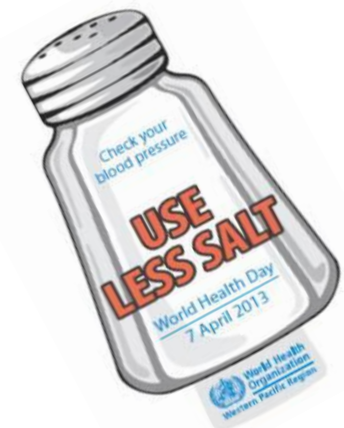
WHO Guidelines on Sugar and Salt



Dr Katrin Engelhardt
Technical Lead, Nutrition
Division of NCD and Health Through the Life-Course (DNH)
WHO Regional Office for the Western Pacific (WPRO)

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Technical Officer, NCD (DNH/WPRO)

International Symposium on Reduction of Salt and Sugar in Food

Hong Kong, 12 & 13 May, 2015

Outline

- WHO's work in Nutrition
- Guideline development process
- Salt guideline
- Sugars guideline
- Policy options
  - Regional Action Plan to Reduce the Double Burden of Malnutrition (2015-2020)

WHO’s work in nutrition

- Providing scientific advice and guidance on dietary goals and effective nutrition interventions
- Supporting adoption and adaptation of policies and guidelines for effective implementation
- Monitoring progress on the global nutrition-related targets and tracking implementation of policies and programmes

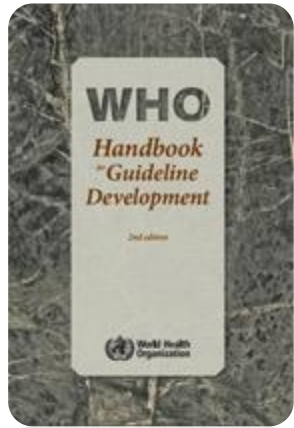
World Health Organization
Western Pacific Region

WHO Nutrition Guidelines available in different formats

Nutrition FOR Life

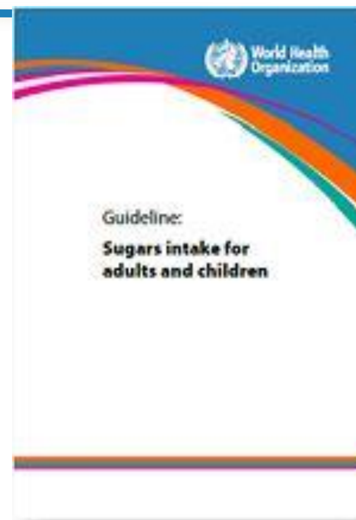
World Health Organization
Western Pacific Region

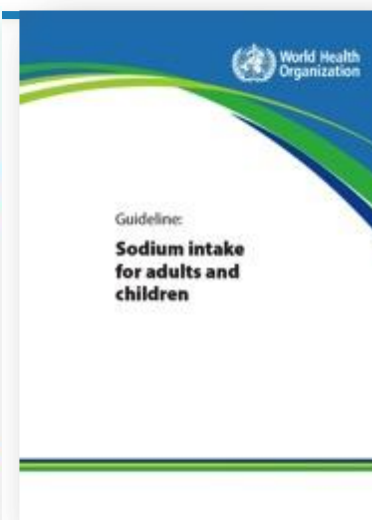
WHO's (new) guideline development process



- ✓ Standard guideline development process guided by the WHO Handbook for Guideline Development
- ✓ Established the Guidelines Review Committee in **2007** to implement procedures to ensure that WHO guidelines are:
  - ✓ consistent with internationally accepted best practices
  - ✓ based on evidence
  - ✓ transparent

WHO nutrition guidelines and recommendations

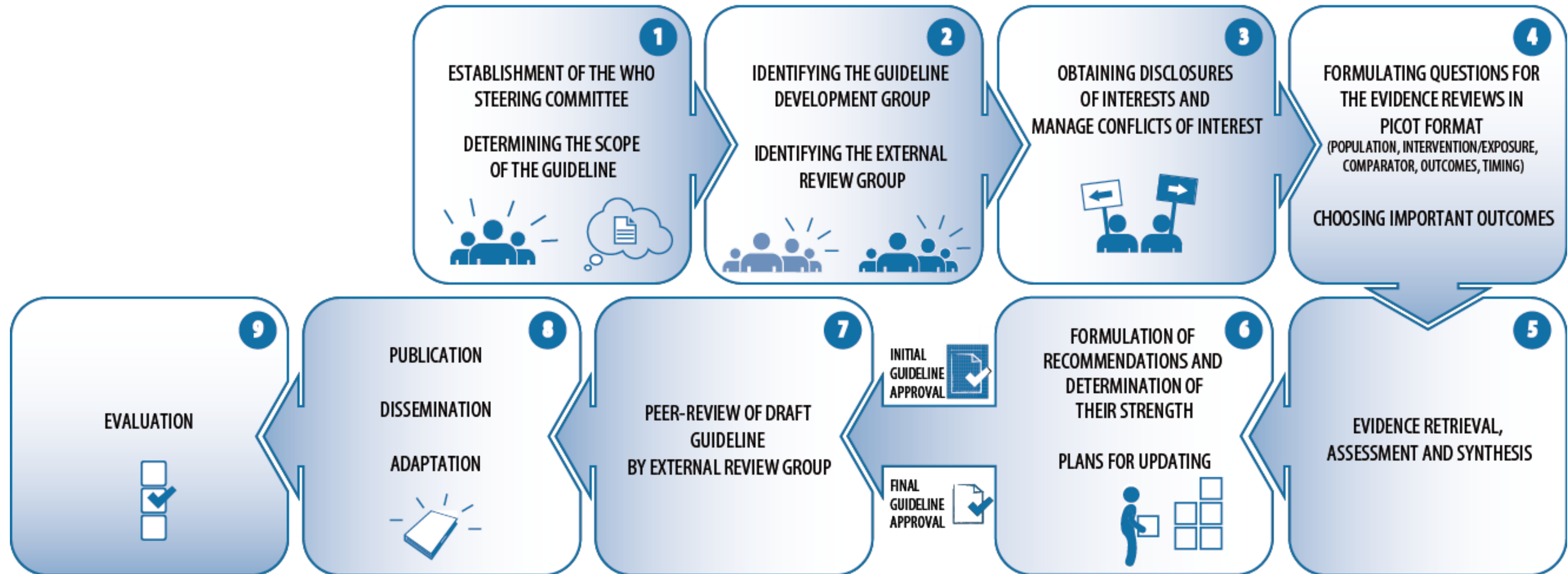




WHO guidelines in standard reporting format

- Purpose (Justification)
- Background
- Scope of the Guideline (Content and Questions)
- Review Groups (Technical Consultation)
- Recommendations
- Summary of WHO Statement Development
- Declaration of Interests
- Plans for Update
- Acknowledgments
- References

WHO evidence-informed guideline development process



Setting up groups

Guideline Steering Committee	WHO guideline development group	External review group
WHO Departments Directors or alternate appointee	geographic representation multi disciplinary 17 members 9 Female, 8 Male	Stakeholders and experts • Invited experts • Open call for public comments

WHO Nutrition Guidelines Groups

- Members provide advice to WHO on:
  - The scope of the guidelines and priority questions for which systematic reviews of evidence will be commissioned
  - The choice of important outcomes for decision-making and developing recommendations
  - The interpretation of the evidence with explicit consideration of the overall balance of risks and benefits
  - The final drafting of formulating recommendations, taking into account existing evidence as well as diverse values and preferences

The *Grading of Recommendations Assessment, Development and Evaluation* approach

GRADE

1) Quality of the evidence (high, moderate, low, very low)
   - methodological quality of evidence
   - likelihood of bias
   - by outcome

- Ideally, people who grade evidence should have available to them systematic reviews of the evidence regarding the benefits and risks of the alternative management strategies they are considering.
- Better research gives better confidence in the evidence (and the following decisions)

The *Grading of Recommendations Assessment, Development and Evaluation* approach

GRADE

2) Two grades of recommendation: strong or conditional

- Quality of evidence only one factor
- Evidence alone is never sufficient to make a clinical or public health decision

- CONDITIONAL: the desirable effects of adherence probably outweigh the undesirable effects, although the trade-offs are uncertain
- STRONG: the desirable effects of adherence outweigh the undesirable effects

WHO Nutrition Guidance Expert Advisory Group (NUGAG) Launched in February 2010

- Membership of NUGAG is drawn from:
  - Experts from various WHO Expert Advisory Panels
  - Experts from larger roster from WHO roster??
- Meets twice a year to implement biannual programme of work

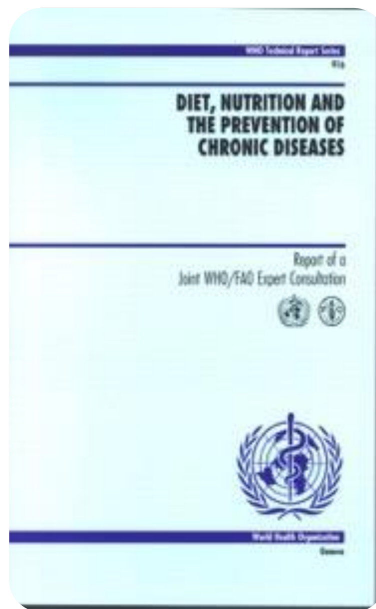
NUGAG Subgroups 2010 - 2011

- Micronutrients
- Diet and health
- Nutrition in life course and undernutrition
- Monitoring and evaluation

Renewed NUGAG Subgroups

- Nutrition actions (2013 – 2015)
- Diet and health (2012 – 2015)

NUGAG Subgroup on Diet and Health

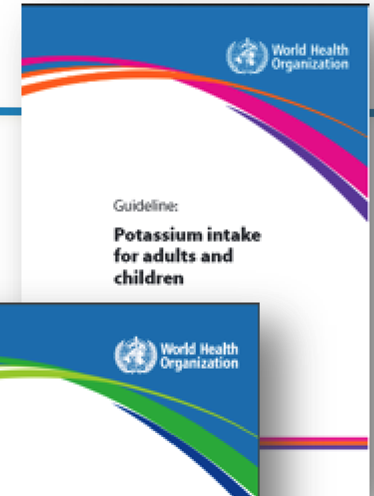


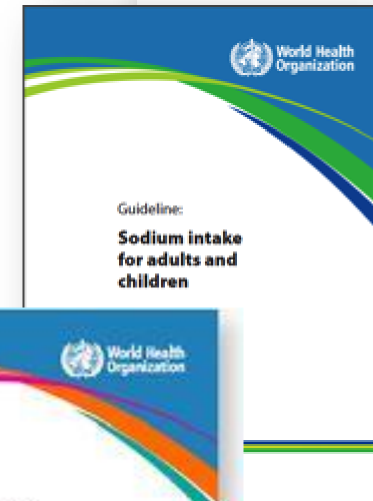
Ranges of population nutrient intake goals

Dietary factor	Goal (% of total energy, unless otherwise stated)
Total fat	15–30%
Saturated fatty acids	<10%
Polyunsaturated fatty acids (PUFAs)	6–10%
n-6 Polyunsaturated fatty acids (PUFAs)	5–8%
n-3 Polyunsaturated fatty acids (PUFAs)	1–2%
Trans fatty acids	<1%
Monounsaturated fatty acids (MUFAs)	By difference[a]
Total carbohydrate	55–75%[b]
Free sugars[c]	<10%
Protein	10–15%[d]
Cholesterol	<300 mg per day
Sodium chloride (sodium)[e]	<5 g per day (<2 g per day)
Fruits and vegetables	≥400 g per day
Total dietary fibre	From foods[f]
Non-starch polysaccharides (NSP)	From foods[f]

Guidelines on dietary goals with impact on NCDs

- Sodium (2012)
- Potassium (2012)
- Free sugars (2015)
- Total fat (2015)
- SFA (2015)
- TFA (2015)
- CHO (starts in 2015)
- Fruits & vegetables (starts in 2015)
- Nutrient profile models:
  - Marketing (2015)
  - Food procurement in schools (2015)
  - Fiscal policy (2015)
  - Nutrition labelling
  - Health claims





Guidelines on dietary goals with impact on NCDs becoming more and more relevant

Changing food environments

World Health Organization
Western Pacific Region

Changing context:
Globalization, rapid urbanization and transformation of food systems

New, unsustainable and distorted food and eating systems
Easy access to calorie-rich, nutrient-poor food

Nutrition for Life

World Health Organization
Western Pacific Region

HEALTHY CHOICES

cooking

Nutrition Power for Kids

Nutrition Power for Kids

New Choice

Nestlé
MILO
ECONO PACK
GAMES ON BACK
FREE

Nestlé
FREE
DRAGON GLIDER OR DRAGON STICKERS

HOW TO TRAIN YOUR
DRAGON 2
ONLY IN CINEMAS

42-35

Barbie

ARCOR

LOVE

collectable stickers

P 42.35

Chocolate Bars

DISNEY

Bounty fresh chicken

Asia's Best

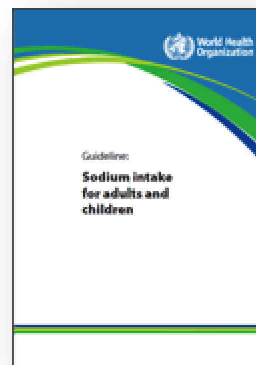
Chicken Licken

Mickey Nuggets

200g

Heart Nuggets

Salt (sodium) guideline



WHO Guideline: Sodium intake in adults and children

Recommendations:

WHO recommends a reduction in sodium intake to reduce blood pressure and risk of cardiovascular disease, stroke and coronary heart disease in adults (*strong recommendation).* WHO recommends a reduction to <2g/day sodium (5g/day salt) in adults (*strong recommendation).*

WHO recommends a reduction in sodium intake to reduce blood pressure in children (*strong recommendation).* The recommended maximum level <2g/day sodium in adults should be adjusted downward based on the energy requirements of children relative to those of adults.

WHO Guideline: Sodium intake in adults and children

Recommendations – Remarks:

- These recommendations apply to all individuals, with or without hypertension (including pregnant and lactating women), except for individuals with illnesses or taking drug therapy tha tmay lead to hyponatreamia or acute build up of body water, or require physician supervised diets (e.g. patients with heart failure and those with type 1 diabetes). In these subpopulations there may be a particular relation between sodium intake and the health outcomes of interest. (Hence these subpopulations were not considered in the review of the evidence and generation of the guidelines).

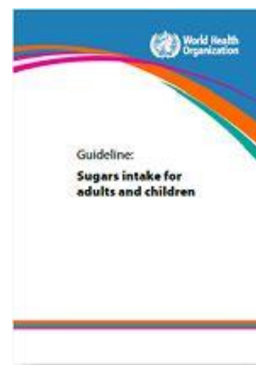
- For this recommendation “adults” includes individuals >= 16 years

- For this recommendation “children” includes individuals 2-15 years of age inclusive.

- The recommendation for children does not address the recommended period of exclusive breastfeeding (0-6 months) or the period of complementary feeding with continued breastfeeding (6-24 months)

- These recommendations complement the WHO guideline on potassium consumption and should not be interpreted to replace of supersede that guideline. Public Health interventions should aim to reduce sodium intake and simultaneously increase potassium intake through foods.

Sugars guideline



WHO Guideline: Sugars intake in adults and children

Recommendations:

WHO recommends a reduced intake of free sugars throughout the lifecourse (*strong recommendation)*

In both adults and children, WHO recommends reducing the intake of free sugars to less than 10% of total energy intake (*strong recommendation*)

WHO suggests a further reduction of the intake of free sugars to below 5% of total energy intake (*conditional recommendation*)

10% of total energy intake…?

- 1600 kcal
  - 10% of 1600 kcal = 160 kcal = **40g of sugar (10 teaspoons)**
- 2000 kcal
  - 10% of 2000 kcal = 200 kcal = **50g of sugar (12 teaspoons)**
- 2500 kcal
  - 10% of 2500 kcal = 250 kcal = **62.5g of sugar (16 teaspoons)**

WHO Guideline: Sugars intake in adults and children

Recommendations – Remarks:

- Free sugars include monosaccharides and disaccharides added to foods and beverages by the manufacturer, cook or consumer, and sugars naturally present in honey, syrups, fruit juices and fruit juice concentrates.
- For countries with a low intake of free sugars, levels should not be increased. Higher intakes of free sugars threaten the nutrient quality of diets by providing significant energy without specific nutrients.
- These recommendations were based on the totality of evidence reviewed regarding the relationship between free sugars intake and body weight (low and moderate quality evidence) and dental caries (very low and moderate quality evidence).
- Increasing or decreasing free sugars is associated with parallel changes in body weight, and the relationship is present regardless of the level of intake of free sugars. The excess body weight associated with free sugars intake results from excess energy intake.
- The recommendation to limit free sugars intake to less than 10% of total energy intake is based on moderate quality evidence from observational studies of dental caries.
- The recommendation to further limit free sugars intake to less than 5% of total energy intake is based on very low quality evidence from ecological studies in which a positive dose–response relationship between free sugars intake and dental caries was observed at free sugars intake of less than 5% of total energy intake.

WHO Guideline: Sugars intake in adults and children

Recommendations – Remarks (continued):

- The recommendation to further limit free sugars intake to less than 5% of total energy intake, which is also supported by other recent analyses, is based on the recognition that the negative health effects of dental caries are cumulative, tracking from childhood to adulthood. Because dental caries is the result of lifelong exposure to a dietary risk factor (i.e. free sugars), even a small reduction in the risk of dental caries in childhood is of significance in later life; therefore, to minimize lifelong risk of dental caries, the free sugars intake should be as low as possible.

- No evidence for harm associated with reducing the intake of free sugars to less than 5% of total energy intake was identified.

- Although exposure to fluoride reduces dental caries at a given age, and delays the onset of the cavitation process, it does not completely prevent dental caries, and dental caries still progresses in populations exposed to fluoride .

- Intake of free sugars is not considered an appropriate strategy for increasing caloric intake in individuals with inadequate energy intake if other options are available.

- These recommendations do not apply to individuals in need of therapeutic diets, including for the management of severe and moderate acute malnutrition. Specific guidelines for the management of severe and moderate acute malnutrition are being developed separately.

Policy Options included in the:

Action Plan to Reduce the Double Burden of Malnutrition in the Western Pacific Region, 2015-2020

World Health Organization
Western Pacific Region

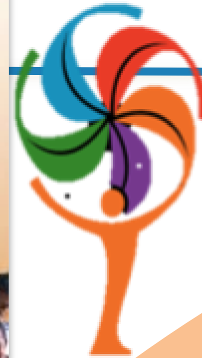
Why focus on the double burden?

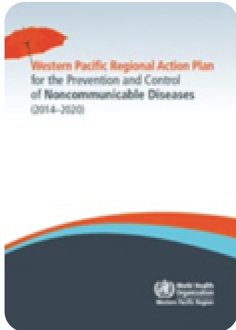
- All countries in the WPR are beset by the double burden of malnutrition
- Current food systems are being increasingly challenged to provide adequate, safe, diversified, nutrient rich foods
- Addressing the "double burden" forces us to think outside of the typical programme silos
- Need to reach out within the Ministry of Health; to other Ministries and partners

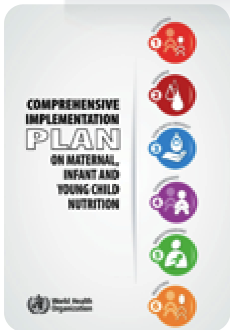
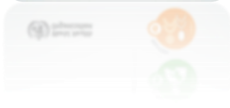
Artist: Denise Grisi

Nutrition FOR Life

World Health Organization
Western Pacific Region





Action Plan to Reduce the Double Burden of Malnutrition in the Western Pacific Region (2015–2020)

2012
Resolution Regional Committee Meeting (RCM)

2013
Regional Member State consultation - drafting

2014
RCM approves

2015
Implementation and monitoring

FOR MORE INFO

HEALTH INFORMATION AND INTELLIGENCE PLATFORM
http://hiip.wpro.who.int

WHO WPRO WEBSITE
http://www.wpro.who.int/nutrition

CONTACT US
NUT@wpro.who.int

To learn more about our work on nutrition in the Western Pacific, visit

http://www.wpro.who.int/nutrition

The Action Plan to Reduce the Double Burden of Malnutrition in the Western Pacific Region (2015-2020) seeks to achieve eight nutrition targets to promote better nutrition for life.

NUTRITION FOR LIFE

Nutrition Targets 2025

GLOBAL NUTRITION TARGETS 2025

50%
reduction of anaemia in women of reproductive age

Low blood haemoglobin impairs the blood's capacity to carry oxygen. Anaemia causes fatigue, weakness and limited productivity. It increases the risk of low birth weight and bleeding after birth.

30%
reduction in low birth weight

Maternal undernutrition contributes to low birth weight (less than 2500 grams). Low birth weight is a risk factor for death, illness and stunting.

50%
increase in the rate of exclusive breastfeeding in the first 6 months

For the first six months of life, breast-milk is all an infant needs. Exclusive breastfeeding boosts the infant's immune system, protects against infection, and promotes optimal growth and development. Breastfed children, and mothers who have breastfed, are at decreased risk of NCDs in later life.

Reduce
and maintain childhood wasting to less than 5%

Wasting, or low weight for height, is caused by acute undernutrition often coupled with infection. Wasting affects the body's ability to fight infections and increases the risk of disease and death.

40%
reduction in the number of children under 5 who are stunted

Stunting, or low height for age, is caused by chronic undernutrition often coupled with frequent infection. Stunting is largely irreversible after 2 years of age. Stunting prevents children from realizing their development potential, and increases the risk of NCDs in later life.

No
increase in childhood overweight

Childhood overweight is caused by sustained excess caloric intake and/or insufficient physical activity. Overweight is a risk factor for NCDs such as diabetes and heart disease later in life. Overweight children are more likely to be overweight adults. They experience immediate health and psychosocial problems.

NCD VOLUNTARY GLOBAL TARGETS 2025

Halt
the increase in diabetes and obesity

Obesity is a major risk factor for NCDs, including diabetes. It is dramatically on the rise in low- and middle-income countries, particularly in urban settings.

30%
relative reduction in the mean population intake of salt

High sodium consumption (>2 grams sodium/day, equivalent to 5 grams salt/day) contributes to high blood pressure and increases the risk of heart disease and stroke. Reducing salt intake is one of the most cost-effective measures to improve population health outcomes.

5 objectives, all related to childhood overweight and obesity:

1. Elevate nutrition in the national development agenda.
2. Protect, promote and support optimal breastfeeding and complementary feeding practices.
3. Strengthen and enforce legal frameworks that protect, promote and support healthy diets.
4. Improve accessibility, quality and implementation of nutrition services across public health programmes and settings
5. Use financing mechanisms to reinforce healthy diets and ensure delivery and use of nutrition services.

Policy Options related to reducing intake of salt and sugars

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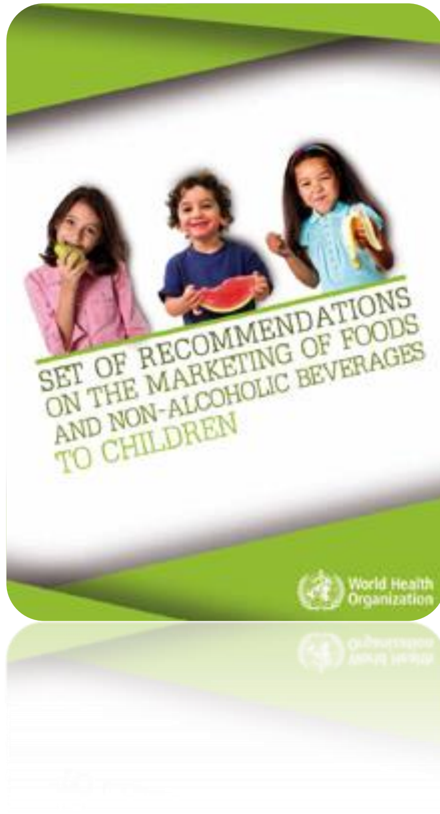
Western Pacific Region

Objective 3

Strengthen and enforce legal frameworks that protect, promote and support healthy diets.

- Ensure the following are fully incorporated into effective national measures:
  - WHO Set of Recommendations on the Marketing of FNABs
  - Standards for foods and drinks sold in schools
  - Health claims / labelling based on Codex Guidelines
  - Salt reduction strategies

Set of Recommendations on Marketing



- Legal/ technical support
- Operational research (Mongolia and PHL)
- Nutrient profiling for WPR (adapting the WHO model)
- Developing on online tool (PEARL)

Standards for schools

- Legal support (drafting of regulations)
- Technical support defining stand (nutrient profiling)
- Advocacy

Nutrient profiling

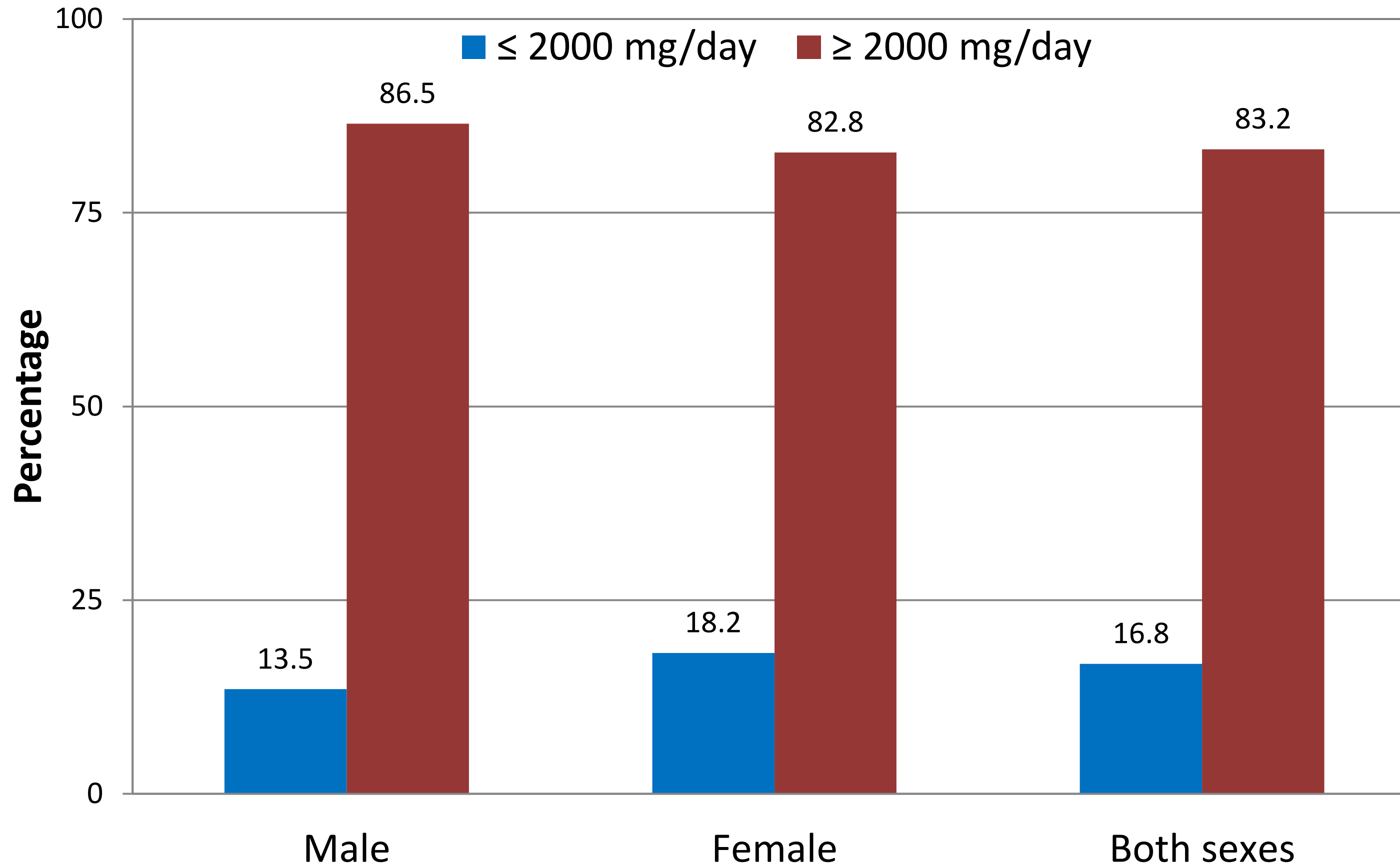
WHO Regional Office for Europe nutrient profile model

- Nutrient profiling is "the science of classifying or ranking foods according to their nutritional composition for reasons related to preventing disease and promoting health"
- This model is designed for use by governments for the purposes of restricting food marketing to children.

World Health Organization
Western Pacific Region

Reformulation of foods (salt)

Study: Mongolia



The average salt intake of Mongolians is 11.1 g, which is 2x higher than the WHO recommended level.

Salt Intake of the Population. Survey Report *2011*

Salt Reduction in Mongolia

- Involvement of key stakeholders
- Baseline monitoring completed in 2011: Information for Action
- Pilot intervention implemented
  - 2012-2014
  - advocacy, public consultation
- Monitoring of impact
- Development of 'National Strate

Reduction of Salt Intake'

Reformulation (salt)

Main factory in Mongolia reduced salt content in its bread by 12%

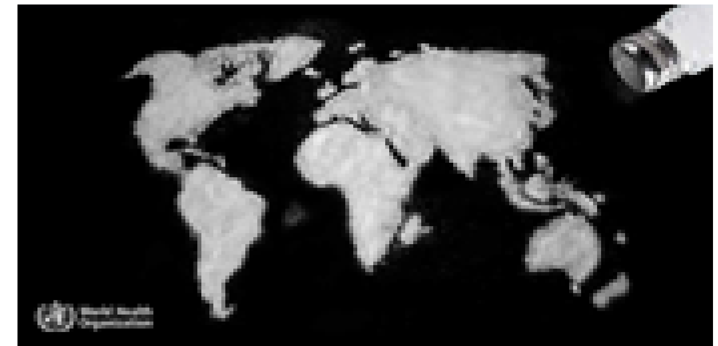
S urveillance, evaluation & monitoring

A wareness

L abeling, legislation and industry commitments

T ackling fortification

Toolkit



2 Approaches to salt reduction

SALT REDUCTION COMMUNICATIONS

World Health Organization

Reducing salt intake to
less than 5 grams per day
(about 1 teaspoon)

will save around
2.5 million lives
every year

#LessSalt

How WHO guidelines and scientific advice are used by the Codex

GUIDELINES ON NUTRITION LABELLING

CAC/GL 2-1985

PURPOSE OF THE GUIDELINES

To ensure that nutrition labelling is effective:

- In providing the consumer with information a
- in providing a means for conveying informati
- in encouraging the use of sound nutrition pri
- in providing the opportunity to include supple

To ensure that nutrition labelling does not de misleading, deceptive or insignificant in any man

To ensure that no nutrition claim is made w

Updated in 2013

(c) quantitative or qualitative declaration of certain nutrients or ingredients on the label if required by national legislation.

2.5 *Nutrient* means any substance normally consumed as a constituent of food:
(a) which provides energy; or
(b) which is needed for growth, development and maintenance of life; or
(c) a deficit of which will cause characteristic bio-chemical or physiological changes to occur.

2.6 *Nutrient Reference Values (NRVs)*[1] are a set of numerical values that are based on scientific data for purposes of nutrition labelling and relevant claims. They comprise the following two types of NRVs:

Nutrient Reference Values - Requirements (NRVs-R) refer to NRVs that are based on levels of nutrients associated with nutrient requirements.

Nutrient Reference Values - Noncommunicable Disease (NRVs-NCD) refer to NRVs that are based on levels of nutrients associated with the reduction in the risk of diet-related noncommunicable diseases not including nutrient deficiency diseases or disorders.

2.7 *Sugars* means all mono-saccharides and di-saccharides present in food.

2.8 *Dietary fibre* means carbohydrate polymers[2] with ten or more monomeric units[3], which are not hydrolysed by the endogenous enzymes in the small intestine of humans and belong to the following categories:

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How WHO guidelines and scientific advice are used by the Codex

GUIDELINES ON NUTRITION LABELLING

CAC/GL 2-1985

PURPOSE OF THE GUIDELINES
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To ensure that nutrition labellin
misleading, deceptive or insignifica
To ensure that no nutrition cla

Updated in 2013

3. NUTRIENT DECLARATION

3.1 Application of nutrient declaration

3.1.1 Nutrient declaration should be mandatory for all prepackaged foods for which nutrition or health claims, as defined in the *Guidelines for Use of Nutrition and Health Claims* (CAC/GL 23-1997), are made.

3.1.2 Nutrient declaration should be mandatory for all other prepackaged foods except where national circumstances would not support such declarations. Certain foods may be exempted for example, on the basis of nutritional or dietary insignificance or small packaging.

3.2 Listing of nutrients

3.2.1 Where nutrient declaration is applied, the declaration of the following should be mandatory:

3.2.1.1 Energy value; and

3.2.1.2 The amounts of protein, available carbohydrate (i.e. dietary carbohydrate excluding dietary fibre), fat, saturated fat, sodium[5] and total sugars; and

3.2.1.3 The amount of any other nutrient for which a nutrition or health claim is made; and

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Serving	
	28 g (15 chips)
Sodium	170 mg
Salt	425 mg

Serving	
	30 g + 125 ml milk
Sodium	118 mg
Salt	295 mg

Serving	
	55 g
Sodium	400
Salt	1 g

Serving	
	50 g (1 pc)
Sodium	349 mg
Salt	873 mg

Serving	
	32 g (2 tbsp)
Sodium	150 mg
Salt	375 g

Serving	
	68 g (2 slices)
Sodium	260 mg
Salt	650 g

Serving	
	54.5 g (2 slices)
Sodium	520 mg
Salt	1.3 g !

Objective 5

Use financing mechanisms to reinforce healthy diets and ensure delivery and use of nutrition services.

- Consider food pricing schemes / policies that favour healthier decisions, where applicable
  - Provide economic incentives for local production, processing and distribution or importation, and marketing of healthier food options;
  - Impose tax increases on unhealthy foods (foods high in fat, sugar and salt) and consider allocating a percentage of this to promoting healthier food options

Country	Type of taxation	Size
French Polynesia[50]	Excise and import tax on sugar-sweetened drinks, confectionaries, and ice cream	40 CFP*/litre local tax; 60 CFP*/litre imported tax
Nauru[78]	Sugar levy on all high-sugar foods and drinks and removal of a levy on bottled water	30%
Cook Islands[79]	Import duty on sugar-sweetened drinks	15% with a subsequent 2% rise per year
Fiji[80]	Import duty and local excise duty	5% import duty; 5cents/liter local excise duty
Fiji [81]	Excise on raw materials	3%
Fiji [55]	Import duty on palm oil and monosodium glutamate	32%
Fiji [55, 56]	Import duty on fruits and vegetables not grown locally	Removal of existing taxes, which were 5–32%

World Health Organization
Western Pacific Region

Summary of policy options

- Marketing restrictions
- Setting food standards (schools)
- Labelling
- Food reformulation (salt)
- Taxation

Electronic Library of Essential Nutrition Actions

http://www.who.int/elena/en/index.html

elena

World Health Organization
Western Pacific Region

Health topics | Data | Media centre | Publications | Countries | Programmes | Governance | About WHO | Search

e-Library of Evidence for Nutrition Actions (eLENA)

- eLENA
- A-Z list of interventions
- Health conditions
- Life course
- Nutrients
- Intervention type
- Interventions by Category
- About eLENA
- How to use eLENA

Welcome to eLENA

The WHO e-Library of Evidence for Nutrition Actic
is an online library of evidence-informed guidanc
interventions. It is a single point of reference for t
nutrition guidelines, recommendations and relat
including supporting materials such as scientific
background materials and commentaries from i

eLENA aims to help countries successfully imp
scale-up nutrition interventions by informing a
policy development and programme design.

in all six official language
other language, click or
the web page, directly

e the eLENA websi

e-Library of Evidence for Nutrition Actions (eLENA)

Interventions by Category

Interventions are placed into one of three categories depending on the level of guidance and supporting evidence.

Category 1 interventions are interventions for which there are guidelines that have been recently approved by the WHO Guidelines Review Committee (GRC). Category 1 interventions also include those supported by recommendations and other forms of guidance that have been adopted or endorsed by the World Health Assembly.

Category 2 interventions are interventions for which systematic review(s) have been conducted but no recent guidelines are yet available that have been approved by the WHO Guidelines Review Committee.

Category 3 interventions are interventions for which available evidence is limited and systematic reviews have not yet been conducted.

WHO recommendations include both Category 1 and Category 2 interventions.

A–Z list of interventions

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

A

- Anaemia: insecticide-treated nets to reduce the risk of malaria in pregnant women
- Anaemia: optimal timing of cord clamping for the prevention of iron deficiency anaemia in infants

B

↑ Back to top

- Biofortification of staple crops
- Breastfeeding education for increased breastfeeding duration
- Breastfeeding: continued breastfeeding
- Breastfeeding: early initiation
- Breastfeeding: exclusive breastfeeding
- Breastfeeding: implementation of the Baby-friendly Hospital Initiative
- Breastfeeding: regulation of marketing breast-milk substitutes

C

↑ Back to top

- Calcium supplementation during pregnancy for the prevention of pre-eclampsia
- Complementary feeding
- onditional cash transfer programmes and nutritional status

↑ Back to top

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Thank you for your attention