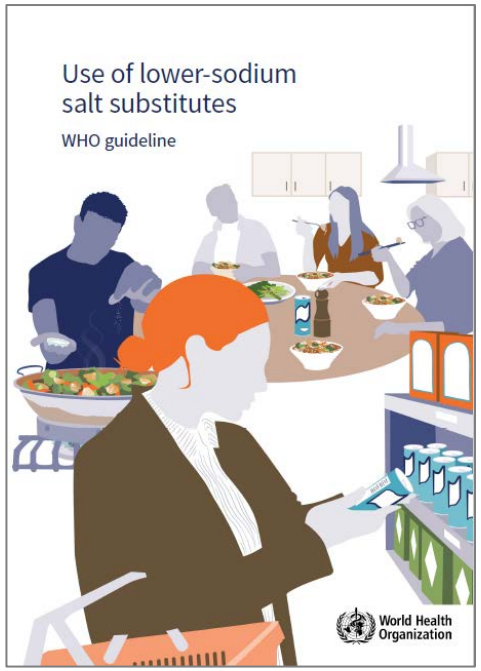

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The recommendation was assessed as *conditional*

- Because
  1) the overall certainty of evidence was *low* according to the GRADE guidance.
  2) there was uncertainty about the balance between the benefits and potential harms, especially in settings where a considerable proportion of the population may have undiagnosed conditions for which it would not be advisable to increase potassium intakes (e.g. some low-resource settings).

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Strength of recommendation

Strong recommendations are those recommendations for which the WHO guideline development group is confident that the desirable consequences of implementing the recommendation outweigh the undesirable consequences in nearly all circumstances and can be adopted as practice or policy in most situations.

Conditional recommendations are those recommendations for which the WHO guideline development group is less certain that the desirable consequences of implementing the recommendation outweigh the undesirable consequences generally or in certain settings or when the anticipated net benefits are very small. Therefore, **substantive discussion amongst policy-makers may be required before a conditional recommendation can be adopted as policy and appropriately implemented.**

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Translation and implementation

- Governments can consider LSSS as a potential new tool in their toolbox for achieving sodium reduction. LSSS is positioned as one of many means in an overall strategy to reduce sodium intake (→ **SHAKE technical package**).
- When considering the implementation, keep in mind that LSSS use should be implemented in settings with adequate access to health care, where conditions in which increased potassium intakes are potentially harmful (e.g., kidney disease) would not go undiagnosed for a long time.
- The *conditional* recommendation can be interpreted as "**Implement the recommendation to use LSSS if safety considerations can be accounted for, and monitor carefully, especially because of potential risks of hyperkalaemia**."
- Conditionality gives each country the ability to assess their own situation, design and implement an adequate approach.

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Areas for further research (examples)

- Safety implications of widespread LSSS use (discretionary and non-discretionary) on explicitly defined measures of hyperkalaemia;
- Effectiveness and safety of LSSS on a participant population that is representative of the general population such as normotensive people and people without history of CVD;
- Effectiveness and safety of LSSS in children and pregnant women;
- Evidence on the use of LSSS in manufactured foods as well as in sauces and condiments;
- Evidence on the resource implications of LSSS use to inform considerations related to population-level implementation;
- Effectiveness of multicomponent, multisectoral strategies that include LSSS to further inform decision-making to reduce sodium intake and CVD risk.

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Updating the guideline

- This guideline will be updated as part of the efforts of WHO to update existing dietary goals and nutrition guidance for promoting healthy diets, nutrition and the prevention of NCDs.
- The recommendation in this guideline will be reviewed when new data and information become available that might alter the overall body of evidence such that re-evaluation is needed.

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Acknowledgements

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Systematic review team: Amanda Brand, Marianne E Visser, Anel Schoonees, Celeste E Naude

External peer-reviewers: Francesco P Cappuccio, Abdelfettah Derouiche, Sitanshu Sekhar Kar, Anand Krishnan, Amos Laar, Jaime Miranda, Pasquale Strazzullo

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