Improving the nutritional quality of commercial foods for infants and young children in the WHO European Region
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Good nutrition in infancy and early childhood is key for ensuring optimal growth and development, and preventing all forms of malnutrition and diet-related noncommunicable diseases.

There has been growing concern about the inappropriate promotion of commercially produced baby and toddler foods (referred to as commercially available complementary foods). Two new studies (see “For more information” at the end of the document) from the WHO Regional Office for Europe have shown that up to 60% of all baby foods surveyed are incorrectly being marketed as suitable for infants under the age of 6 months, and many of those foods contain levels of sugar that are too high. Together, they underscore a concern that inappropriate promotion of some commercially produced baby foods undermines breastfeeding and optimal nutrition for infants and young children and propose some first steps to end such inappropriate promotion.

The first study, in which WHO collected data on 7955 food or drink products from 516 stores on foods marketed for infants and young children in four European cities, found widespread evidence of inappropriate promotion of such foods (Fig. 1).

Between 28% and 60% of foods were being marketed as suitable for infants under the age of 6 months, which is not in line with longstanding global guidance.1

WHO recommends that infants receive exclusively breastmilk for the first six months of life and, therefore, no food should be marketed as suitable for children under the age of 6 months.

**Early age of introduction**

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**Inappropriate nutritional quality**

Foods of inappropriate nutritional quality are being marketed for babies and toddlers.

In around half of products examined in the first study, more than 30% of calories were from total sugars and around a third of products contained added sugar or other sweetening agents.

Although foods that naturally contain sugars such as fruit and vegetables can be appropriate for infant and young child diets, the very high levels of sugars present in commercial products is a cause for concern. The naturally-occurring sugars in fruit purées can be considered free sugars due to the high level of processing, which releases sugars from within their cell walls. A high sugar intake can increase the risk of overweight and dental caries, while sugary drinks (including fruit juices) can displace more nutrient-rich foods. Early exposure to sweet products may promote a preference for sweet foods.

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1 Nutrition and labelling analyses were conducted on 1978 unique products after duplicates and infant and young child formula were eliminated from the total sample.
Composition, nutrition or health claims

Statements relating to composition, nutrition, or health aspects were present on nearly all products, and those specifically relating to health or child development were present on between 13% and 35% of products. The use of nutrition or health claims can mislead consumers, lead to products having a so-called health halo and undermine parents’ confidence in breastfeeding and their ability to feed their child with home-prepared food. International guidelines state that foods for infants and young children should not carry nutrition or health claims.

Around a third of products listed sugar, concentrated fruit juice or other sweetening agents as an ingredient. Such ingredients should not be added to foods for infants and young children.

Between 18% and 57% products had more than 30% calories from sugars.²

Between 95 and 100% carried statements on composition, nutrition or health aspects on labels.

Between 13% and 35% carried statements relating to child health and/or development on labels.

Fig. 1
Nutritional quality and promotion of foods for infants and young children in four cities in the WHO European Region

² Total sugars, including naturally occurring sugars such as those in fruits, vegetables and milk.
WHO recommends that free sugars should contribute less than 10% of total energy intake for adults and children (or below 5% for additional health benefits) and warns against the addition of free sugars to foods for infants and young children.

What can be done to make commercially available complementary foods healthier?

To address some of these problems, WHO conducted a second study to develop a draft nutrient profile model for infants and young children aged 6–36 months to guide decisions about which foods are inappropriate for promotion. It has been validated against label information from packets, websites or online repositories from 1328 products on the market in Denmark, Spain and the United Kingdom in 2016/2017 and pilot tested in seven additional countries (Estonia, Hungary, Italy, Malta, Norway, Portugal and Slovenia) in 2018 with a further 1314 products (Fig 2).

This second study also found that on average, approximately a third of energy in baby foods came from total sugar (ranging from 29% in Italy to 44% in Hungary), and for most food categories, the sugar content far exceeded WHO recommendations. Total sugar in fruit purees (which can be considered free sugars) was on average over 70% (Fig. 3).

Use of added sugars was widespread across food categories (ranging from 21% to 58%) and the type used varied across countries and products, although concentrated fruit juice was the most common. (Fig. 4)

![Fig. 3 Mean percentage of energy from total sugar in foods marketed for < 36-month-olds by food category and country, examined during pilot-testing of the draft nutrient profile model](image-url)
Fig. 2
Countries where pilot-testing of the draft nutrient profile model was conducted

- 2016/2017
- 2018

Number of products examined from each country

- United Kingdom: 768
- Italy: 430
- Denmark: 319
- Malta: 263
- Spain: 261
- Slovenia: 152
- Estonia: 134
- Portugal: 125
- Hungary: 123
- Norway: 107

Fig. 4. Percentage of products containing added sugars in foods marketed for < 36-month-olds by food category and country, examined during pilot-testing of the draft nutrient profile model

Notes: 0% indicates no added sugar in products examined in that category (added sugars include honey and fruit juice other than lemon or lime). Not all food categories are shown. No bar or 0% for a food category indicates that fewer than four products in the category were examined for that country.
Recommendations for baby food promotion and composition in the draft nutrient profile model include the following.

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Baby foods</strong> should not be marketed as suitable for children under 6 months of age</td>
<td>Prevent marketing of baby foods as suitable for children under 6 months of age.</td>
</tr>
<tr>
<td><strong>Fruit drinks and juices, confectionery and sweet snacks</strong> should not be marketed as suitable for infants and young children</td>
<td>Ensure that fruit drinks, confectionery, and sweet snacks are not marketed as suitable for infants and young children.</td>
</tr>
<tr>
<td><strong>Limit total sugar content</strong> of dry savoury snack foods to ≤ 15% of energy</td>
<td>Limit the total sugar content of dry savoury snack foods to at most 15% of energy.</td>
</tr>
<tr>
<td><strong>Prohibit added sugars</strong>, including concentrated fruit juice, in all baby foods</td>
<td>Ban the use of added sugars, including concentrated fruit juice, in all baby foods.</td>
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<tr>
<td><strong>Limit use of pureed fruit</strong> particularly in savoury foods to ≤ 5% of total weight</td>
<td>Limit the use of pureed fruit, particularly in savoury foods, to no more than 5% of total weight.</td>
</tr>
<tr>
<td><strong>Introduce front-of-pack upper-age restrictions</strong> for heavily pureed and very smooth products intended as weaning foods (e.g. suitable for age 6–12 months)</td>
<td>Introduce age restrictions for heavily pureed and very smooth products intended for weaning foods.</td>
</tr>
<tr>
<td><strong>Phase out pouches with spouts for pureed foods</strong> and add pack labelling instructing infants and young children should not suck from spouts</td>
<td>Phase out pouches with spouts and add labelling instructions for infants and young children.</td>
</tr>
<tr>
<td><strong>Improve product labelling for total sugar and total fruit contents</strong> (e.g. front-of-pack flags for high total or free sugar content, and back-of-pack ingredient information such as the total fruit content)</td>
<td>Improve product labelling to indicate total sugar and total fruit contents.</td>
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<tr>
<td><strong>Ensure that front-of-pack product names are representative of primary ingredients</strong></td>
<td>Ensure that product names reflect the primary ingredients.</td>
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<tr>
<td><strong>Set a minimum energy density threshold of 60 kcal/100 g</strong> for some soft-wet spoonable foods to ensure that complementary foods provide adequate nutrition for infants 6–12 months</td>
<td>Set a minimum energy density threshold for some soft-wet foods to ensure adequate nutrition for infants.</td>
</tr>
<tr>
<td><strong>The maximum permitted sodium content</strong> should be reduced, limiting content to 50 mg/100 kcal and 50 mg/100 g for most products</td>
<td>Reduce the maximum permitted sodium content.</td>
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<tr>
<td><strong>Ban misleading labelling and claims</strong> relating to sugar contents or product healthiness</td>
<td>Ban misleading claims about sugar contents.</td>
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<tr>
<td><strong>Industrially produced trans fatty acids</strong> should not be included in products¹</td>
<td>Ban industrially produced trans fatty acids.</td>
</tr>
<tr>
<td><strong>Total fat should not exceed 4.5 g/100 kcal except in certain types of products with higher protein content</strong></td>
<td>Limit total fat content except in specific high-protein products.</td>
</tr>
<tr>
<td><strong>A minimum proportion of fish, poultry, meat or other traditional source of protein</strong> is required for products that name a protein source in the product name on the front of pack</td>
<td>Ensure a minimum protein content in products that name a protein source.</td>
</tr>
</tbody>
</table>

¹These should be eliminated from the food supply.
These new reports from WHO document evidence of widespread inappropriate promotion of baby and toddler foods. Despite the WHO Guidance on ending inappropriate promotion of foods for infants and young children agreed in 2016 and nearly 40 years since the introduction of the International Code of Marketing of Breast-milk Substitutes, many companies that manufacture or distribute commercial baby foods fail to comply with these rules. More than ever, robust government action is needed to fully implement the International Code and WHO’s Guidance. The latter recommends the development and utilization of nutrient profile models to help differentiate between foods that form a healthy or unhealthy diet.

Parents and caregivers need guidance on how to navigate the market and how to balance their children’s diets in light of the products currently on the market.

Effective action on these issues – by Member States and by baby food manufacturers and retailers – offers great potential to improve infant and young child nutrition and to promote health throughout the life-course.

For more information, please see:


The authors would like to acknowledge the generous funding for this work from the Bill and Melinda Gates Foundation and through a grant of the of the Russian Federation Government in the context of the WHO European Office for the Prevention and Control of Noncommunicable Diseases.

WHO is extremely grateful to research partners in 13 countries for the data collection and/or analysis for these two reports.
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The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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