



# A practice guide to effective population-based food policy actions to promote healthy diets



**World Health  
Organization**

Regional Office for South-East Asia



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# Contents

Acknowledgements.....	iv
Executive summary.....	v
1. Introduction.....	1
2. Healthy diets .....	5
3. Diet-related data needs.....	7
4. Classifying foods as healthy or less healthy through nutrient profiling.....	8
5. The policy process .....	10
6. Considerations for implementing regulatory actions.....	12
6.1 Nutrition labelling of pre-packaged foods.....	12
6.2 Implementing the set of recommendations on marketing of food and non-alcoholic beverages to children .....	18
6.3 Product reformulation.....	22
6.4 Fiscal policies to promote healthy food consumption.....	25
6.5 Food provision and access; improving quality of food served in institutions ..	27
7. The informal food sector; considerations for South-East Asia .....	29
8. Evaluation and accountability.....	30
8.1 Role of civil society in monitoring and accountability.....	31
9. References.....	32

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## Executive summary

Changing dietary habits, resulting from globalization of food systems, urbanization and economic growth are key drivers of overweight and obesity. The increasing risk of noncommunicable diseases (NCDs), and the corresponding rise in overweight and obesity highlights the importance of preventive strategies. Easy availability and access to a wide variety of low-cost, aggressively marketed pre-packaged processed or ultra-processed foods high in fat, sugar and salt are changing dietary patterns of people and fuelling obesity. Prevention of obesity is best enabled if the surrounding food environment supports healthy diets. Therefore, governments have a responsibility towards ensuring healthy food environments.

WHO's Global Strategy on Diet, Physical Activity and Health and the Global Action Plan for the Prevention and Control of NCDs 2013-2020 proposes several population-based actions including regulatory measures, to improve the food environment. Product reformulation towards a healthier nutrient composition, fiscal policies that target unhealthy foods and subsidizes healthier foods, restricting marketing of foods and non-alcoholic beverages high in fat, sugar and salt and labelling of food products to empower people to consume healthier foods are suggested options.



This publication provides directions for a logical, evidence informed approach to selecting, developing, implementing and monitoring population-based interventions within the context of the double-burden of malnutrition in South-East Asia. The focus of this guide is on processed or ultra-processed pre-packaged foods. Implicit is the understanding that natural or minimally processed foods are best and their consumption should be encouraged whenever possible. This document also emphasizes that interventions are likely to be most effective when used in a coherent, integrated way to address underlying drivers and barriers to a healthy diet.



## Introduction

Globalization of food systems, urbanization and economic growth have resulted in dietary and lifestyle transitions in South-East Asia, fuelling a double burden of malnutrition.<sup>1,2,3,4</sup> Increasingly, home-prepared staple based diets are being replaced by foods and beverages prepared away from home. Attracted by the region's high economic growth, young and growing populations and increasingly open markets, the food industry is targeting Asian markets with aggression. Therefore, consumption of pre-packaged, processed or ultra-processed foods<sup>a</sup> high in fat, sugars and salt<sup>b</sup> is increasing significantly.<sup>2,3</sup> Though the contribution of these foods to the diet are yet small, the increasing trend of consumption of such foods is of concern.

The food environment has an important role in promoting or impeding healthy eating. Although dietary intake is often seen as an individual responsibility, the food environment markedly influences dietary behaviours.<sup>1</sup> As with other major

- 
- a Processed food products: Food products manufactured by industry in which salt, sugar, or other culinary ingredients have been added to unprocessed or minimally processed foods to preserve them or make them more palatable. Processed food products are derived directly from natural foods and are recognized as a version of the original foods. Most of them have two or three ingredients. The processes used in the manufacture of these food products may include different methods of cooking, and, in the case of cheeses and breads, nonalcoholic fermentation. Additives may be used to preserve the properties of these products or to avoid the proliferation of microorganisms. Ultra-processed food products: Industrial formulations manufactured with several ingredients. Like processed products, ultra-processed products include substances from the culinary ingredients category, such as fats, oils, salt, and sugar. Ultra-processed products can be distinguished from processed products based on the presence of other substances that are extracted from foods but have no common culinary use (e.g., casein, milk whey, protein hydrolysate, and protein isolates from soy and other foods); substances synthesized from food constituents (e.g., hydrogenated or interesterified oils, modified starches, and other substances not naturally present in foods); and additives used to modify the color, flavor, taste, or texture of the final product. Unprocessed or minimally processed foods usually represent a tiny proportion of or are absent in the list of ingredients of ultra-processed products, which often have 5, 10, or 20 or more items. Several techniques are used in the manufacture of ultra-processed products, including extrusion, molding, and pre-processing, through frying. Examples include soft drinks, packaged snacks, "instant" noodles, and chicken nuggets. Monteiro CA, Cannon G, Levy RB et al. NOVA. The star shines bright. (Food Classification. Public Health). *World Nutrition*. 2016; 7(1-3): 28-38.
- b 5 g salt contains 2500 mg of sodium

public health regulatory measures including legislation against smoking, success in changing attitudes and behaviours to reduce obesity and NCDs are unlikely unless environmental influences are modified. Thus, individual change is more likely to be facilitated and sustained if obesogenic food environments are altered to support healthier food choices.

WHO has proposed the following actions to promote healthy food environments.<sup>5,6</sup>

- Provide information to improve knowledge, attitudes, skills and behaviour of the population through education, social marketing initiatives and labelling of foods to encourage healthy dietary choices.
- Decrease portion sizes. Lessen energy density of foods by limiting fat and sugars and reduce salt in pre-packaged processed or ultra-processed foods through product reformulation.
- Implement the recommendations on marketing of food and non-alcoholic beverages high in fat, sugars and salt to children.<sup>7</sup>
- Implement fiscal policy measures that increase affordability of healthy foods by providing economic incentives and discourage intake of foods high in saturated fats, trans fats, sugars and salt.
- Promote food systems that increase availability of healthy agricultural produce.
- Improve accessibility to healthy foods in public institutions to create a healthy dietary environment.<sup>8</sup>

While the actions discussed above are critical, they are only a part of creating sustainable and healthy food systems. Wider food systems issues are covered elsewhere.<sup>9</sup> Given the strong interplay between early undernutrition and later risk of NCDs, a coherent whole-of-life, systems approach to promoting healthy eating is essential.<sup>4</sup> The understanding that any changes proposed to address overweight and obesity should ensure that undernutrition in key nutrients is not exacerbated is critical. Similarly, interventions for micronutrient deficiencies should not lead to excess intakes of saturated fats, trans fat, sugars and salt, which increase the risk of obesity and NCDs.<sup>4</sup>

This publication aims to guide policy-makers to ensure a logical, evidence informed, considered approach to selecting, developing, delivering and evaluating regulatory interventions to improve diets. Possibilities of improving quality of foods

in markets and street foods, which play an important role in food supply, are also explored. This document supports the implementation of recommendations in the Strategic Action Plan to reduce the double burden of malnutrition in the South-East Asia Region 2016–2025.<sup>9</sup>

Table 1 summarizes the five main regulatory policy options discussed in this report and presents their potential positive impact. It implies that change is an iterative process and that each action can reinforce and support further change to improve the quality of diets and alter consumption patterns. For example, if food labels are effective in changing habits, it would be reflected through increased sales of healthier products and would lead other producers to reformulate their foods to compete with healthier versions. In time, such a change would make available more healthier food items.

The stated policy actions can also provide incentives for food producers and retailers to improve the quality of foods and for governments to make healthier foods more affordable. Advocacy and information regarding such measures are important for their success. These actions are likely to be most effective when used in an integrated manner to address all underlying drivers and barriers to a healthy diet. It is unlikely that using only one approach will be as effective as using combinations of approaches tailored to the local context.

**Table 1:** Potential effects of key actions to promote healthy food environments.

Incentive: aim of action	Mechanism: potential effect	Further iterative actions	Outcomes
More informative labels and product information	People make better informed food choices	Market forces will alter foods to enable them to meet standards for more healthy labels	Wider choice of more healthy foods, reformulation of currently less healthy products, market competition, lower prices
Implement the recommendations on marketing of foods and non-alcoholic beverages to children	More influences shaping food choices	Market forces will alter foods to enable them to meet standards for more healthy labels	Wider choice of more healthy foods, reformulation; market competition, lower prices
Reformulation to make foods healthier	People eating more healthy versions of their favourite and preferred foods	Market forces driving towards a wider choice of healthier foods	Greater product reformulation and pricing, healthier food choices that are more affordable
Fiscal policies to make less healthy foods more costly and healthier foods more affordable, and produced in a more sustainable way	People move toward cheaper, healthier foods	Changes in purchasing and retailing practices driven by cheaper healthy foods	Population have access to low-cost healthy foods and are deterred from eating unhealthy foods
Improve quality of foods served in institutions	Improve quality of the diet, change habits, improve nutritional status and performance	Better health and changes in dietary habits for food eaten outside the home	Population have access to healthy foods

## Healthy diets

The exact make-up of a diversified, healthy diet depends on individual needs (requirements for growth, immunity, occupation, age and gender), locally available foods, dietary habits and culture. Diets need to protect against malnutrition in all its forms. Nutrition security considerations are also essential; across the lifecycle, people should have safe and affordable access to nutritious food.

WHO has summarized the overarching characteristics of a healthy diet for adults.<sup>10</sup>

- Fruits, vegetables, legumes (e.g. lentils, beans), nuts and whole grains (e.g. unprocessed maize, millet, oats, wheat, brown rice).
- At least 400 g (5 portions) of fruits and vegetables a day. Potatoes, sweet potatoes, cassava and other starchy roots are not classified as fruits or vegetables.
- Less than 10% of total energy intake from free sugars which is equivalent to 50 g (or around 12 level teaspoons) for a person of healthy body weight consuming approximately 2000 calories per day, but ideally less than 5% of total energy intake for additional health benefits. Most free sugars are added to foods or drinks by the manufacturer, cook or consumer, and can also be found in sugars naturally present in honey, syrups, fruit juices and fruit juice concentrates.
- Less than 30% of total energy intake from fats . Unsaturated fats (e.g. found in fish, avocado, nuts, sunflower, canola and olive oils) are preferable to saturated fats (e.g. found in fatty meat, butter, palm and coconut oil, cream, cheese, ghee and lard). Industrial trans fats (found in processed food, fast food, snack food, fried food, frozen pizza, pies, cookies, margarines and spreads) are not part of a healthy diet.
- Less than 5 g of salt (equivalent to approximately 1 teaspoon) per day and use iodized salt.

Eating a variety of whole or, minimally processed foods is ideal for obtaining all essential nutrients. Where undernutrition linked to poor growth persists, the best choices for meeting energy needs are nutrient-rich, fresh/minimally processed foods and not pre-packaged, processed or ultra-processed foods which may meet energy needs, but provide little in terms of essential nutrients and are high in saturated fats, trans fats, sugars and sodium.

Less healthy foods are energy rich, have a high fat and sugar content or contain high sodium levels and little other nutrients. Such foods have been described in many ways: as energy-dense nutrient-poor foods; as high-calorie, low-nutrient foods (including candy, chips, soda, baked goods, ice cream) or as foods of minimum nutritional value with < 5% of the US recommended dietary allowance for protein, calcium, iron, vitamin A, vitamin C, riboflavin, thiamine and niacin per serving.<sup>11</sup>

## Diet-related data needs

Actions to promote healthy diets will be more effective if based on in-country evidence regarding the main sources of target nutrients and current levels of intake to enable more effective targeting of specific foods. Information should include the following:

- reliable and up-to-date measures of population dietary intakes and any changes in dietary patterns over time, based on representative data that can be disaggregated by region, urban/rural, age, gender and socioeconomic groups;
- main dietary sources and types of saturated fats, trans fats, sugar and sodium;
- contribution of snacks, restaurant or takeaway foods to dietary intakes;
- contribution of street foods to the diet: such foods may be important sources of both healthy and less healthy foods;
- cultural practices or food beliefs that influence diet;
- trends in consumption patterns of processed or ultra-processed foods and their contribution to the diet;
- data on frequency and power of marketing of foods and non-alcoholic beverages high in fat, sugars and salt to children.

Apart from dietary surveys, food balance sheets, data from customs/border agencies, household and income surveys, market research reports and consumer surveys can be utilized to obtain data.

# 4

## Classifying foods as healthy or less healthy through nutrient profiling

Foods have to be classified in an objective, independent, robust and transparent manner to enable them to be defined as more or less healthy. Such a classification has major economic implications for producers, making it important that objective and previously agreed to standards are applied in a fair and transparent way when implementing regulatory actions. Food composition tables have to be updated and expanded to include nutrient composition of ultra-processed foods and beverages.

Nutrient profiling brings a measure of objectivity to the way foods are classified.<sup>12</sup> Table 2 depicts the role of nutrient profiling in supporting population-based interventions.

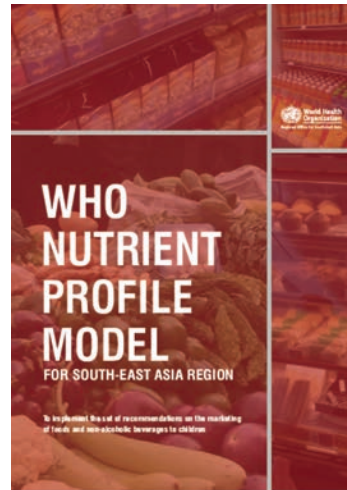
**Table 2:** Roles of nutrient profiling in interventions to promote healthy diets

Action	Role of nutrient profiling
Labelling regulations	Provides an objective basis for making nutrition and health claims and for enacting legislation to regulate claims
Marketing recommendations for food and non-alcoholic beverages	Provides objective criteria to define which foods can or cannot be marketed to children and for social marketing of healthy foods
Reformulation of foods	Identifies foods that need to be reformulated and provides thresholds regarding the extent to which the foods need to be reformulated to meet requirements to be defined as healthy
Fiscal policies to promote healthy diets	Provides a basis for defining the tax base for a particular food group to tax or subsidize. Profiling also can support the implementation of taxes on specific food ingredients by setting threshold levels for the particular nutrient/ingredient
Improve quality of foods served in institutions	Setting standards for public procurement and provision; assessing nutrient composition of foods served compared with recommended levels to ensure that meals and food preparation optimize nutritional quality. Profiling can also be used to ensure that foods sold in school cafeterias and other settings are healthier

Source: Adapted from Developing nutrient profile models: a systematic approach. Stockley et al 2013.<sup>13</sup>



Many nutrient profiling algorithms are available.<sup>12</sup> It is critical to look at what is included in each profiling algorithm, and how a summary judgment such as 'healthy' has been derived. Some food categories may be easier to categorize as healthy (e.g. fruits and vegetables), but where the food contains a mix of high fat, sugars and sodium, and also micronutrients or fiber, there may be greater disagreement between different models on how a food is categorized. The current nutrient profile model for South-East Asia Region (SEAR) is based on a categorical algorithm (<http://www.searo.who.int/entity/nutrition/en/>). In a more complex form of algorithm, nutrient profiling may generate a score based on the level of fat, sugar or sodium and the level of specific micronutrients in the product.<sup>12,13</sup>

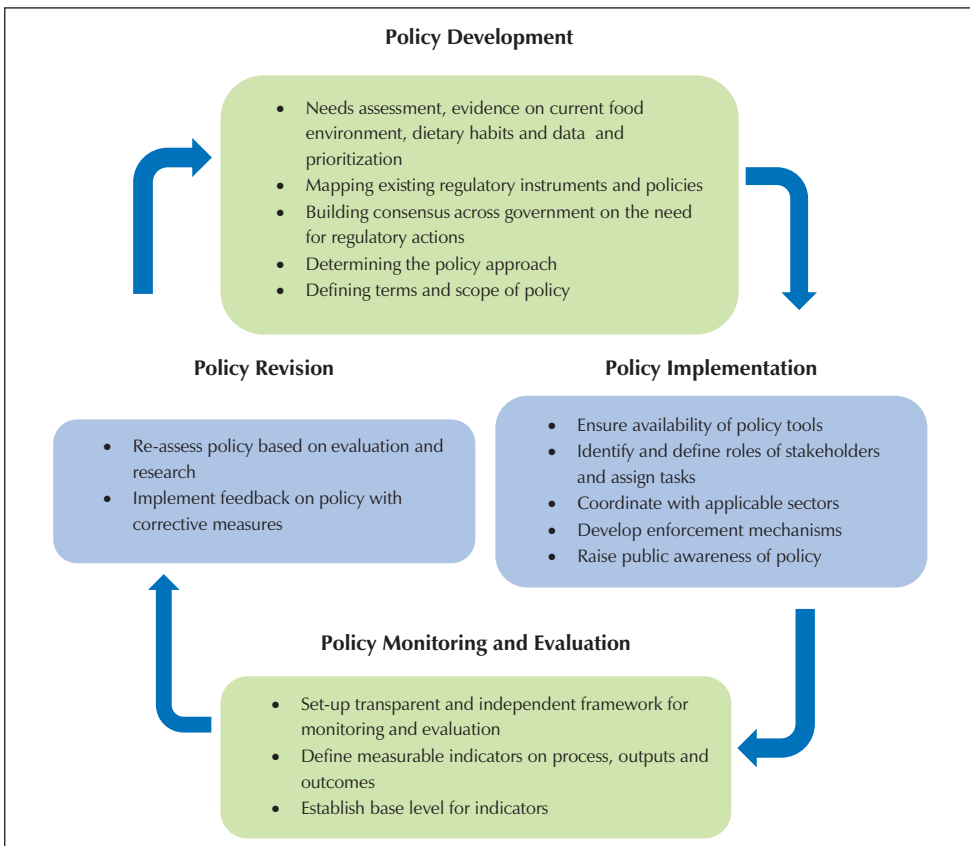


# 5

## The policy process

Actions to promote healthy diets should be based on evidence about specific nutrition issues in a country, their drivers and enablers, and an analysis of the best options to achieve agreed goals. Figure 1 summarizes the key steps in decision-making and policy development.

**Figure 1:** The policy process to implement actions to promote healthy diets.<sup>c</sup>



<sup>c</sup> Adapted from World Health Organization. A framework for implementing the set of recommendations on the marketing of foods and non-alcoholic beverages to children. WHO, Geneva 2012.

Nutrition and NCD action plans in most countries have identified specific goals and defined targets based on global or regional nutrition and NCD targets. Availability of local resources and staff to develop policies, implement and monitor actions must be considered when designing regulatory measures. Policymakers also have to be mindful of conflicts of interest that may arise during policy development.

# 6

## Considerations for implementing regulatory actions

### 6.1 Nutrition labelling of pre-packaged foods

Nutrition labelling entails both nutrient declarations and supplementary nutrition information.<sup>14</sup> Nutrient declaration means a standardized statement or listing of the nutrient content of a food. Nutrient declaration should be mandatory for all prepackaged foods except when national circumstance would not support such declarations. They provide consumers with a profile of nutrients that enables informed food choices. Any supplementary nutrition information is intended to support consumers in interpreting the nutrient declaration and is usually optional. Food labels assume levels of literacy and comprehension of style of presentation, time and resources among consumers. The potential impact of nutrition labelling on food consumption relies on a number of key assumptions:

- inadequate knowledge of food products is a constraint to healthy eating;
- labelling addresses needs of those whose diets are least healthy and in greatest need of change;
- consumers buy a significant proportion of food that is pre-packaged;
- pre-packaged, processed or ultra- processed foods are the sources of main nutrients that are in need of changing.

For food labels to impact on dietary patterns and improve overall quality of diets, consumer education is essential. Labels also need to be clear and simple. However, not all constraints to behaviour are addressed through increasing knowledge, attitudes, and/or skills.<sup>15</sup> Access, time, and affordability will also affect food behaviours. Often, market pressures and advertisements may influence purchase choices over nutrition labels.<sup>15</sup>

**Figure 2: Key information on the nutrient declaration**

Where a nutrient declaration is applied, the following information is mandatory.<sup>14,16</sup>

- Energy value; and
- Amounts of protein, available carbohydrate (i.e. dietary carbohydrate excluding dietary fiber), fat, saturated fat, sodium and total sugars; and
- amount of any other nutrient for which a nutrition content or health claim is being made; and
- amount of any other nutrients considered to be relevant for maintaining good nutritional status as required by national legislation or national dietary guidelines.
- In addition to the mandatory declaration, vitamins and minerals may be listed for which recommended intakes have been established and/or which are of nutritional importance in the country concerned. Vitamins and minerals which are present in amounts less than 5% of the Nutrient Reference Value or of the officially recognized guidelines of the competent authority per 100 g or 100 ml or per serving as quantified on the label should not be declared.

Where a claim is made regarding the amount and/or type of fatty acids or the amount of cholesterol, the amounts of saturated fatty acids, monounsaturated fatty acids and polyunsaturated fatty acids and cholesterol should be declared, and the amount of trans fatty acid may be required according to national legislation.

*The average daily intake is usually defined for an adult (averaged across gender).*

<b>Nutrition Facts</b>	
Serving Size 172 g	
<b>Amount Per Serving</b>	
<b>Calories 200</b>	Calories from Fat 8
<b>% Daily Value*</b>	
<b>Total Fat 1g</b>	1%
Saturated Fat 0g	1%
Trans Fat	
<b>Cholesterol 0mg</b>	0%
<b>Sodium 7mg</b>	0%
<b>Total Carbohydrate 36g</b>	12%
Dietary Fiber 11g	45%
Sugars 6g	
<b>Protein 13g</b>	
Vitamin A 1%	Vitamin C 1%
Calcium 4%	Iron 24%
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.	
NutritionData.com	

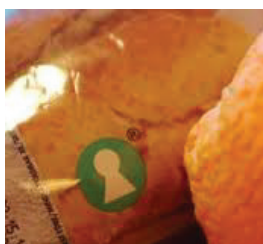


## 6.1.2 Supplementary nutrition information

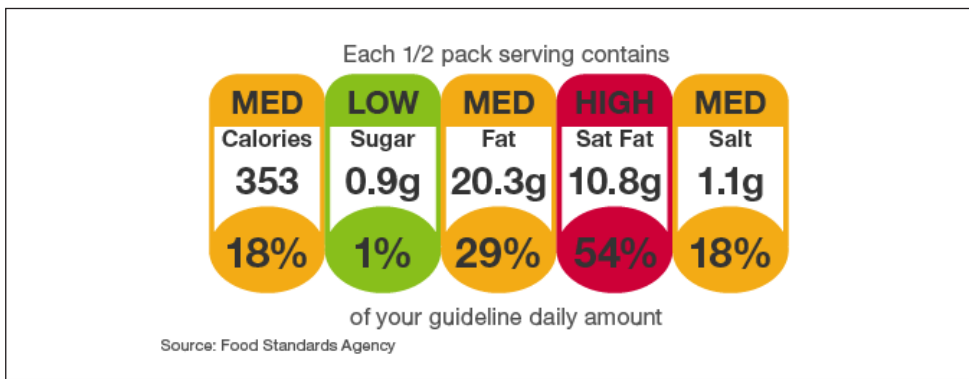
Since understanding of nutrient declaration labels by consumers are hampered by confusing use of units, mention of percentage daily values or guideline daily averages and variable serving sizes, manufacturers and policy-makers have been promoting supplementary information on products.<sup>15</sup> Supplementary information can only be given in addition to, and not in place of the nutrient declaration.<sup>14</sup> Supplementary information attempts to provide consumers with at-a-glance nutrition information, to make informed food choices.

A variety of front-of-pack (FOP) interpretative labelling systems have been developed to enhance the usability of nutritional labels and deepen consumer understanding.<sup>16</sup> These vary in format and the type of information that is conveyed. A few examples are provided below:

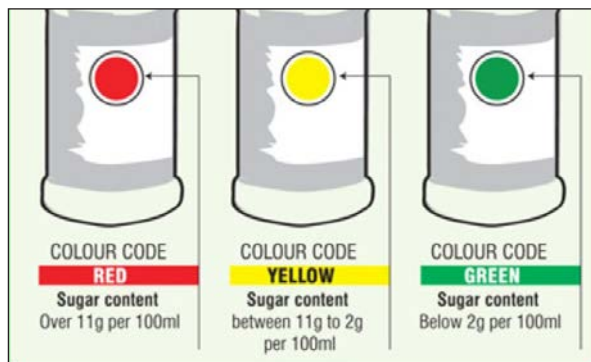
- Simple visual healthy logos: e. g. Nordic keyhole logo, or Chile's warning logo provide summary information on the overall healthiness of a product in general and are easy to interpret.



- Traffic light labels that present colours (red, amber and green) to provide information about specific nutrients in a product. The core principles of traffic light labelling are to:
  - provide separate information on fat, saturated fat, sugar and salt
  - use of colour coding indicate whether levels of these nutrients are high, medium or low
  - use standard nutritional criteria to determine the colour code; give information on the levels of nutrients per portion of product<sup>16</sup>



A variation of the traffic light label is the colour coding on sugars displayed on some labels.



Front of pack labels are often supplemented with information such as percentage guideline daily amount (GDA). Agreement is needed for each food category on what proportion of contribution to daily intake is red, amber or green. The total energy content of the food is included in the numerical information and sometimes not highlighted. Research data states that the existence of multiple front-of-pack label formats in the marketplace may impede consumer comprehension.<sup>17</sup> Therefore, a single format may encourage consumers to use front-of-pack labels in making healthy food choices.

### Other supplementary information<sup>14,16</sup>

*Nutrient content claims:* Nutrient content claims describe the level of a nutrient in the product, using terms such as free, high and low, or they compare the level of a nutrient in a food to that of another food, using terms such as ‘reduced’ and ‘lite’.

*Health claims:* Describes a relationship between a food substance (a food, food component, or dietary ingredient) and reduced risk of a disease or health-related condition. For health claims such as ‘important for healthy bones’, it is assumed that eating the portion size used as a basis for making the claim is appropriate and based on a systematic and unbiased assessment of supportive scientific evidence.<sup>d</sup> Food regulations should cover all aspects of qualitative labelling, and thresholds for making health or content claims should be independently assessed (Table 3).

**Table 3: Best practices and questions to consider in implementing/promoting interpretative food labels**

Consideration	Directions
Does the country have the opportunity to influence labels?	Small countries that rely mostly on imported foods may not have the leverage to ensure that producers label foods in a particular way. If companies will not comply, are options available under World Trade Organization trade rules?
What information should be presented?	Information should be presented in an understandable manner. Information should be presented similarly on all packaged foods so that consumers can get familiarized, understand the information and compare across similar products. The language used in labels also needs consideration.

<sup>d</sup> Often these health claims are accompanied by an \* and qualifying information that may be inadequately visible. Most often this additional information makes a statement such as ‘as part of a healthy balance diet’ in recognition of the importance of other nutrients supplied from other foods.



Consideration	Directions
Does the country have capacity to assess composition of foods?	If a food laboratory with capacity to assess food composition in relation to the relevant nutrients in the label is available, it would be easier to implement and monitor labelling regulations. If not, capacity should be developed or regional reference laboratories should be identified. Subsidized rates for food analysis would incentivize small producers.
Qualitative and/or quantitative statements	<p>These should be expressed in a way that people can relate to their usual practices. Is it clear what ‘healthier’ or ‘low in’ means? Is it in comparison to a previous version or other brands?</p> <p>Quantitative is better than qualitative, particularly where there is no clear guidance as to what ‘healthy’ or ‘healthier’ or ‘low in’ actually mean. Claims such as “healthier choice” can be misleading since it is often not clear which ingredients are referred to. For example: foods may contain less fat but be high in sugar.</p> <p>Similarly, catchy images that do not convey guidance in a clear and logical way are not useful.</p> <p>Information should be presented as both amount per 100 g and per standard portion size as the latter may not be consistent across similar products. Manufacturers sometimes use smaller or larger average portion sizes depending on what information they may wish to highlight or downplay.</p> <p>Therefore, a standard guideline daily amount may need to be agreed upon.</p>
What system is used to categorize foods?	<p>In order to ensure objectivity in the use of labels, an independent nutrient profiling system could be adopted by the country.</p> <p>Selective use of individual ingredients that a manufacturer wants to claim are ‘healthy’ without taking account the content of unhealthy ingredients should be prevented.</p>
Where to present the information?	The information should be located in the most visible and easily accessible place on the packaging and in a font and size that can be read. ‘ <i>Front-of-pack</i> ’ implies the face of the packaging that is most visible and used most often to promote the food item.
How to present the information?	Visual aids are effective as a quicker way to highlight key information and may help those with lower literacy skills. Colour coding has been shown to be better understood compared to a monochrome system, even though the numerical data within the visual aid may be the same.
Compliance and monitoring	The accuracy of information contained on labels should be independently verified in an accredited, designated laboratory and spot checks carried out on a regular basis. There must be enforceable sanctions for noncompliance. If not, the label will be simply used as a marketing tool to promote sales.

Consideration	Directions
Regulations	Where labelling is voluntary, lack of uniformity of approaches across brands and products may be confusing or misleading. The best way to ensure comparable information and guidance for consumers is to have a statutory approach with a single agreed standardized nutrient profiling system, rather than industry driven voluntary systems.
Improving knowledge and nutrition literacy with regard to labelling and other information	Multiple approaches are necessary for improving literacy and for changing behaviours since misinterpretations can occur. For example, qualitative labels can create a false belief among consumers that some ultra-processed foods are healthier than fresh/minimally processed foods without labels. Supportive factors include use of social media and school curricula in promoting literacy regarding food labels.

## 6.2 Implementing the set of recommendations on marketing of food and non-alcoholic beverages to children

Food marketing includes television advertising, digital marketing, free gifts with movie tie-ins, and sponsorship of events.<sup>7</sup> Extensive marketing of energy dense micronutrient-poor foods, overwhelmingly aimed at children undermine healthy diets.<sup>18</sup> The South-East Asia Region, with its relatively unsaturated markets, rising consumer class and urbanization presents a lucrative opportunity for industry.<sup>19,20</sup> Data from some countries in the Region show that children are exposed to a high number of snack and beverage advertisements on television.<sup>20</sup>

In 2010, the 63rd World Health Assembly endorsed a set of 12 recommendations on the marketing of foods and non-alcoholic beverages to children (WHA 63.14). In 2012, WHO published a framework for implementing the recommendations.<sup>7</sup> The framework guides policy makers on how best explore, develop and evaluate interventions to address marketing of foods and non-alcoholic beverages to children.

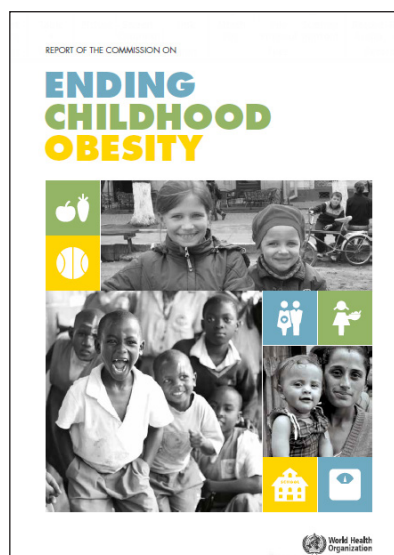
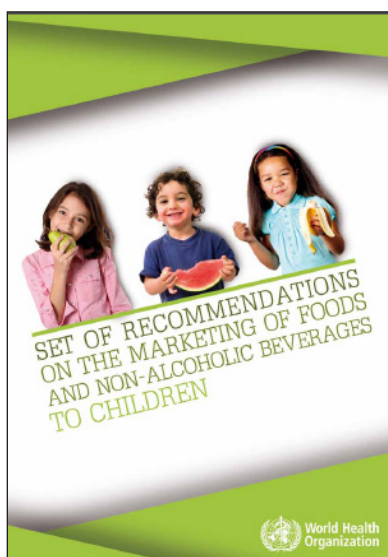
### Description of the set of recommendations on marketing of foods and non-alcoholic beverages to children<sup>7</sup>

- **RECOMMENDATION 1:** The policy aim should be to reduce the impact on children of marketing of foods high in saturated fats, trans fats, free sugars or salt.<sup>e</sup>

<sup>e</sup> 5 g salt contains 2500 mg sodium.

- RECOMMENDATION 2: Given that effectiveness of marketing is a function of exposure and power, the overall policy objective should be to reduce both the exposure of children to, and power of marketing of foods high in saturated fats, trans fats, free sugars or salt.
- RECOMMENDATION 3: Implementing step-wise or comprehensive actions can be considered to reduce marketing of foods to children.
- RECOMMENDATION 4: Setting clear definitions (age group, medium to regulate) will facilitate successful implementation.
- RECOMMENDATION 5: Settings where children gather should be free from all forms of marketing of foods high in saturated fats, trans fats, free sugars or salt. Examples include nurseries, schools, playgrounds or at sporting and cultural activities held on these premises.
- RECOMMENDATION 6: Governments should be the key stakeholders in the development of policy and provide leadership through a multi-stakeholder platform for implementation, monitoring and evaluation. In setting national policies, governments may choose to allocate defined roles to other stakeholders while protecting public interest and avoiding conflict of interest.
- RECOMMENDATION 7: Considering resources, benefits and burdens of all stakeholders involved, the most effective approach to reduce marketing to children of foods high in saturated fats, trans fats, free sugars or salt could be considered.
- RECOMMENDATION 8: The means of reducing the impact of cross-border marketing (in-flowing and out-flowing) of foods high in saturated fats, trans fats, free sugars or salt to children needs to be considered.
- RECOMMENDATION 9: The policy framework should specify enforcement mechanisms and establish systems for their implementation including clear definitions of sanctions and a system for reporting complaints.
- RECOMMENDATION 10: All policy frameworks should include a monitoring system to ensure compliance with the objectives set out in the policy, with clearly defined indicators.

- RECOMMENDATION 11: The policy framework should also include a system to evaluate the impact and effectiveness of the policy, using clearly defined indicators.
- RECOMMENDATION 12: Countries should identify existing information on the extent, nature and effects of food marketing to children.



**Table 4:** Exploring policy actions to implement recommendations on marketing of foods and non-alcoholic beverages to children

Consideration	Directions
Is there adequate evidence generated for policy-makers?	<p>Is the available international evidence adequate to convince local policy-makers?</p> <p>Is local evidence regarding the frequency and power of marketing needed, both to convince policy-makers and to overcome industry pressure?</p> <p>Information should include the following: power and exposure to marketing, perceptions of stakeholders, priority interventions that have the most impact against marketing exposure (e.g. television, marketing in schools) and degree of cross-border influences.</p>
Lessons learnt/ experiences	<p>Review information from other countries to identify what has worked elsewhere in a similar contextual setting before initiating the intervention. Consider the existing regulatory environment that may already be legislated, such as the Code of Marketing of Breast Milk Substitutes, or existing laws on marketing to children and implementation experience.</p>

Consideration	Directions
The extent of the code of marketing on foods and non-alcoholic beverages that is being developed.	<p>Does the definition for marketing cover all forms used, not just television, but also include the internet, games and promotional materials. Can the regulation be applied to satellite-based television programme access?</p> <p>Does it apply to product advertising on sporting attire, for example, national sports team sponsors?</p>
If a marketing code is enacted, how is it implemented?	<p>Consider whether a comprehensive or step-wise policy approach may be more appropriate. A comprehensive approach would restrict marketing to children of either all forms of advertising of all products; or all foods and beverages; or foods categorized as high in fat, free sugars or salt.</p> <p>A step-wise approach is based on risk assessment and prioritization, targets the highest risk marketing practices, for specific types of products, protecting certain age groups of children and specific forms of marketing, or media.</p> <p>Are all foods being banned or does the regulation apply to certain food groups, or foods with specific nutrient contents (i.e. fat, sugars and salt)?</p>
Categorization of food products that cannot be marketed	If only certain food products are to be prevented from being marketed to children, has the country adopted a nutrient profile model to objectively categorize such foods?
How is the target age group defined?	What age group or cut-off is used to define children?
Coverage/reach of strategy	Ensure that the strategy includes all relevant actors involved in marketing: food manufacturers, food retailers, fast-food chains and all organizations involved in the dissemination of marketing, broadcasters, publishers, schools, public authorities and social media.
Creating awareness of the regulation among all groups	Is civil society and the public aware of the recommendations on marketing to children? Creating awareness would be important both in terms of creating support for the policy as well as for monitoring violations.
How is the monitoring going to be effected?	<p>If a marketing code is enacted, how is it monitored?</p> <p>Is a monitoring framework available?</p> <p>Is there an independent watchdog to monitor compliance?</p> <p>What mechanism is available for civil society/community to make complaints on marketing of products to the authorities?</p> <p>What sanctions are in place if companies break the rules?</p>
Cross-border marketing influences	<p>Have cross-border influences been considered or mapped?</p> <p>Has any discussion been initiated to prevent cross-border marketing ?</p>

## 6.3 Product reformulation

Although healthy eating guidelines advocate for people to eat fresh, home-prepared foods, the reality is that increasingly, people are eating foods prepared outside the home. Thus, while there is a need to promote consumption of more healthy foods that are minimally processed, it is also important to ensure that foods being prepared away from the home can be reformulated to a healthier profile. Food reformulation is the change of the composition of processed foods to obtain a healthier product, and is part of a comprehensive approach to promoting healthy diets.<sup>21,22</sup> The potential health benefits of action by the food industry to improve product composition by reducing fat, sugars and salt or reducing portion sizes can be significant. Reformulation that is likely to have a public health impact is where products for reformulation, as well as nutrients for change are identified at a national level.

### 6.3.1 Reformulation of food products

Reformulation should be based on the consumption level of a particular food containing the specific nutrients of interest in the diet of the local population, the nutrients contained in food and the ability of the food to be modified.<sup>21</sup> Reformulation of less commonly eaten products are unlikely to have a public health impact on health of a population.<sup>22</sup> For example, where bread is a major part of the diet, even though the salt content of bread is not as high per 100 g as some other products, bread is often the major source of salt in the diet and a key target for reformulation.<sup>22</sup>

Experience to date suggests that regulations are important in making clear the policy objectives of product reformulation and food labelling, and in setting standards and targets.<sup>22</sup> Food reformulation on its own is insufficient to create healthy diets and needs to be accompanied by measures to improve the affordability and accessibility of healthy foods.<sup>22</sup> (Table 5).

- Most success with reformulation has been with reducing sodium.<sup>21</sup> Gradual reductions in sodium content are not noticed by consumers who adjust to the altered taste almost unknowingly. There has also been success in reformulating products to minimize trans fats.<sup>23</sup>
- Targets for reformulation (which foods and degree of change) should be based on a modeled impact on average daily intake in the population. Ensuring that ingredient substitution does not lead to unhealthy changes, for example, replacing fat with added sugar is vital.<sup>22</sup>

- Although larger industries may have the technological capacity and resources to reformulate foods, policy-makers also need to consider the lack of resources in smaller enterprises and accordingly provide assistance/subsidies to encourage such industries.
- Smaller countries that rely mainly on imported foods may not be able to reformulate products, but would benefit if importing countries adopt reformulation for both the domestic and the export market.
- If reformulation leads to changes in price (usually healthier options are more expensive), the impact on consumption needs to be taken into account.<sup>22</sup> If the healthier foods are more expensive, reformulation will be likely to increase social gradients in dietary patterns.
- Strong leadership from government is required to support effective reformulation. Food laboratories, technical expertise backed up by mass media campaigns and up-to-date dietary data are necessary to reformulate, monitor progress and compliance.<sup>22</sup> Research shows that voluntary approaches are not as effective as statutory approaches.
- Reformulation of high fat, sugar and salt products may also reduce consumption of unhealthy ingredients without changing behavior, i.e. substitution with another product high in fat, sugar, or salt.



### 6.3.2 Reduce portion sizes of specific foods and beverages served in food outlets

Portion size is a significant driver of energy intake, and larger-than-appropriate portion sizes increase the risk of weight gain.<sup>24</sup> Portion size reduction of high energy foods and snacks can lower energy intake, hence, smaller portion sizes of foods and beverages should be promoted. Educating and empowering consumers on the message of smaller portion sizes is essential.<sup>24</sup>

**Table 5: Exploring policy actions to reformulate food products.**

Consideration	Directions
Availability of data	<p>Are there local dietary data available to assess main sources of target nutrient/s for reformulation?</p> <p>What is the current level of the target ingredient?</p> <p>Is there an agreed target for reduction, either in the overall diet or in each individual ingredient? For example, an overall target of 2500 mg/day for sodium, and 10% reduction in salt content of foods; or aim to reduce sodium content below a certain level (such as less than 100 mg/100 g) for products with more than the threshold set for sodium.</p> <p>What proportional change does this represent? Is it feasible to achieve the specified target through reformulation and over what time frame ?</p>
Consultations with stakeholders	<p>In addition to government stakeholders, engagement with industry is essential for successful reformulation efforts. Multiple stakeholder consultations with different stakeholders will provide vital information and contribute to the success of reformulation efforts.</p>
Choice of food	<p>Has a food item commonly eaten across all sectors and containing the nutrient in question been identified?</p> <p>Is there evidence of the technical feasibility to alter composition and retain overall quality of the product?</p>
Choice of ingredient and substitution effects	<p>Ensuring that recipe changes do not actually make food less healthy is vital.</p> <p>What is the possible impact of replacement or substitution products? For example, if fat is replaced with another ingredient such as added sugar, as often happens, what impact does it have on calorie intake and health?</p>
Degree of reformulation	<p>What percent change in ingredient composition is needed to achieve significant population impact?</p>
Labelling regulations	<p>Do labelling regulations cover labelling aspects of reformulated products?</p>
Potential impact on overall consumption patterns	<p>What percentage impact could the reformulation have on average intakes of the nutrient in the population?</p>
Time frame for introduction	<p>Consider how long it will take to alter recipes; for sodium, a step-wise reduction has been shown to be better accepted by consumers.</p>
Compliance	<p>Are there laboratory facilities to monitor the claimed reformulations that have been made in foods and their continued maintenance?</p>
Enforcement	<p>What sanctions are there for noncompliance if reformulation is a legislative requirement?</p>



## 6.4 Fiscal policies to promote healthy food consumption

Since prices may influence purchase of some foods, dietary patterns may be altered through pricing or fiscal mechanisms.<sup>25</sup> A range of fiscal tools can be applied to alter the price of foods or food ingredients; increasing the price of unhealthy foods to reduce consumption and decreasing the price of healthy foods to increase consumption.<sup>26</sup> The price elasticity, or flexibility people have in coping with price rises, may depend on the importance of the food budget within the household budget, and how central that specific food item is to the family. Price rises in non-essential foods usually reduce consumption. Vulnerable populations, including low-income consumers, are found to be most price-responsive, and benefit most from changes in the relative prices of foods and beverages with regard to health status.<sup>27</sup> The revenue raised from less healthy foods taxes ideally needs to be directed/earmarked to reinforce health benefits of changes to people. There is strong evidence that subsidies for fresh fruits and vegetables that reduce prices by 10–30% are effective in increasing fruit and vegetable consumption.<sup>f</sup>

Governments can alter the retail price of foods by altering taxes at all stages of the food system, from subsidies to farmers and producers, to tariffs on imports, altering transport costs (making fuel more or less expensive) and adding taxes at the point of sale. If subsidies or other incentives are used in the food system, there needs to be a mechanism to ensure that such subsidies or incentives are translated through to the retail price for consumers.<sup>25</sup> The target for taxation needs to be carefully considered to ensure that no adverse effects will occur on nutrient intakes in the most vulnerable.

The attraction of targeting most sugar-sweetened beverages (SSBs) is that they do not contain any nutrients other than sugar and thus supplies only energy. The quantity of consumption is also greater than for other food items. Demand for SSBs is generally elastic, with price elasticity around -0.9 to



f An R. Effectiveness of Subsidies in Promoting Healthy Food Purchases and Consumption: A Review of Field Experiments *Public Health Nutr.* 2013 Jul; 16(7): 1215–1228.

-1.3 and therefore, demand is likely to reduce when prices rise.<sup>26</sup> There is reasonable and increasing evidence that appropriately designed taxes on sugar-sweetened beverages would result in proportional reductions in consumption, especially if aimed at raising the retail price by 20% or more.<sup>26</sup>

**Table 6:** Exploring fiscal policy actions that could influence dietary intakes

Consideration	Directions
Evidence generation for policy advocacy	<p>A situation analysis using relevant information should inform appropriate objective-setting and drafting of a policy and implementation plan that includes advocacy for political buy-in, monitoring and evaluation. It should include modelling of effects on consumption, and possible substitution.</p> <p>Example: If considering a sugar tax, is there evidence on the sales/ consumption of sugar/ high sugar products?</p> <p>Is there adequate evidence that sugar consumption through sugary beverages contributes significantly to energy intake of the population?</p> <p>Is there an increasing trend of SSB consumption across time?</p>
Tax design	<p>The design of a tax should be based on a justifiable public health rationale. Anti-competitiveness of a tax should be analysed at the design stage to avoid trade issues.</p> <p>Specific excise taxes that are calculated based on nutrient content (e.g. SSB taxes based on sugar content) can have the greatest impact. A specific tax is applied as a specific amount per unit of the product. Since specific excise taxes are applied on a per unit basis rather than as a function of price, quantity discounts are still taxed. Specific taxes also reduce incentives to switch to less expensive brands in that they increase the price of all products affected by the tax in the same way. Excise taxes need to be periodically increased, to account for inflation. Such taxes also simultaneously encourage producers to reformulate their products.</p>
Coherent fiscal policies that promote healthy foods over unhealthy foods	<p>Is the approach to increase the price on less healthy foods only?</p> <p>Could funds generated by taxes be earmarked for health (advocacy/ promotion/subsidies) and to promote and reinforce the benefits of the fiscal policy?</p> <p>Is there a cross-subsidy to make healthier foods more affordable?</p> <p>Is there any substitution of products to get around the tax?</p> <p>Is there control to prevent access of cheaper, less healthy foods from outside the country?</p>

Consideration	Directions
Standard criteria for determining what food products to tax	Development/adoption of a nutrient profile model is an important action in providing a tool for categorisation of products to be taxed, defining the tax base and for setting thresholds in the case of taxation of an ingredient.
How is the tax applied?	<p>Taxes can be applied in different ways:</p> <p>Applied to individual products: type of foods such as snacks, sugar sweetened beverages (tax at, for example, 0.05 cents/litre)</p> <p>Applied to foods high in fat, sugar or salt, using a nutrient profiling and agreed thresholds (cut-offs), for example, above 2.3 % saturated fat or &gt; 8 g/100 g sugar.</p> <p>Applied to energy content per unit; application of tax to energy dense snacks</p>
Evaluation of effects	<p>The most accurate and effective objectives for price policies focus on their upstream potential to influence purchasing and consumption behaviour, rather than on downstream effects, such as body weight or disease which are also influenced by a large number of other factors.</p> <p>An assessment of sales volumes of the product/ products for which the fiscal policy was applied to, compared to previous sales would be proxy measures of consumption trends. Other details such as tax pass through rates and assessment of regressivity are also useful.</p>

## 6.5 Food provision and access; improving quality of food served in institutions

### 6.5.1 Creating a healthy dietary environment in schools and other institutions; school as a key setting for actions.

Considering the settings in which people consume food is important in promoting healthy diets. For many children, meals provided or sold at schools play a vital role in meeting their nutritional needs. It is similar for workplace settings or other institutions where meals are provided as part of the employment package or sold at subsidized rates. The school environment, with policies that support healthy food choices, is important in promoting healthy diets.<sup>28</sup> Schools affect all aspects of food knowledge, attitudes and behaviour and provides an opportunity for coherent and coordinated approaches to improve the quality of children's diets. The WHO school policy framework offers guidance on actions that can be taken by schools to improve the dietary environment.<sup>29</sup>

The following aspects can be addressed through school nutrition policies:

## Knowledge generation

Guidance and behaviour change communication on healthy eating needs to be an integral part of the school curricula, and should provide practical guidance. Promoting school gardens can also support the messages of healthy eating.

## School food provision programmes

There are two main modalities of school feeding; in-school feeding and take-home rations.<sup>30</sup> These are usually complimented by other interventions such as fortified snacks and deworming programmes. There is some evidence that school feeding increases enrolment, attendance, retention, educational achievement and alleviates short-term hunger.<sup>30</sup> Countries that currently have school food provision programmes should review these to ensure that they are compatible with a healthy diet, as well as meeting minimal needs for macronutrients and essential micronutrients. The types of food served, food preparation methods such as oil used for cooking and addition of sugar or salt need consideration.

- Schools could be issued with specific guidance on food procurement and preparation.
- Activities need to be monitored to assess adherence to guidance.

## School cafeteria policies

Schools should examine their food-related policies and decrease access to foods that are low in nutrients and high in fats and sugar. School cafeteria food policies should be developed, or revised as necessary to consider all aspects of access to foods and beverages within (cafeterias, vending booths). Nutrient profiling is essential for objective classification of foods to be permitted for sale. The environment around schools including vendors and shops, can also play a critical part in supporting healthy diets. These local environments may be under the control of local governments that are able to restrict marketing and sales of unhealthy foods near schools.

## The informal food sector; considerations for South-East Asia

For many people, local markets, fast-food stalls/outlets and street vendors provide a significant proportion of consumed foods. Street and snack foods need to be taken into account in designing effective strategies for healthy diets. The contribution of fat, sugar and sodium from street foods to diets of urban population appear to be significant.<sup>31</sup>

Not all street foods are unhealthy, for example, people may buy their fruit (in single portions) from street vendors because they can buy small affordable portions this way. Many street foods could be made healthier by the use of different ingredients and by varying preparation methods. Such settings may have a key role in informing, changing attitudes, and improving skills about buying healthier foods. Lessons can be learnt from Singapore's Healthier Hawker Programme run by Singapore Health Promotion Board with support from key stakeholders.<sup>32</sup>

**Case study:** Stakeholders working with street vendors explored and developed healthier ingredients that were affordable and remained acceptable to consumers. They were able to promote the use of blended oil low in saturated fat, brown rice, wholegrain noodles and low sugar soft drinks. Professional chefs were involved to develop the skills of vendors to use the healthier ingredients without compromising taste. The project involved the target group population, working with community leaders and supported by various social marketing approaches.

Governments could promote such initiatives to make better quality street foods available and affordable by supporting links with local farmers and suppliers. This, in turn could shape the range of foods grown locally. Local markets can be supported in a similar way and promoted as ways of supporting local communities and enhancing healthy traditional practices.

# 8

## Evaluation and accountability

Monitoring and evaluation are essential to enable an analysis of the impact of key actions to allow further analysis and revision to improve efficiency. Table 7 briefly summarizes how to monitor key actions. Although requirements are listed for each action, a overall coherent evaluation of the impact of all actions is needed.

Regular and comprehensive population-based surveys of what people are eating and the effect on their overall dietary patterns is important. Dietary assessments should cover food and nutrient intakes, food preparation and procurement. Assessing the reach and impact of implemented actions on dietary patterns of vulnerable groups to ensure that they are being reached is important, and ensuring that strategies to reduce one form of malnutrition do not lead to another are essential.

**Table 7: Monitoring the population based policy measures to promote healthy diets.**

Key Actions	Monitoring mechanism
Labelling	Surveys of awareness, impact on behaviour, regular random checks by public health workers on labels. A body could be set up to regulate and oversee regulatory aspects of labelling.
Fiscal policies	Analysis of volume of imports/production of food item over time; price checks at retail outlets to assess price pass through; impact assessment through dietary surveys.
Implementing marketing recommendations on food and non-alcoholic beverages to children	The methodology used is to assess viewing time; exposure to restricted media; change in behaviour. Analysis of TV ads to assess compliance. Review major websites and sporting events to check exposure and compliance; review marketing material on package foods; check in-store promotions and location of snacks and pricing policies
Product reformulation	Regular random assessment of relevant food samples to assess compliance with reformulation.

Key Actions	Monitoring mechanism
Institutional settings	Assessment of random samples, analysis of duplicate meals; compare menus with provision; assess quality of materials used; percentage of children consuming compared with role numbers; expenditure compared with delivery
Street food	Random samples, assessing awareness of vendors, chefs

## 8.1 Role of civil society in monitoring and accountability

A strong civil society is vital to ensure that local communities are involved in the development of actions that affect them. Awareness of civil society and active involvement contributes to community uptake and thus effectiveness of actions to promote healthy diets. A strong civil society is also important to hold governments and other actors to account, to ensure that they make good their commitments and communicate such actions to the wider community.

# 9

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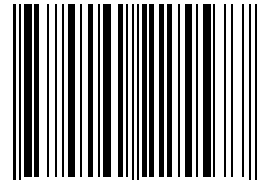




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