Consortium for Improving Complementary Foods in Southeast Asia (COMMIT)

Commercially produced complementary foods in Indonesia:

Assessment of nutrient composition and labelling practices using an adapted WHO Europe Nutrient Profile Model

COMMIT ACTIVITY 4

COMMIT 1 Comprehensive nutrient gap assessment
COMMIT 2 Consumer survey
COMMIT 3 Legal and policy review
COMMIT 4 Nutrient profile model
COMMIT Synthesis report

COMMIT

Consortium for Improving Complementary Foods in Southeast Asia

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List of acronyms

ARCH	Assessment and Research on Child Feeding
ATNI	Access to Nutrition Initiative
COMMIT	The Consortium for Improving Complementary Foods in Southeast Asia
CPCF	Commercially produced complementary foods
IYCF	Infant and young child feeding
NPM	Nutrient profile model
RDA	Recommended dietary allowance
UNICEF	United Nations Children's Fund
WHA	World Health Assembly
WHO	World Health Organization
WHO Europe	WHO Regional Office for Europe
Adapted WHO Europe NPM for CPCF	Adapted WHO Europe Nutrient Profile Model for Commerically Produced Complementary Foods

THE COMMIT INITIATIVE

Overview

A nutrition transition is underway across Southeast Asia, with convenience, time and aspiration increasingly influencing food choices. This changing food environment is resulting in a shift from traditional diets towards processed foods that are usually higher in salt, sugar and unhealthy fats, and lower in essential nutrients – and children's diets are no exception.

The availability, affordability and variety of commercially produced, packaged foods marketed as suitable for older infants and young children – also known as commercially produced complementary foods (CPCF) – is increasing. Many CPCF exceed recommended levels of sugar, salt or fat and/or are labelled in ways that may mislead consumers; these products should not be promoted or provided to older infants and young children. For other CPCF, however, targeted improvements to their nutrient composition – such as through fortification – can help improve their nutritional impact. Governments and partners must work together to ensure that the CPCF promoted as suitable for older infants and young children are nutritionally adequate, safe and labelled in a responsible way.

The **Consortium for Improving Complementary Foods in Southeast Asia (COMMIT)**[i] was established to help ensure that the CPCF sold and consumed in the region contribute to healthy diets instead of unhealthy ones. COMMIT recognizes that one of the most effective ways to transform the food system and food environment is by supporting governments to set up regulatory environments that enable access to healthy food, adequately regulate unhealthy products and protect consumers from inappropriate marketing practices. To do this, COMMIT identified micronutrient gaps in the diets of older infants and young children, analysed current consumer CPCF preferences, reviewed national legislation regulating CPCF nutrient composition and labelling practices, and used a nutrient profile model to assess current CPCF nutrient composition, labelling practices and micronutrient content:

COMMIT Activity 1: Comprehensive nutrient gap assessment
A comprehensive nutrient gap assessment to identify limiting micronutrients in diets during the complementary feeding period.

COMMIT Activity 2: Consumer survey
Consumer perspective survey on the provision of CPCF to older infants and young children, motivations for CPCF provision and factors influencing CPCF purchases.

COMMIT Activity 3: Legal and policy review
Assessment of current national binding legal measures related to CPCF nutrient composition and labelling practices and their adherence to global CPCF guidance.

COMMIT Activity 4: CPCF nutrient profile model
Benchmarking of CPCF nutrient composition and labelling practices against an adapted version of the 2019 WHO Europe nutrient profile model designed specifically for CPCF.

This report details the methods and results for COMMIT Activity 4 in Indonesia.

[i] COMMIT partners include Access to Nutrition Initiative; Alive & Thrive; Helen Keller International's Assessment and Research on Child Feeding Project; JB Consultancy; School of Food Science and Nutrition, University of Leeds; UNICEF East Asia and the Pacific Regional Office; and World Food Programme Asia Pacific Regional Bureau.

1 Introduction

1.1 Why are young children's diets important?

Children's first foods – those provided to them during the period between 6 months of age and their second birthday – are determined by a host of factors, including well-established cultural practices and societal norms, the availability of foods in the market, a family's ability to afford these foods and the knowledge and awareness of caregivers on appropriate feeding practices for young children. Providing older infants and young children with nutritious, safe and diverse foods at the right time is critical: between the ages of 6 months and 2 years, children have greater nutrient needs per kilogram of body weight than at any other time in life.[1] Inadequate quality and quantity of foods during this period can have a lifelong impact on children's ability to survive, grow and develop. In contrast, good nutrition in the first years of life helps children thrive throughout childhood and across the life course – with benefits that carry across generations, fuelling prosperous families, productive workforces and powerful economies.[2]

The barriers to meeting older infants' and young children's nutrient needs in early life are uniquely challenging, and the factors that influence how and what families feed their children are changing in an increasingly modern and urbanized world. In Southeast Asia, more families are moving to cities, and their diets are constrained due to poverty, inequities, and the increasing cost of nutritious food. More women are participating in the workforce, often while continuing to carry the greatest burden of caregiving and household duties, restricting the time they have to prepare healthy home-made foods. Millions of families are shifting from traditional diets towards convenient, highly processed foods, including those marketed to young children, that are usually higher in salt, sugar and unhealthy fats, and lower in essential nutrients.[3, 4]

These dynamic and interrelated factors have contributed to stagnated improvements in the quality of young children's diets in Southeast Asia. One in five older infants and young children is not growing well in East Asia and the Pacific and nearly half have at least one micronutrient deficiency.[3, 5] Older infants and young children are failing to thrive in the region, in part because the foods they eat and the way they are fed are inadequate. Grains, such as rice porridge, continue to be the primary food for older infants and young children. While these foods may satisfy children's hunger, they often lack the essential nutrients for optimal growth and development.[6] Further, one in four older infants and young children receive no nutrient-rich animal source foods or fruits and vegetables in their diets.[5] The consumption of ultra-processed, packaged snacks high in salt and sugar is also flourishing in the region; these foods are cheap, convenient, readily available and children demand them.[3, 7, 8]

It is in the best interest of families, communities and governments to ensure nutritious, safe, diverse and affordable foods for older infants and young children. Yet, far too often, the unique nutritional needs of older infants' and young children are not considered in efforts to improve diets and the systems that shape them. Efforts to improve the quality of older infants' and young children's diets have largely focused on increasing the knowledge of families and caregivers on appropriate child feeding practices; however, knowledge alone cannot overcome the myriad of driving factors that are beyond the control of families.

1.2 How nutrient profile modelling can be used to better protect young children's diets

Children's first foods – also known as complementary foods – can and should preferably be home-prepared. However, families are increasingly turning to commercially produced, packaged complementary foods promoted as suitable for older infants and young children – also known as

commercially produced complementary foods (CPCF) – due to their convenience and an increasing lack of caregiver time to prepare foods in the home.

CPCF, including those promoted in the Southeast Asia region, can vary widely in nutritional quality.[9] Some CPCF may improve nutrient intake by providing critical micronutrients that may be limited in the diets of older infants and young children, while others are of concern because they are not fortified and/or contain high levels of added salt or sugar or contain unhealthy fats. While both World Health Organization (WHO) guidelines[10, 11] and UNICEF programming guidance[12] recommend the use of fortified CPCF in some circumstances, global guidance stresses that these products should only be promoted in line with international and national regulations[8, 10, 11]

Promotion of foods for older infants and young children is considered inappropriate if it interferes with breastfeeding, contributes to obesity and noncommunicable diseases, creates a dependency on commercial products or is otherwise misleading. Inappropriate promotion of CPCF can mislead and confuse caregivers about the nutrition and health-related qualities of these products and their age-appropriateness and safety. Research conducted in Cambodia, Indonesia and the Philippines has shown that a majority of CPCF products do not fully comply with international guidance on nutrient composition, labelling practices and/or promotion, and thus do not sufficiently protect and promote optimal feeding practices or healthy diets for young children.[9, 13, 14]

To better protect young children's diets, World Health Assembly (WHA) Resolution 69.9 urges countries to end the inappropriate promotion of foods to older infants and young children. The WHO Guidance on Ending the Inappropriate Promotion of Foods for Infants and Young Children, (hereafter referred to as WHO Guidance) that was welcomed as part of WHA 69.9, states in recommendation 3: "Foods for infants and young children that are not products that function as breastmilk substitutes should be promoted only if they meet all the relevant national, regional and global standards for composition, safety, quality and nutrient levels and are in line with national dietary guidelines" [15] Global guidance is available from Codex Alimentarius and WHO to assist countries in the development (or improvement) of national level standards and regulations for CPCF nutrient composition and labelling practices.

Recommendation 3 of the WHO Guidance further encourages that "nutrient profile models should be developed and utilized to guide decisions on which foods are inappropriate for promotion". Nutrient profiling is the science of classifying or ranking foods according to their nutritional composition for reasons related to preventing disease and promoting health.[16] For example, nutrient profile models (NPM) can be used to identify foods that include an excess of sugar, salt or fat. This information can then be used to guide restrictions on the promotion of unhealthy or inappropriate products for children and other consumers. For CPCF, NPMs often include a component to specifically assess labelling to identify products with inappropriate promotion.

In 2019, the WHO Regional Office for Europe published the 'Draft WHO Europe Commercially Available Complementary Foods Nutrient Profile Model' (hereafter referred to as the 2019 WHO Europe NPM), which defined a NPM specifically for CPCF. This WHO Europe model provides explicit limits on the addition of sugars, fats, and sodium, as well as requirements for the labelling of CPCFs for older infants and young children (aged 6–36 months) (Box 1).[17] While the 2019 WHO Europe document refers to CPCFs as commercially available complementary foods (CACF), these two terms describe the same types of products.

The 2019 WHO Europe NPM has been applied to CPCF across Europe and in Southeast Asia, including in the Philippines and Cambodia by the Access to Nutrition Initiative (ATNI), and in Indonesia by Helen Keller International's Assessment and Research on Child Feeding (ARCH) Project.[9] Application of the 2019 WHO Europe NPM in Cambodia, Indonesia and the Philippines was extensive, but the sampling of products was conducted in urban and peri-urban locations outside the capital cities, and as such, may not have captured the full range of products available in these countries. Thus, at present, there is a limited understanding of the quality and availability of CPCFs across Southeast Asia. Further, it is notable that the 2019 WHO Europe NPM omits the inclusion of data on the micronutrient content of CPCF products. In the Southeast Asian context, it is critical to incorporate recommendations for essential micronutrients and specific minimum thresholds for their

inclusion within CPCF, similar to those specified through Codex Alimentaruis[18] [ii] and in European Union Regulation Number 609/2013.[19] The inclusion of essential micronutrients with minimum thresholds in the 2019 WHO Europe NPM is necessary to fully implement recommendation 3 of WHA 69.9 and to ensure that compositionally, CPCFs provide essential micronutrients without added sugars, salt, and unhealthy fats.

Box 1: Adaption of the 2019 Draft WHO Europe Commercially Available Complementary Foods Nutrient Profile Model for use in the Southeast Asia region

Nutrient profiling is used to classify foods according to nutrient levels related to promoting health. The WHO Europe NPM was developed in 2019 in response to resolution WHA 69.9 and its call for WHO to provide technical support to Member States, who were called upon to develop nutrient profiling tools to guide decisions on which foods can and cannot be promoted for infants and young children.[20] It represents a first step toward developing an NPM for CPCFs marketed for older infants and young children (aged 6–36 months) in the European region.

The 2019 WHO Europe NPM categorizes CPCFs into five food categories and 16 food subcategories (outlined in Table 1). For each of the 16 subcategories of CPCF, the 2019 WHO Europe NPM proposes nutrient composition and labelling requirements that must be met for CPCF products to be considered suitable for promotion to older infants and young children. More specifically, the nutrient composition component of the 2019 WHO Europe NPM includes specific requirements for fruit content, energy density, the addition of sugar/sweetening agent, and total sodium, total fat and protein content for each subcategory. The labelling component includes general and food-category specific labelling requirements pertaining to the protection and promotion of breastfeeding, use of claims, product name and ingredient list clarity, messages on products with a spout and age restrictions on puréed products. In order to 'pass' the 2019 WHO Europe NPM and be considered suitable to be promoted as appropriate for older infants and young children between 6 months and 3 years of age, each CPCF must meet *all* applicable nutrient composition and labelling requirements. More detailed information on the 2019 WHO Europe NPM can be found in the 2019 WHO Europe NPM discussion paper.[17]

The 2019 WHO Europe NPM was adapted in 2020 by the COMMIT Initiative for use in the Southeast Asian context. The adaption included incorporating updates to the nutrient composition and labelling requirements made by Leeds University and WHO Europe. This adapted version of the NPM was renamed the adapted WHO Europe NPM for CPCF. In addition, the COMMIT Initiative further adapted this NPM to capture micronutrient information and gather more detailed data on the types of claims made on CPCF labels (e.g., non-permitted compositional claims, nutrient content claims, nutrient function claims, disease risk reduction claims, 'other' claims).

A detailed record of how the WHO Europe NPM was adapted for COMMIT is provided in Annex 2, and the final adapted 2019 WHO Europe NPM for CPCF utilized for the COMMIT Initiative is provided in Annex 3. Throughout this report, 'adapted WHO Europe NPM for CPCF' is used to refer to the model modified by COMMIT for the Southeast Asian context.

[ii] The Codex Alimentarius of "Food Code" is a collection of international standards, guidelines and codes of practices adopted by the Codex Alimentarius Commission to contribute to the safety, quality, and fairness of international food trade. Codex standards and related texts are voluntary in nature and need to be translated into national legislation or regulations to be enforceable.

1.3 How the COMMIT Initiative endeavours to support older infants' and young children's diets

A strong evidence base regarding the appropriateness of the nutrient composition and labelling practices of CPCF at a national level is needed to contribute to achieving the recommendations of WHA 69.9. While countries in Southeast Asia are committed to fully implementing WHA 69.9 and have some national legal binding measures guiding the nutrient composition and labelling requirements of CPCFs, a policy and legal review conducted by the COMMIT Initiative found that no country in Southeast Asia has comprehensive compositional or labelling requirements for CPCFs. The COMMIT Initiative was formed to address the need for a strong evidence base in Southeast Asia and set out to use an adapted WHO Europe NPM For CPCF to profile the nutrient composition and labelling practices of CPCF sold in the capital cities and through online retailers in seven Southeast Asian countries – Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, the Philippines, Thailand and Viet Nam. This work, termed COMMIT Initiative Phase 1, was implemented from January 2021 to June 2022.

It is anticipated that COMMIT Initiative Phase 1 work will provide the evidence base to contribute to the improvement of CPCF in Southeast Asia. In Phase 2, the COMMIT Initiative will disseminate findings from Phase 1 at the national and regional level. Further, at the national level, the COMMIT Initiative will provide technical support to governments in the development of national binding legal measures to regulate CPCF nutrient composition and labelling practices in their country and facilitate cross-country knowledge exchange and learning. In addition, the COMMIT Initiative will provide technical support for building consumer awareness and demand for quality CPCF through the publication of COMMIT findings in mass media outlets. Lastly, COMMIT will work with countries to support manufacturers to comply with updated national legislation on CPCF nutrient composition and labelling practices.

The actions of the COMMIT Initiative are envisioned to contribute to a holistic approach to ensuring the quality of CPCFs in Southeast Asia. The COMMIT Initiative strives to ensure that CPCFs contribute to making the diets of older infants and young children nutritious, safe, and diverse through routinely monitored and enforced national-level standards, increased consumer awareness and demand for quality CPCFs, and supporting manufacturer compliance with CPCF regulations.

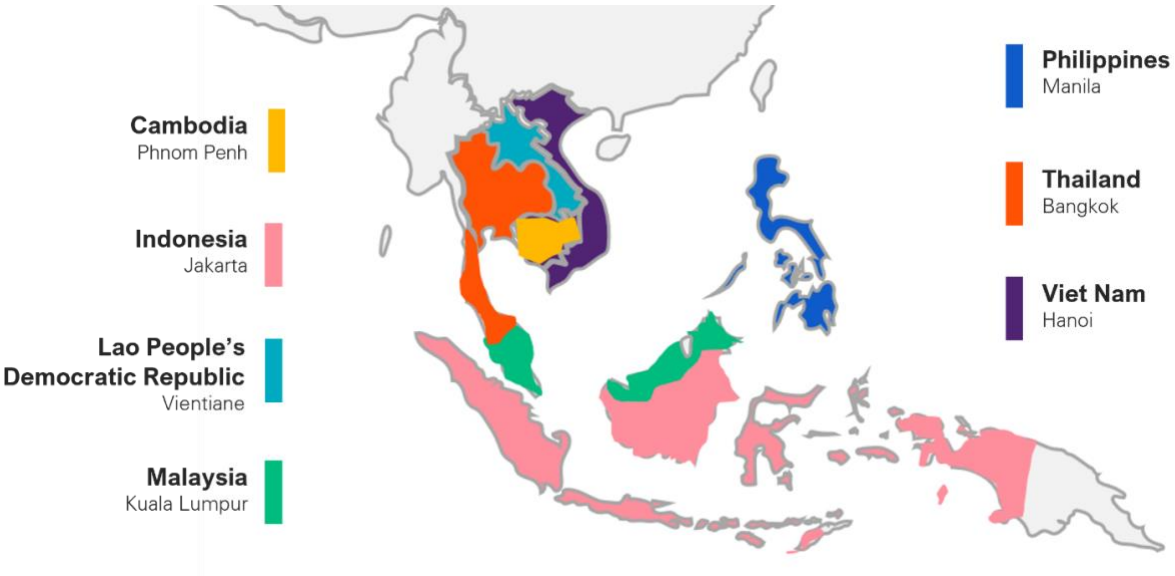
This report shares the findings from the COMMIT Initiative's Activity 4 to benchmark the nutrient composition and labelling practices of CPCF in Indonesia using an adapted version of the adapted WHO Europe NPM for CPCF designed specifically for Southeast Asia.

2 Objectives

This assessment by the COMMIT Initiative was conducted in the capital cities of seven Southeast Asian countries (Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, Philippines, Thailand and Viet Nam) and had four objectives:

1. To assess the nutrient composition of CPCF against the nutrient composition requirements of the adapted WHO Europe NPM for CPCF.
2. To assess the labelling practices of CPCF against the labelling requirements of the adapted WHO Europe NPM for CPCF.
3. To benchmark the number of CPCF that meet both the nutrient composition and labelling requirements of the adapted WHO Europe NPM for CPCF, disaggregated by product category.
4. To assess the micronutrient content of CPCF against Codex Alimentarius Guidelines on formulated complementary foods for older infants and young children (CAC/GL 9-1991).

Figure 1: Map of the seven COMMIT Initiative countries



3 Methods

3.1 Design and sampling strategy

The study used a cross-sectional design to gather data on CPCF nutrient composition and labelling practices in Jakarta, Indonesia. A three-step, purposive sampling strategy was implemented to:

1. Identify retail outlets for CPCF
2. Select brick-and-mortar and online stores for inclusion in the sample
3. Identify and purchase CPCF products that met criteria to be considered CPCF (Box 2)

The full methodology of the sampling strategy can be found in the COMMIT Activity 4 Protocol. As the labelling practices assessment did not involve human subjects, no ethical approval was necessary.

Box 2: Definition of CPCF used by the COMMIT Initiative

Commercially produced complementary foods (CPCF) are defined as commercially available food and beverage products that are *specifically promoted as suitable* for older infants and young children up to 3 years of age. The CPCF purchased in each of the seven Southeast Asian countries were considered to be '*promoted as suitable*' for this age group if they met at least one of the following criteria:

1. Were recommended for introduction to children at an age of less than 3 years
2. Were labelled with the words 'baby', 'toddler', 'young child', or a synonym of these words
3. Had a label with an image of a child who appeared to be younger than 3 years of age or was feeding with a bottle
4. Were in any other way presented as being suitable for children up to the age of 3 years[17, 20]

For step 1, a store scoping exercise was employed to identify retail outlets selling CPCF. The store scoping was conducted via a web-based search and through consultation with local experts to identify types and names of retail outlets that sold CPCF in Jakarta. A list of larger retail outlets (chain/independent; national/international) including supermarkets, hypermarkets, large grocery stores, stand-alone baby stores and large pharmacies was then developed.

For step 2, one brick-and-mortar store was strategically selected from the list of retail outlets created in step 1. For identified chain outlets, brick-and-mortar store selection was based on information obtained from the chain outlet head office in the store in Jakarta that carried the largest variety of CPCF. Where this information was not available, the chain outlet head office provided the name of the largest store in the chain for selection. All independent retail stores identified in step 1 were selected for inclusion in the sample. If the selected retail outlets also had an online purchasing platform, the online platforms were included in the sample. Some retail outlets used social media platforms (e.g., Facebook and Telegram) as ordering channels for CPCF without providing a catalogue of products; these online platforms were excluded from the sample.

Once physical and online purchase locations were selected for the sample, step 3 involved visiting each outlet and assessing their inventories for commercially produced foods and beverages that met the criteria to be specifically marketed as suitable for older infants and young children (see Box 2).

For online retail outlets, food and beverage categories specific to 'babies and kids', 'children', 'mother and baby' or other infant and young child related categories, as well as the general refrigerated and frozen foods categories, were searched for CPCF products. For brick-and-mortar stores the entire store inventory was searched for CPCF.

Once identified, one of each unique CPCF was purchased at every store where it was encountered. Products were considered unique if they differed by brand name, sub-brand name, descriptive name, age category/recommendation, manufacturer and/or flavour. Single-serving and multi-serving packages, different sizes of multi-serving packages, and bundles of single-serving sachets/packages of the same product were considered a single product, as were products that differed only by the type of packaging (e.g., box, canister). For retail outlets with both a brick-and-mortar store and an online purchasing platform, purchases were first made online and then in the brick-and-mortar stores to ensure that products not available online were also purchased. All purchasing took place in Jakarta in November 2021.

3.2 Data capture and product categorization

For CPCF purchased in-store and online, general product information was manually recorded into a dataset and CPCF product packaging and labels were photographed (see Box 3 for details on information captured). Once all product information was captured in a dataset, the dataset was searched for duplicate CPCFs products (i.e., the same products purchased in multiple stores). All duplicate CPCFs were removed from the dataset to ensure each unique CPCF appeared only once. The duplicates were counted and recorded to assess product availability in retail outlets. Any products purchased that were found after purchase to not actually fit the definition of a CPCF (e.g., a breastmilk substitute product) or that were missing nutrient declarations/information tables were identified and removed.

Box 3: Data captured for each CPCF

Information manually captured and entered into a dataset:

- Product full name (i.e., brand, sub-brand, descriptive name, and flavour variant)
- Manufacturer
- Place of production
- Presence of an age recommendation/words/phrases/images indicating that the product is a CPCF
- Label language
- Net weight
- Price per net weight
- Date of purchase
- Store where purchased

Information captured by photographs

- Product packaging from all angles (front, back, sides, top and bottom of package)
- Nutrition declaration/information table
- Ingredients list
- Product preparation instructions
- Claims and other label text

Data extraction was carried out in two steps. In the first step, product names, ingredients and preparation instructions were reviewed, and all CPCF were placed in one of five food product categories:

1. Dry, powdered, and instant cereal/starchy food
2. Soft-wet spoonable, ready-to-eat foods, typically smooth or semi-puréed, packaged in jars or pouches and can be spoon-fed
3. Meals with chunky pieces, often sold in trays or pots for infants and young children
4. Dry finger foods and snacks
5. Juices and other drinks
6. Other

Foods in each product category were then divided further into 16 subcategories, listed in Table 1. Detailed definitions of each of the 16 subcategories can be found in Annex 1. Categorization was done independently by the two national researchers and discrepancies between the two categorizations were identified, reviewed and resolved using a double data verification process. Thereafter a 10 per cent error check against the label images was conducted by the global research team, resulting in an accepted error rate of 1.7 per cent, and error corrections made.

Table 1: Commercially produced complementary food product categories as defined in the adapted WHO Europe NPM for CPCF

Category 1: Dry, powdered, and instant cereal/starchy food	
Category 1.1	Dry or instant cereals/starch
Category 2: Soft–wet spoonable, ready-to-eat foods, typically smooth or semi-puréed packaged in jars or pouches and can be spoon-fed	
Category 2.1	Dairy-based desserts and cereal products
Category 2.2	Fruit purée with or without addition of vegetables, cereals, or milk
Category 2.3	Vegetable-only purée
Category 2.4	Puréed vegetables and cereals
Category 2.5	Puréed meal with cheese (but not meat or fish) mentioned in the name
Category 2.6	Puréed meal with meat or fish mentioned as first food in product name
Category 2.7	Puréed meals with meat or fish (but not named first in product name)
Category 2.8	Purées with only meat, fish or cheese in name
Category 3: Meals with chunky pieces, often sold in trays or pots for infants and young children	
Category 3.1	Meat, fish, or cheese-based meal with chunky pieces
Category 3.2	Vegetable-based meal with chunky pieces
Category 4: Dry finger foods and snacks	
Category 4.1*	Confectionery, sweet spreads and fruit chews
Category 4.2	Fruit (fresh or dry whole fruit or pieces)
Category 4.3	Other snacks and finger foods
Category 5: Juices and other drinks	
Category 5.1*	Single or mixed fruit juices, vegetable juices, or other non-formula drinks
Category 5.2*	Cow's milk and milk alternatives with added sugar or sweetening agent

* Should not be marketed as suitable for infants and young children < 36 months of age.

In the second step, nutrient composition and labelling practice information required for the analysis was extracted independently by the two national researchers from the product packaging and label photographs. For the nutrient composition assessment, the declaration of nutrition information per 100g of the product as sold,[iii] serving size and ingredient list were extracted. For labelling practices, a measurable checklist of criteria was developed to assess the qualitative labelling questions in the

[iii] Nutrition information per serving or other weight measurement of the product as sold and/or as percentage of the nutrient reference values used by Indonesia (or other reference values as used in the country of origin for imported products, with country of origin noted) was extracted if the information was not available per 100g.

adapted WHO Europe NPM for CPCF. Only label text in English or Bahasa Indonesia was extracted, and Bahasa Indonesia text took precedence over English text. When information was available in Bahasa Indonesia only (e.g., Ingredient list and claims) the Bahasa Indonesia speaking national researchers translated the text from Bahasa Indonesia to English, thus capturing the information in English only.

The dataset was then exported into Microsoft Excel, a comparison of the double data entry was conducted, and all inconsistencies were reviewed and corrected. Thereafter, a 5 per cent error check against the label images was conducted by the global research team, resulting in an accepted error rate of 0.9 per cent, and error corrections made.

3.3 Data analysis

An analysis of the performance of CPCF products against the adapted WHO Europe NPM for CPCF was conducted with Stata (version 14.2) using the adapted WHO Europe NPM for CPCF requirements. Descriptive statistics were calculated and summarized using proportions and frequencies.

Products that fall into product subcategories 4.1, 5.1 or 5.2 should not be marketed as suitable for infants and young children <36 months of age. Thus, these CPCF products automatically failed the NPM and were not assessed against the nutrient composition or labelling requirements. Products that did not fall into any of the 16 subcategories in Table 1 were categorized as '6.1: Other and not included in further analysis' These '6.1: Other' products were excluded from the assessment entirely because no requirements were applicable to these products, but they were included in the final count of unique products.

The products remaining after automatic failure or exclusion were then assessed against the adapted WHO Europe NPM for CPCF nutrient composition and labelling practice requirements.

3.3.1 Nutrient composition assessment

In order for a CPCF to be promoted as suitable for children aged 6–36 months, the product must fulfil seven nutrient composition requirements:

1. No added sugar/sweetener in product ingredient list
2. Must not exceed category-specific fruit content limit
3. Must not exceed category-specific total sugar limit
4. Must not exceed category-specific sodium limit
5. Must meet category-specific minimum for energy density
6. Must meet category-specific threshold for protein
7. Must not exceed category-specific total fat limit

Adherence to these seven nutrient composition requirements is assessed based on 1) the identified product subcategory a CPCF falls into; 2) the CPCF ingredient list; and 3) the CPCF nutritional content (i.e., the declaration of nutrition information per 100g of the product as sold, serving size, etc). Once these data are captured, the adapted WHO Europe NPM for CPCF crosschecks the information against requirements of appropriateness defined for each of the seven nutrient composition requirement (detailed in Annex 3). A product was considered to have passed the adapted WHO Europe NPM for CPCF nutrient composition assessment if it was within the category-specific nutrient limits or thresholds for *all applicable* requirements. If a product failed to meet one of the applicable category-specific nutrient composition requirements it was considered to have failed the adapted NPM nutrient composition assessment.

While not included in the pass/fail assessment of seven nutrition composition requirements, the adapted WHO Europe NPM For CPCF also assesses whether CPCF products should provide a front-of-pack 'high sugar' warning if the percentage energy from total sugar content exceeds category-

specific limits. The labels of CPCF were assessed against this additional consideration and the results are presented separately (this analysis was not applicable for products in subcategories 4.2 and 4.3).

3.3.2 Labelling practices assessment

Products must also adhere to a set of labelling practice requirements in order to be promoted as suitable for children aged 6–36 months. The adapted WHO Europe NPM for CPCF includes a total of 17 labelling practice requirements over five categories for the labelling practices assessment. Eleven of the requirements apply to all product categories and six requirements are specific to certain product subcategories (see Box 4 for the 17 labelling practice requirements and Annex 3 for detail on requirements relevant for specific product subcategories only).

Box 4: Product labelling practice requirements in the adapted WHO Europe NPM for CPCF

Category 1: Protection and promotion of breastfeeding

1. Has a minimum recommended age of introduction of at least 6 months
2. Not marketed as suitable for children <6 months of age
3. Message on importance of breastfeeding to 2 years of age or longer
4. Does not suggest superiority or equivalence to breastmilk
5. Does not recommend or promote bottle-feeding

Category 2: Claims

6. No non-permitted compositional claims
7. No nutrient content claims
8. No nutrient function claims
9. No disease risk reduction claims
10. No other claims

Category 3: Product name and ingredient list clarity

11. Product name reflects ingredients in descending order as per ingredient list
12. Percentage of fruit stated in ingredient list*
13. Percentage of added water stated in ingredient list†
14. Percentage of protein stated in ingredient list‡

Category 4: Messages on products with a spout

15. Product with spout states not to suck from the container§
16. Product with spout warns that cap is a choking hazard§

Category 5: Age restriction on blended/puréed products

17. Maximum recommended age of use of 12 months §§

* All products excluding those in subcategory 2.3 were assessed against this requirement.
† All products excluding those in category 1 and category 4 were assessed against this requirement.
‡ Only products in subcategories 2.6, 2.7 or in category 3 were assessed against this requirement.
§ Only category 2 products with spouts were assessed against this requirement.
§§ Only products in category 2 were assessed against this requirement.

A product passed the adapted WHO Europe NPM for CPCF labelling practice requirements assessment if it met *all applicable* labelling practice requirements. If a product failed any of the applicable labelling practice requirements, it failed the full labelling practice requirements assessment. If a product was missing information for one of the applicable labelling practices requirements, for example product name and ingredient list clarity, it was considered to have failed the labelling requirement.

For the labelling practice requirements specific to *claims*, the adapted WHO Europe NPM for CPCF only permits *some* compositional claims to be made on CPCF. For this assessment, the types and definition of claims were expanded and further detailed to allow for greater understanding and clarity on the types of claims made for CPCF. **Box 5** provides detail on the types and definitions of claims assessed.

Box 5: Types and definitions of claims assessed as part of the adapted WHO Europe NPM for CPCF assessment

Type of claim	Definition and examples
Non-permitted compositional claims	Text stating/ implying that the composition of the product is different/ special, that an ingredient has not been added to a food or that compares the nutrient levels and/ or energy value of the product to other products and/or brands. **Example:** "Natural ingredients", "No added preservatives"
Nutrient content claims*	A nutrition claim that describes the level of a nutrient contained in a food. **Example:** "Source of calcium", "9 vitamins and minerals"
Nutrient function claims*	A nutrition claim that describes the physiological role of the nutrient in growth, development, and normal functioning of the body. **Example:** "Nutrient A (naming a physiological role of nutrient A in the body in the maintenance of health and promotion of normal growth and development). Food X is a source of/ high in nutrient A."
Reduction of disease risk claims*	Claims relating the consumption of a food or food constituent, in the context of the total diet, to the reduced risk of developing a disease or health-related condition. Risk reduction means significantly altering a major risk factor for a disease or health-related condition. Diseases have multiple risk factors and altering one of these risk factors may or may not have a beneficial effect. The presentation of risk reduction claims must ensure, for example, by use of appropriate language and reference to other risk factors, that consumers do not interpret them as prevention claims. **Example:** "A healthful diet low in nutrient or substance A may reduce the risk of disease D. Food X is low in nutrient or substance A."
Other claims	Includes all other claims made that are not related to compositional, nutrient content, nutrient function, or disease risk reduction. Includes marketing claims related to taste, quality and texture of the food, as well as convenience/lifestyle, among others. **Examples:** "Easy to swallow texture.", "Great for a busy and active lifestyle."

*Definition based on Codex Alimentarius Guidelines for use of nutrition and health claims, CAC/GL 23 – 1997

3.3.3 Overall adapted WHO Europe NPM for CPCF outcome

A product passed the adapted WHO Europe NPM for CPCF if it passed all relevant nutrient composition *and* labelling practice requirements. For each product, a final classification was made for this combined adapted NPM outcome as either 'suitable' or 'not suitable' for promotion for older infants and children aged 6 to 36 months.

3.3.4 Micronutrient content assessment

During the data capture process, values and units for the following nutrients were captured from the nutrient declaration on each CPCF product label: vitamin A, vitamin B_1 (thiamin), vitamin B_2 (riboflavin), vitamin B_3 (niacin), vitamin B_6, folate/folic acid, vitamin B_{12}, vitamin C, vitamin D, vitamin E, vitamin K, calcium, copper, iodine, iron and zinc. Information captured for these 16 nutrients were analyzed to determine proportion and number of CPCF products that 1) had any fortification; 2) included micronutrient values in their nutrient declaration; and 3) stated serving size for the product. Fortified CPCF were then assessed to determine if their fortification levels 1) met the Codex "Guidelines on formulated complementary foods for older infants and young children (CAC/GL 9-1991)" (hereafter referred to as Codex Fortification Guidelines), and 2) met the national fortification guidelines for CPCF in Indonesia.

To determine the presence of fortification, full ingredient lists were transcribed for each CPCF product during the data capture step. Products were determined to be fortified if their ingredients list contained one or more added forms of the 16 micronutrients included in this assessment (as listed in the COMMIT Activity 4 protocol). Seven additional nutrients: DHA, biotin, choline, chromium, manganese, molybdenum, and selenium were also considered to be fortified ingredients, although these are not components included in this micronutrient assessment. Antioxidant vitamins added to preserve freshness or colour (e.g., vitamin C, including forms like ascorbic acid and citric acid, and all natural and synthetic forms of vitamin E) were not considered to be fortified ingredients. Products that contained no ingredients fitting this definition were determined to be not fortified.

Products were determined to have included micronutrient values in the nutrient declaration if their labels declared nutrient content (either in weight or as per cent recommended dietary allowance (RDA) per serving). Product serving size was obtained from either the nutrition information table or from recommendations on the label. Using this information, micronutrient content per serving size was calculated for each of the 16 micronutrients assessed for each fortified CPCF product. First, CPCF product label information was reviewed to determine if nutrient content information was presented as a percentage of RDA with or without also providing the nutrient content by weight. For products that did not also present the nutrient content by weight, nutrient content was manually calculated using a method based on a 2019 study by Dreyfuss et al.[21] The reported percentage of RDA of each nutrient for 100g of product and in one recommended serving (as listed on the product label) was multiplied by the RDA for the product's recommended age of use. If no recommended age was provided on the label, the nutrient content by weight could not be calculated.

When the product's recommended age of use spanned more than one age category for the specified country's RDA (e.g., 6–24 months), the average of the RDA values from the two age categories were used to calculate the nutrient content. However, if the recommended age of use was 1–5 years, the RDA for 1– 3 years was used because this falls within the age range of interest for complementary foods. The specific country RDA used for this calculation was determined by the information reported on the product label. Relevant national RDAs appearing on product labels in this sample included those from Indonesia, Thailand, and the United States. These values can be found in Annex 4.

Declared micronutrient contents of fortified CPCF products within CPCF subcategories 1.1 and 4.3 were then compared against the Codex Fortification Guidelines. These guidelines specify that a daily ration (defined as two servings) should meet at least 50 per cent of the reference nutrient intake from the individual nutrient level 98 (INL 98)[iv] (see Annex 5). Micronutrient values per serving were used to calculate the micronutrient value per daily ration (for each fortified CPCF product). Products were

[iv] INL 98 is the daily intake reference value that is estimated to meet the nutrient requirement of 98 percent of a specific population.

considered to meet the Codex Fortification Guidelines if they had a declared micronutrient quantity that was greater than or equal to 50 per cent of the INL 98 for that nutrient. The proportion of fortified products meeting the Codex Fortification Guidelines for each of the 16 micronutrients was then calculated.

The declared micronutrient content for each fortified CPCF product was also compared against the national fortification guidelines in Indonesia (see Annex 6) and the proportion of fortified products meeting these guidelines.

4 Results

4.1 Store and Product Characteristics

4.1.1 Description of stores visited in Jakarta

Table 2 presents the number and type of each store visited during the sampling phase of the study. Due to the high incidence of COVID-19 during the product purchasing period in Jakarta, and the common practice of online purchasing in Indonesia, it was decided that CPCF would be purchased exclusively through stores' online platforms.

A total of 25 stores that had online purchasing platforms and reported selling CPCF were identified and selected for product purchasing. Up to two online platforms were visited per store. One store did not have any CPCF and another was closed, hence all products were purchasesd from 23 online stores. Of the stores visited, the majority were large food stores (n=14) and stand-alone baby stores (n=9). One large pharmacy and one department store were also visited.

Table 2: Number and type of stores visited and selling CPCF in Jakarta, Indonesia (n=25)

Stores visited	All stores		Supermarket, hypermarket, or large grocery store		Large pharmacy		Baby Store		Department Store	
	Visited	CPCF sold	Visited[1]	CPCF sold	Visited[1]	CPCF sold	Visited	CPCF sold	Visited	CPCF sold
Online stores*	25	281	14‡	138	1	6	9§	77	1	60

*Online purchasing platforms of brick-and-mortar stores included store web address and store mobile application that provided a product catalogue.
‡ One store did not have any CPCF
§ One store was closed.

4.1.1 Exclusion of CPCF based on product label language

After product purchasing was complete and duplicate products were identified and excluded, a total of 276 unique CPCF products were identified for the study. Of these unique CPCF, a total of 4 were automatically excluded from assessment because they did not provide the required label information in a study language (English or Bahasa Indonesia). A total of 272 CPCF remained for categorization into relevant complementary food categories (Figure 2).

4.1.2 CPCF product categories and characteristics

The 272 qualifying CPCF products were then categorized into the five categories and 16 subcategories defined in the adapted WHO Europe NPM for CPCF. As seen in Table 3, most of the CPCF (44.9 per cent, n=122) were identified as category 4 (dry finger foods and snacks), such as biscuits, rusks, crackers, and puffs. Approximately 41.2 per cent (n=112) were identified as category 1 foods (dry, powdered and instant cereal/starchy foods) and 12.1 per cent (n=33) were identified as category 2 foods (soft-wet spoonable, ready-to-eat foods). None of the products were categorized as category 3 foods (meals with chunky pieces). Only one product (0.4 per cent) was identified as a category 5 food (juices or other drinks), and four CPCF (1.5 per cent) were identified as 'other' products.

Table 3: CPCF products categorized by the adapted WHO Europe NPM for CPCF categories and subcategories (n = 272)

CPCF product category	%	n
Category 1: Dry, powdered, and instant cereal/starchy food	41.2%	112
1.1 Dry or instant cereal/starch	41.2%	112
Category 2: Soft–wet spoonable, ready-to-eat foods, typically smooth or semi-puréed packaged in jars or pouches and can be spoon-fed	12.1%	33
2.1 Dairy-based desserts and cereal products	1.5%	4
2.2 Fruit purée with or without addition of vegetables, cereals, or milk	5.9%	16
2.3 Vegetable only purée	0.4%	1
2.4 Puréed vegetables and cereals	0.4%	1
2.5 Puréed meal with cheese (but not meat or fish) mentioned in the name	0.4%	1
2.6 Puréed meal with meat or fish mentioned as first food in product name	3.3%	9
2.7 Puréed meals with meat or fish (but not named first in product name)	0.4%	1
2.8 Purées with only meat, fish or cheese in name	0.0%	0
Category 3: Meals with chunky pieces, often sold in trays or pots for older infants and young children	0.0%	0
3.1 Meat, fish, or cheese-based meal with chunky pieces	0.0%	0
3.2 Vegetable-based meal with chunky pieces	0.0%	0
Category 4: Dry finger foods and snacks	44.9%	122
4.1 Confectionery, sweet spreads and fruit chews	2.9%	8
4.2 Fruit (fresh or dry whole fruit or pieces)	0.0%	0
4.3 Other snacks and finger foods	41.9%	114
Category 5: Juices and other drinks	0.4%	1
5.1 Single or mixed fruit juices, vegetable juices, or other non-formula drinks	0.4%	1
5.2 Cow's milk and milk alternatives with added sugar or sweetening agent	0.0%	0
Category 6: Other	1.5%	4
6.1: Other	1.5%	4

The majority of the 272 CPCF products (68.0 per cent, n=185) included label information in Bahasa Indonesia only, and approximately one fourth (25.7 per cent, n=70) included a combination of Bahasa Indonesia and English on the label. Roughly 6.3 per cent of CPCF (n=17) included label information in English or a combination of English and another non-Bahasa Indonesia language (Table 4).

Table 4: Label language of CPCF (n=272)

Label language	%	n
Bahasa Indonesia and English	25.7%	70
Bahasa Indonesia only	68.0%	185
English/ English and another (not Bahasa Indonesia) language combination	6.3%	17

The 272 CPCF were produced by a variety of parent companies and represented several different brands. A total of 20 parent companies made CPCF products representing 22 brands produced across 13 countries. A total of 125 (46 per cent) products were locally produced in Indonesia, involving 10 parent companies and representing 11 brands. The local brand Milna produced the largest number of CPCF (n=34) in Indonesia, followed by the brand Promina (n=32) and SUN (n=18). Of the imported products (54 per cent, n=147), 20 per cent were produced in the Republic of Korea, 19 per cent from Malaysia and 19 per cent from Thailand. The international brand Yummy Bites

produced a high number of imported CPCF (n=36) sold in Indonesia. For detail on the specific parent companies, their brands and production locations, see Annex 7.

4.1.3 Exclusion and automatic failure of CPCF based on CPCF food category

Of the 272 products categorized in Table 3, four did not fall into any of the 16 food categories outlined in the adapted WHO Europe NPM for CPCF and were categorized as 6.1 'Other'. These products were thus excluded from the adapted NPM. Products categorized as 6.1 'Other' included virgin coconut oil, sesame oil, multivitamin honey and seaweed to be sprinkled onto food. See Focus 1 for an example 'other' CPCF products purchased in Jakarta.

Example

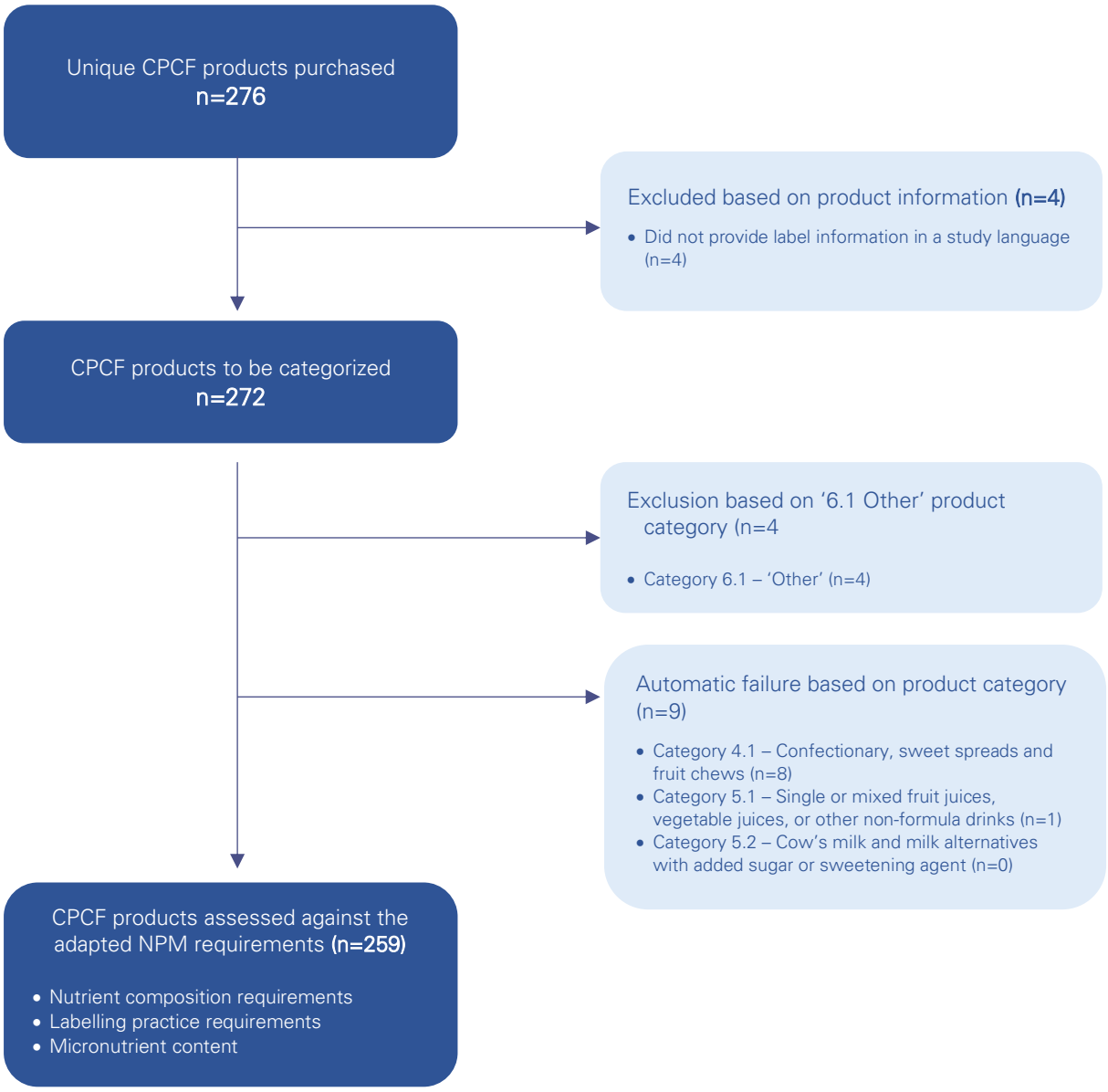
Focus 1: Example of 'other' product

A total of 9 products were categorized into subcategories 4.1 and 5.1 and thus automatically failed the adapted WHO Europe NPM for CPCF because they are product categories deemed inappropriate for older infants and young children (i.e., they include confectionery, juices and other sugary drinks). Thus, these 13 products did not need to be further assessed against the nutrient composition and labelling requirements in the adapted WHO Europe NPM for CPCF. No CPCF products in Indonesia were categorized into subcategory 5.2.

4.1.4 CPCF to assess against adapted WHO Europe NPM for CPCF thresholds and requirements

After exclusions and the automatic failure of CPCF based on product categories, a total of 259 CPCF products remained for assessment against nutrient composition and labelling requirements, as well as a micronutrient content assessment. Figure 2 provides a summary of product identification, reasons for product exclusion and automatic failure, and the final number of CPCF identified for assessment against nutrient composition and labelling requirements and the micronutrient content assessment.

Figure 2: Summary flowchart of the unique products identified, reasons for adapted WHO Europe NPM for CPCF automatic failure, and the final number of purchased CPCF assessed against thresholds and requirements



4.2 Nutrient composition requirements assessment

The adapted WHO Europe NPM for CPCF included seven specific nutrient composition requirements (see section 3.3.1). Note that not all seven nutrient composition requirements apply to all product categories/subcategories, and each subcategory of CPCF may have different acceptable limits or thresholds within requirements. Annex 3 provides details on the requirements for each of the CPCF subcategories. Footnotes on nutrient composition requirements and requirement specific sample sizes are included in the main results table for reference.

A CPCF product passed the adapted NPM nutrient composition assessment if it met all relevant nutrient composition requirements. If a product did not meet any of the relevant requirements, it failed the full nutrient composition assessment.

Of the 217 CPCF assessed against the adapted WHO Europe NPM for CPCF, 15.8 per cent (n=41) met all relevant nutrient composition requirements (Table 5). This included 40.5 per cent (n=32) of category 2 products, 34.0 per cent (n=33) of category 1 products and 7.5 per cent (n=3) of subcategory 4.3 products. Across all product categories, CPCF products performed best against the protein threshold, the low/no added fruit threshold, and the total fat threshold, with 96.8 per cent (n=119), 93.8 per cent (n=121) and 89.6 per cent (n=232) of the products being within product subcategory-specific limits, respectively. CPCF products performed most poorly against the no added sugar/sweeteners requirement, with roughly one-third (33.6 per cent, n=87) meeting the requirement.

The adapted WHO Europe NPM for CPCF recommends products provide a front-of-pack 'high sugar' warning if the percentage of energy from total sugar content exceeds subcategory-specific limits.[v] Subcategories 4.2 and 4.3 are not applicable for the 'high sugar' warning assessment. Among CPCF eligible for the assessment, a total of 129 declared total sugar content on their labels. Of these 129 products, 18.6 per cent (n=24) were flagged as requiring a front-of-pack 'high sugar' warning based on the reported percentage of energy derived from total sugar content (Figure 3). All of the dairy purées (subcategory 2.1), fruit purées (subcategory 2.3) and vegetable purées (subcategory 2.3) were identified as requiring the warning label. None of subcategory 1.1, subcategory 2.6 or subcategory 2.7 were found to require a front-of-pack 'high sugar' warning.

Category and subcategory-specific results related to nutrient composition requirements and high sugar warning labels are summarized in the remainder of this section.

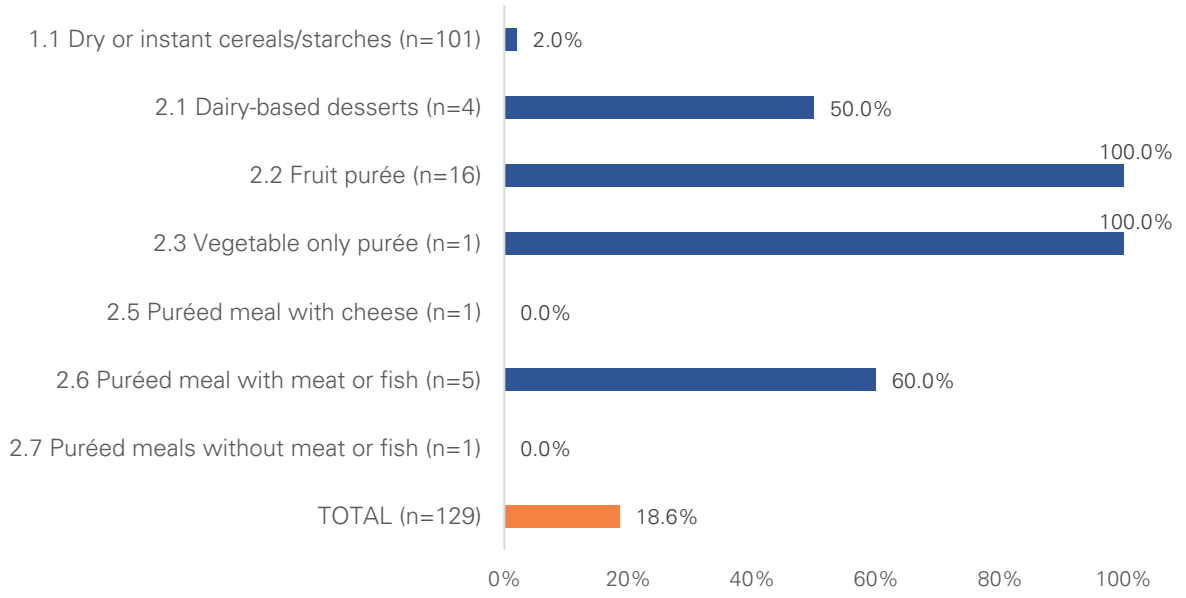
[v] As reported in Annex 3, category specific thresholds for a front-of-pack high sugar warning are as follows: category 1.1: >=30 per cent of total energy from sugar; categories 2.1, 2.2 and 2.3: >=30 per cent of total energy from sugar; category 2.4: >=20 per cent of total energy from sugar; and categories 2.5, 2.6, 2.7, 3.1 and 3.2: >=15 per cent of total energy from sugar.

Table 5: Performance of CPCF against relevant adapted WHO Europe NPM for CPCF nutrient composition requirements (n=259)*

Product category	n	Met all relevant nutrient composition requirements	No added sugar/ sweetener†	Low/no added fruit‡	Total sugar §	Sodium §§	Energy density††	Protein‡‡	Total fat ◊
1. Dry or instant cereals/ starch									
1.1 Dry or instant cereals/starches	112	22.3 (25)	35.7 (40)	94.6 (106)	NA	50.9 (57)	NA	100.0 (112)	98.2 (110)
2. Soft–wet spoonable, ready-to-eat foods									
2.1 Dairy-based desserts and cereal products	4	0.0 (0)	0.0 (0)	100.0 (4)	NA	100.0 (4)	100.0 (4)	NA	100.0 (4)
2.2 Fruit purée	16	43.8 (7)	87.5 (14)	NA	NA	93.8 (15)	50.0 (8)	NA	100.0 (16)
2.3 Vegetable-only purée	1	0.0 (0)	100.0 (1)	100.0 (1)	NA	0.0 (0)	0.0 (0)	NA	100.0 (1)
2.4 Vegetable purée with cereals	1	100.0 (1)	100.0 (1)	100.0 (1)	NA	100.0 (1)	100.0 (1)	NA	100.0 (1)
2.5 Puréed meal with cheese	1	100.0 (1)	100.0 (1)	100.0 (1)	NA	100.0 (1)	100.0 (1)	100.0 (1)	100.0 (1)
2.6 Puréed meal with meat/fish mentioned in product name	9	11.1 (1)	100.0 (9)	77.8 (7)	NA	88.9 (8)	33.3 (3)	55.6 (5)	100.0 (9)
2.7 Puréed meal with meat/fish not mentioned in product name	1	0.0 (0)	100.0 (1)	100.0 (1)	NA	100.0 (1)	100.0 (1)	100.0 (1)	0.0 (0)
2.8 Purées with only meat, fish or cheese in name	0	-	-	-	-	-	-	-	-
3. Meals with chunky pieces									
3.1 Chunky meal with meat/fish/cheese	0	-	-	-	-	-	-	-	-
3.2 Vegetable-based meal with chunky pieces	0	-	-	-	-	-	-	-	-
4. Dry finger foods and snacks									
4.2 Fruit (fresh or dry whole fruit or pieces)	0	-	-	-	-	-	-	-	-
4.3 Snacks and finger foods	114	5.3 (6)	17.5 (20)	NA	55.3 (63)	33.3 (38)	NA	NA	79.0 (90)
All products	**259**	**15.8 (41)**	**33.6 (87)**	**93.8 (121) ※**	**55.3 (63) #**	**48.3 (125)**	**54.6 (18) ##**	**96.8 (119) ◊◊**	**89.6 (232)**

* Values are presented as % (n); NA=not applicable based on category.
† The following were considered added sugar/sweetener: sugar, juice (except lemon/lime), sucrose, dextrose, fructose, glucose, maltose, galactose, trehalose, syrup, nectar, honey, malted barley, malt extract, molasses.
‡ Requirement definition per applicable category – 1.1: <10% by weight dried/powdered fruit; 2.1/2.5/2.6/2.7/2.8/3.1/3.2: ≤5% by weight fruit purée; 2.3/2.4: no added fruit/ fruit purée.
§ Applicable to category 4.3 only.
§§ Requirement definition per applicable category – 1.1: sodium <50mg/100kcal; 2.1/2.2/2.3/2.4/4.3: sodium <50 mg/100 kcal and <50mg/100g; 2.5: sodium <100 mg/100 kcal and 100mg/100g; 2.6/2.7/2.8/3.1/3.2: sodium <50 mg/100 kcal and <50mg/100g (or <100 mg/100 kcal and <100mg/100g if cheese is listed in front- of-pack name.
†† Requirement definition per applicable category – 2.1/2.2/2.4/2.5/2.6/2.7: energy density ≥60 kcal/100g.
‡‡ Requirement definition per applicable category – 1.1: <5.5 g/100 kcal total protein (if contains added milk); 2.5: ≥3 g total protein/100kcal; 2.6: total protein ≥ 4g/100 kcal from the named source and protein named as the first food(s) in the product name must be ≥10% by weight of the total product; 2.7: total protein ≥ 3g/100 kcal and protein source mentioned in the product name must be ≥ 8% by weight of the total product; 2.8: ≥7 g/100 kcal total protein; 3.1: total protein ≥ 4g/100kcal and protein source mentioned in the product name must be ≥10% by weight of the total product; 3.2: ≥3 g/100 kcal total protein.
◊ Requirement definition per applicable category – 1.1 (if does not contain added milk) total fat ≤3.3 g / 100kcal; 1.1 (if contains added milk)/2.1/2.2/2.3/2.4/2.7/3.2/4.3: total fat ≤4.5 g/ 100 kcals; 2.5/2.6/2.8/3.1: total fat ≤6g/100 kcal.
※ Denominator is 129 products as requirement is not relevant for 130 products.
Denominator is 114 products as requirement is not relevant for 145 products.
Denominator is 33 products as requirement is not relevant for 226 products.
◊◊ Denominator is 123 products as requirement is not relevant for 136 products.

Figure 3: Proportion of CPCF requiring a front-of-pack 'high sugar' warning label (n=129)*†

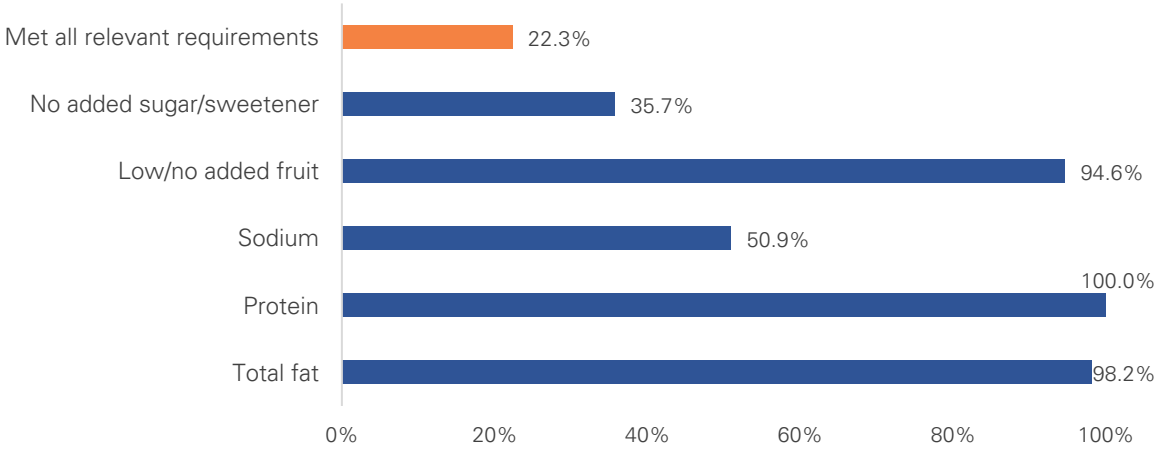


* Among products that declared total sugar content on labels.
† Front-of-pack 'high sugar' warning required if the percentage energy from total sugar content is ≥ the threshold for that product category – 1.1: 30%; 2.1/2.2/2.3: 30%; 2.4: 20%; 2.5/2.6/2.7/3.1/3.2: 15%.

4.2.1 Category 1: Dry, powdered and instant cereal/starch food

Category 1 includes one subcategory – subcategory 1.1, 'Instant cereals'. A total of 112 products were classified as subcategory 1.1. Of these products, 25 (22.3 per cent) met all relevant nutrient composition requirements defined in the adapted WHO Europe NPM for CPCF (Figure 4). All subcategory 1.1 products were found to meet the nutrient composition requirements for protein, almost all (98.2 per cent, n=110) met the total fat requirement and 94.6 per cent (n=106) met the low or no added fruit requirement. Just over half (50.9 per cent, n=57) of subcategory 1.1 products met the sodium requirement and around a third (35.7 per cent, n=40) had no added sugar or sweeteners. Nutrient composition requirements for total sugar and energy density were not assessed for as they were not applicable for subcategory 1.1 products. Only 2.0 per cent (n=2) of the assessed subcategory 1.1 products required a front-of-pack 'high sugar' warning label (Figure 3).

Figure 4: Proportion of subcategory 1.1 products meeting relevant nutrient composition requirements (n=112)



4.2.2 Category 2: Soft-wet spoonable, ready-to-eat foods

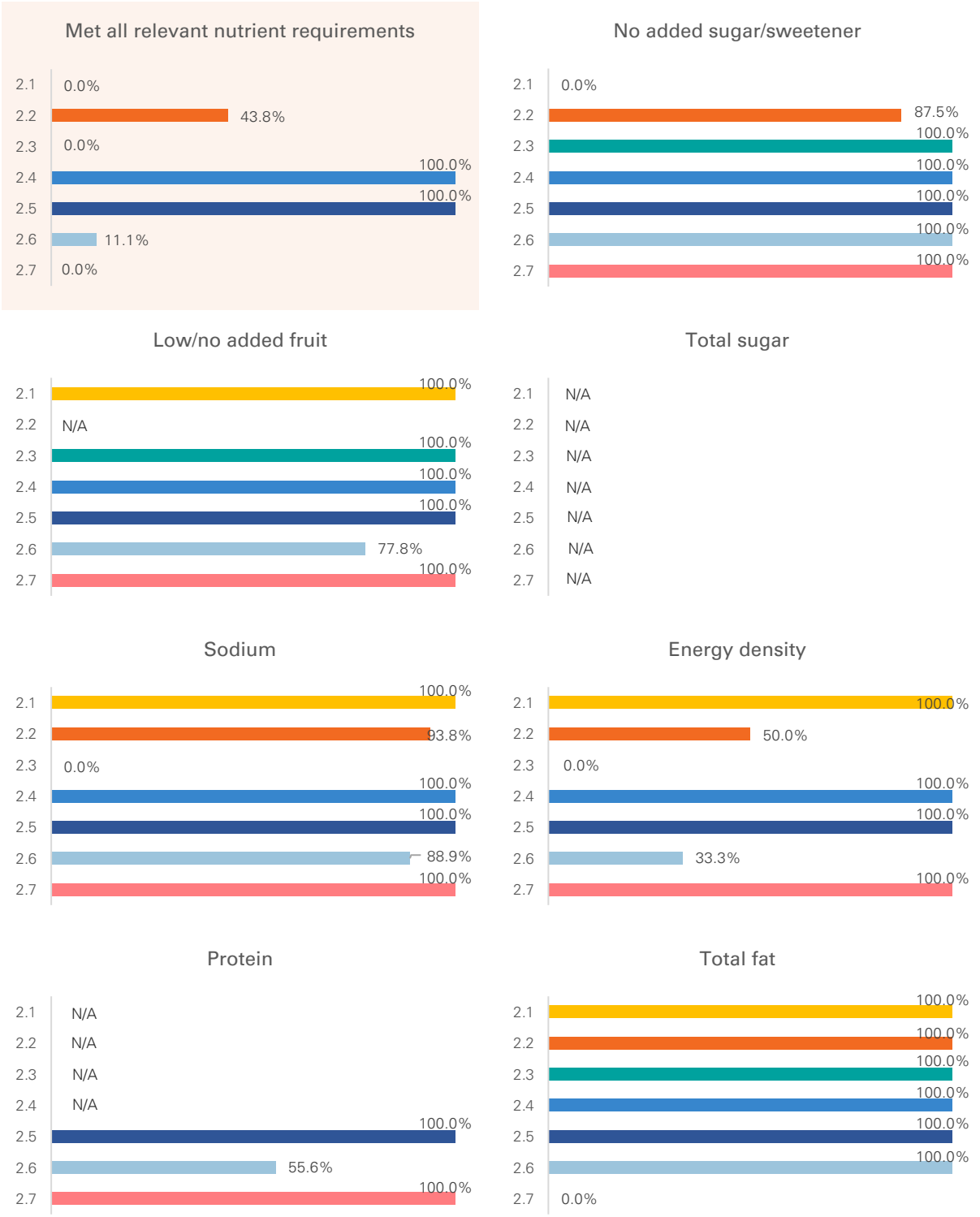
There were 33 CPCF identified as category 2 products. None of these 33 products fell into subcategory 2.8.

Of the 33 category 2 products, 30.3 per cent (n=10) met all relevant nutrient composition requirements included in the adapted WHO Europe NPM for CPCF (Figure 5). These 10 products included CPCF from subcategory 2.4, 2.5, 2.2 and 2.6. No CPCF from subcategories 2.1, 2.3 or 2.7 met all relevant nutrient composition requirements.

Nearly all category 2 products met the adapted WHO Europe NPM for CPCF requirement of no added sugar/sweeteners, except subcategory 2.1 products, which all contained added sugar/sweeteners. Although only two subcategory 2.2 products (12.5 per cent) contained added sugars/sweeteners, all of them (n=16) were flagged for a front-of-pack 'high sugar' warning (Figure 3). All but one products met the total fat requirement and all but three products passed the sodium requirement. Performance against the subcategory-specific limits for the added fruit content, energy density and protein was also high.

Figure 5: Proportion of category 2 products meeting relevant nutrient composition requirements, by subcategory (n=33)*

● **2.1** Dairy-based desserts and cereal products ● **2.2** Fruit purée ● **2.3** Vegetable only purée ● **2.4** Vegetable purée with cereals ● **2.5** Puréed meal with cheese ● **2.6** Puréed meal with meat/fish mentioned in product name ● **2.7** Puréed meal with meat/fish *not* mentioned in product name



*N/A=not applicable based on category or subcategory

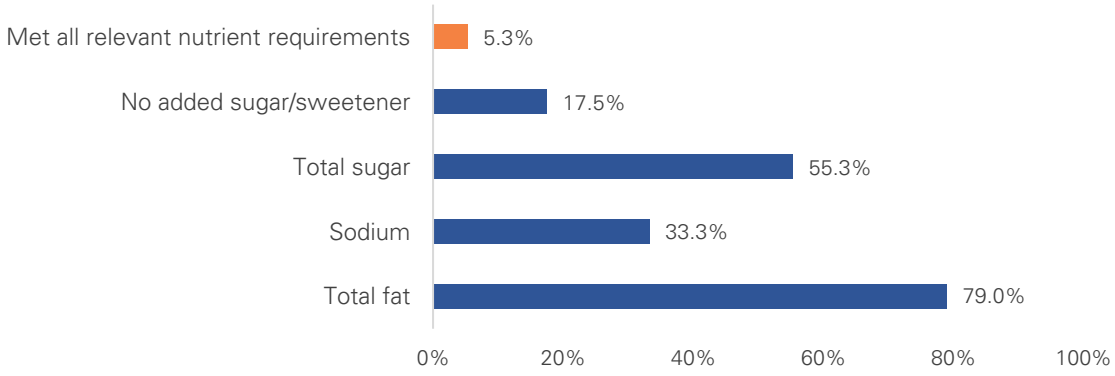
4.2.3 Category 4: Dry finger foods and snacks

Only two of the three subcategories in category 4 are assessed against nutrient composition requirements defined in the adapted WHO Europe NPM for CPCF. While 114 CPCFs were identified as subcategory 4.3, zero were identified as subcategory 4.2. Subcategory 4.1 products automatically failed the adapted NPM and were thus not assessed against nutrient composition requirements.

Only 5.3 per cent (n=6) of the subcategory 4.3 products met all relevant adapted WHO Europe NPM for CPCF nutrient requirements (Figure 6). Only 17.5 per cent (n=20) met the no added sugar or sweetener requirement. According to the adapted NPM, subcategory 4.3 products with greater than 15.0 per cent energy from total sugars are not nutritionally suitable for older infants and young children. However, only half (55.3 per cent, n=63) of category 4.3 products had total sugar content below this threshold. Moreover, only a third (33.0 per cent, n=38) were within the maximum sodium limit for the subcategory. However, products performed well against the total fat requirement, with 78.0 per cent (n=38) products passing.

There are no defined thresholds for 'high sugar' warning labels for category 4 products (see Annex 3).

Figure 6: Proportion of subcategory 4.3 products meeting relevant nutrient composition requirements (n=114)



4.3 Labelling practice requirement assessment

The adapted WHO Europe NPM for CPCF included five categories of labelling considerations, with 17 specific labelling practice requirements (see Box 4). A product passed the adapted NPM labelling practice requirement assessment if it met all relevant labelling practice requirements. If a product failed any of the relevant labelling requirements, it failed the full labelling practice requirement assessment. If a product was missing information for one of the relevant labelling practice requirement components (e.g., product name and ingredient list clarity) it was considered to have failed the labelling practice requirement. Note that only 11 of the requirements apply to all product categories/subcategories and six requirements are specific to a subset of product categories/subcategories. Footnotes on labelling practice requirements and category-specific sample sizes are included in the main results table for reference.

Of the 259 CPCF products assessed, none met all relevant labelling practice requirements defined in the adapted WHO Europe NPM for CPCF (Table 6). Some of the products, however, passed several category-specific labelling practice requirements. Results for each of the five labelling categories and the 17 specific requirements are summarized below.

Table 6: Performance of CPCF against relevant adapted WHO Europe NPM for CPCF labelling practice requirements *

Labelling practice requirements	All products (n=259)	Product category		
		1. Dry or instant cereals/ starch (n=112)	2. Soft–wet spoonable, ready-to-eat foods (n=33)	4. Dry finger foods and snacks (n=114)
Protection and promotion of breastfeeding	**30.1 (78)**	**30.4 (34)**	**60.6 (20)**	**21.1 (24)**
Has a minimum recommended age of introduction of at least 6 months	76.4 (198)	92.0 (103)	63.6 (21)	64.9 (74)
Not marketed as suitable for children under 6 months of age	67.6 (175)	58.9 (66)	84.9 (28)	71.1 (81)
Message on importance of breastfeeding to age two or longer	40.9 (106)	41.1 (46)	87.9 (29)	27.2 (31)
Does not suggest superiority or equivalence to breastmilk	100.0 (259)	100.0 (112)	100.0 (33)	100.0 (114)
Does not recommend or promote bottle-feeding	98.5 (255)	100.0 (112)	100.0 (33)	96.5 (110)
Claims	**0.4 (1)**	**0.0 (0)**	**3.0 (1)**	**0.0 (0)**
No non-permitted compositional claims	15.8 (41)	11.6 (13)	6.1 (2)	22.8 (26)
No nutrient content claims	31.3 (81)	17.9 (20)	84.9 (28)	29.0 (33)
No nutrient function claims	65.3 (169)	47.3 (53)	100.0 (33)	72.8 (83)
No disease risk reduction claims	98.8 (256)	99.1 (111)	100.0 (33)	98.3 (112)
No other claims	6.6 (17)	7.1 (8)	24.2 (8)	0.9 (1)
Product name and ingredient list clarity	**69.5 (180)**	**71.4 (80)**	**27.3 (9)**	**79.8 (91)**
Product name reflects ingredients in descending order as per ingredient list	74.5 (193)	72.3 (81)	51.5 (17)	83.3 (95)
Percentage of fruit stated in ingredient list†	92.2 (83)	95.0 (19)	94.4 (17)	90.4 (47)
Percentage of added water stated in ingredient list‡	16.7 (3)	-	16.7 (3)	-
Percentage of protein stated in ingredient list§	100.0 (10)	-	100.0 (10)	-
Messages on products with a spout	**0.0 (0)**	**-**	**0.0 (0)**	**-**
Product with spout states not to suck from the container§§	0.0 (0)	-	0.0 (0)	-
Product with spout warns that cap is a choking hazard§§	0.0 (0)	-	0.0 (0)	-
Age restriction on blended/puréed products	**0.0 (0)**	**-**	**0.0 (0)**	**-**
Maximum recommended age of use of 12 months? ††	0.0 (0)	-	0.0 (0)	-
Met all relevant labelling practice requirements	**0.0 (0)**	**0.0 (0)**	**0.0 (0)**	**0.0 (0)**

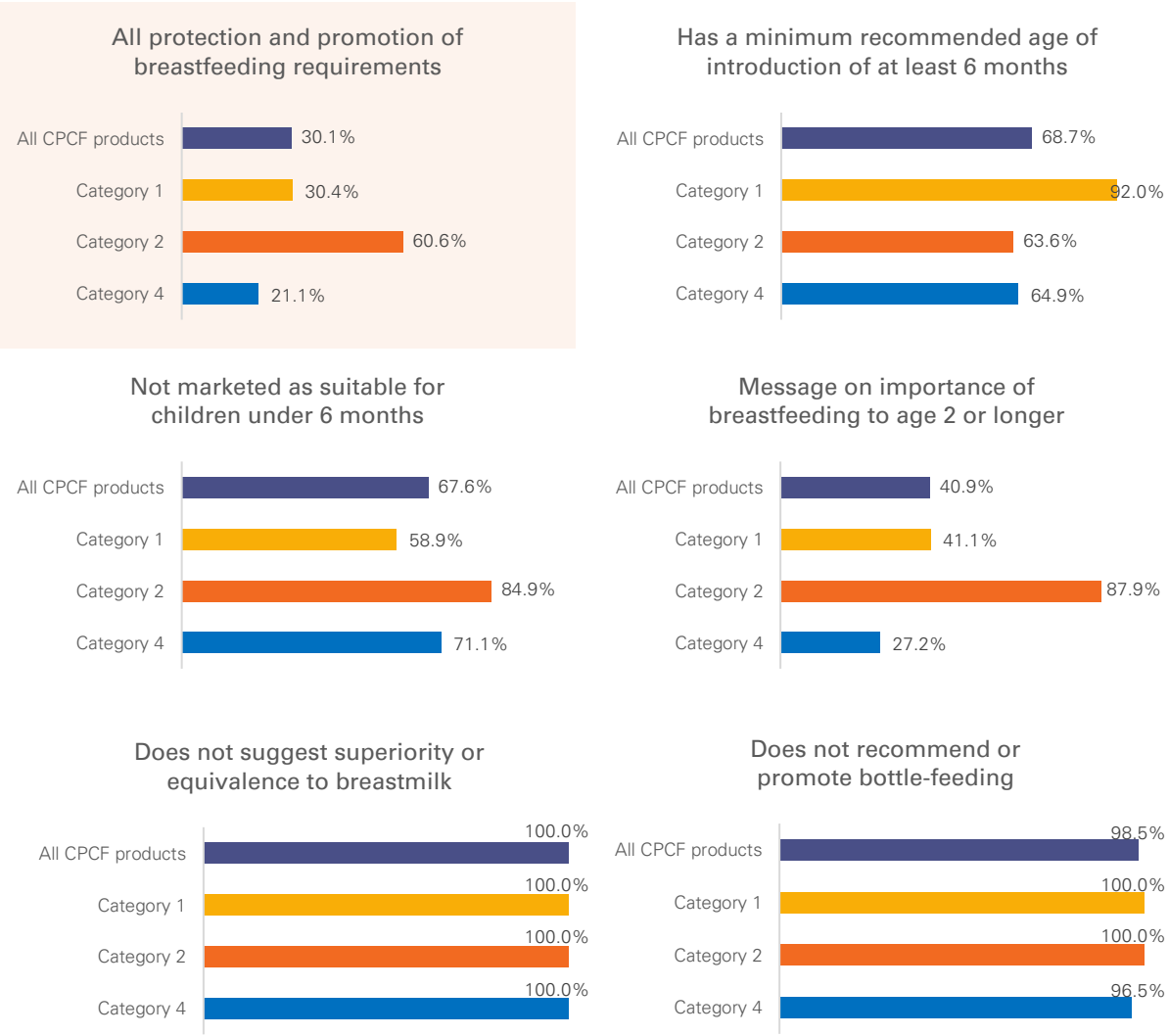
*Values are presented as % (n)
†All products excluding category 2.3 products (n=2) were assessed against this requirement, of which the question was applicable to 90 products containing fruit (category 1 – 20; category 2 – 18; category 4 – 52).
‡ All products excluding category 1 (n=112) and category 4 (n=114) products were assessed against this requirement, of which the requirement was applicable to 18 products (category 2 – 18).
§ Only categories 2.6-7 (n=10) products were assessed against this requirement.
§§ Only category 2 products with spouts were assessed against this requirement (n=15).
††Only category 2 products (n=33) were assessed against this requirement.

4.3.1 Protection and promotion of breastfeeding

The adapted WHO Europe NPM for CPCF includes five labelling practice requirements for the protection and promotion of breastfeeding. Of the 259 products assessed, less than a third (30.1 per cent) met all five labelling practice requirements (Figure 7). Category 2 products had the highest compliance across all five protection and promotion of breastfeeding labelling practice requirements. Results for specific labelling practice requirements in this category are summarized below.

Figure 7: Proportion of CPCF products that met the five labelling practice requirements for the protection and promotion of breastfeeding, by product category (n=259)

- All CPCF products
- Category 1: Dry or instant cereals/ starch
- Category 2: Soft-wet spoonable, ready-to-eat foods
- Category 4: Dry finger foods and snacks



(1) Has a minimum recommended age of introduction of at least 6 months

Product labels were reviewed to determine whether there was a minimum recommended age of introduction of at least 6 months of age. Of the 259 CPCF, 201 (77.6 per cent) included a minimum age of use or recommended age range for use on their labels (Table 7). Of these 201 products, three (1.5 per cent) recommended a minimum age of introduction of less than 6 months. All three of these products were in subcategory 2.2 (see Focus 2 for label example).

Focus 2: Product with a minimum age of introduction or recommended age range of less than 6 months

Approximately 44.8 per cent (n=90) of the CPCF included a recommended minimum age of use or age range that began at 6 months (6 months and above, 6-12 months or 6-36 months), and 37.3 per cent (n=75) included a recommended minimum age that began at 12 months (12 months and above, 12-24 months, 12-36 months or 12-60 months) (Table 7).

Table 7: Recommended minimum age of use or recommended age range for use on CPCF labels (n=201)

Recommended minimum age of use	n	%
4 months and above	3	1.5%
6 months and above	11	5.5%
6-12 months	63	31.3%
6-36 months	16	8.0%
7 months and above	3	1.5%
7-12 months	2	1.0%
8 months and above	4	2.0%
8-12 months	11	5.5%
8-24 months	10	5.0%
9-24 months	3	1.5%
12 months and above	4	2.0%
12-24 months	1	0.5%
12-36 months	68	33.8%
12-60 months	2	1.0%

In total, 68.7 per cent (n=178) of CPCF had a minimum recommended age of introduction of at least 6 months on their label. The majority of subcategory 1.1 products included this minimum age recommendation on their labels. However, over a third of subcategory 4.3 (35.1 per cent, n=40) and category 2 (36.4 per cent, n=12) products failed to recommend a minimum age of introduction of at least six months. These CPCF either provided an age recommendation from 4 months (n=3) or did not provide any recommended age of introduction or age range for use on their labels (n=58).

Fifty-eight products (22.4 per cent) did not include a recommended minimum age of use on the product label (Table 8). These products, however, were still categorized as CPCF because they were labelled with the word 'baby', 'toddler', 'young child', or a synonym; had a label with an image of a child who appeared to be younger than 3 years of age or was feeding with a bottle; or were in any other way presented as being suitable for children up to the age of 3 years (e.g., use of a developmental milestone on the label, for example 'crawler', 'sitter') (see Box 2 for the criteria for definition of CPCF).

Of the 58 that qualified as CPCF due to images or words used on their labels that inferred use for children under 3 years of age, 81 per cent (n=47) used a developmental milestone on the label, 33.o per cent (n=19) used words synonymous with infants or young children and 28 per cent (n=16) included an image of a child under 3 or of a feeding bottle (see Focus 3 and Focus 4 for an example labels). Some of these products included more than one of these label characteristics.

Table 8: Rational for definition CPCF despite lack of minimum age recommendation (n=58)

Label exception(s) for those without a minimum age recommendation	n	%
Included as a CPCF due to use of a developmental milestone on the label, for example 'crawler', 'sitter'.	47	81.0%
Included as a CPCF due to the use of words synonymous with older infant or young child on label, for example 'baby', 'toddler', 'young child'.	19	33.0%
Included as a CPCF if the label included an image of a child under 3 years or an image of a feeding bottle.	16	28.0%

Focus 3: Use of a developmental milestone on the label, for example 'Crawler', 'Sitter'

Focus 4: Use of an image of a child under 3 years

(2) Not marketed as suitable for children under 6 months of age

Product labels were carefully reviewed to determine whether any text or images might suggest the product is suitable for infants under the age of 6 months. For example, words or phrases that may indicate that the product is suitable for those under 6 months of age include: 'for use from birth'; 'for infants younger than 6 months'; 'for all infants'; 'from the start'; 'for the whole family'; 'Stage 1'; 'first foods' or 'first stage'. Products with language on physical or developmental milestones commonly associated with infants 0 to 6 months of age (e.g. 'sitter' or 'supported/unsupported sitter') or with images of infants or baby animals displaying physical or developmental milestones commonly associated with infants 0 to 6 months of age (e.g., sitting without support, lying down, reclining) were considered to be marketed as suitable for children under 6 months.

Approximately one-third (32.4 per cent, n=92) of CPCF used images or text that suggested suitability for infants under 6 months of age (Figure 7). While most of subcategory 1.1 products recommended a minimum age of introduction of at least six months, 41.1 per cent (n=46) of these products included messaging or images on their labels marketing the product as suitable for children less than 6 months of age. Also, 28.9 per cent (n=33) of subcategory 4.3 and 15.1 per cent (n=5) of category 2 products presented this sort of messaging (see Focus 5 for an example label).

Focus 5: Products marketed as suitable for children under 6 months of age

(3) Message on importance of breastfeeding to age 2 years or longer

Product labels were carefully reviewed to determine whether any text was included on the importance of breastfeeding up to 2 years of age or beyond. Only 40.9 per cent (n=106) of CPCF products included a complete message on the importance of continued breastfeeding for up to two years or beyond (Figure 7). There was variation on inclusion of this message between food categories: while the majority of category 2 products (87.9 per cent, n=29) included the message on their labels, only 41.1 per cent (n=46) of subcategory 1.1 and 27.2 per cent (n=31) of subcategory 4.3 products presented a complete message on the importance of continued breastfeeding (see Focus 6 for an example label).

Focus 6: Products with a message on the importance of breastfeeding up to 2 years of age and beyond

(4) Does not suggest superiority or equivalence to breastmilk

Product labels were carefully reviewed to determine whether any text or images suggested that the product was similar to or superior to breastmilk. Text stating or implying that the CPCF is similar to or comparable with breastmilk or has similar benefits to breastfeeding (e.g., 'just like breastmilk'); that the CPCF is superior or in any way better than breastmilk (e.g., 'gold standard', 'optimal nutrition', best start in life'); that breastfeeding is no longer important (e.g., 'all your baby needs for growing up healthy'); or that refers to negative aspects associated with breastfeeding, were all considered to suggest superiority or equivalence to breastmilk and thus failed this labelling practice requirement. Further, if the product label included images showing breastfeeding in a negative light it also failed the requirement.

All products passed this requirement, with none suggesting superiority or equivalence to breastmilk (Figure 7).

(5) Does not recommend or promote bottle feeding

A small number of products (1.5 per cent, n=4), all belonging to subcategory 4.3, were found to recommend or promote bottle feeding (Figure 7). The four products were all produced by the brand Lo Bello, and were imported from Italy (see Focus 7 for an example label).

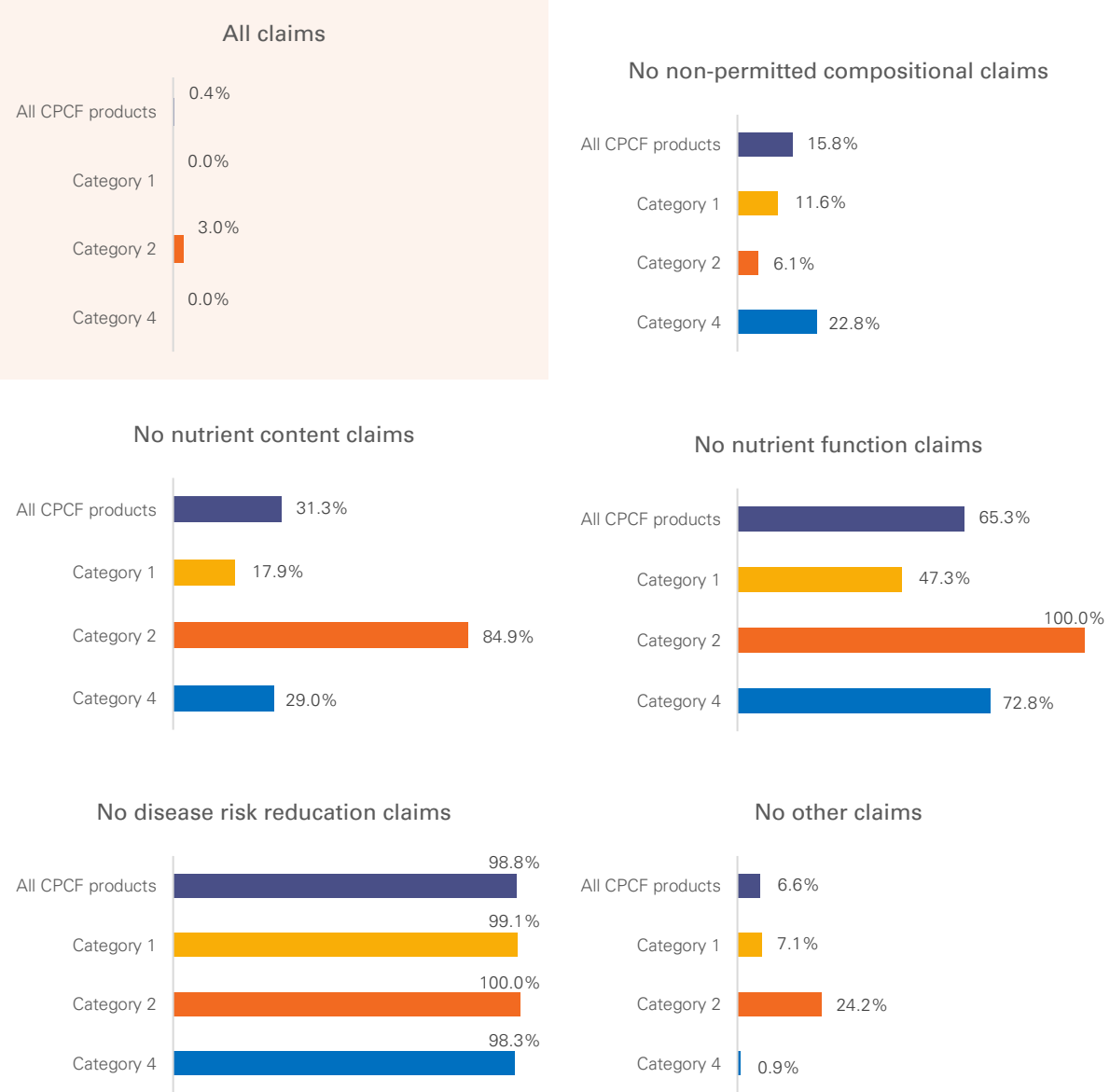
Focus 7: Products labels that recommend or promote bottle feeding

4.3.2 Claims

There are five labelling practice requirements for claims. One product in category 2 met the five claim requirements. All category 1 and 4 products failed to meet the claim requirements by making at least one claim (Figure 8). Results for specific labelling practice requirements in this category are summarized below.

Figure 8: Proportion of CPCF products that met the five claim requirements, by product category (n=259)

- All CPCF products
- Category 1: Dry or instant cereals/ starch
- Category 2: Soft-wet spoonable, ready-to-eat foods
- Category 4: Dry finger foods and snacks



(1) No non-permitted compositional claims

Non-permitted compositional claims include text stating/ implying that the product has a different/special composition; that a certain ingredient has not been added; or that compares the nutrient levels and/ or energy value of the product to other products and/or brands (e.g., "natural ingredients", "no added preservatives"). All CPCF product labels were carefully reviewed to determine whether any non-permitted compositional claims were present.

Approximately 84.2 per cent (n=218) of CPCF displayed non-permitted compositional claims on their labels, and thus failed this labelling practice requirement (Figure 8). Non-permitted compositional claims were observed on almost all category 2 products (93.1 per cent, n=31), subcategory 1.1 products (88.4 per cent, n=99) and subcategory 4.3 products (77.2 per cent, n=88). Examples of non-permitted compositional claims on the CPCF product labels in Indonesia are included in Box 6 and example product labels are presented in Focus 8.

Box 6. Example non-permitted compositional claims on CPCF labels

- 100% natural / Made from natural ingredients
- No added sugar
- Contains naturally occurring sugars
- Organic / Organic flour/ Organic baby porridge
- With 6 varieties of grain
- Chemical free
- Non GMO ingredients
- No preservatives
- No artificial coloring
- No flavor enhancer / Naturally flavored with other natural flavors
- Free from coloring, synthetic flavoring, sugar and preservatives
- Superfood
- Cancer fighting ingredients
- 100% brown rice
- Made from dried natural ingredients
- With fish oil / Made from Norwegian salmon with fish oil content
- From selected ingredients
- Less sugar & salt *compared to instant powder complementary food
- Made from real dried rice, meat, and vegetable / With real fruit chunk / 100% real fruits & vegetables
- Without MSG and preservatives
- Made in Australia from at least 85% Australian ingredients

Focus 8: Example of a non-permitted compositional claim

(2) No nutrient content claims

Nutrient content claims are nutrition claims that indicate the level of a specific nutrient present in a food (e.g., "source of calcium", "9 vitamins and minerals"). The adapted WHO Europe NPM for CPCF labelling practice requirement assessment does not permit nutrient content claims on CPCF products. All CPCF product labels were reviewed to determine whether any nutrient content claims were present.

Less than one-third (31.3 per cent, n=81) of CPCF product labels included nutrient content claims (Figure 8). There was wide variation in inclusion of nutrient content claims on labels across food categories: only 17.9 per cent (n=20) of subcategory 1.1 and less than one-third (29 per cent, n=33) of subcategory 4.3 products did not include nutrient content claims compared to 84.9 per cent (n=28) of category 2 products. Example nutrient content claims on the CPCF labels in Indonesia are included in Box 7 and example product labels are presented in Focus 9.

Box 7. Example nutrient claims on CPCF labels

- High in iron / High vitamin A & vitamin D / High in zinc / High calcium / High in vitamin B12
- Vit A + Vit C + Ca
- Omega 3 & 6* contain Omega 3 (alfa linolenic acid) 175mg/serving and Omega 6 (linoleic acid) 1400mg/serving
- Source of 15 vitamins & 8 minerals / 11 vitamins & 6 minerals
- Every bowl of CERELAC fulfill more than 50% nutrient dietary requirement for iron
- Using enzymatic hydrolyzed carbohydrate
- Milna baby porridge is a complementary food with macro- and micro-nutrients for your little one first bite
- High protein content
- Source of fiber / Source of fiber (inulin 1g/serving)
- Meets 50% iron needs for babies aged 8-12 months and is equipped with 11 vitamins and 6 minerals.
- With iron content that equal to 70% iron needs for children aged 6-12 months and 60% iron needs for children age 12-24 months
- Yummy bites cereal cheesy veg with pasta is enrich in 10 vitamins, 4 minerals & protein to help the fulfillment of their daily needs
- 30mg choline and 20% DV iron
- Snacks with calcium / With calcium and cheese

Focus 9: Example of a nutrient content claim

(3) No nutrient function claims

Nutrient function claims are nutrition claims that describe the physiological role of the nutrient in growth, development, and normal functioning of the body (e.g., "Nutrient A [naming a physiological role of nutrient A in the body in the maintenance of health and promotion of normal growth and development]; or "Food X is a source of/ high in nutrient A"). The adapted WHO Europe NPM for CPCF labelling practice requirement assessment prohibits CPCF products from making nutrient function claims. All CPCF product labels were reviewed to determine whether any nutrient function claims were present.

Nearly two-thirds (65.3 per cent, n=169) of CPCF labels did not include nutrient function claims (Figure 8). Subcategory 1.1 products performed most poorly, with more than half (52.7 per cent, n=59) of products including at least one nutrient function claim on the label. Whereas, all category 2 and 72.8 per cent (n=83) of subcategory 4.3 products did not report any nutrient function claims on their labels. Examples of nutrient function claims made on CPCF labels in Indonesia are included in Box 8 and an example product label is presented in Focus 10.

Box 8. Example nutrient function claims on CPCF labels

- 11 vitamins and 6 minerals support growth and development
- The combination of 11 VITAMINS & 6 MINERALS is specially made to support the little one optimum growth and development
- High in protein, calcium, and phosphorus to support the little one ACTIVE EXPLORATION
- Calcium helps formation and maintaining bone and teeth density
- Did you know Mom, that a good first complementary food for your little one must be rich in iron? In fact, iron is a component of hemoglobin in red blood cells that carries oxygen to all parts of the body
- Did you know? Vitamin D and calcium are supporting each other. Vitamin D helps calcium absorption, while calcium helps forming and maintaining bone and teeth density
- ... contain proteins, vitamin, and minerals which is good for the little one growth and development.
- In fact, iron is a component of hemoglobin in red blood cells, which carries oxygen to all parts of the body.
- High protein that is good for baby's growth
- Vitamin C, helps the absorption of iron
- Vitamin D helps the absorption of calcium
- Protein, is one of essential part in child growth and development
- Macro and micro nutrient to help baby growth
- 15% DV vitamin E and 3 B vitamins for healthy growth
- Vitamin A can help maintain the integrity of the top surface layers (eyes, digestive tract, respiratory tract, and skin).
- Protein, useful for building and repairing body tissues.
- Proper nutrition such as calcium is needed to form and strengthen the density of bones and teeth, as well as vitamin E which plays a role in maintaining the baby's immune system.
- The good stuff, 15%DV vitamin E and 3 B vitamins for healthy growth.

Focus 10: Example of a nutrient function claim

(4) No disease reduction claims

Disease reduction claims connect the consumption of a food or food constituent (in the context of the total diet) to the reduced risk of developing a disease or health-related condition. Risk reduction means significantly altering a major risk factor(s) for a disease or health-related condition. Diseases have multiple risk factors and altering one of these risk factors may or may not have a beneficial effect. The presentation of risk reduction claims must ensure, for example, by use of appropriate language and reference to other risk factors, that consumers do not interpret them as prevention claims (e.g., "A healthful diet low in nutrient or substance A may reduce the risk of disease D" or "Food X is low in nutrient or substance A"). The adapted WHO Europe NPM for CPCF labelling practice requirement assessment prohibits CPCF products from making disease reduction claims. All CPCF product labels were reviewed to determine whether any disease reduction claims were present.

Of the 259 CPCF products assessed, almost all (98.8 per cent, n=256) did not include disease risk reduction claims (Figure 8). Only one (0.9 per cent) subcategory 1.1 and two (1.7 per cent) subcategory 4.3 products included disease reduction claims and thus failed this requirement. Examples of disease reduction claims on CPCF labels in Indonesia are included in Box 9 and an example product label is presented in Focus 11.

Box 9. Example disease risk reduction claims on CPCF labels

- Improve regularity of bowel movement, ease constipation hence good for a healthy colon.
- Beside nutritious, organically processed foods are believed to minimize the risk of allergies in children.

Focus 11: Example of a disease risk reduction claim

(5) No 'other' claims

'Other' claims include all other claims made that are not related to compositional, nutrient content, nutrient function, or disease risk reduction. These include a wide range of claims related to taste, quality and texture of the food, as well as convenience/lifestyle, among others (e.g., "easy to swallow texture", "great for a busy and active lifestyle"). The adapted WHO Europe NPM for CPCF labelling requirement assessment does not permit these claims on CPCF products. All CPCF product labels were carefully reviewed to determine whether any 'other' claims were present.

The vast majority (93.4 per cent, n=242) of CPCF product included 'other' claims' on their labels (Figure 8). Almost all subcategory 4.3 (99.1 per cent, n=113), 92.9 per cent (n=104) of subcategory 1.1 and over three-fourths (75.8 per cent, n=25) of category 2 products contained 'other' claims. Examples of other claims on CPCF labels in Indonesia are included in Box 10 and an example product label is presented in Focus 12.

Box 10. Examples of other claims on CPCF labels

- Safe for baby 1-3 years.
- With strong commitment to advancing present and future generations, we collaborate with farmers and nutritionists to provide a delicious complimentary food recipes.
- Supporting mothers to suffice the little one nutrition in every bowl.
- Our rice is planted by selected farmers around the world.
- Through series of inspections to ensure the quality for the little one.
- Sustainable nutrition, we are collaborated with farmers and local communities to enhance agricultural practices quality and preserved the land for future generation.
- Milna goodmil baby porridge has been adjusted to transition texture from liquid to solid food.
- Milna goodmil baby porridge is available in several variants so that the baby can recognize several flavors.
- The nutritional content of milna baby porridge supports the nutritional needs of the little one during the first 1000 days of life.
- Soft texture / Denser texture
- Now, preparing homemade porridge become easier.
- Just cooked in 10 minutes.
- My 1st meal
- Inspired by mama's homemade gourmet.
- Did you know mom, when in the womb, your little one has started to recognize taste? In fact, babies recognize the 4 basic tastes (sweet, salty, bitter, and sour) from the time they are in the womb and love sweets when they are born. Therefore, provide a variety of foods so that your little one is voraciously eating and their nutritional needs are met.
- The combination of the sweetness of bananas and milk is processed with smoothness and softness that is suitable for little ones who are just learning to eat.
- Easy melts in mouth.
- Tastier / New formula with tastier flavor!
- Do you know? When your little one is able to sit by themselves, that could be a hint for you to introduce them their first solid food.
- Wrapped & packed for your special one with sweet potato as its ingredients, they will learn and enjoy vegetable taste.
- Happiness in every bite!
- Best for "air tajin" (water from boiled rice).
- Homestyle meals
- Stimulate your little one's taste buds!
- Complementary food creations inspired by mothers.
- Nutritionists process selected ingredients into porridge with a texture like homemade
- Nayz proudly introduces your little ones to Indonesia's rich culinary heritage.
- Easy to carry anywhere.
- Simply made with love.
- Size makes them a good choice for toddlers to develop hand-eye coordination and independent eating habits.
- Easy to hold.
- Not fried.
- As a snack, farley's biscuits can help to increase your child's nutritional intake.

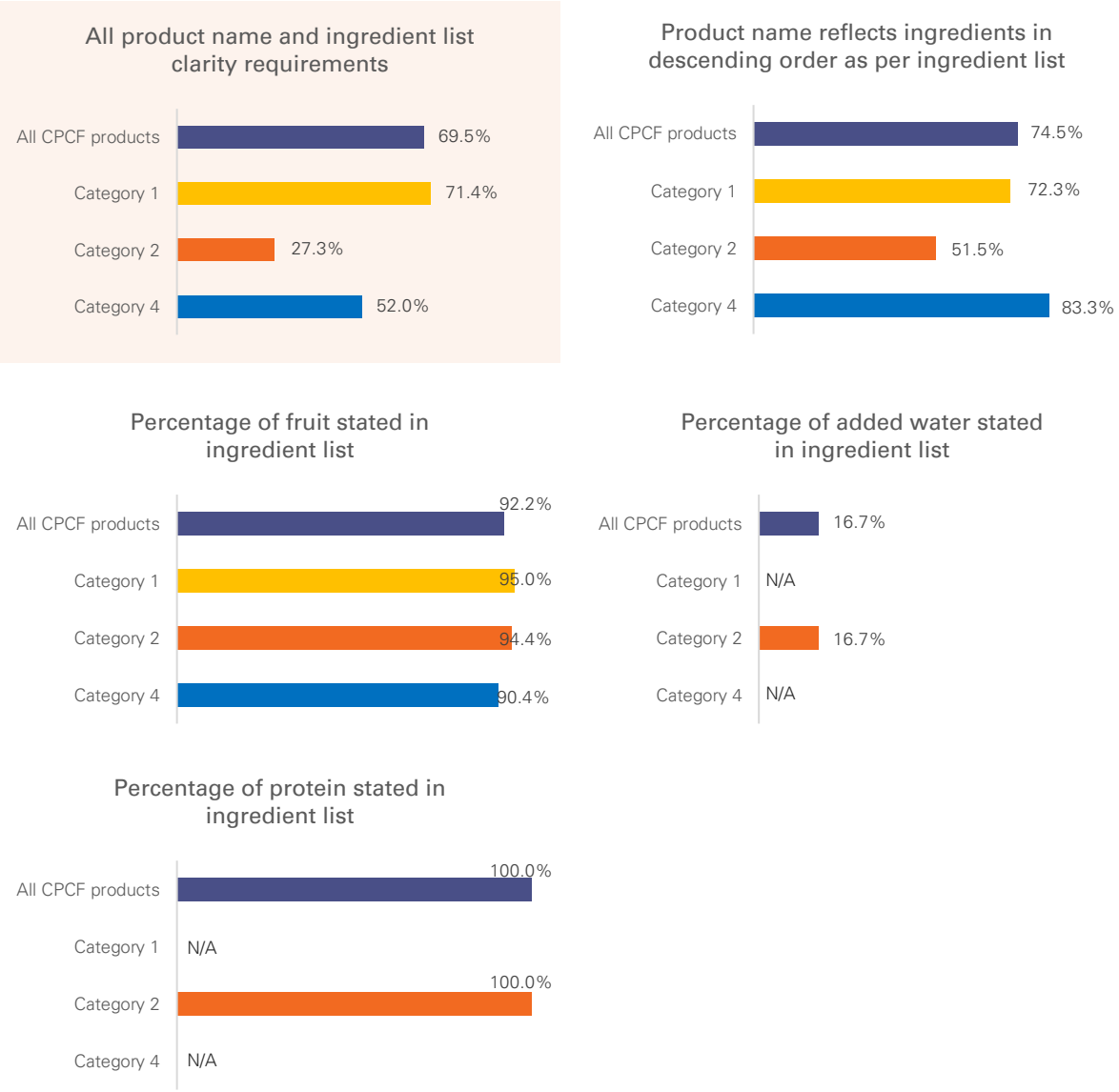
Focus 12: Examples of 'other claim'

4.3.3 Product name and ingredient list clarity

There are four labelling practice requirements relative to the product name and ingredient list clarity. More than two-thirds (69.5 per cent, n=180) of CPCF products passed all four category labelling practice requirements (Figure 9). However, while 71.4 per cent (n=80) of subcategory 1.1 and 79.8 per cent (n=1) of subcategory 4.3 products complied with all relevant requirements for product name and ingredient list clarity, less than one-third (27.3 per cent, n=9) of category 2 products met all of the category labelling practice requirements. Results for specific labelling practice requirements in this category are summarized below.

Figure 9: Proportion of CPCF that passed adapted WHO Europe NPM for CPCF labelling requirements for product name and ingredient list clarity, by product category*

- **All CPCF products**
- **Category 1:** Dry or instant cereals/ starch
- **Category 2:** Soft-wet spoonable, ready-to-eat foods
- **Category 4:** Dry finger foods and snacks



*N/A=not applicable based on category

(1) Product name reflects ingredients in descending order as per ingredient list

The first product name and ingredient clarity labelling practice requirement is that the CPCF name reflects the main ingredients in the product, in descending order (e.g., a product called 'Garden Red Lentil Carrot and Sweet Potato' whose ingredients in descending order were 'water, vegetables, carrots, sweet potato, red lentils, quinoa' would fail this requirement because red lentils are not the first ingredient in the list).

Approximately 74.5 per cent (n=193) of CPCF product names reflected the ingredients in descending order as per the ingredient list (**Figure 9**). Category 2 products had the lowest compliance, with only half (51.5 per cent, n=17) of the products reporting a name that reflected the descending order of ingredients. An example of a product that failed this requirement can be found in **Focus 13**.

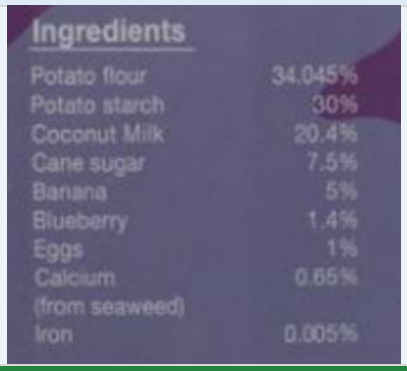
Product name	Product ingredient list
	

Focus 13: Product name that does not reflect the ingredients in descending order as per the ingredient list

(2) Percentage of fruit stated in ingredient list

The label of each product that contained fruit was reviewed to determine whether the ingredient list included fruit (fresh or powdered/processed) by percentage weight as required. This labelling requirement is applicable to all subcategories except for subcategories 2.3 and 4.2.

This left 90 CPCF products containing fruit for which this labelling requirement was applicable (n=20 subcategory 1.1, n=18 category 2 and n=52 subcategory 4.3). Out of these CPCF (92.2 per cent, n=83) stated the percentage of fruit in the ingredients list (**Figure 9**). Only one (5 per cent) subcategory 1.1, one (5.6 per cent) subcategory 2.2 and five (9.6 per cent) subcategory 4.3 products did not state the percentage of fruit in their ingredients list. An example of a product that failed and a product that passed this requirement can be found in **Focus 14**.

Not provided	Provided
	

Focus 14: Percentage of fruit stated in ingredient list

(3) Percentage of added water stated in ingredient list

For each product that contained added water, the label was carefully reviewed to determine whether the ingredient list included water by percentage weight requirement. This labelling practice requirement was only applicable to categories 2 (n=33) and 3 (n=0). Only 3 of the 33 (16.7 per cent) eligible CPCF products included the percentage of added water in their ingredient lists (Figure 9).

(4) Percentage of protein stated in ingredient list

For each product considered to be a main meal, the label was carefully reviewed to determine whether the ingredient list includes protein by percentage weight requirement. This labelling practice requirement was only applicable to subcategories 2.6 (n=9), 2.7 (n=1), 2.8 (n=0) and 3.1 (n=0). Of the 10 eligible CPCF products, all included the percentage of protein in their ingredient list (Figure 9). An example of a product that passed this requirement can be found in Focus 15.

Focus 15: Ingredient list that states the percentage of the main source of protein in the product

4.3.4 Messages on products with a spout

There are two specific labelling practice requirements for products that have a spout: 1) the product must warn not to suck from the container; and 2) the product must warn that the cap is a choking hazard. Only CPCF in category 2 that also have spouts were assessed against this labelling practice requirements. None of the 15 eligible category 2 products with a spout carried a warning that the cap was a choking hazard, or included a message on the label that states "not to suck from the container". Therefore, none of the purées with a spout passed these labelling practice requirements (Figure 9).

4.3.5 Age restriction on puréed product

There is one labelling practice requirement on age restrictions that is only applicable to CPCF products in category 2: a maximum recommended age of use of 12 months must be on the label. This labelling requirement is only applicable to category 2 products (n=33). None of these products included a maximum recommended age of use of 12 months. Thus, all category 2 products failed this labelling practice requirement (Figure 9).

4.4 Combined assessment

For a CPCF to be considered suitable to be marketed to older infants and young children up to 36 months of age (i.e., in line with WHA resolution 69.9), it must meet all relevant nutrient composition requirements *and* all relevant labelling practice requirements defined in the adapted WHO Europe NPM for CPCF. While 16 per cent of CPCF from Indonesia met all relevant nutrient composition requirements, no product met all relevant labelling practice requirements (Table 9). In addition, 9 products from subcategories 4.1 and 5.1 automatically failed the adapted NPM as per the methodology. *Thus, none of the 268 CPCF purchased in Indonesia were found to be suitable for promotion for older infants and young children.*

Table 9: Nutrient composition and labelling practices assessment, combined nutrient profiling outcome, by product category and subcategory*

Product category	n	Met all relevant nutrient composition requirements % (n)	Met all relevant labelling requirements % (n)	Complied with all composition and labelling requirements % (n)
Category 1: Dry, powdered, and instant cereal/starchy food	112	34.0 (33)	0.0 (0)	0.0 (0)
1.1 Dry or instant cereals/starch	112	34.0 (33)	0.0 (0)	0.0 (0)
Category 2: Soft–wet spoonable, ready-to-eat foods	33	40.5 (32)	0.0 (0)	0.0 (0)
2.1 Dairy-based desserts and cereal products	4	0.0 (0)	0.0 (0)	0.0 (0)
2.2 Fruit purée	16	61.4 (27)	0.0 (0)	0.0 (0)
2.3 Vegetable-only purée	1	0.0 (0)	0.0 (0)	0.0 (0)
2.4 Vegetable purée with cereals	1	50.0 (1)	0.0 (0)	0.0 (0)
2.5 Puréed meal with cheese	1	7.7 (1)	0.0 (0)	0.0 (0)
2.6 Puréed meal with meat/fish mentioned in product name	9	60.0 (3)	0.0 (0)	0.0 (0)
2.7 Puréed meal with meat/fish not mentioned in product name	1	--	--	--
2.8 Purées with only meat, fish or cheese in name	0	--	--	--
Category 3: Meals with chunky pieces	0	--	--	--
3.1 Chunky meal with meat/fish/cheese	0	--	--	--
3.2 Vegetable-based meal with chunky pieces	0	--	--	--
Category 4: Dry finger foods and snacks	122	5.3 (6) †	0.0 (0)	0.0 (0)
4.1 Confectionery, sweet spreads and fruit chews	8	--	--	0.0 (0)
4.2 Fruit (fresh or dry whole fruit or pieces)	0	--	--	--
4.3 Snacks and finger foods	114	5.3 (6)	0.0 (0)	0.0 (0)
Category 5: Juices and other drinks	1	–	–	0.0 (0)
5.1 Single or mixed fruit juices, vegetable juices, or other non-formula drinks	1	--	--	0.0 (0)
5.2 Cow's milk and milk alternatives with added sugar or sweetening agent	0	--	--	--
All products	268	15.8 (41) ‡	0.0 (0) ‡	0.0 (0)

* Values are presented as % (n)
† Among categories assessed by the adapted NPM (n=114); excludes category 4.1
‡ Among categories assessed by the adapted NPM (n=259); excludes category 4.1, 5.1

4.5 Micronutrient content of CPCF Products

CPCF assessed using the adapted WHO Europe NPM For CPCF were also included in an analysis on CPCF micronutrient content. This analysis 1) determined the presence of any fortification in the CPCF; 2) determined the proportion of all CPCF products fortified with the 16 nutrients assessed; and 3) assessed the proportion of fortified CPCF that met Codex Fortification Guidelines. Fortified dry or instant cereals were also assessed against national legislation on minimum micronutrient fortification for CPCF. Results from this analysis are summarized below.

Of the 259 CPCF products assessed, a total of 159 (61.4 per cent) were fortified (Table 10). Fortification varied by food category, with 78.6 per cent of subcategory 1.1 and 72.3 per cent of subcategory 4.3 products fortified, compared to zero per cent of category 2 products. No category 3 products were assessed in the adapted NPM in Indonesia.

Table 10: Proportion of CPCF products with any fortification, by category and subcategory (n=259)

Product category	n	%
Category 1: Dry, powdered, and instant cereal/starchy food. (n=112)	88	78.6%
1.1 Dry or instant cereals/starch (n=112)	88	78.6%
Category 2: Soft–wet spoonable, ready-to-eat foods, typically smooth or semi-puréed packaged in jars or pouches and can be spoon-fed. (n=33)	0	0.0%
2.1 Dairy-based desserts and cereal products (n=4)	0	0.0%
2.2 Fruit purée with or without addition of vegetables, cereals, or milk (n=16)	0	0.0%
2.3 Vegetable only purée (n=1)	0	0.0%
2.4 Puréed vegetables and cereals (n=1)	0	0.0%
2.5 Puréed meal with cheese (but not meat or fish) mentioned in the name (n=1)	0	0.0%
2.6 Puréed meal with meat or fish mentioned as first food in product name (n=9)	0	0.0%
2.7 Puréed meals with meat or fish (but not named first in product name) (n=1)	0	0.0%
2.8 Purées with only meat, fish or cheese in name (n=0)	-	-
Category 3: Meals with chunky pieces, often sold in trays or pots for older infants and young children. (n=1)	0	-
3.1 Meat, fish, or cheese-based meal with chunky pieces (n=0)	-	-
3.2 Vegetable-based meal with chunky pieces (n=0)	-	-
Category 4: Dry finger foods and snacks (n=40)	71	62.3%
4.2 Fruit (fresh or dry whole fruit or pieces) (n=0)	-	-
4.3 Other snacks and finger foods (n=114)	71	62.3%
Total (n=259)	159	61.4%

4.5.1 Micronutrient results for subcategory 1.1 (dry or instant cereals)

Table 11 presents the proportion of fortified CPCF in subcategory 1.1 (the category most frequently fortified) by fortificant. All fortified subcategory 1.1 products were fortified with calcium and vitamins D, A and B_1, and >90 per cent were fortified with iron, zinc, folic acid, iodine and vitamins B_{12}, C, E, B_3, B_2 and B_6. However, only 25 per cent of dry or instant cereals were fortified with vitamin K and zero were fortified with copper.

As seen in Table 12, the majority of fortified dry or instant cereals met relevant Codex Fortification Guidelines. All dry or instant cereal products fortified with iron or vitamin C met relevant Codex Fortification Guidelines for those micronutrients and >90 per cent of products fortified with vitamins B_{12}, D and K also met relevant Guidelines. More than 75 per cent of products fortified with zinc, iodine and vitamins B_6, E, B_2, A or B_3, as well as more than 60 per cent of products fortified with

calcium or vitamin B1 met relevant Codex Fortification Guidelines. However, none of the products fortified with folic acid met relevant Guidelines.

Table 11: Proportion and number of fortified CPCF products in subcategory 1.1 (dry/instant CPCF cereals), by fortificant in nutrient declaration (n=88)

Micronutrient	1.1 Dry or instant cereals/starch (n=88)	
	n	%
Vitamin D	88	100.0%
Vitamin A	88	100.0%
Calcium	88	100.0%
Vitamin B_1	88	100.0%
Iron	86	97.7%
Vitamin B_{12}	86	97.7%
Zinc	85	96.6%
Vitamin C	84	95.5%
Vitamin E	84	95.5%
Vitamin B_3	84	95.5%
Folic Acid	84	95.5%
Vitamin B_2	83	94.3%
Vitamin B_6	81	92.0%
Iodine	81	92.0%
Vitamin K	22	25.0%
Copper	0	0.0%

Table 12: Proportion and number of fortified CPCF products in subcategory 1.1 (dry/instant CPCF cereals) that meet Codex Fortification Guidelines, by fortificant

Micronutrient	1.1 Dry or instant cereals/starch	
	n	%
Iron (n=86)	86	100.0%
Vitamin C (n=84)	84	100.0%
Vitamin B_{12} (n=86)	85	98.8%
Vitamin D (n=88)	86	97.7%
Vitamin K (n=22)	21	95.5%
Zinc (n=85)	76	89.4%
Vitamin B_6 (n=81)	68	84.0%
Vitamin E (n=84)	68	81.0%
Vitamin B_2 (n=83)	67	80.7%
Vitamin A (n=88)	71	80.7%
Iodine (n=81)	64	79.0%
Vitamin B_3 (n=84)	65	77.4%
Calcium (n=88)	58	65.9%
Vitamin B_1 (n=88)	56	63.6%
Folic Acid (n=84)	0	0.0%
Copper (n=0)	-	-

In Indonesia, BPOM Regulation 24/2020 defines minimum requirements for 12 and minerals with separate thresholds for children 6–12 months and 12–24 months of age. Over 90 per cent of dry or instant cereals fortified with vitamins D, B_{12}, C, B_1, E, and A and iodine met the national standards for CPCF fortification. Eight-nine per cent of dry or instant cereals fortified with vitamin B_2 and B_6, as well as over 70 per cent of products fortified with iron zinc, calcium and vitamin B_3 also met national fortification standards. However, only 24 per cent of products fortified with folic acid met national standards (Table 13).

Table 13: Proportion and number of fortified CPCF products in subcategory 1.1 (dry/instant CPCF cereals) that met national minimum fortification legislation, by fortificant

Micronutrient	1.1 Dry or instant cereals/starch	
	n	%
Vitamin D	86	98%
Vitamin B_{12}	86	98%
Vitamin B_1	84	95%
Vitamin C	84	95%
Vitamin A	82	93%
Vitamin E	82	93%
Iodine	81	92%
Vitamin B_2	78	89%
Vitamin B_6	78	89%
Iron	71	81%
Zinc	66	75%
Calcium	63	72%
Vitamin B_3	62	70%
Vitamin K	21	24%
Folic Acid	17	19%

4.5.2 Micronutrient results for subcategory 4.3 (other snacks and finger foods)

Table 14 presents the proportion of fortified CPCF in subcategory 4.3 by specific fortificant. Overall, fewer nutrients were included in fortified CPCF products in subcategory 4.3 compared to fortified products in subcategory 1.1. However, 86 per cent of fortified products in subcategory 4.3 were fortified with calcium, 70 per cent with iron, 65 per cent with vitamin E and 62 per cent with vitamin B_1. Only approximately half of fortified products in subcategory 4.3 were fortified with zinc or vitamins B_6, A, D, B_3 or B_2 and only a third or fewer fortified products were fortified with vitamins B_{12}, C, K or folic acid or iodine. No fortified products in this subcategory were fortified with copper.

Approximately 80 per cent CPCF products in this subcategory fortified with vitamin B12 or iron met relevant Codex Fortification Guidelines (Table 15). However, only 59 per cent of CPCF fortified with vitamin D and 44 per cent of products fortified with zinc met relevant Guidelines. Only a third or fewer products fortified with iodine, vitamins E, A, B_2, C, B_1, K, B_3, or B_6 or calcium met relevant Codex Fortification Guidelines. Zero products fortified with folic acid in subcategory 4.3 met relevant Codex Fortification Guidelines.

Table 14: Proportion and number of fortified CPCF products in subcategory 4.3 (CPCF finger foods and snacks), by fortificant in nutrient declaration (n=71)

Micronutrient	4.3 Other snacks and finger foods (n=71)	
	n	%
Calcium	61	85.9%
Iron	50	70.4%
Vitamin E	46	64.8%
Vitamin B_1	44	62.0%
Vitamin B_6	38	53.5%
Zinc	36	50.7%
Vitamin A	35	49.3%
Vitamin D	34	47.9%
Vitamin B_3	34	47.9%
Vitamin B_2	33	46.5%
Vitamin B_{12}	24	33.8%
Vitamin C	19	26.8%
Folic Acid	18	25.4%
Iodine	12	16.9%
Vitamin K	9	12.7%
Copper	0	0.0%

Table 15: Proportion and number of fortified CPCF products in subcategory 4.3 (CPCF finger foods and snacks) that meet Codex Fortification Guidelines, by fortificant

Micronutrient	4.3 Finger foods and other snacks	
	n	%
Vitamin B_{12} (n=24)	20	83.3%
Iron (n=50)	40	80.0%
Vitamin D (n=34)	20	58.8%
Zinc (n=36)	16	44.4%
Iodine (n=12)	4	33.3%
Vitamin E (n=46)	13	28.3%
Vitamin A (n=35)	9	25.7%
Vitamin B_2 (n=33)	8	24.2%
Vitamin C (n=19)	3	15.8%
Vitamin B_1 (n=44)	6	13.6%
Vitamin K (n=9)	1	11.1%
Calcium (n=61)	5	8.2%
Vitamin B_3 (n=34)	1	2.9%
Vitamin B_6 (n=38)	1	2.6%
Folic Acid (n=18)	0	0.0%
Copper (n=0)	-	-

5 Conclusion

Hundreds of CPCFs labelled as suitable for older infants and young children are on the market in Indonesia. Given the high availability of these products, it is critical to understand and monitor the appropriateness of their nutrient composition and labelling practices. A key first step in this process is identifying CPCF that are *not suitable* to be promoted for older infants and young children 6 to 36 months of age, as per WHO Guidance.

Recommendation 3 of the WHO Guidance on ending the inappropriate promotion of foods for infants and young children encourages that *Nutrient profile models should be developed and utilized to guide decisions on which foods are inappropriate for promotion.* This analysis endeavoured to use an adapted version of the 2019 WHO Europe NPM for CPCF, adapted specifically for the Southeast Asian context, to identify CPCF that 1) met stated nutrient composition requirements; and 2) met stated labelling practice requirements. Based on these results, it is possible to determine which CPCF are, or are not, suitable to be promoted to older infants (aged 6–12 months) and young children (aged 12–36 months). Further, this analysis assessed the micronutrient content of the CPCF currently available on the market.

A total of 272 unique CPCF products were identified for inclusion in this Indonesia study:

Product characteristics: Just under half (n=125, 46 per cent) of CPCF products were locally produced in Indonesia by a total of 10 parent companies and 11 brands. The major national brands producing CPCF domestically included Milna (n=34), followed by the brand Promina (n=32) and SUN (n=18). Of the imported products (54 per cent, n=147), 20 per cent were produced in the Republic of Korea, 19 per cent from Malaysia and 19 per cent from Thailand. The international brand Yummy Bites produced a high number of imported CPCF (n=36) sold in Indonesia.

The ability to understand and interpret product labels is critical for caregivers to make informed choices when procuring food for their older infants and young children at a critical life stage. Of the 272 unique CPCF, the majority (68.0 per cent, n=185) included label information in Bahasa Indonesia only, and approximately one fourth (25.7 per cent, n=70) included a combination of Bahasa Indonesia and English on the label. The inclusion of the local language on the vast majority of product labels helps parents to confidently make purchasing decisions.

Products that should never be promoted as appropriate to older infants and young children: Out of the 272 unique CPCF products assessed, a total of 9 were identified as 'prohibited products' based on their product category and thus automatically failed the adapted WHO Europe NPM for CPCF. Eight of these products were categorized as confectionary, sweet spreads and fruit chews, and one product was categorized as single or mixed fruit juices, vegetable juices, or other non-formula drinks

Nutrient composition assessment: Only 16 per cent of the 259 CPCF assessed met all relevant nutrition composition requirements stipulated in the adapted WHO Europe NPM for CPCF. Nearly all met the protein, low or no added fruit and total fat requirements. However, only 55 per met the total sugar and energy density requirements and only 48 per cent met the sodium requirements. Further, only 34 per cent of CPCF met the no added sugar/sweetener requirement.

Labelling practice requirement assessment: None of the CPCF products passed all relevant labelling practice requirements. Only 30 per cent of the CPCF met all five requirements to *protect and promote breastfeeding*. This was largely because only 40 per cent of products included a message on the importance of breastfeeding up to 2 years of age or beyond on the label. With regard to the requirement for CPCF product labels not to make any *claims*, one CPCF met all of the five claims requirements. Almost all products included 'other' or non-permitted compositional claims and nearly 70 per cent included nutrient content claims.

Seventy per cent of CPCF met all four of the *product name and ingredient list clarity* category requirements. The most commonly failed requirements in this class were not providing the percentage of added water in the ingredient list (>80 per cent failed). None of the blended/puréed products with a spout met both mandatory requirements for these types of products. Finally, none of the blended/puréed products provided the required maximum *age restriction on the label.*

Suitability for promotion: Despite hundreds of CPCFs promoted as suitable for infants and young children on the market in Indonesia, none of the unique CPCF purchased in Indonesia were found to be suitable for promotion for older infants and young children. This stems primarily from the failure of any of the products to pass the labelling practice requirement assessment in the adapted WHO Europe NPM for CPCF.

Micronutrient content assessment: The micronutrient analysis showed that 79 per cent of dry or instant cereals were fortified. The majority of fortified products were adequately fortified to meet Codex Fortification Guidelines. All products fortified with iron or vitamin C and greater than 90 per cent of products fortified with vitamins B_{12}, D or K met relevant Codex Fortification Guidelines. Further, over 90 per cent of dry or instant cereals fortified with vitamins D, B_{12}, C, B_1, E or A and iodine met the national standards for CPCF fortification.

These findings confirm the importance of the WHO call for countries to take steps to end the inappropriate promotion of foods for infants and young children, including by developing and using nutrient profiling models to guide decisions on which foods are suitable for promotion for the 6–36-month age group.

The adapted WHO Europe NPM for CPCF in Indonesia proved to be a useful tool for identifying areas of poor and high performance in relation to nutrient composition and labelling practices for both individual CPCF as well as within and across CPCF product categories. The application of the adapted NPM in the Indonesia context also identified areas where the NPM requires modification before it can be applied more broadly across the country and the wider Southeast Asian region.

It is anticipated that the COMMIT Initiative Phase 1 work will provide the evidence base for developing a regional Southeast Asia framework to guide the establishment of a national CPCF standard. Phase 2 of the COMMIT Initiative will disseminate both the findings from the COMMIT Phase 1 research and the framework at the regional and national level.

Substantial political commitment and leadership, together with strong, unambiguous and enforced national binding legal measures are required to ensure the appropriate composition, safety, quality and labelling of CPCF specifically targeted to the 6–36-month age group. Noting the increase in both the availability and use of CPCF throughout the region, the COMMIT Initiative strives to ensure that these products are appropriately formulated and labelled to meet global and national recommendations, so that when they are used, together with optimal breastfeeding practices and a diversified diet, they contribute to the overall health of this vulnerable age group.

Annex 1

Proposed food categories for all foods marketed as suitable for infants and young children 6–36 months of age*

Food category	Definition and examples
1. Dry, powdered, and instant cereal/starchy food	
1.1 Dry or instant cereals/starch	Dry rice, cereal, pulverized rusks, or starchy root (at least 25 per cent cereal and/or starch root content) with or without naturally sweet foods (such as dry fruit and powdered fruit juice), milk powder or whey powder. Products to be made up with liquid: Includes dry instant-type porridges and dry breakfast cereals (such as puffed rice or cereal hoops), if marketed as suitable for infants and young children. Excludes wet ready-to-eat cereals.
2. Soft–wet spoonable, ready-to-eat foods, typically smooth or semi-puréed packaged in jars or pouches and can be spoon-fed	
2.1 Dairy-based desserts and cereal products	Foods with dairy as the largest main ingredient by weight (i.e., greater than the sum of total fruit or total grain ingredients). This may include yogurt, fromage frais, custards, porridge, or rice pudding, made with or without other naturally sweet foods such as fresh fruit, fruit juice or dried fruit. Does not contain meat or fish.
2.2 Fruit purée with or without addition of vegetables, cereals, or milk	Largest ingredient single or mixed fruit. May contain vegetables, cereals and dairy. Includes any spoonable fruit or fruit-and-vegetable purée, high-fruit breakfast foods (such as fruit-based breakfast rice/ porridge) and desserts (such as apple crumble or fruit-based baby rice). May include some products labelled as "smoothies", without the addition of juice or water.
2.3 Vegetable-only purée	≥ 95 per cent single or mixed vegetables or legumes and water combined. Excludes products containing any fruit, or >5 per cent cereals or other ingredients. May include some products labelled as "smoothies", without the addition of fruit or vegetable juice.
2.4 Puréed vegetables and cereals	Puréed vegetables/legumes, where largest ingredient by weight is vegetables, legumes, cereals, or pseudo-cereals, with > 5 per cent cooked weight in cereal (e.g., pasta, rice, barley), or a pseudo-cereal (such as quinoa, chia, buckwheat). Includes savoury-type meals with cereals (such as pasta with tomato and courgette) or pseudo-cereal (such as butternut squash, carrot, and quinoa). Does not contain meat or fish. Includes vegetable-based foods containing cheese, where cheese is not mentioned in the product name.
2.5 Puréed meal with cheese (but not meat or fish) mentioned in the name	A puréed meal containing cheese, vegetables, starchy carbohydrates, where cheese is mentioned in the name (such as 'cheesy pasta with tomato and vegetables' or 'cauliflower cheese' or 'macaroni cheese'). Does not contain meat or fish.
2.6 Puréed meal with meat or fish mentioned as first food in product name	A puréed meal containing meat or fish in addition to vegetables, and other starchy carbohydrates. May contain other ingredients. Meat or fish is mentioned as first food in product name (such as 'tasty fish pie' or 'salmon and pea risotto' or 'hearty beef hotpot' or 'chicken and potato pie').
2.7 Puréed meals with meat or fish (but not named as the first food in product name)	A puréed meal containing meat or fish, vegetables, and starchy carbohydrates, where the fish/meat protein source is not listed as first food in product name (such as 'hearty shepherd's pie', 'cottage pie' or 'carrot, potato and lamb hotpot'). May contain other ingredients.

Food category	Definition and examples
2.8 Purées with only meat, fish, or cheese in name of product	Puréed meat, fish, or cheese where they are the only food listed in product name and constitutes the single largest ingredient (except water). These are not intended to be complete meals and should be served with vegetables and starchy carbohydrates.
3. Meals with chunky pieces, often sold in trays or pots for older infants and young children	
3.1 Meat, fish, or cheese-based meal with chunky pieces	A non-puréed soft meal containing chunky pieces of meat or fish in addition to vegetables, and starchy carbohydrates. May contain other ingredients such as cheese. Fish or meat are mentioned as the first food in product name (such as 'tasty fish pie' or 'salmon and pea risotto' or 'hearty beef hotpot' or 'chicken and potato pie').
3.2 Vegetable-based meal with chunky pieces	A non-puréed soft meal containing chunky pieces of vegetables, and other starchy carbohydrates. May contain other ingredients such as beans and pulses as sources of protein and iron. May contain meat or fish or cheese not mentioned in the product name.
4. Dry finger foods and snacks	
4.1 Confectionery, sweet spreads and fruit chews	Confectionery includes chocolate and other products containing cocoa; white chocolate; jelly sweets and boiled sweets; chewing gum and bubble gum; caramels; liquorice sweets; marzipan; sweetened or 'yogurt'-coated fruit etc. Sweet spreads: spreadable chocolate and any other sweet sandwich/toast topping such as jam, marmalade or honey and sweet nut spreads etc. Fruit chews include any dried and processed fruit products such as fruit gums, bars, or fruit strips/leathers/roll-ups (i.e., a dense chewy food made from fruit juice or pulped and dehydrated/dried fruit), including fruit pieces coated in sugar or oils/fats (such as banana chips, sweetened cranberries, or yogurt raisins).
4.2 Fruit (fresh or dry whole fruit or pieces)	Includes fresh whole or peeled fruit (such as apple) and dried fruit (such as dry slices of plain apple, freeze-dried strawberries, raisins, dry apricots, prunes). Excludes fruit pieces coated in sugar or oils/fats (such as banana chips, sweetened cranberries, or yogurt raisins) and dried and further processed fruit products (see category 4.1).
4.3 Other snacks and finger foods	Includes foods such as savoury biscuits and pretzels, baked chips/crisps (such as potato, grain, or other starchy food etc.), rice cakes coated in powdered fruit or vegetables, cereal bars. Also includes any rusks/teething biscuits, sweet baked, fried, dried or dehydrated food intended to be eaten between meals, sweet pastries; croissants; cookies/biscuits; sponge cakes; wafers; fruit pies; sweet buns; chocolate-covered biscuits; cake mixes and batters; cereal or energy bars (i.e., cereal/ granola or muesli bars); and crisps/puff products made from fruit, vegetables, or starchy foods (which may be coated in fat/oil).
5. Juices and other drinks	
5.1 Single or mixed fruit juices, vegetable juices, or other non-formula drinks	Any drinkable product containing crushed, blended, pulped, or puréed fruit or vegetable, fruit, or vegetable juice and/or water, with or without added sugar or sweetening agents, including 100 per cent juices, reconstituted juice from concentrate, smoothies with added juice or water. Also includes drinks ready made from cordials, energy drinks, ices, cola, lemonade, orangeade, other soft drinks, and mineral and/or flavoured waters (including aerated) with added sugars or sweetener. Excludes smoothies/purées without the addition of juice or water (see category 2.1). Excludes all products that function as breastmilk substitutes (see exclusions to the model). Excludes unsweetened cow's milk and unsweetened milk alternatives (such as soya, oat, almond) marketed for consumption by general population.
5.2 Cow's milk and milk alternatives with added sugar or sweetening agent	Whole cow's milk and milk alternatives including soya, oat or almond milk with added sugar or sweetening agent. Excludes other products that function as breastmilk substitutes (see exclusions to the model).

* Exclusions to the model:

- Products not specifically marketed for children younger than 3 years of age.
- Vitamin and mineral food supplements, whether to be consumed as tablets/drops or added to foods at home (such as home fortification products such as micronutrient powders, lipid nutrient powders).
- Products that function as breastmilk substitutes; these should not be promoted at all. These include any milks (or products that could be used to replace milk, such as fortified soya milk alternatives), in either liquid or powdered form, that are specifically marketed for feeding infants and young children up to the age of 3 years. This includes milk or milk-like formulations commonly marketed for infants from 6 months of age and prepared in accordance with relevant international or national standards. The upper age indication on the product label varies country to country but is usually between 12 and 36 months. Any milk product that is marketed or represented as suitable as a partial or total replacement of the breastmilk portion of the young child's diet is a breastmilk substitute and therefore falls under the scope of the International Code of Marketing of Breast-milk Substitutes. This type of product always replaces breastmilk, as breastfeeding is recommended to continue for 2 years or beyond. Follow-up formula should therefore not be promoted. These provisions also apply to growing-up milk (also known as growing-up formula, toddler milk or formulated milk), which is targeted at infants and young children from 1 year old (sometimes younger) to 3 years old. Often, the product name is similar to a company's formula products, with a figure "3" added on. Where growing-up milks are marketed as suitable for feeding young children up to the age of 36 months, they fall under the International Code definition of "breastmilk substitute" read together with WHA resolution 58.32 from 2005, which recommends that breastfeeding continue for up to 2 years or beyond.
- Products with labels stating that they are intended only for pregnant women, mothers, or children older than 3 years.

Annex 2

COMMIT Initiative adaptations to the 2019 WHO Europe NPM for CPCF

Nutrient composition analysis	Adaptations integrated into the 2019 WHO Europe NPM
Total fat threshold • 1.1: ≤ 4.5 g total fat/ 100 kcals for products with milk in ingredient list; <=3.3 g total fat/ 100kcals for products without milk in ingredient list • 2.1: ≤ 4.5 g/ 100 kcals total fats • 2.2: ≤ 4.5 g/ 100 kcals total fats • 2.3: ≤ 4.5 g/ 100 kcals total fats • 2.4: ≤ 4.5 g/ 100 kcals total fats • 2.5: ≤ 6g/100 kcal total fat • 2.6: ≤ 6g/100 kcal total fat • 2.7: ≤ 4.5 g/ 100 kcals total fats • 2.8: ≤ 6g/100 kcal total fat • 3.1: ≤ 6 g/ 100 kcals total fats • 3.2: ≤ 4.5 g/ 100 kcals total fats • 4.2: ≤ 4.5 g/ 100 kcals total fats • 4.3: ≤ 4.5 g/ 100 kcals total fats	Category 1.1: Updated to account for the addition of milk in the ingredient list. The 2019 WHO Europe CPCF NPM does not differentiate between products with and without milk added with a universal category 1.1 threshold of ≤ 4.5 g total fat/ 100 kcals product. The COMMIT Initiative updated the CPCF NPM to add different thresholds based on the presence of milk in the ingredients list. Category 4.2: 'No added fat' is listed as an additional requirement in the WHO 2019 Europe CPCF NPM document but was not included in the COMMIT evaluation of products.
Protein threshold • 1.1 (but only products with added milk in ingredients): total protein < 5.5 g/100 kcal • 2.5: total protein ≥ 3g/100 kcal • 2.6: total protein ≥ 4g/100 kcal & protein named first in product name must be ≥ 10% weight • 2.7: total protein ≥ 3g/100 kcal & protein(s) in product name must be ≥ 8% weight • 2.8: total protein ≥ 7g/100 kcal • 3.1: total protein ≥ 4g/100 kcal & protein(s) in product name must be ≥ 10% weight • 3.2: total protein ≥ 3g/100 kcal	Category 1.1: In the 2019 WHO Europe CPCF NPM, the threshold of <5.5 g protein/100 kcal was only supposed to be applied to products containing added milk. This correction has therefore been made to the NPM used by COMMIT. Category 2.1: A threshold of '≥2.2g protein from dairy protein / 100kcal' is listed in the 2019 WHO Europe CPCF NPM document; however, dairy protein content is not possible to evaluate based on label information. After consultation with Leeds University and WHO Europe, it was decided that NO protein threshold would be used for this category. Category 2.5: A threshold of '≥2.2g protein from dairy protein / 100kcal' is listed in the 2019 WHO Europe CPCF NPM document; however, dairy protein content is not possible to evaluate based on label information. After consultation with Leeds University and WHO Europe, it was decided that NO protein threshold would be used for this category. Categories 2.6 & 2.8: In 2019 WHO Europe CPCF NPM document the threshold evaluates protein 'from named sources' but is evaluated as TOTAL protein in the COMMIT Initiative due to the inability to distinguish specific protein quantities of named sources.

Labelling assessment analysis	
<u>No claim requirement (all categories)</u> • No non-permitted compositional claims • No nutrient content claims • No nutrient function claims • No disease risk reduction claims • No other claims	<u>NOTE:</u> The 2019 WHO Europe CPCF NPM and Leeds University Excel template simply state 'no claims'. These specific claim types have been added in the NPM used by COMMIT.
<u>Appropriate age restrictions requirement</u> • 1.1: ≥6 months • 2.1: ≥6 months & <12 months • 2.2: ≥6 months & <12 months • 2.3: ≥6 months & <12 months • 2.4: ≥6 months & <12 months • 2.5: ≥6 months & <12 months • 2.6: ≥6 months & <12 months • 2.7: ≥6 months & <12 months • 2.8: ≥6 months & <12 months • 3.1: ≥6 months • 3.2: ≥6 months • 4.2: ≥6 months • 4.3: ≥8 months	<u>Category 2.1:</u> In the 2019 WHO Europe CPCF NPM and Leeds Excel template, there is no upper age restriction for this category. However, since this is a purée it was felt that this should be included in this requirement and an upper limit of 12 months has been included in the NPM used by COMMIT.

Annex 3

Final Commercially Produced Complementary Food Nutrient Profile and Labelling Model utilized by the COMMIT Initiative in Southeast Asia

Products that automatically fail the adapted WHO Europe NPM for CPCF and are thus not suitable for promotion:

4.1 - Sweet confectionery, sweet spreads, and fruit chews (including category 4.3 if total sugar >15 per cent total energy)
5.1 - Single or mixed fruit juices, vegetable juices or other non-formula drinks
5.2 - Cow's milk and milk alternatives, with added sugar or sweetening agent

Table A1: Nutrient composition requirements

Requirement	Subcategory	Relevant threshold
No added sugar/sweetener threshold: No added sugar/sweetener in product ingredient list	Requirement for **all** subcategories	
Low/no added fruit threshold: Product did not exceed category-specific fruit content limit	1.1 Dry or instant cereals/starch	≤10%
	2.1 Dairy-based desserts and cereal products	≤5%
	2.2 Fruit purée with or without addition of vegetables, cereals or milk	N/A
	2.3 Vegetable-only purée	0% (none allowed)
	2.4 Puréed vegetables and cereals	0% (none allowed)
	2.5 Puréed meal with cheese (but not meat or fish) mentioned in the name	≤5%
	2.6 Puréed meal with meat or fish mentioned as first food in product name	≤5%
	2.7 Puréed meals with meat or fish (but not named first in product name)	≤5%
	2.8 Purées with only meat, fish or cheese in name	≤5%
	3.1 Meat, fish or cheese-based meal with chunky pieces	≤5%
	3.2 Vegetable-based meal with chunky pieces	≤5%
	4.2 Fruit (fresh or dry whole fruit or pieces)	N/A
	4.3 Other snacks and finger foods	N/A
Total sugar threshold: Product did not exceed category-specific total sugar limit	1.1 Dry or instant cereals/starch	N/A
	2.1 Dairy-based desserts and cereal products	N/A
	2.2 Fruit purée with or without addition of vegetables, cereals or milk	N/A
	2.3 Vegetable-only purée	N/A

Requirement	Subcategory	Relevant threshold
	2.4 Puréed vegetables and cereals	N/A
	2.5 Puréed meal with cheese (but not meat or fish) mentioned in the name	N/A
	2.6 Puréed meal with meat or fish mentioned as first food in product name	N/A
	2.7 Puréed meals with meat or fish (but not named first in product name)	N/A
	2.8 Purées with only meat, fish or cheese in name	N/A
	3.1 Meat, fish or cheese-based meal with chunky pieces	N/A
	3.2 Vegetable-based meal with chunky pieces	N/A
	4.2 Fruit (fresh or dry whole fruit or pieces)	N/A
	4.3 Other snacks and finger foods	Total sugar <3.75 g/100 kcal (15% total energy)
Sodium threshold: Product did not exceed category-specific sodium limit	1.1 Dry or instant cereals/starch	<50 mg/100 kcal
	2.1 Dairy-based desserts and cereal products	<50 mg/100 kcal and <50 mg/100 g
	2.2 Fruit purée with or without addition of vegetables, cereals or milk	<50 mg/100 kcal and <50 mg/100 g
	2.3 Vegetable-only purée	<50 mg/100 kcal and <50 mg/100 g
	2.4 Puréed vegetables and cereals	<50 mg/100 kcal and <50 mg/100 g
	2.5 Puréed meal with cheese (but not meat or fish) mentioned in the name	<100 mg/100 kcal and 100 mg/100 g
	2.6 Puréed meal with meat or fish mentioned as first food in product name	<50 mg/100 kcal and <50 mg/100 g (or <100 mg/100 kcal and <100 mg/100 g if cheese is listed in front-of-pack name)
	2.7 Puréed meals with meat or fish (but not named first in product name)	<50 mg/100 kcal and <50 mg/100 g (or < 100 mg/100 kcal and <100 mg/100 g if cheese is listed in front-of-pack name)
	2.8 Purées with only meat, fish or cheese in name	<50 mg/100 kcal and <50 mg/100 g (or <100 mg/100 kcal and <100 mg/100 g if cheese is listed in front-of-pack name)
	3.1 Meat, fish or cheese-based meal with chunky pieces	<50 mg/100 kcal and <50 mg/100 g (or <100 mg/10kcal and <10 mg/10 g if

Requirement	Subcategory	Relevant threshold
		cheese is listed in front-of-pack name)
	3.2 Vegetable-based meal with chunky pieces	<50 mg/100 kcal and <50 mg/100 g (or <100 mg/100 kcal and <100 mg/100 g if cheese is listed in front-of-pack name)
	4.2 Fruit (fresh or dry whole fruit or pieces)	<50 mg/100 kcal and <50 mg/100 g
	4.3 Other snacks and finger foods	<50 mg/100 kcal and <50 mg/100 g
Energy density threshold: Product met category-specific minimum for energy density	1.1 Dry or instant cereals/starch	N/A
	2.1 Dairy-based desserts and cereal products	≥60 kcal/100 g
	2.2 Fruit purée with or without addition of vegetables, cereals or milk	≥60 kcal/100 g
	2.3 Vegetable-only purée	added water <25% by weight
	2.4 Puréed vegetables and cereals	≥60 kcal/100 g
	2.5 Puréed meal with cheese (but not meat or fish) mentioned in the name	≥60 kcal/100 g
	2.6 Puréed meal with meat or fish mentioned as first food in product name	≥60 kcal/100 g
	2.7 Puréed meals with meat or fish (but not named first in product name)	≥60 kcal/100 g
	2.8 Purées with only meat, fish or cheese in name	N/A
	3.1 Meat, fish or cheese-based meal with chunky pieces	N/A
	3.2 Vegetable-based meal with chunky pieces	N/A
	4.2 Fruit (fresh or dry whole fruit or pieces)	N/A
	4.3 Other snacks and finger foods	N/A
Protein threshold: Product met category-specific threshold for protein	1.1 Dry or instant cereals/starch	
	2.1 Dairy-based desserts and cereal products	Only products with added milk in ingredients: total protein <5.5 g/100 kcal
	2.2 Fruit purée with or without addition of vegetables, cereals or milk	N/A
	2.3 Vegetable-only purée	N/A
	2.4 Puréed vegetables and cereals	N/A
	2.5 Puréed meal with cheese (but not meat or fish) mentioned in the name	total protein ≥3 g/100 kcal
	2.6 Puréed meal with meat or fish mentioned as first food in product name	total protein ≥4 g/100 kcal and protein named first in product

Requirement	Subcategory	Relevant threshold
		name must be ≥10% weight
	2.7 Puréed meals with meat or fish (but not named first in product name)	total protein ≥3 g/100 kcal and protein(s) in product name must be ≥8% weight
	2.8 Purées with only meat, fish or cheese in name	total protein ≥7 g/100 kcal
	3.1 Meat, fish or cheese-based meal with chunky pieces	total protein ≥4 g/100 kcal and protein(s) in product name must be ≥10% weight
	3.2 Vegetable-based meal with chunky pieces	total protein ≥3 g/100 kcal
	4.2 Fruit (fresh or dry whole fruit or pieces)	N/A
	4.3 Other snacks and finger foods	N/A
Total fat threshold: Product did not exceed category-specific total fat limit	1.1 Dry or instant cereals/starch	≤4.5 g total fat/ 100 kcals for products with milk in ingredient list; ≤3.3 g total fat/ 100 kcals for products without milk in ingredient list
	2.1 Dairy-based desserts and cereal products	≤4.5 g/ 100 kcals total fats
	2.2 Fruit purée with or without addition of vegetables, cereals or milk	≤4.5 g/ 100 kcals total fats
	2.3 Vegetable-only purée	≤4.5 g/ 100 kcals total fats
	2.4 Puréed vegetables and cereals	≤4.5 g/ 100 kcals total fats
	2.5 Puréed meal with cheese (but not meat or fish) mentioned in the name	≤6 g/100 kcal total fat
	2.6 Puréed meal with meat or fish mentioned as first food in product name	≤6 g/100 kcal total fat
	2.7 Puréed meals with meat or fish (but not named first in product name)	≤4.5 g/ 100 kcals total fats
	2.8 Purées with only meat, fish or cheese in name	≤6 g/100 kcal total fat
	3.1 Meat, fish or cheese-based meal with chunky pieces	≤6 g/ 100 kcals total fats
	3.2 Vegetable-based meal with chunky pieces	≤4.5 g/ 100 kcals total fats
	4.2 Fruit (fresh or dry whole fruit or pieces)	≤4.5 g/ 100 kcals total fats
	4.3 Other snacks and finger foods	≤4.5 g/ 100 kcals total fats

Requirement	Subcategory	Relevant threshold
Front-of-pack for high sugar warning	1.1 Dry or instant cereals/starch	total sugar ≥10 g/100 kcal (30% total energy)
	2.1 Dairy-based desserts and cereal products	total sugar ≥7.5 g/100 kcal (30% total energy)
	2.2 Fruit purée with or without addition of vegetables, cereals or milk	total sugar ≥7.5 g/100 kcal (30% total energy)
	2.3 Vegetable-only purée	total sugar ≥7.5 g/100 kcal (30% total energy)
	2.4 Puréed vegetables and cereals	total sugar ≥5 g/100 kcal (20% total energy)
	2.5 Puréed meal with cheese (but not meat or fish) mentioned in the name	total sugar ≥3.75 g/100 kcal (15% total energy)
	2.6 Puréed meal with meat or fish mentioned as first food in product name	total sugar ≥3.75 g/100 kcal (15% total energy)
	2.7 Puréed meals with meat or fish (but not named first in product name)	total sugar ≥3.75 g/100 kcal (15% total energy)
	2.8 Purées with only meat, fish or cheese in name	total sugar ≥3.75 g/100 kcal (15% total energy)
	3.1 Meat, fish or cheese-based meal with chunky pieces	total sugar ≥3.75 g/100 kcal (15% total energy)
	3.2 Vegetable-based meal with chunky pieces	total sugar ≥3.75 g/100 kcal (15% total energy)
	4.2 Fruit (fresh or dry whole fruit or pieces)	N/A
	4.3 Other snacks and finger foods	N/A

Table A2: Labelling practice requirements

Requirement category	Labelling requirement	Relevant categories
Protection and promotion of breastfeeding	Has a minimum recommended age of introduction of at least 6 months	Requirement for **all** subcategories
	Not marketed as suitable for children <6 months of age	
	Message on importance of breastfeeding until age 2 or longer	
	Does not suggest superiority or equivalence to breastmilk	
	Does not recommend or promote bottle-feeding	
Claims	No non-permitted compositional claims	Requirement for **all** subcategories
	No nutrient content claims	
	No nutrient function claims	
	No disease risk reduction claims	
	No other claims	
Product name and ingredient list clarity	Product name reflects ingredients in descending order as per ingredient list	Requirement for **all** subcategories
	Percentage of fruit stated in ingredient list	If product contains fruit, for subcategories: 1.1, 2.1, 2.2, 2.4, 2.5, 2.6, 2.7, 2.8, 3.1, 3.2, and 4.3
	Percentage of added water stated in ingredient list	If product contains added water, for subcategories: 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 3.1, and 3.2
	Percentage of protein stated in ingredient list	If product is a main meal, for subcategories: 2.6, 2.7, 2.8, and 3.1
Messages on products with a spout	Product with spout states not to suck from the container	Category 2 products with a spout
	Product with spout warns that cap is a choking hazard	Category 2 products with a spout
Age restriction on blended/puréed products	Maximum recommended age of use of 12 months?	Category 2 products

Annex 4

Dietary Reference Intake values used in calculating labelled micronutrient content of CPCFs

Micronutrient	Indonesia (ANGKA KECUKUPAN GIZI YANG DIANJURKAN UNTUK MASYARAKAT INDONESIA)		Thailand (Dietary Reference Intake for Thais 2020)				United States (Institute of Medicine. Food and Nutrition Board. Dietary Reference Intakes)		
	0–5 mo	6–11 mo	12–36 mo	0–5 mo	6–11 mo	12–32 mo	0–6 mo	7–11 mo	12–36 mo
Vit A (mcg RAE)	375	400	400	breastmilk	250	300	400*	500*	300
Vit D (mcg/ IU)	10	10	15	breastmilk	- 400*	- 600	10 400*	10 400*	15 600
Vit E (mg)	4	5	6	breastmilk	5	6	4	5	6
Vit K (mcg)	5	10	15	breastmilk	2.5*	30*	2*	2.5*	30*
Vit B1 (mg)	0.2	0.3	0.5	breastmilk	0.3*	0.5	0.2	0.3	0.5
Vit B2 (mg)	0.3	0.4	0.5	breastmilk	0.4*	0.5	0.3	0.4	0.5
Vit B3 (mg)	2	4	6	breastmilk	4	6	2	4	6
Vit B6 (mg)	0.1	0.3	0.5	breastmilk	0.3*	0.5	0.1*	0.3*	0.5
Folic Acid (mcg)	80	80	160	breastmilk	85	120	65*	80*	150
Vit B12 (mcg)	0.4	1.5	1.5	breastmilk	0.5*	0.9	0.4*	0.5*	0.9
Vit C (mg)	40	50	40	breastmilk	50	25	40*	50*	15
Iron (mg)	0.3	11	7	breastmilk	9	5	0.27*	11	7
Zinc (mg)	1.1	3	3	breastmilk	2.7	4.4	2*	3	3
Calcium (mg)	200	270	650	breastmilk	260	500	200*	260*	700
Copper (mcg)	200	220	340	breastmilk	0.4*	0.7*	200*	200*	340
Iodine (mcg)	150	150	150	breastmilk	70	90	110*	130*	90

*Adequate Intake (AI); Vit = vitamin; Mo = months of age

Sources:

Indonesia: https://unicef.sharepoint.com/teams/EAPR-CloudShare/Shared%20Documents/Nutrition/RISING%20Documents%20and%20Files/COMMIT/COMMIT%20Partners%20Folder/Activity%201.4/DRI's/indonesia%20dri%20standards%20english.pdf?CT=1665335474528&OR=ItemsView

Thailand: https://unicef.sharepoint.com/teams/EAPR-CloudShare/Shared%20Documents/Nutrition/RISING%20Documents%20and%20Files/COMMIT/COMMIT%20Partners%20Folder/Activity%201.4/DRI's/indonesia%20dri%20standards%20english.pdf?CT=1665335474528&OR=ItemsView

USA: https://ods.od.nih.gov/factsheets/list-VitaminsMinerals/

Annex 5

Recommended micronutrient level for formulated complementary food as obtained from: CODEX ALIMENTARIUS Guidelines on formulated complementary foods for older infants and young children. CAC/GL 9-1991.

TABLE

The reference INL_{98} values listed in the Table provide a guide for selection and amounts of vitamins and minerals to be added to a Formulated Complementary Food. The suggested total quantity of each of these vitamins and/or minerals contained in a daily ration of the Formulated Complementary Food is at least 50% of INL_{98}.

VITAMINS AND MINERALS	REFERENCE NUTRIENT INTAKE or Individual Nutrient Levels$_{98}$ (INL_{98})[17]
Vitamin A µg retinol equivalent	400
Vitamin D[18] µg	5
Vitamin E mg (α-Tocopherol)	5
Vitamin C mg	30
Thiamine mg	0.5
Riboflavin mg	0.5
Niacin mg NE	6
Vitamin B_6 mg	0.5
Folate µg DFE	150
Vitamin B_{12} µg	0.9
Biotin µg	8
Pantothenic acid mg	2
Vitamin K µg	15
Calcium mg	500
Iron mg[19]	11.6, 5.8, 3.9
Zinc mg[20]	8.3, 4.1, 2.4
Iodine µg	90
Copper mg [21]	0.34
Selenium µg	17
Magnesium mg	60
Manganese mg [21]	1.2
Phosphorus mg [21]	460

Annex 6

Parent company, brands and production location of CPCF identified for categorization for Indonesia (n=272)

Parent company	Headquarters location	Brand name	Production location	# CPCF by brand	# CPCF by parent company	% CPCF by parent company
PT. Indofood CBP Sukses Makmur Tbk	Indonesia	SUN	Indonesia	18	50	18.4%
		Promina	Indonesia	32		
Kalbe Nutritionals	Indonesia	Milna	Chile	3	40	14.7%
			Indonesia	34		
			Thailand	3		
Nestlé	Switzerland	Cerelac	Indonesia	7	30	11.0%
			Malaysia	14		
		Gerber	United States	9		
Yummy Bites Holding Ltd.	Singapore	Yummy Bites	Belgium	1	28	10.3%
			Italy	1		
			Malaysia	3		
			n/a	5		
			Republic of Korea	7		
			Singapore	5		
			United Kingdom	6		
Kraft Heinz Co	USA	Heinz	Australia	8	19	7.0%
			Indonesia	3		
			Italy	8		
Peachy Village Co.,Ltd.	Thailand	Peachy	Thailand	15	15	5.5%
No data available	No data available	No data available	Indonesia	2	13	4.8%
			New Zealand	3		
			Republic of Korea	7		
			Thailand	1		
Ivenet	Republic of Korea	Ivenet	Republic of Korea	12	12	4.4%
Yummy Bites Holding LTD	Singapore	Yummy Bites	Singapore	8	8	2.9%
Gasol Pertanian Organik	Indonesia	Gasol Pertanian Organik	Indonesia	8	8	2.9%
CV. Jasmine Yogyakarta	Indonesia	Omo!	Indonesia	8	8	2.9%
Unknown	Unknown	Happy Tummy	Malaysia	7	7	2.6%
Healthy Foods Co.,Ltd.	Thailand	Apple Monkey	Apple Monkey	7	7	2.6%

CV. Shinta Rama	Indonesia	Hotel Quality Brand	Indonesia	5	5	1.8%
PT Mulyatek Bakeri	Indonesia	Alamii	Indonesia	4	4	1.5%
The HI CO., LTD	Republic of Korea	Bebedang	Republic of Korea	4	4	1.5%
Lo Bello Fosfovit	Italy	Lo Bello	Italy	4	4	1.5%
PT Hassana Boga Sejahtera	Indonesia	Nayz	Indonesia	3	3	1.1%
Everprosper Food Industries Sdn. Bhd.	Malaysia	Golden Noodle	Malaysia	3	3	1.1%
Namchow (Thailand) Co. Ltd	Thailand	Namchow	Thailand	2	2	0.7%
Earth Living Sdn. Bhd.	Malaysia	Earth Living	Malaysia	1	1	0.4%
PT. Monde Mahkota Biskuit	Indonesia	Monde	Indonesia	1	1	0.4%
			Imported	147	54.0%	
			Locally manufactured	125	46.0%	
			Grand total	272	100.0%	

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COMMIT ACTIVITY 4

INDONESIA

COMMIT

Consortium for Improving Complementary Foods in Southeast Asia