

## ASSESSMENT AND RESEARCH IN CHILD FEEDING (ARCH): LABELING STUDY REPORT CAMBODIA

*Report on commercially produced complementary foods and selected commercially produced foods not specifically marketed for but commonly consumed by infants and young children*

### KEY MESSAGES

- Nutrition is central to strengthening the health and development of individuals and nations.  
The 1,000 days of a mother's pregnancy until her child's 2nd birthday is a particularly critical window of opportunity during which the right nutrition gives children a healthy start at life.

  - In Cambodia 40% of children under-five years of age are stunted, never reaching their full cognitive or physical development.
  - Cambodia has not yet joined the SUN movement but does have a National Policy on Infant and Young Child Feeding and a Communication for Behavioural Impact (COMBI) Campaign to Promote Complementary Feeding in Cambodia (2011-2013) that aim at improving the feeding practices and nutritional status of Cambodian infants and young children.
- Optimal feeding leads to children reaching their full potential.  
Exclusive breastfeeding during the first six months of life, with continued breastfeeding until 2 years of age or beyond, together with the addition of safe, appropriate complementary foods from 6 months provides the best nutrition for a young child. To protect these optimal feeding practices, the marketing practices of all products aimed at infants and young children, not only breast-milk substitutes, are under the spotlight.

  - In Cambodia, early initiation of breastfeeding is 66%, exclusive breastfeeding at 6 months 74% and continued breastfeeding at the age of two years 43%.
  - In Cambodia complementary feeding is initiated between 6-8 months for 88% of infants.
- Evidence must guide policy development.  
Recognizing that commercially produced complementary foods are often a part of a child's diet, Helen Keller International's Assessment and Research on Child Feeding (ARCH) Project is gathering data on the promotion of foods consumed by infants and young children in Senegal, Cambodia, Nepal and Tanzania. As countries work to scale up nutrition, the ARCH Project serves as a resource, providing an evidence base to guide development of policies and programs.

  - In Cambodia, there are currently 70 different commercially produced complementary foods available for sale to mothers/caregivers.
  - In Cambodia although 61% of commercially produced complementary foods specified an appropriate age of introduction of six months, 42% of the commercially produced complementary foods produced by manufacturers that also produce breast-milk substitutes had similar color schemes/designs, names and/or slogans/mascots/symbols to the breast-milk substitutes.
  - In Cambodia many of the labels of energy dense commercially produced foods commonly fed to children under the age of two in the study had images, shapes, colors, messages and packaging that could be considered to imply that the product is suitable for children.
- Consistent information supports informed choices.  
Providing consumers with important and valuable information on products labels is critical as it is this information that mothers/caregivers are likely to use to make their product choices when selecting from available commercially produced complementary foods in store.

  - In Cambodia the information provided on product labels is not presented in a consistent manner and manufacturers presented nutrition information in a variety of formats which makes valuable comparisons difficult.

5. A global market requires global guidance.

There were a number of commercially produced complementary foods available in Cambodia, including 70 products that were made up of 37 brands, produced by 16 different manufacturers.

- In Cambodia the majority of commercially produced complementary foods are imported (99%), with France and the United States of America (USA) supplying the majority of products. This indicates that, while national governments could take action, shared guidance from the WHO is critical to support common standards of product promotion across member states.
- In Cambodia on average, imported cereals cost three times as much as locally produced products.

6. Detailed and specific guidance is required.

There are a number of elements on product labels around which specific guidance is required to ensure that commercially produced complementary foods provide factual information, promote optimal infant and young child feeding and never undermine breastfeeding while still allowing the right to freedom of choice.

- The Cambodia ARCH Project labeling study results highlight areas where detailed global guidance is required and include:
  - provision of clear and consistent infant and young child feeding messages for optimal infant and young child feeding;
  - the appropriate use of images including images relating to product cross-promotion;
  - appropriateness and types of invitations to interact that should appear on the labels of commercially produced complementary foods;
  - requirements for nutrient content and daily ration information.

7. Guidance should not result in unintended consequences.

Consideration needs to be given not only to the promotion of commercially produced complementary foods, but also to foods not specifically marketed to but commonly fed to children under-2 years of age. It is important to ensure that restrictions on the promotion of the former do not result in mothers/caregivers selecting the latter, which often have a poor nutrient profile, due to the fact that they are less restricted. As such, foods not specifically marketed for but commonly fed to children under-2 years can imply to mothers/caregivers that they are suitable for infants and young children as they are able to make nutrition and health claims and are less regulated in terms of images and other marketing techniques used on labels.

- In Cambodia the label assessment of selected commercially produced foods for general consumption commonly fed to children under the age of two years shows that certain practices could be considered to imply that these products are suitable for infants/young children or children in general.
- In Cambodia the nutrient content of selected commercially produced foods for general consumption commonly fed to children under the age of two years indicate that they are relatively low in protein, high in sugar and high in fat with correspondingly low levels of micronutrients.

8. Monitoring and enforcement of existing policies can be strengthened.

The WHO recommends that countries should periodically review their regulations in line with the Code and its subsequent WHA resolutions and that monitoring and enforcement requires continued strengthening.

- Cambodia adopted many provisions of the *International Code of Marketing of Breast-Milk Substitutes* as national legislation, by enacting the *Sub-decree on Marketing of Products for Infant and Young Child Feeding (No. 133)* in 2005. In general, the provisions that are relevant to labeling practices are similar to the requirements of the Code, although not all provisions of the Code are described and in some cases the legislation goes beyond the requirements of the Code.
- In Cambodia the ARCH Project labeling study results demonstrate that manufacturers are not fully compliant with the Cambodian legislation. For example, none of the labels of commercially produced complementary foods provided all of the label text in Khmer, which is a legal requirement. In addition, as limited labeling guidance is given in the Sub-decree, 30% of the labels of commercially produced complementary foods provided no age of introduction.

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## List of Abbreviations

<b>ARCH</b>	Assessment and Research on Child Feeding (ARCH) Project
<b>BMS</b>	Breast-milk substitute
<b>CPCF</b>	Commercially produced complementary food
<b>CPF</b>	Commercially produced foods for general consumption commonly fed to children < two years
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>GUM</b>	Growing-up milks
<b>HKI</b>	Helen Keller International
<b>IBFAN</b>	International Baby Food Action Network
<b>IYCF</b>	Infant and young child feeding
<b>MIYCN WG</b>	Maternal, Infant and Young Child Nutrition Working Group
<b>MNP</b>	Micronutrient powder
<b>UN</b>	United Nations
<b>WHO</b>	World Health Organization
<b>WHA</b>	World Health Assembly

## Definitions

For the purposes of this report, definitions of the product categories are defined as follows:

<p><b>Commercially produced complementary foods (CPCF)</b></p>	<p>Any commercially produced food or beverage product, excluding breast-milk substitutes, that contains a label indicating the product is intended for children younger than two years of age, by:</p> <ul style="list-style-type: none"> <li>• Using the words baby/babe/infant/toddler/young child in the context of a child's age e.g. baby food (food for babies), not size/maturity of the product e.g. baby potato (young potato);</li> <li>• Recommending an age of introduction less than two years on the label;</li> <li>• Using an image of a child appearing younger than two years of age or an image/text of infant feeding (which could include a bottle).</li> </ul>
<p><b>Commercially produced foods for general consumption commonly fed to children under the age of two years (CPF)</b></p>	<p>Foods commonly fed to, but not marketed specifically for, children younger than two years of age e.g. soda/carbonated beverages, 100% juice/juice drinks, bottled water, condensed milk/evaporated milk, chocolate/milk beverages, biscuits/cookies, savory snacks (chips, crisps), sweet snacks (cakes/doughnuts and candy/sweets/chocolate), processed cereals (e.g. maize meal), breakfast cereals, instant noodles and peanut butter).</p>
<p><b>Breast-milk substitute (BMS)</b></p>	<p>The Code defines a breast-milk substitute as, “any food being marketed or otherwise represented as a partial or total replacement for breast milk, whether or not suitable for that purpose” (WHO, 1981). The ARCH Project defines breast-milk substitutes to include:</p> <ul style="list-style-type: none"> <li>• infant/starter formula (to be used from birth up to six months of age), including formula for special dietary or medical purposes;</li> <li>• follow-up formula (to be used from 6 months to 12 months), including formula for special dietary or medical purposes;</li> <li>• growing-up milk (to be used from 12 months to 36 months) and;</li> <li>• other milk or milk-like products (in liquid or powdered form)</li> </ul> <p>marketed or otherwise represented as suitable for feeding children younger than two years of age BUT excludes other beverages and foods marketed or otherwise represented as a partial or total replacement for breast milk.</p> <p>Note: The breast-milk substitute data is not included in this report.</p>

For the purposes of this report, it is important to provide clarity between the interpretation and use of the terms 'marketing' and 'promotion' and their use in context of the ARCH Project:

**Marketing:** Defined by Article 3 of the *International Code of Marketing of Breast Milk Substitutes* (the *Code*) as **distribution, selling, product promotion, advertising, product public relations, and information services** (WHO, 1981). With regards to the *Code*, the distribution and selling of designated products is allowed.

**Promotion:** Marketing techniques to increase sales (**advertising, sampling, or any other activity to encourage or induce the purchase of a product**) (IBFAN, 2007). Promotion is a type of marketing activity. With regards to the *Code*, the promotion of designated products is not allowed. Examples of promotion techniques include discounts, coupons, gifts, samples and adverts.

From the *Code Training Manual, Making Sense of the Code: Hand-outs* (IBFAN-ICDC, 2006):

- The term “**appropriate marketing**” should not be confused with “**appropriate promotion**”. There is an absolute prohibition of the promotion of designated products, but some forms of marketing (such as distribution and selling) are allowed. “**Appropriate marketing**” refers to distribution and selling (but does not include promotion and advertising).
- In addition one should not confuse **promotion** of products with **availability** of products.
- One also needs to distinguish between “**public promotion**” and “**promotion within health facilities**”.
- The cornerstone of the *Code* is the prohibition of the promotion of products which undermine breastfeeding.
- Promotion to the public occurs via: TV/radio advertising, newspapers, magazines, billboards, websites, special offers, reduced prices, discount coupons, mailing to pregnant women and mothers of educational materials, phone help lines, posters, calendars in the offices of health professionals, free gifts, samples issued from health facilities.
- Art. 5.1 of the *Code* states that: There should be no advertising or other form of promotion to the general public of products that fall within the scope of the *Code*.

In terms of international guidance, the main reference documents used in the ARCH Project all refer to **marketing**:

- *International Code of **Marketing** of Breast-milk Substitutes* (1981)
- *Using the Code to Guide **Marketing** of Complementary Foods to Protect Optimal IYCF Practices* (2010)
- *WHO Set of Recommendations on **Marketing** of Foods and Non-alcoholic Beverages to Children* (2010)

These documents see promotion as a sub-element of marketing.

The WHA Resolutions that are of specific reference to the ARCH Project however refer to **promotion**:

- *WHA Resolution 63.23 (2010)*: 1. URGES Member States to: (1) to end **inappropriate promotion** of food for IYC and to ensure that nutrition and health claims shall not be permitted for foods for IYC, except where specifically provided for, in relevant Codex Alimentarius standards or national legislation;
- *WHA Resolution 65.6 (2012)*: 3. REQUESTS the Director-General: (1) to provide clarification and guidance on the **inappropriate promotion** of foods for IYC cited in resolution WHA63.23, taking into consideration the on-going work of the Codex Alimentarius Commission;

This can result in some confusion as to when the definition of marketing applies versus the definition of promotion in the context of the ARCH Project. The ARCH Project Labeling study evaluates both **promotion and marketing practices**.

## 1 INTRODUCTION

### 1.1 Background

There is an increasing global focus on infant and young child feeding practices as the 1,000 Days window of opportunity (conception to two years of age) has been recognized as being key to improving infant and young child health outcomes. Evidence based interventions to address the high rates of infant and young child undernutrition and morbidity include the promotion of exclusive breastfeeding from birth to six months postpartum and continued breastfeeding to two years and beyond along with complementary feeding from the age of six months (PAHO, 2003; WHO, 2003). Meeting the high nutritional requirements from the age of six months is especially challenging when children's diets are low in micronutrients and high quality protein/fat, or high in factors that inhibit absorption of nutrients. The WHO Global Strategy for Infant and Young Child Feeding (WHO, 2003) states that its aim is to "improve – through optimal feeding – the nutritional status, growth and development, health, and thus the survival of infants and young children." The objectives of the strategy include "providing guidance on appropriate complementary feeding with emphasis on the use of suitable locally available foods which are prepared and fed safely and promoting adequate intake of essential nutrients through access to suitable – including fortified – local foods and, when necessary, micronutrient supplements".

This has placed the marketing practices of all products aimed at this critical stage, not only breast-milk substitutes, under the spotlight. Commercially produced products such as fortified complementary foods, micronutrient supplements, and other foods consumed by young children need to be marketed in a way that protects and promotes optimal infant and young child feeding, including breastfeeding and the consumption of high-quality local foods.

A history of inappropriate marketing of breast-milk substitutes by the food industry (Aguayo *et al.*, 2003; Ergin *et al.*, 2013; Salasibew *et al.*, 2008; Taylor, 1998) has contributed to decreased breastfeeding rates in many parts of the world and associated increases in infant morbidity and mortality, especially in resource poor countries (Brady, 2012). The *International Code of Marketing of Breast-milk Substitutes* (the *Code*) was developed by the WHO to eliminate inappropriate harmful marketing practices of products directly promoted for children under 6 months of age that therefore interfere with exclusive breastfeeding (WHO, 1981). However no international guidance is available to address the promotion of foods consumed by children ages six months and above and few data have been collected to document current promotion practices of these foods.

In addition, many low income families spend a percentage of their limited resources on commercially produced foods of poor nutritional quality such as biscuits/cookies, chips and crisps, cake/doughnuts, candy/sweets/chocolate and soda/carbonated/sweetened beverages (Anderson *et al.*, 2008; MOHP *et al.*, 2007). In the case of infants and young children, these may compete with optimal home-prepared, local foods or commercially produced fortified complementary foods. However, there is insufficient information about whether these foods are promoted in a way that implies they are appropriate for young child feeding. Policy makers could benefit from a clearer understanding of promotional efforts being carried out for these products.

## 1.2 WHO STAG proposed definition of inappropriate promotion of foods for infants and young children

In May 2012, resolution 65.6 of the Sixty-fifth World Health Assembly requested the Director General to provide clarification and guidance on the inappropriate promotion of foods for infants and young children in resolution 65.6 (WHA, 2012). In response WHO established a Scientific and Technical Advisory Group (STAG) on Inappropriate Promotion of Foods for Infants and Young Children was formed and had its first meeting in June 2013 (WHO, 2013a). This group developed a *Technical paper on definition of inappropriate promotion of foods for infants and young children* (WHO, 2013b). A report on this paper, *Inappropriate promotion of foods for infants and young children* was presented as Annex 2 to the Maternal, Infant and Young Child Report (EB 134/15) to the Executive Board at its meeting in January 2014 (WHA, 2014). The STAG has suggested five provisional criteria that could be used to evaluate whether or not promotion of foods for infants and young children is appropriate.

The STAG suggests that:

“...promotion of foods for infants and young children is inappropriate if:

1. It undermines recommended breastfeeding practices;
2. It contributes to childhood obesity and non-communicable diseases;
3. The product does not make an appropriate contribution to infant and young child nutrition in the country;
4. It undermines the use of suitable home-prepared and/or local foods;
5. It is misleading, confusing, or could lead to inappropriate use.” (WHA, 2014)

The STAG meeting report provides further details on each of the five criteria (WHO, 2013a).

The results of this labeling study (whereby labeling is considered to be a sub-set of promotion practices) will present and classify the findings of the labels of products available in Cambodia, where possible, according to these five criteria. Results that are not considered to form part of these 5 criteria will be reported as a separate category named ‘Other’.

## 1.3 Assessment and Research on Child Feeding (ARCH)

In response to resolution 65.6, Helen Keller International’s (HKI) “Assessment and Research on Child Feeding” (ARCH) Project gathered information on the promotion of foods consumed by infants and young children under the age of two years. This project collected quantitative data in four low and middle income countries (Cambodia, Nepal, Senegal and Tanzania) using three types of studies in each country.

The labeling study, the results of which are described in detail in this report, assessed the labels of commercially produced complementary foods based on the document ‘*Using the Code of Marketing of Breast-milk Substitutes to Guide the Marketing of Complementary Foods to Protect Optimal Infant Feeding Practices*’ (Quinn *et al.*, 2010) and using the methodology developed by Sweet *et al.* in South Africa (2012a; 2012b). In addition, this study also assessed labels of a sample of commercially produced foods for general consumption commonly fed to, but not directly marketed for, infants and children under the age of two years, such as soda, savory snacks (chips, crisps), biscuits/cookies and other sweet snacks (cakes/doughnuts, candy/sweets).



A component of the labeling study that assesses the labeling of breast-milk substitutes compared to a set of criteria based on the *Code* and subsequent relevant World Health Assembly (WHA) Resolutions will be reported on elsewhere.

A second study has assessed the retail promotion of breast-milk substitutes, commercially produced complementary foods and a sample of commercially produced foods for general consumption commonly fed to children under the age of two years in selected retail outlets in each site. The results of this study are reported on elsewhere.

A third study has collected information from mothers of children under the age of two years on promotional practices inside and outside health facilities for breast-milk substitutes, commercially produced complementary foods and commercially produced foods for general consumption that are commonly fed to, but not directly marketed, for infants and young children under the age of two years. Mothers were also asked about health system practices surrounding infant feeding advice and support. Additionally, they were questioned about foods commonly consumed by young children (home-prepared and commercially produced complementary foods and commercially produced foods for general consumption). The results of this study will be reported elsewhere.

This research is not meant to be a replacement for *Code* monitoring, which in its entirety includes other components not included in this research. “Code monitoring requires the investigation of promotion to the public in all its forms, promotion in health care facilities (including observation of materials and equipment present in the health facility, analysis of informational materials provided to health care staff and pregnant women and mothers), labeling, promotional practices in shops and pharmacies” and interviews with health workers (David Clark, personal communication).

#### 1.4 Background to the labeling study

Food labels function as a vehicle for food marketing, promotion and advertising (via label vignettes, promotional information and the use of claims), as well as providing basic product information and health, safety and nutrition information to the users of the product (CFIA, 2011). Failure of the labels of foods fed to infants and young children to perform these functions adequately and in an appropriate manner can undermine the nutritional status of the child by increasing the risk of inappropriate use of the product and by undermining optimal infant and young child feeding (IYCF) practices. It was therefore deemed necessary to identify current labeling practices for such foods in order to monitor adherence to existing guidance on the appropriate labeling of foods for infant and young children, and to inform the strengthening and development of guidelines. This study has identified current labeling practices for commercially produced complementary foods and some commercially produced foods for general consumption that are commonly fed to, but not directly marketed, for infants and young children under the age of two years.

This report only addresses the labeling of commercially produced complementary foods and commercially produced foods for general consumption that are commonly fed to, but not directly marketed, for infants and young children under the age of two years.

#### 1.4.1 [Labeling of commercially produced complementary foods](#)

Complementary foods, introduced from six months together with continued breastfeeding to two years and beyond, should complement rather than compete with breast milk in the diet. There are concerns that the inappropriate marketing of complementary foods could undermine optimal breastfeeding practices (Lutter, 2003; Piwoz *et al.*, 2003) by, for example, encouraging the early introduction of complementary foods or recommending an excessively large daily ration of the product that could interfere with continued breastfeeding (Quinn *et al.*, 2010). Incorrect use of complementary foods (such as excessive dilution, inadequate or excessive intake and unhygienic preparation) also has the potential to undermine rather than promote good nutrition (Faber *et al.*, 2005; Lutter, 2003; PAHO, 2003). It is therefore crucial that manufacturers, distributors and retailers of commercially produced complementary foods and national governments receive and implement guidance on how to market these products in a manner that protects and promotes optimal infant and young child feeding, including exclusive and continued breastfeeding and the use of a variety of locally available and appropriate foods (Clark & Shrimpton, 2000), while also ensuring that the complementary foods themselves are nutritionally adequate.

The *Code* was designed to address breast-milk substitutes and so offers little guidance on the marketing of complementary foods as they are not included in the scope of the *Code* unless they are marketed or represented as a partial or total breast-milk substitute (WHO, 2008). The lack of formal guidelines from international normative bodies on the appropriate marketing of complementary foods, which are acknowledged as having a role to play in optimal infant and young child feeding, led to resolution 65.6 at the 65th WHA in 2012 to request that the Director-General “provide clarification and guidance on the inappropriate promotion of foods for infants and young children cited in resolution WHA 63.23, taking into consideration the on-going work of the Codex Alimentarius Commission” (WHA, 2012).

In recognition of the need for interim guidance, between 2007 to 2010, the Maternal, Infant and Young Child Nutrition Working Group (MIYCN WG) of the 10 Year Strategy to Reduce Vitamin and Mineral Deficiencies developed a working paper “*Using the Code of Marketing of Breast-milk Substitutes to Guide the Marketing of Complementary Foods to Protect Optimal Infant Feeding Practices*” (Quinn *et al.*, 2010). This document provides practical guidance on how the marketing of commercially produced complementary foods and supplements can be guided by the *Code* and subsequent relevant WHA resolutions passed before 2010 and can be done in a manner that supports optimal infant and young child feeding. This preliminary guidance, if field-tested, could lead to the generation of evidence towards what could be considered “appropriate” and “inappropriate” and could be used to inform future guidelines (Quinn *et al.*, 2010) requested in WHA 65.6.

There is only one published study that provides quantitative data on labeling practices of commercially produced complementary foods. The study by Sweet *et al.* (2012a; 2012b) field-tested in South Africa, the interim guidance as a potential tool for use by manufacturers and national governments for guiding the appropriate labeling of complementary foods. The study assessed 160 product labels against a checklist developed from *Using the Code of Marketing of Breast-milk Substitutes to Guide the Marketing of Complementary Foods to Protect Optimal Infant Feeding Practices*.

The study found that none of the labels complied with all the checklist criteria. The authors found the checklist to be useful but also recommended some changes and additions to the guidance provided by the document upon which it was based.

The ARCH Project assessed the labels of commercially produced complementary foods purchased in four low and middle income countries, using a checklist that was based on that developed by Sweet *et al.* but that also included their revisions (2012a; 2012b), in order to gather data from additional countries. This study therefore adds to the body of evidence required to inform the WHO and its STAG in developing guidelines for the appropriate marketing of complementary foods as requested by WHA 65.6.

#### 1.4.2 Labeling of commercially produced foods for general consumption that are commonly fed to, but not directly marketed, for infants and young children under the age of two years

In addition to breast-milk substitutes and commercially produced complementary foods, there is a group of commercially produced foods for general consumption that are commonly fed to infants and young children in low and middle income countries. These products are often considered to be of a poor nutritional quality and to compete with more optimal complementary foods and/or breast-milk in the diet, therefore potentially undermining appropriate breastfeeding and complementary feeding practices and potentially affecting the nutritional status of infants and young children (Huffman *et al.*, 2014).

These products may include soda/carbonated beverages, bottled water, condensed milk/evaporated milk, chocolate/malt beverages, other sweet beverages (e.g. fruit juices, probiotic drinks), biscuits/cookies, savory snacks (chips, crisps), sweet snacks (cakes/doughnuts and candy/sweets/chocolate), processed unfortified cereals, breakfast cereals, instant noodles, peanut butter, yoghurt and other commonly consumed desserts. These products may or may not be of poor nutritional quality, depending on their composition. For example, peanut butter and yoghurt could be considered nutritious or could contain excessive amounts of sugar. It was thus considered important to assess how such products are marketed and if their nutritional profiles can be considered optimal for young child feeding. Commercially produced foods for general consumption that are commonly fed to, but not directly marketed for, infants and young children under the age of two years need to be promoted in a way that protects and promotes optimal infant and young child feeding, including breastfeeding and the consumption of high-quality local foods.

In recent years, international, regional and national documents have been developed that provide guidance on the marketing (as well as the packaging and labeling) of foods and beverages to children. Most documents recommend that marketing directed to children should not be misleading and should not take advantage of a child's naivety (WHO, 2004).

A WHO Forum and Technical Meeting stated that “exposure to the commercial promotion of energy-dense, micronutrient-poor foods and beverages can adversely affect children's nutritional status” and recommended the development of an international code on marketing of food and beverages to children (WHO, 2006).

Formal recommendations as to the guidance suggest that “there should be no marketing to children of energy-dense, nutrient poor foods that are high in fat, sugar or salt and brands associated with such foods” (CI, 2008). These recommendations also suggest that non-broadcast techniques be included as part of the definition of marketing. Non-broadcast techniques include overall presentation, content, language, colors and images used; whether children are represented; use of cartoon characters; the inclusion of free gifts, toys or collectible items with appeal to children; and the inclusion of competitions, vouchers or games with appeal to children (i.e. anything that could make the product appear to be intended for consumption by children). In 2010, the WHO released a set of recommendations on the marketing of foods and non-alcoholic beverages to children. These recommendations call for an overall reduction in all forms of marketing to children of foods high in saturated fats, trans fatty acids, free sugars or salt - especially in settings where children gather such as nurseries, schools, pre-schools, playgrounds, clinics, sporting and cultural activities (WHO, 2010).

Various companies that produce such food products and the industry associations that represent the manufacturers of these foods have also developed self-regulatory guideline documents and issued pledges, but these are considered difficult to assess due to the inconsistency in implementation, together with the subjectivity of the guidelines themselves (IASO, 2012).

It is clear that significant attention is being paid to the marketing of food and beverages directly to children, especially the marketing of energy-dense, nutrient poor foods that are high in fat, sugar and/or salt. However, it is generally accepted that children only begin to recognize brands from about three years of age (Fischer *et al.*, 1991; McAllister & Cornwell, 2010), and so the caregiver would have the dominant influence over what products are bought to be fed to younger children, who are themselves too young to be directly affected by marketing strategies. Little attention has been given to the possible effect that the marketing of such products may have on the caregiver’s perception of the suitability of the product for infants and young children. Since this study is concerned with the labels of foods and beverages for children under the age of two years, it is necessary to gather information on the label content of commercially produced foods for general consumption that are commonly fed to, but not directly marketed for, infants and young children in order to assess if the label content contributes to the appearance that the product is appropriate or offers nutritional benefits for a child under the age of two years.

There is research to demonstrate that the information provided on food labels influences the consumers’ choices to purchase a specific product (Campos *et al.*, 2011). A study done by Page *et al.* (2008) that assessed the packaging of breakfast cereals discussed the impact of the product packaging on both children and parents, and recommended that more research be done to determine how various packaging techniques influence decisions made regarding the purchase of cereals for children.

A study by Barennes *et al.* (2008) investigated reasons for the misuse of a particular brand of coffee creamer as an infant food in Laos.

It was found that the use of a logo, of a cartoon baby bear being held by its mother in the breastfeeding position, on the front panel of Bear Brand coffee creamer resulted in almost half of the adults surveyed believing that the product is “good for infants” or “a replacement for breast-milk”, despite a written warning to the contrary and a picture of a bottle with a cross through it being provided on the back panel. This is an example of how a product that is inappropriate for infant and young child feeding can be misrepresented as such.

Further research is necessary to define appropriate and inappropriate labeling practices by manufacturers and distributors of commercially produced foods for general consumption that are commonly fed to, but not directly marketed, for infants and young children under the age of two years. This is especially important for products that are energy-dense, nutrient poor and high in fat, sugar and/or salt.

#### 1.4.3 [Nutrient composition](#)

Supporting optimal infant and young child feeding practices also requires ensuring that complementary foods are nutritionally adequate – providing sufficient (quality and quantity) energy, macronutrients and micronutrients to meet a growing child’s needs (WHO, 2003). Infants require nutrient-dense foods due to their high nutritional requirements relative to their body size and because they consume small amounts of food (Faber, 2005).

Increasing urbanization, reliance on a cash economy, and employment of women outside of the home have contributed to a growing demand for commercially produced complementary foods that are quick and easy to prepare (Euromonitor International, 2011; Lutter, 2003; Van der Merwe *et al.*, 2007). Such products are an important option for some mothers who have the means to buy them and the knowledge and facilities to prepare and feed them safely (WHO, 2003).

This study therefore gathered the nutrition information provided on the labels of commercially produced complementary foods and commercially produced foods for general consumption that are commonly fed to, but not directly marketed for, infants and young children under the age of two years in order to make this information available for future analysis, linear programming studies and to supplement national food composition tables where the nutrient composition of commercially manufactured products are not available. For selected product categories, the nutrient composition of the products is described and compared to selected nutrition composition guidelines for foods for infants and young children.

### 1.5 **Infant and young child nutrition and feeding in Cambodia**

Malnutrition in Cambodia is a recognized public health problem and although Cambodia has not signed up to the SUN movement, it has positioned infant and young child feeding as a priority and has a National Policy on Infant and Young Child Feeding and a Communication for Behavioural Impact (COMBI) Campaign to Promote Complementary Feeding in Cambodia (2011-2013) that aim at improving the feeding practices and nutritional status of Cambodian infants and young children.

The first 1,000 days, from a mother’s pregnancy until her child’s 2nd birthday, is a critical window of opportunity for nutrition, having great long-term impact on a child’s health and well-being. Despite great progress over the last decade in improving health and nutrition in Cambodia, 40% of children less than 5 years of age are stunted, 28% are underweight, 11% are wasted and 55% are anemic (NIS, *et al.*, 2011).

In Cambodia, early initiation of breastfeeding is 66%, exclusive breastfeeding at 6 months of age is 74% and continued breastfeeding at the age of two years 43%. Complementary feeding is initiated between 6-8 months for 88% of infants in Cambodia. While the country has experienced improved exclusive breastfeeding (EBF) rates in the past decade, a recent and concerning decline has been noted in urban areas (IBFAN, 2011). Bottle use has increased in Cambodia. In 2005 12% of children 12-23 months of age were fed with a bottle but in 2010 this is reported to have increased to 25%. In Cambodia the bottle is used for feeding breast-milk substitutes (most often formula, sweetened condensed milk or other canned milk usually thinned with water) or watery rice porridge (borbor) (DHS 2010). National data also indicates sub-optimal complementary feeding practices and only 24% of Cambodian children aged 6-23 months meet the minimum standard with respect to all three infant and young child (IYCF) indicators (adequate feeding frequency, minimum dietary diversity, and consumption of breast milk/other milks) (NIS, *et al.*, 2011).

### 1.5.1 [Relevant legislation](#)

The Cambodian government has adopted the *International Code of Marketing of Breast-milk Substitutes* as national policy through the *Cambodian Sub-Decree on Marketing of Products for Infant and Young Child Feeding* (No. 133, November 2005). This aims to promote breast-feeding and optimal infant and young child feeding by outlining a series of regulations pertaining to the promotion and marketing of breast-milk substitutes and commercially produced complementary foods (Kingdom of Cambodia, 2005). The subsequent *Joint Prakas (Proclamation) on the Marketing of Products for Infant and Young Child Feeding* (No. 061, August 2007) was developed in order to operationalize the implementation and monitoring of the Sub-Decree (Kingdom of Cambodia, 2007). The Cambodian government is currently working to finalize a Prakas on *The Establishment and Functioning of the Oversight Board and Executive Working Group for the Implementation of the Sub-Decree No. 133 and the Joint Prakas No. 061* to establish a mechanism by which to implement and monitor the regulations and thereby strengthen the Sub-Decree.

Cambodia's legislation is considered by UNICEF to be a 'many provisions law' (UNICEF, 2011). The provisions that are relevant to labeling practices are similar to the requirements of the Code, although not all provisions of the Code are described in the Cambodian legislation, and in some cases the legislation goes beyond the requirements of the Code. Examples of where the Cambodian legislation goes beyond the Code include the requirement for relevant products to state that cup feeding is more hygienic than bottle feeding and a statement indicating the total cost of feeding the infant for the first 6 months. Furthermore, containers of sweetened condensed/skimmed milk/other similar products are required to provide a warning that the product is not suitable for infant and young child feeding (Kingdom of Cambodia, 2005). Other regulations and standards are also applicable and the industrial standard for food in Cambodia requires that "All products, which are produced in the locality for local use" should contain the label text in Khmer (Kingdom of Cambodia, 2000).

As the Cambodian Decree is almost 10 years old and much has changed and many new products have been introduced into the market, it would be valuable for the Cambodian legislation to be reviewed and possibly updated. The Sub-decree does not regulate commercially produced foods for general consumption commonly fed to children under the age of two years.

### 1.5.2 [Previous associated research](#)

There is increasing evidence in Cambodia, regionally and globally that infants and young children are being fed commercially produced foods intended for general consumption, which may have a poor nutritional content. The Demographic and Health Survey (DHS) data from 18 countries in Asia and Africa (which included data from Cambodia), showed that >20% of infants 6-8 months consumed sugary snacks (range for all countries: 5%-46%) (Huffman et al. *in press*). According to the 2010 Cambodia DHS, over 50% of children 12-23 months consumed sugary snack foods in the day prior to survey (NIS, *et al.*, 2011). A study conducted in poor urban villages of Phnom Penh found that general snacks, such as crisps, biscuits and sponge cake, were often given to young children 12-42 months of age (Anderson, et al., 2008). Another study conducted in Cambodia indicated that among babies who were not exclusively breastfed for 6 months, 87% were fed solid foods prior to 6 months of age, which often included sweet cake (Wren & Chambers, 2011). Of concern is that this dietary pattern may simultaneously contribute to stunting and other nutritional deficiencies as well as the risk of overweight and obesity in young children.

## 2 AIMS AND OBJECTIVES

The aim of this cross-sectional study was to describe the extent to which the labels of commercially produced foods marketed for, or commonly fed to, infants and young children under the age of two years in Cambodia comply with both local and international guidance on the marketing of such foods and to describe the practices observed.

### 2.1 Primary objectives

1. To assess the labels of commercially produced complementary foods purchased in selected stores in one of the largest cities/metropolitan areas in Cambodia against labeling guidance provided in *Using the Code of Marketing of Breast-milk Substitutes to Guide the Marketing of Complementary Foods to Protect Optimal Infant Feeding Practices* (Quinn *et al.*, 2010) and subsequent relevant WHA Resolutions using an adaptation of the methodology developed by Sweet *et al.* (2012a; 2012b) in South Africa, and to describe the labeling practices observed.
2. To document selected label content provided on the packaging of selected commercially produced foods for general consumption that are commonly fed to, but not directly marketed for, infants and young children under the age of two years purchased in selected stores in one of the largest cities/metropolitan areas in Cambodia, in order to describe the labeling practices observed.

### 2.2 Secondary objectives

1. To report on the nutrient composition as stated on the product label of commercially produced complementary foods and commercially produced foods for general consumption that are commonly fed to, but not directly marketed for, infants and young children under the age of two years purchased in selected stores in one of the largest cities/metropolitan areas in Cambodia.
2. To compare the labels of commercially produced complementary foods to selected requirements of relevant national legislation in Cambodia, in order to determine adherence to national regulations that differ from those addressed by *Using the Code of Marketing of Breast-milk Substitutes to Guide the Marketing of Complementary Foods to Protect Optimal Infant Feeding Practices*.
3. To determine whether or not the checklists used in this study provided a practical tool for the monitoring of food labels of this group of products.



## 3 METHODS

### 3.1 Study design

Products, based on the definitions used in the study, that were determined to be commercially produced complementary foods and selected commercially produced foods for general consumption commonly fed to children under the age of two years available for sale in the largest metropolitan area of Cambodia were purchased and the information on their labels were captured and analyzed.

To ensure a consistent methodology in the four study countries, training was provided to the HKI Country staff and consultants responsible for data collection for the labeling study. For all three phases of the data collection process, activity plans were developed providing detailed instructions for each activity within each phase of the research. To verify consistency, country staff were trained on how to record the exact steps outline in the activity plan into an activity report for each phase. The activity reports were monitored by the research team.

### 3.2 Research setting

Data collection was conducted in the urban sangkats of Phnom Penh. Phnom Penh comprises 10% of Cambodia's population (NIS, *et al.*, 2011). Although the food products available in the study area may not have been fully representative of the country, based on research conducted by Sweet *et al.* (2012a; 2012b), it was expected that the majority (80%) of the products available nationally would be available in the largest city.

### 3.3 Selection and sampling of products and stores

An initial scoping phase sought to identify all commercially produced complementary foods available for purchase in the country. For the commercially produced foods for general consumption commonly fed to children under the age of two years, a strategically selected sample of these products was obtained for the study.

A three-phased approach was used to collect data for the study:

#### 3.3.1 [Phase 1: Scoping the market](#)

##### 3.3.1.1 **Commercially produced complementary foods:**

Distributors and manufacturers of commercially produced complementary foods, their brands, and products were identified using a combination of methods. HKI country staff developed an inventory of the commercially produced complementary foods available in Cambodia by visiting stores and physically writing down all complementary food products that were available for sale. In addition, they contacted the local offices of manufacturers/distributors (including retailers/wholesalers) of these products and requested a list of all brands and product descriptions available for sale in the country, as well as requesting from government authorities any lists of registered commercially produced complementary foods that were available in the country.

Finally a search of any commercially produced complementary food market analysis reports conducted in the country, together with an internet search of manufacturer websites and any other available documents, was undertaken to obtain a comprehensive view on commercially produced complementary foods available in the country.

Using this information, a master list of all known commercially produced complementary foods products available in Cambodia was compiled.

### 3.3.1.2 Commercially produced foods for general consumption commonly fed to children under the age of two years:

A strategically selected list of commercially produced foods for general consumption commonly fed to children under the age of two years was identified through review of country literature on infant feeding and based on local expert opinions.

Commercially produced foods for general consumption commonly fed to children under the age of two years were selected according to eight product sub-categories - soda/carbonated beverages, biscuits/cookies, chips/crisps, cakes/sponge cakes, candy/sweets/chocolates, yoghurt, other sweetened beverages and country specific products. An effort was made to determine which brands and products from these product sub-categories are commonly fed to children under two years of age in Cambodia.

The following strategies were used to identify products/brands in each category: literature searches were conducted to obtain country DHS/food consumption survey data and any local or national studies that documented diets of children under two years of age or documenting consumption of 'snack foods' or commercially produced foods for general consumption; consultation with in-country stakeholders / researchers / market researchers / health workers / parents of children under two years of age; adults and children in small corner stores or at health facilities were observed on an ad hoc basis in order to identify which specific brands of products are commonly purchased.

The final list of products was selected by consultation and consensus between the ARCH Project global research team. Where possible one locally produced and one imported product per product sub-category was selected.

Only the specific brands of products selected were sought out and purchased from the same stores selected for the purchasing of the commercially produced complementary foods.

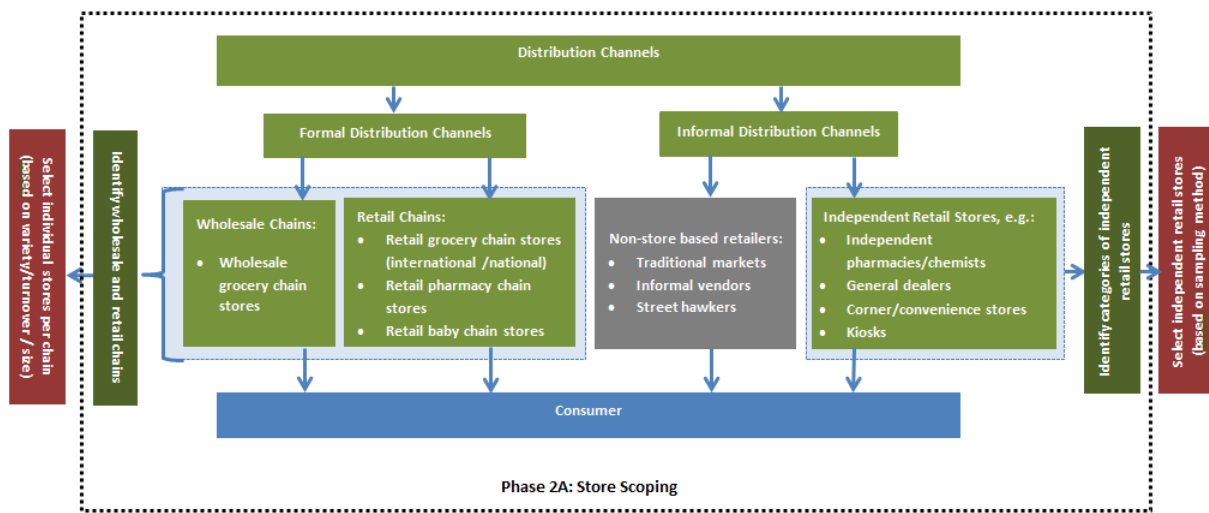
### 3.3.2 Phase 2A: Store selection

Two processes were followed for store selection, with the aim to obtain as many commercially produced complementary foods available in the country as possible. The commercially produced foods for general consumption commonly fed to children under the age of two years were also purchased from these same stores (see Figure 3-1).

1. Large and generally formal stores (supermarket chain stores, baby chain and independent stores and a pharmacy chain) were strategically selected based on HKI in-country staff knowledge that they potentially stocked the greatest variety of commercially produced complementary food products.

- Smaller and less formal stores (independent corner or convenience stores, small grocery/neighborhood stores and independent pharmacies) were selected using a random sampling method. It was decided that these stores were seen to be very similar in structure with no means to differentiate certain stores as selling a wider range of commercially produced complementary foods. Thus for these stores, a random sampling approach was deemed to be more appropriate than strategic selection. See Appendix A for the informal store sampling methods.

Figure 3-1 Distribution channels through which foods for infants and young children may be sold to be identified during Phase 2A: Store scoping.



A total of 29 stores were included in the study. Eleven larger stores were purposively sampled to ensure that sufficient relevant products would be available (five national grocery chain stores, one retail baby chain store, two independent baby stores, one wholesale baby store, one independent supermarket and one pharmacy chain store) and 18 smaller stores were randomly sampled (seven corner/convenience stores, seven neighborhood/small grocery stores and four pharmacies). The purchase of all commercially produced complementary foods (n=70) and foods not marketed to but commonly fed to children under two years of age included in the study (n=32) took place between June and August 2013.

### 3.3.3 Phase 2B: Product purchasing (data collection)

One of each available commercially produced complementary food was purchased from the selected stores according to specified selection criteria. See Table 3-1 for the inclusion and exclusion criteria of products for the ARCH Project labeling study. Only one flavor and size variant of each product was purchased from the first store visited. The remaining stores were cross-checked for products. Products were identified as different if they differed according to any of the following variables: brand name, sub-brand name, descriptive name, age category and if they were available in a single/double serving size (versus multiple servings). In addition, any other commercially produced complementary foods that were found in the stores during the visits, but were not on the original scoping list, were purchased.

For the selected commercially produced foods for general consumption commonly fed to children under the age of two years, only the specific brands of products identified during the product scoping were sought out and purchased. Any additional products that had a point-of-sale promotion that made the product appear suitable for children were also purchased. All products purchased were recorded on a data collection form (see Appendix B).

Table 3-1 Inclusion and exclusion criteria of products for the ARCH Project labeling study.

INCLUSION CRITERIA	EXCLUSION CRITERIA
<b>Commercially produced complementary foods</b>	
<ul style="list-style-type: none"> <li>• Commercially produced food/beverage products found in the non-perishable section of the store designated for infant and young child foods AND in the refrigerated or frozen sections of the store, that are marketed as suitable* for feeding children under the age of two years e.g.:               <ul style="list-style-type: none"> <li>○ Cereal/porridge;</li> <li>○ Homogenized/pureed food;</li> <li>○ Snacks/finger food;</li> <li>○ Gravy/soup;</li> <li>○ Fresh/frozen food;</li> <li>○ Tea/juice/water;</li> <li>○ Milkshake powder;</li> <li>○ Lipid nutrient supplements (LNS);</li> <li>○ Micronutrient powders (MNP).</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Breast-milk substitutes</li> <li>• Products whose labels state that they are intended only for pregnant women, mothers or children older than two years.</li> <li>• Meal replacements, nutritional supplements (except for complementary food supplements e.g. LNS) and micronutrient supplements (except for MNPs).</li> <li>• Products not available to customers through retail/wholesale outlets (e.g. products only distributed through government/humanitarian programs or products only available for purchase online).</li> </ul>
<b>Commercially produced foods for general consumption commonly fed to children under age-2 years</b>	
<ul style="list-style-type: none"> <li>• Branded products appearing on the <i>Master List</i> of commercially produced foods for general consumption commonly fed to children under the age of two years created during 'Phase 1: Scoping of the breast-milk substitute, commercially produced complementary food and commercially produced foods for general consumption commonly fed to children under age-2 years market'. These are foods commonly fed to, but not marketed as suitable* for, children under the age of two years e.g.               <ul style="list-style-type: none"> <li>○ soda/carbonated beverages,</li> <li>○ bottled water,</li> <li>○ condensed milk/evaporated milk,</li> <li>○ chocolate/malt beverages,</li> <li>○ other sweet beverages (e.g. 100% juice/juice drinks, probiotic drinks [e.g. Yokult]),</li> <li>○ biscuits/cookies,</li> <li>○ savory snacks (chips, crisps),</li> <li>○ sweet snacks (cakes/doughnuts and candy/sweets/chocolate),</li> <li>○ processed cereals (e.g. maize meal),</li> <li>○ breakfast cereals,</li> <li>○ instant noodles,</li> <li>○ peanut butter,</li> <li>○ yoghurt, and</li> <li>○ other commonly consumed desserts</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• All other products.</li> </ul>

\*Marketed as suitable: Labels indicate that the product is intended for children under the age of two years by (a) making use of the words baby/babe/infant/toddler/young child in the context of a child's age e.g. baby food (food for babies), not the size/maturity of the product e.g. baby potato (young potato), (b) by recommending an age of introduction less than two years on the label, or (c) using an image of a child appearing younger than 2 years of age or an image or text of infant feeding (which could include a bottle).

### 3.3.4 Phase 3: Cross-checking of purchased versus scoped products

After the products were purchased from selected stores, they were compared to the products on the master list, and the percentage of purchased versus scoped products was calculated. If less than 80% of scoped products were purchased, then further purchases were required to reach the target of 80% based on the methodology used in the study of Sweet et al. (2012a; 2012b). In Cambodia, only 65% of the scoped commercially produced complementary foods were purchased during store visits, therefore, additional store visits were necessary during Phase 3 and it was only possible to reach 77% of the scoped products as per the study methodology. One store was re-visited and 1 new store visited in order to purchase the additional products to get closer to the 80% target.

Seventeen of the commercially produced complementary foods that were purchased were identified during the scoping phase of the research. Fifty additional products were identified during the product purchasing phase and an additional three products were purchased during Phase 3 in order to reach the 80% of scoped products purchased as per the study methodology. Therefore, the final analysis included 70 products determined to be commercially produced complementary foods.

Sixteen commercially produced foods for general consumption commonly fed to children under the age of two years that represented a range of product categories (e.g. biscuits/cookies, cakes/sponge cake, sweets/candy/chocolate, chips/crisps, yoghurt, soda/carbonated beverages, other sweetened beverages and other country specific products) were selected during the scoping phase and were subsequently purchased during the purchasing phase of the research. Ten additional products identified during the product purchasing phase as having a point-of-sale promotion were also purchased. An additional 6 products were added because they were initially misclassified as commercially produced complementary foods mainly due to the fact that the definition for commercially produced complementary foods was adjusted during the research process. The reason for the change in definition was that when scoping the market it was found that some of the products were initially classified as commercially produced complementary foods for having the word “baby” (or equivalent) on the product label, which could imply that the product be used for infant feeding. However on further analysis and discussion of these labels, it was decided that the use of this term in these products, in fact referred to the size of the actual food product itself, and therefore the definition for complementary foods was adjusted to accommodate this. Therefore, the final analysis included 32 products determined to be commercially produced foods for general consumption commonly fed to children under the age of two years.

## 3.4 Ethical considerations

In Cambodia, it was deemed necessary to obtain formal ethical approval for this research from the National Ethics Committee for Health Research (NECHR) (Kingdom of Cambodia, 2001; Kingdom of Cambodia, 2008). Formal ethical approval was obtained in June 2013 (Reference Number: NECHR 0096 of 2013) before data collection commenced.

As the researchers were required to enter stores and purchase available products, it was deemed necessary to explain the research and request permission to collect data from the store manager (see Appendix C for letter of request to store managers).

### 3.5 Data extraction and data entry

Data extraction, data entry and analysis were conducted by a single team in South Africa to ensure consistency across all four countries.

Following product purchasing, all the product labels were photographed or scanned and uploaded to a central digital folder by HKI country staff. As Cambodian food labeling regulations require all food labels to be in Khmer, those that provided the information in Khmer and not English, were translated by a professional translator appointed by the HKI country office. At least ten percent of the translated labels were randomly back translated to check the quality of the translation. Three commercially produced complementary foods and three commercially produced foods for general consumption commonly fed to children under the age of two years had some or all of the information translated. If a label contained text that was not in Khmer, as required by the Cambodian regulations, only the images on the label were assessed. This was done in order to analyze the labels as it was assumed a Cambodian mother would if there was no text in Khmer. Sixty-seven commercially produced complementary foods and 29 commercially produced food for general consumption commonly fed to children under the age of two years were assessed only on their images.

One trained researcher carried out data extraction, where all predetermined categories and themes of the product label were entered into a Microsoft Excel database. Data extraction quality was assessed by a second trained researcher randomly selecting and cross-assessing 10% of the data extracted. Any disagreements regarding the information extracted were resolved by consensus and where consensus could not be reached, a third researcher made the final decision in consultation with the first and second researchers.

### 3.6 Labeling practices checklists

The cleaned database was used to complete one of two labeling practices checklists which was completed independently by two researchers and the results were compared and any discrepancies resolved by consensus and where consensus could not be reached, a third researcher made the final decision in consultation with the first and second researchers.

The commercially produced complementary food labeling practices checklist (Appendix D) was based on the checklist used by Sweet, et al. (2012), which was constructed using guidance provided in the document *Using the Code of Marketing of Breast-milk Substitutes to Guide the Marketing of Complementary Foods to Protect Optimal Infant Feeding Practices* (Quinn, et al., 2010) and relevant WHA Resolutions, that has been modified to incorporate the recommendations for improvement made by Sweet, et al. (2012).

Since there is no formal guidance for the marketing of this group of products, the structure of the commercially produced foods for general consumption commonly fed to children under the age of two years labeling practices checklist (see Appendix E) was based on the commercially produced complementary foods checklist and adapted to include the principles of international guidance available on the marketing of foods and beverages to children (WHO, 2004; CI, 2008; WHO, 2010; IASO, 2012). Table 3-2 below, gives an outline of the themes covered in the checklists.

Table 3-2 Summary of themes covered by the checklist questions

Commercially produced complementary foods (CPCF)	Commercially produced foods for general consumption commonly fed to children under the age of two years (CPF)
<ul style="list-style-type: none"> <li>• Language</li> <li>• Inserts</li> <li>• Age related recommendations</li> <li>• Feeding instructions and phrases</li> <li>• Feeding practices messages</li> <li>• Preparation and use instructions</li> <li>• Consistency</li> <li>• Portion size and daily ration</li> <li>• Storage instructions</li> <li>• Warnings</li> <li>• Images</li> <li>• Cross-promotion</li> <li>• Nutrition and health claims</li> <li>• Mandatory label information</li> </ul>	<ul style="list-style-type: none"> <li>• Language</li> <li>• Age related recommendations</li> <li>• Preparation and use instructions</li> <li>• Consistency</li> <li>• Portion size and daily ration</li> <li>• Storage instructions</li> <li>• Warnings</li> <li>• Images</li> <li>• Cross-promotion</li> <li>• Nutrition and health claims</li> <li>• Mandatory label information</li> <li>• Various labeling practices that could imply suitability to children (e.g. images of cartoons or toys, shapes that could appeal to children, jokes or stories, etc.)</li> </ul>

In order to compare the labels of products included in this study to the relevant Cambodian national legislation, it was determined whether additional country-specific questions needed to be added to the checklists. The checklist question on languages was adapted to incorporate the Cambodian general food labeling language requirements which prescribes that labels must include the information in Khmer (Kingdom of Cambodia, 2000).

The language requirement were incorporated into Question 1 of the commercially produced complementary food labeling practices checklist (see Table 4-4) and Question 32 of the commercially produced foods for general consumption commonly fed to children under the age of two years labeling practices checklist (see Table 5-5).

With regard to product-specific questions, no additional questions were added pertaining to commercially produced complementary foods and one question as added to the checklist for commercially produced foods for general consumption commonly fed to children under the age of two years (see Question 35 of Table 5-5).

### 3.7 Data analysis

Once the labeling practices checklists were completed, product names were replaced with a product code created by a random number generator, product identifiers such as manufacturer/distributor name, brand and sub-brand name, descriptive name and variant were blinded and the order of the products randomly shuffled in order to 'blind' the completed database. This was done in order to reduce bias.

The categorized descriptive data was imported into statistical software (STATA version 10™) and simple frequencies calculated for each possible category under each field in the database.

These frequencies, together with some of the original descriptive data were used to present:

- A record of labeling practices for current commercially produced complementary foods / commercially produced foods for general consumption commonly fed to children under the age of two years in urban sangkats of Phnom Penh;
- A discussion on labeling trends of interest for commercially produced complementary foods / commercially produced foods for general consumption commonly fed to children under the age of two years; and
- Examples and prevalence of:
  - Inappropriate labeling practices;
  - Practices that may be inappropriate but were not detected by the labeling practices checklist;
  - Practices which were particularly commendable.

In addition, the nutrient composition of the foods, where it was provided on the label, was captured. Where possible, the content of macro- and micro-nutrients per 100g and per 100kcal, and the contribution to the daily DRI/RNI of the 100kcal portion was determined (see Appendix G). No further analysis of the nutrient composition could be undertaken without a detailed assessment of the Cambodian food labeling regulation requirements specifically in terms of declaration requirements (e.g. provision of total sugar) and associated definitions (e.g. what constitutes total sugar). This assessment was outside the scope of the current research but could be undertaken as future research using the ARCH Project database.



## 4 RESULTS AND DISCUSSION OF COMMERCIALY PRODUCED COMPLEMENTARY FOODS LABELS

### 4.1 Description of commercially produced complementary food products

The characteristics of the 70 commercially produced complementary foods included in the study are shown in Table 4-1. All products in the sample were shelf stable and none were either fresh or frozen. Only four sub-categories of products were found in the stores where data collection took place: cereal/porridge (24%); homogenized/pureed food (43%); tea/juice/water (13%) and snacks/finger food (20%). No products were found in the following sub-categories: fresh/frozen food, milkshake powder, gravy/soup, multiple micronutrient powder/lipid nutrient supplements.

Ninety-nine percent of the products were imported with the top 5 country of origin being 31% from France and the United States of America, respectively, 14% from Australia, 9% from Vietnam, 3% from Malaysia. Only 1% of the products were locally produced. See Table 4-2 for a full description of the various countries of origin. The commercially produced complementary foods included in the study were manufactured by 16 different companies (Figure 4-1) and represented 37 different brands (Figure 4-2).

As described in the methodology section of this report the database was blinded so results are not provided by manufacturer.

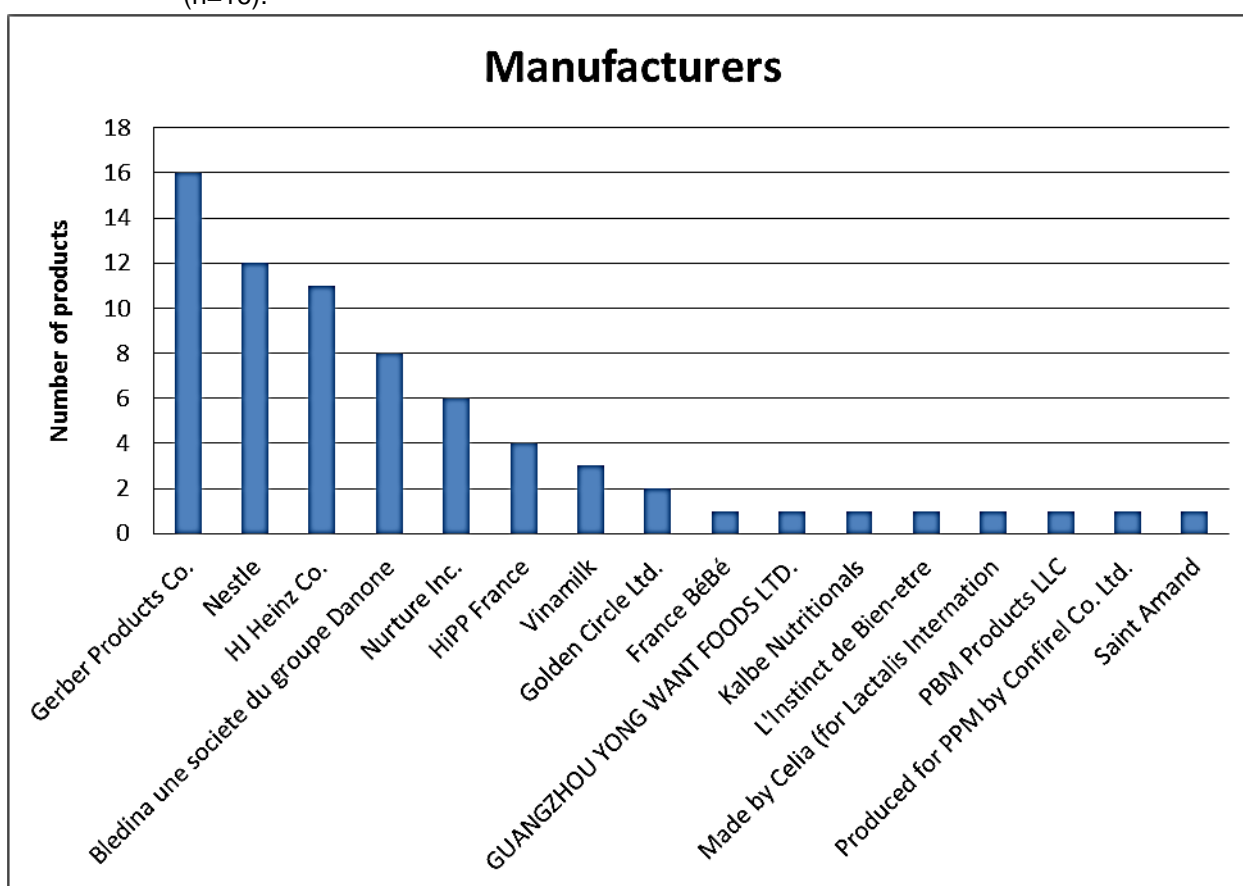
Table 4-1 Characteristics of commercially produced complementary food products included in the study in Cambodia (n=70).

Product characteristics	Number of products	Percentage of products (%)
<b>Product origin:</b>		
Locally manufactured products	1	1
Imported products	69	99
<b>Product format:</b>		
Food	61	87
Beverage	9	13
<b>Product category:</b>		
Cereal/porridges	17	24
Homogenized/pureed foods	30	43
Tea/juice/water	9	13
Snacks/finger foods	14	20
<b>Storage:</b>		
Shelf stable	70	100
Fresh	0	0

Table 4-2 Country of origin of commercially produced complementary foods included in the study in Cambodia (n=70).

Country of origin	Number of products	Percentage of products (%)
France	22	31
USA	22	31
Australia	10	14
Vietnam	6	9
Malaysia	2	3
Cambodia	1	1
China	1	1
Europe	1	1
Thailand	1	1
Unclear	4	6

Figure 4-1 Manufacturers of commercially produced complementary foods represented in Cambodia (n=16).



Vinamilk = Vinamilk (Vietnam Dairy Products Joint Stock Company)

France Bebe = Bebe Nutrition Laboratory

Celia = Made by Celia (for Lactalis International) to Celia (for Lactalis International)

L'Instinct de Bien-etre = La Société des eaux minérales d'Aix-les-Bains (SEAB)

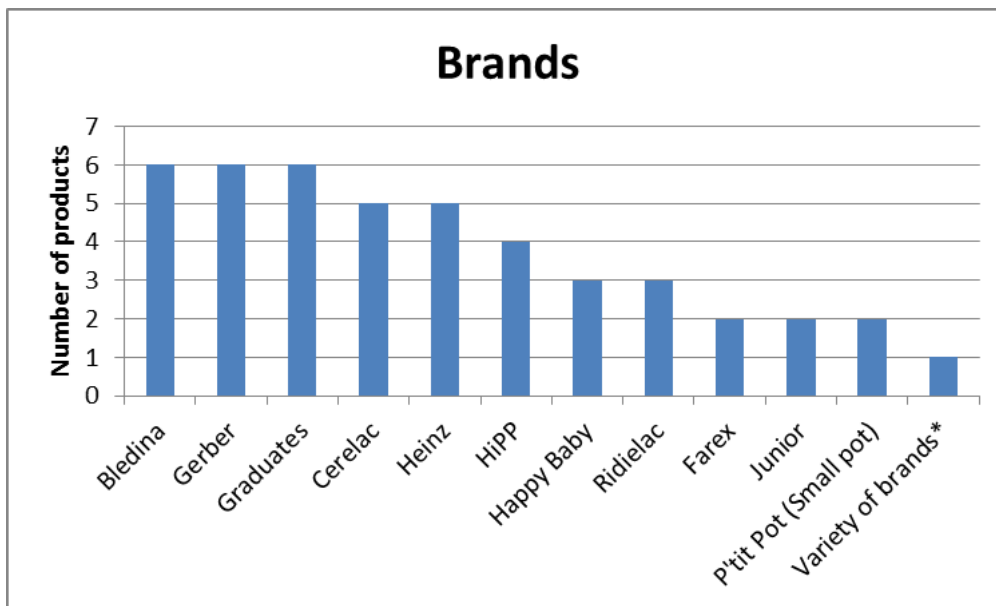
A formerly American-owned company, Gerber is now a subsidiary of Nestlé Group.

<http://www.nestle.com/brands/allbrands/gerber> ; [http://en.wikipedia.org/wiki/Gerber\\_Products\\_Company](http://en.wikipedia.org/wiki/Gerber_Products_Company)

12 Nestle products: Nestle France (n=7), Nestle Manufacturing (Malaysia) Sdn Bhd (n=3); Nestle Products Sdn Bhd (n=2).

11 Heinz products: H.J. Heinz Company Australia Ltd. (n=6); Heinz (full manufacturer name obscured by a sticker) (n=3); Heniz Watties Ltd., distributed in New Zealand (n=2).

Figure 4-2 Brands of commercially produced complementary foods represented in Cambodia (n=37).



\*A further 26 brands were found comprised of one of each of the following:

100% Juice, Aix, Babivanille, Baby's Own, BabyBites, Bledichef, Bobor Rung Roeung, Develop, France BeBe, Graduates for toddlers, Happy Bellies, Happy Yogis, Happy munchies, Little Kids, Milna, Mini Biberon (Mini baby bottle), Naturnes, Organic Juice, Organic Yogurt Melts, P'tit Brasse (Little Stirred), P'tite Cereale (Little Cereal), Parent's Choice, Ptit Biscuit, Saint Amand, Teething Rusks, Wattie's For Baby.

The cost of the product was captured at the first store where it was found and purchased. The costs shown in Table 4-3 are therefore not average costs, but rather represent a single price paid for the product. Gathering of price information of the products across the range of outlets where they were available was not part of the scope of this study. Table 4-3 provides information on the cost of the products per 100g and per serving size. The cereal product serving size was based on 25g, which is considered the serving size that should provide approximately 100kcal or half the daily energy requirement from complementary food of the breastfed child 6 – 8 months of age. The serving size for the pureed product was 128g which provides 106 kcal which is approximately half the daily energy requirement from complementary food of the breastfed child 6 - 8 months of age.

Table 4-3 Costs of commercially produced complementary foods included in the study in Cambodia per unit (g) and mean cost per serving by product category (n=70) presented in two currencies [Cambodia Riel (KHR) and United States Dollars (USD)].

Product category	Mean cost per 100g (Lowest cost – Highest cost)	Mean cost per serving (Lowest cost - Highest cost) <sup>a</sup>
<b>Cereals/porridges</b>		
<b>All products (n=17)</b>		
KHR	6657.40 (2168.06 - 12738.87)	1606.91 (556.17 - 3157.54)
USD	1.63 (0.53 - 3.12)	0.39 (0.13 - 0.77)
<b>Imported products (n=16)</b>		
KHR	6937.98 (3731.83 - 12738.87)	1676.96 (889.18 - 3157.55)
USD	1.69 (0.91 - 3.12)	0.41 (0.21 - 0.77)
<b>Locally manufactured products (n=1)</b>		
KHR	2168.06	556.17
USD	0.53	0.13

<b>Homogenized/pureed foods</b>		
<b>All products (n=30)</b>		
KHR	5932.42 (1727.10 - 13196.16)	7696.21 (3441.03 - 16286.94)
USD	1.45 (0.42 - 3.23)	1.88 (0.84 - 3.98)
Imported products (n=30)		
KHR	5932.42 (1727.10 - 13196.16)	7696.21 (3441.03 - 16286.94)
USD	1.45 (0.42 - 3.23)	1.88 (0.84 - 3.98)
Locally manufactured products (n=0)		
KHR	-	-
USD	-	-
<b>Teas/juices/waters</b>		
<b>All products (n=9)</b>		
KHR	2746.47 (816.59 - 4572.93)	14070.61 (5343.61 - 32555.59)
USD	0.67 (0.20 - 1.12)	3.44 (1.30 - 7.97)
Imported products (n=9)		
KHR	2746.47 (816.59 - 4572.93)	14070.61 (5343.61 - 32555.59)
USD	0.67 (0.20 - 1.12)	3.44 (1.30 - 7.97)
Locally manufactured products (n=0)		
KHR	-	-
USD	-	-
<b>Snacks/finger foods</b>		
<b>All products (n=14)</b>		
KHR	24070.57 (5442.60 - 58329.31)	6407.88 (1328.58 - 13626.46)
USD	5.89 (1.33 - 14.28)	1.56 (0.33 - 3.33)
Imported products (n=14)		
KHR	24070.57 (5442.60 - 58329.31)	6407.88 (1328.58 - 13626.46)
USD	5.89 (1.33 - 14.28)	1.56 (0.33 - 3.33)
Locally manufactured products (n=0)		
KHR	-	-
USD	-	-

<sup>a</sup> Cereal/porridge =25g portion; pureed food=128g portion; snacks/finger food=25g portion; tea/water/juice=270ml portion. These servings are based on a serving believed to provide 100 kcal that is approximately half the daily requirement from complementary food of the breastfed child 6-8 months of age.

In addition, a calculation was undertaken to determine the total daily cost of a product based on the suggested daily ration and serving size provided by the manufacturer, as opposed to the theoretical serving size of 25g/128g/270g used above. Due to the limited information provided by the manufacturers, this calculation could only be undertaken for 6 cereal products. The mean cost of the manufacturer's daily ration for cereal products was KHR 4933.59 (775.76 – 10738.21) [USD 1.21 (0.19 – 2.63)].

## 4.2 Summary of answers to commercially produced complementary foods checklist questions and data generated by the labels database

The results of the labeling practices checklist (Table 4-4) together with data generated by the labels database, which documents current complementary food labeling practices in Cambodia, are presented here.

Table 4-4 Cambodia checklist results: Commercially produced complementary food labeling practices when label information was provided in Khmer (n=70).

	Checklist of labeling practices	Potential answers	Number of labels	Percentage of labels	Percentage of labels (excl. NA) <sup>a</sup>
1	Is the product label written in the appropriate language(s) of the country in which the product is sold?	Yes	0	0	
		Partial <sup>b</sup>	3	4	
		No	67	96	
2	Does the product insert contain any required label information that is NOT present on the label?	Yes	0	0	0
		No	7	10	100
		NA <sup>a</sup>	63	90	
3	Does the product label specify a recommended age of introduction that is less than 6 months of age?	Yes	6	9	12
		No	43	61	88
		NA <sup>a</sup>	21	30	
4	Does the product label give instructions indicating how to feed the product to infants younger than six months?	Yes	1	1	
		No	69	99	
5	Does the product label include phrases such as 'from the start'; 'for the whole family' or 'first stage'?	Yes	0	0	
		Partial <sup>b</sup>	1	1	
		No	69	99	
6	Does the product label include the following messages:				
6.1	An appropriate/recommended age for use of the product that is six months (180 days) or more.	Yes	43	61	
		No	27	39	
6.2.1	The importance of exclusive breastfeeding for the first six months of life;	Yes	3	4	
		No	0	0	
		Partial <sup>b</sup>	67	96	
6.2.2	Is a recommendation regarding exclusive breastfeeding for the first six months of life weakened <sup>c</sup> by a message regarding feeding practices for infants and young children?	Yes	1	1	33
		No	2	3	67
		NA <sup>a</sup>	67	96	
6.3.1	The importance of the addition of complementary foods from six months of age with continued breastfeeding up to two years or beyond;	Yes	2	3	
		Partial <sup>b</sup>	1	1	
		No	67	96	
6.3.2	Is a recommendation regarding complementary feeding weakened by a message regarding feeding practices for infants and young children?	Yes	2	3	67
		No <sup>a</sup>	1	1	33
		NA	67	96	
6.4	Instructions for safe and appropriate preparation and use.	Yes	3	4	
		Partial <sup>b</sup>	0		
		No	67	96	
6.5	A recommendation to feed the product with a spoon. NOTE: Select 'Not applicable' for Tea / Juice / Water / Milkshake powder AND Snacks / Finger Foods (excluding rusks that are used to make porridges)	Yes	2	3	4
		Partial <sup>b</sup>	15	21	32
		No	30	43	64
		NA <sup>a</sup>	23	33	
6.6	A proposed daily ration/serving or recommended number of servings per day and serving?	Yes	8	11	
		Partial <sup>b</sup>	47	68	
		No	15	21	

	Checklist of labeling practices	Potential answers	Number of labels	Percentage of labels	Percentage of labels (excl. NA) <sup>a</sup>
6.7	Instructions for safe and appropriate storage?	Yes	3	4	
		No	67	96	
6.8	Ingredients list?	Yes	3	4	
		No	67	96	
6.9	The nutrition composition/analysis of the product?	Yes	2	3	
		No	68	97	
6.10	Batch number?	Yes	66	94	
		No	4	6	
6.11	Best before date?	Yes	68	97	
		No	2	3	
7	Does the product label recommend feeding the product in a bottle?	Yes	1	1	1
		No	69	99	69
8	Does the product label show an image of a feeding bottle?	Yes	8	11	8
		No	62	89	62
9	Does the product label recommend feeding the product in a soft or semi-soft form? NOTE: Select 'Not Applicable' for all categories of products except Cereal/Porridge. Applies to rusks that are used to make porridges.	Yes	2	3	11
		Partial <sup>b</sup>	9	13	50
		No	7	10	39
		NA <sup>a</sup>	52	74	
10	Does the product label recommend feeding the product in a liquid form? NOTE: Select 'Not Applicable' for the puree	Yes	0	0	
		Partial <sup>b</sup>	1	1	2
		No	60	86	98
		NA <sup>a</sup>	9	13	
11	Does the daily ration (or a recommended serving size combined with a recommended frequency of feeds per day) included on the product label exceed the recommended energy intake from complementary foods for a breastfed child provided below? Insufficient information refers to product labels with no daily ration or serving size provided.				
11.1	6 - 8.9 months : 837 kJ/day (200 Kcal/day)	Yes	9	13	15
		No	3	4	5
		Insufficient Information	50	72	81
		NA <sup>a</sup>	8	11	
11.2	9 - 11.9 months : 1,255 kJ/day (300 Kcal/day)	Yes	4	6	6
		No	4	6	6
		Insufficient Information	57	81	88
		NA <sup>a</sup>	5	7	
11.3	12 - 23.9 months : 2301 kJ/day (550 Kcal)	Yes	5	7	7
		No	3	4	4
		Insufficient Information	62	89	89
		NA <sup>a</sup>	0	0	
12	Does the product label include a stipulated warning? NOTE: A stipulated warning includes a warning stating the health hazards/potential risks of inappropriate preparation, use and storage, or advising against certain (preparation, use or storage) practices.	Yes	3	4	
		No	67	96	
13	Does the product label include images of babies appearing to be older than six months of age?	Yes	2	3	8
		Unclear	0	0	0
		No	24	34	92
		NA <sup>a</sup>	44	63	

	Checklist of labeling practices	Potential answers	Number of labels	Percentage of labels	Percentage of labels (excl. NA) <sup>a</sup>
13.1	Does the product label include an image/ images of baby animals displaying physical or developmental milestones commonly associated with infants younger than six months of age?	Yes	1	1	50
		No	1	1	50
		NA <sup>a</sup>	68	98	
14	In the case of manufacturers that produce both breast-milk substitutes and complementary foods, is the product labeled in a way that also promotes the company's infant or follow-up formula by using similar: 1. Color schemes or designs 2. Names 3. Slogans, mascots or other symbols as used for their infant formula or follow-up formula brands?	Yes	10	14	42
		No	14	20	58
		Does not produce breast-milk substitutes	46	66	
14.1	In the case of manufacturers that produce both breast-milk substitutes and complementary foods, is the product labeled in a way that also promotes the company's breast-milk substitutes (e.g. infant or follow-up formula) by including pack-shots of such products on the label and/or directly referring to the company's IF/FUF/GUM? (e.g. to prepare the cereal with the manufacturers FUF)	Yes	2	3	8
		No	22	31	92
		Does not produce breast-milk substitutes	46	66	
14.2	In the case of manufacturers that produce both breast-milk substitutes and complementary foods, is there an invitation on the label to make contact (direct or indirect) with the company's marketing personnel?	Yes	18	25	75
		No	6	9	25
		NA <sup>a</sup>	46	66	
15	Does the product label make any nutrient content claims?	Yes	2	3	
		No	68	97	
16	Does the product label make any nutrient comparative claims?	Yes	0	0	
		No	70	100	
17	Does the product label make any nutrient function/other function claims?	Yes	3	4	
		No	67	96	
18	Does the product label make any reduction of disease risk claims?	Yes	0	0	
		No	70	100	

<sup>a</sup>Refers to the number of products which were excluded from a particular checklist Question since the label information / product information was not relevant to that Question. Therefore read both percentage columns; percentage column 1 contains all product labels in the sample; percentage column 2 contains only those product labels which were appropriate / applicable to the respective Question. For example, 4 product labels were excluded from the Question on daily ration exceeding the recommended energy intake for 6 – 8.9 months; since those 4 product labels were not marketed to infants of this age group and as such the energy content information was not relevant to answering this Question.

<sup>b</sup>Partial responses are indicated when a label meets one or some, but not all, possible criteria for choosing the answer. (i.e. includes one or two out of three components of an answer, or includes one of two components of an answer).

<sup>c</sup>In some cases, the label did not state a feeding message for the preceding Question but ambiguous messages regarding either breastfeeding or complementary feeding were presented on the labels, for example: One product did not refer to breastfeeding or complementary feeding but the manufacturer did expand on a complementary feeding message: "Each baby growing at his/her own pace ask your doctor some advice when to start giving him or her the product." Another example: "This product cannot be used as a breast milk substitute during the first 4 months of life". However this particular product does not previously refer to exclusive breastfeeding anywhere else on the label.

<sup>d</sup>The scope of questions 6.2.2 and 6.2.3, which previously considered messages on the label that weakened appropriate breastfeeding or complementary feeding messages also provided on the same label, has been expanded to include all infant and young child feeding messages that undermine the public health recommendation to exclusively breastfeed for the first six months of life/introduce complementary foods at six months together with continued breastfeeding to two years or beyond.

Of the 22 CPCF labels assessed, none were compliant with all of the labeling practices checklist requirements.

## 4.3 Labeling practices according to the STAG five criteria for inappropriate promotion

### 4.3.1 [STAG 1: Promotion is inappropriate if it undermines recommended breastfeeding practices](#)

#### 4.3.1.1 **STAG 1a: Products should not be promoted as suitable before 6 months.**

There are numerous ways in which a product label can imply suitability for before six months of age. These include a recommended age of introduction that is less than six months, the provision of feeding instructions for less than six months, phrases for use that imply an age of less than six months and images of children displaying developmental milestones that are reached before six months of age. These practices are discussed below.

##### 4.3.1.1.1 **Age related recommendations, feeding instructions and phrases**

The checklist results (Question 3 and 6.1, Table 4-4) show that 61% of the commercially produced complementary food labels specified an appropriate age of introduction of six months or more, while 9% of the labels recommended an age of introduction of less than six months and 30% of the labels provided no age of introduction.

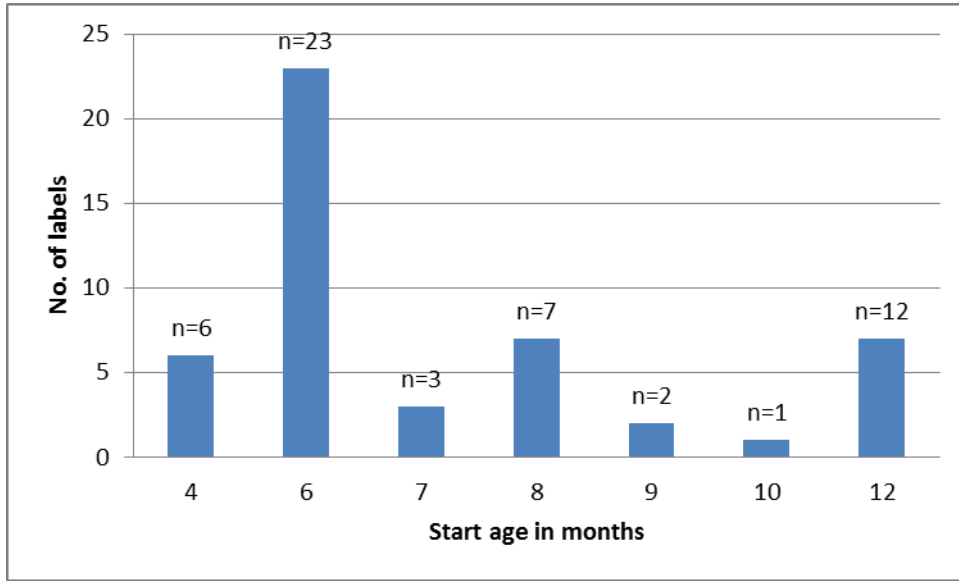
The recommended age of introduction and the wording used on the labels can be found in Table 4-5 and Figure 4-3 respectively.

Table 4-5 Wording used to suggest a recommended age of introduction on commercially produced complementary food labels in Cambodia (n=49).

Age of Introduction	Number of labels	Percentage of labels
4+ months; from 4 months	2	4
4-6 months onwards; from 4-6 months; from 4/6 months	4	8
From 6 months; + 6 months; from 6 months onwards, after 6 months	17	35
6-24 months	3	6
6 months up to 3 years	3	6
7-24 months	1	2
7+ months	2	4
From 8 months , 8+ months	5	10
8-24 months	2	4
From 9 months, 9+ months	2	4
From 10 months	1	2
From 12 months, 12+ months	5	10
over 1 year	1	2
1-3 years	1	2



Figure 4-3 Recommended age of introduction in months, on commercially produced complementary food labels in Cambodia (n=49).



One label provided instructions on how to feed the product to infants younger than six months (see Figure 4-4). In addition, the product label also stated that: “The [Manufacturer name] cereal is perfect for the introduction of various foods from 4 months of age and gives rise to search for its new taste and nature for your infant.”

Figure 4-4 Example of a commercially produced complementary food label with an instruction to feed the product to an infant younger than six months

តារាងអាហារូបត្ថម្ភ / Tableau d'Alimentation			
ចាប់ពីអាយុ៤ខែឡើងទៅ <b>À partir de 4 mois</b>	ការលាយនឹងដបបំបៅ ១ដក (ប្រហែល២ស្លាបព្រាស៊ុបកៀស)	ទឹកដោះគោ១៥០មល	<b>Préparation au biberon</b> 15 g (environ 2 cuillères à soupe arasées)   180 ml de lait
	ការលាយនឹងចាន ៣ដក (ប្រហែល៤ស្លាបព្រាស៊ុបកៀស)	ទឹកដោះគោ១៥០មល	<b>Préparation à l'assiette</b> 30 g (environ 4 cuillères à soupe arasées)   150 ml de lait
	មួយស្លាបព្រាស៊ុបកៀស = ប្រហែល ៧ក្រ Une cuillère à soupe arasée = 7g environ		
ចំនួនស្លាបព្រាត្រូវបានផ្តល់អោយតាមកំណត់ Le nombre de cuillères est donné à titre indicatif			

The following stage age descriptors were each used once on one label (n=11): ‘2, 3, 1<sup>st</sup> foods, 2<sup>nd</sup> foods (on two labels), 3<sup>rd</sup> foods, Stage 1, Stage 2, My 1<sup>st</sup> Pot and Ideal 1<sup>st</sup> Spoon’. These stage age descriptors, although not written in Khmer were considered as it was deemed that the mother/caregiver could identify with the number. Other stage age descriptors using words such as sitter, crawler, toddler, etc. that appeared on product labels were not recorded or assessed, as they did not appear in Khmer.

Eleven percent (n=8) of product labels used a phrase which directly or indirectly indicated that the product may be suitable for infants younger than 6 months (see Table 4-6 and Figure 4-5 and Figure 4-6).

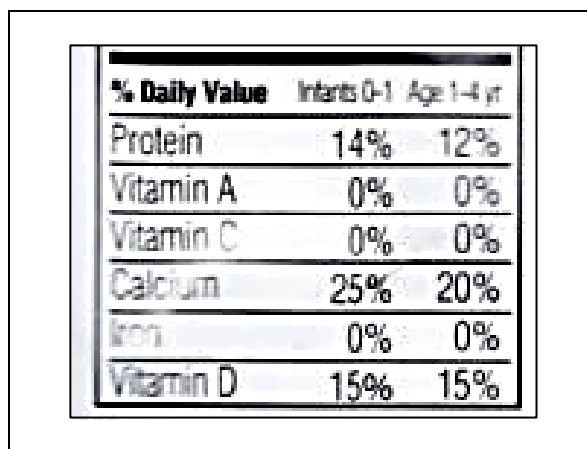
Table 4-6 Phrases that could be interpreted as indicating suitability of use for children under 6 months of age found on the labels of commercially produced complementary foods in Cambodia (n=8).

Phrases indicating suitability of use for children <6 months	Number of labels	Percentage of labels
% of daily value provided for infants 0-1 <sup>a</sup> (see Figure 4-5)	4	50
1st foods <sup>a</sup>	1	13
Format ideal pout les 1eres cuillères (Format ideal for 1st spoons) <sup>a</sup>	1	13
Mon 1er Petit Pot (My 1st pot); Ideal 1re cuillère (Ideal 1st spoon) <sup>a</sup>	1	13
Stage 1 infant cereal <sup>a</sup>	1	13

<sup>a</sup> Even though the label was not in Khmer, it was deemed that the mother/caregiver could identify with the number 1.

The above phrases use a combination of words and numbers. Since the labels were only assessed for text if they contained content that was in Khmer, only a few phrases were identified. However, it was decided to include phrases that also included the number 1, since it was assumed that even though a mother/caregiver might not understand the language, she would be able to identify the number 1 and therefore could interpret the product to be a first food.

Figure 4-5 Example of a commercially produced complementary food label in Cambodia that could imply suitability for a child under 6 months of age by including a % Daily Value for infants 0-1 year.



% Daily Value	Infants 0-1	Age 1-4 yr
Protein	14%	12%
Vitamin A	0%	0%
Vitamin C	0%	0%
Calcium	25%	20%
Iron	0%	0%
Vitamin D	15%	15%

Figure 4-6 Examples of labeling practices on commercially produced complementary foods in Cambodia that could imply suitability for children under 6 months of age, even though they are not in the mandated language.



In the absence of an appropriate age of introduction, 1% of the labels included phrases which implied that the product was suitable during the entire life course, including from birth. Ten percent

of the labels used such phrases but recommended an appropriate age of introduction (equal to or greater than six months).

#### 4.3.1.1.2 Images: Developmental milestones

The physical or developmental milestones displayed by the infant or young child in the images that appeared on the labels of commercially produced complementary foods in Cambodia are listed in Table 4-7. More than one milestone may be displayed in each image.

Of the 26 product labels that included an image of an infant or young child, 24 labels (92%) showed an infant displaying a developmental milestone that could be associated with infants younger than six months of age (Question 13, Table 4-4). In addition, 1% of all product labels contained an image(s) of baby animals displaying physical or developmental milestones commonly associated with infants younger than six months of age (Question 13.1, Table 4-4).

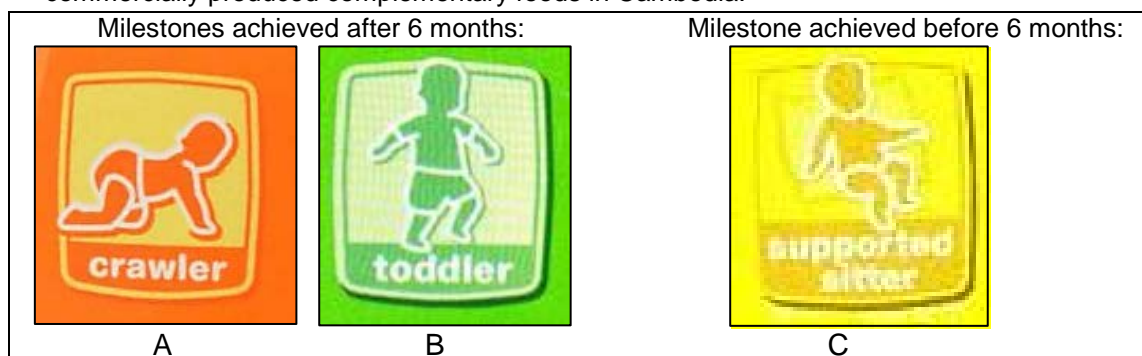
Figure 4-7, images A and B display images of an infant that is clearly over 6 months of age and Figure 4-7, image C displays an image of an infant that is clearly under 6 months of age.

Table 4-7 Physical or developmental milestones displayed by images of infants/young children used on the labels of commercially produced complementary foods in Cambodia (n=26).

Age of milestones reached	Physical or developmental milestone <sup>a</sup>	Number of labels	Percentage of labels
Infant 0-6 months	Head shot	18	69
	No teeth	17	65
	Heavily stylized image	6	23
	Sitting without support	5	19
	Head shot – in mothers arms	3	12
	Sitting with support	2	8
After 6 months	Hands and knees crawling	5	19
	Walking alone	4	15
	Holding objects such as a spoon/cup and self-feeding	2	8
	Kicking a ball	1	4

<sup>a</sup> Sweet, *et al*, 2012b

Figure 4-7 Images of infants and young children displaying developmental stages used on the labels of commercially produced complementary foods in Cambodia.



#### 4.3.1.2 STAG 1b: Products should not be promoted to be given by bottles or using teats.

Products can either promote that they could or should be given in a bottle or with the use of a teat by providing instructions to prepare the product in a bottle (see also, Section 4.3.7.2.3 Preparation

and use); providing instructions to prepare the product in a liquid consistency; or including an image of a feeding bottle/teat on the product label. Such practices undermine breastfeeding.

**4.3.1.2.1 Recommendation to feed with a bottle**

One cereal/porridge label (1%) recommended feeding the product from a bottle (see Table 4-4, Question 7). The text making this recommendation is shown in Figure 4-8.

Eleven percent of all product labels of commercially produced complementary foods showed an image of a feeding bottle (see Table 4-4, Question 8). See Figure 4-9 for examples:

- 50% of labels that displayed an image of a feeding bottle were cereal products.
- 38% of the labels that showed an image of a feeding bottle were tea/juice/waters.
- 13% of the labels that included an image of a feeding bottle were snack/finger foods.

Figure 4-8 Example of a commercially produced complementary cereal food label in Cambodia providing a recommendation to feed the product from a bottle.

**វិធីលាយ / Modes de préparation**

<p><b>នឹងដបបំបៅ / Au biberon</b></p> <p>សូមលាងដៃ និងប្រើប្រាស់ឧបករណ៍ស្អាតដើម្បីធានានូវអនាម័យ គ្រប់បែបយ៉ាង ។</p> <ul style="list-style-type: none"> <li>• Veillez à laver vos mains et à utiliser des ustensiles propres afin de garantir une hygiène totale.</li> </ul> <p>សូមលាយ ឬក្នុងទឹកដោះគោសំរាប់ទារកចំនួន១៥០មល ក្នុងដបបំបៅ ។</p> <ul style="list-style-type: none"> <li>• Préparez 180 ml de lait infantile* tiède dans un biberon.</li> </ul> <p>សូមបន្ថែមបរិមាណ ធុញជាតិព្រូង់បេបេរសជាតិ ទឹកឃ្មុំដូចបានណែនាំទៅក្នុងទឹកដោះគោ ។</p> <ul style="list-style-type: none"> <li>• Ajoutez la quantité de céréales FRANCE Bébé Miel recommandée dans le lait.</li> </ul> <p>សូមក្រឡុកដបបំបៅដើម្បីទទួលបាននូវការលាយមួយស្មើគ្នា ។</p> <ul style="list-style-type: none"> <li>• Agitez le biberon afin d'obtenir une préparation homogène.</li> </ul> <p>សូមត្រួតពិនិត្យសីតុណ្ហភាពនៃការលាយមុននឹងបំបៅ ។</p> <ul style="list-style-type: none"> <li>• Contrôlez la température de la préparation avant de servir.</li> </ul> <p>ដែលគួរអោយចូលចិត្តទឹកដោះគោសំរាប់ទារក ព្រូង់បេបេ ។ បើកូនរបស់លោកអ្នកញាំមិនអស់ទេ មិនត្រូវទុកធុញជាតិព្រូង់បេបេ ដែលលាយរួចហើយនោះទេ ។</p>	<p><b>នឹងចាន / À l'assiette</b></p> <p>ចាក់ទឹកដោះគោសំរាប់ទារកក្នុងចានចំនួន១៥០មល ក្នុងចានមួយ ។</p> <ul style="list-style-type: none"> <li>• Versez 150 ml de lait infantile* tiède dans une assiette.</li> </ul> <p>ចាក់បរិមាណ ធុញជាតិព្រូង់បេបេ រសជាតិទឹកឃ្មុំដែលបានណែនាំ បន្តិចម្តងៗទៅក្នុងទឹកដោះគោ ដោយគួរនឹងស្ទាបប្រាប់រហូតទទួលបាន នូវកំហាប់ទំនុកស្មើគ្នា ។</p> <ul style="list-style-type: none"> <li>• Versez peu à peu la quantité de céréales FRANCE Bébé Miel recommandée dans le lait en remuant à l'aide d'une cuillère, jusqu'à obtention d'une consistance épaisse et veloutée.</li> </ul> <p>ទុកមួយរយៈ ។</p> <ul style="list-style-type: none"> <li>• Laissez reposer quelques instants.</li> </ul> <p>សូមត្រួតពិនិត្យសីតុណ្ហភាពនៃការលាយមុននឹងបំបៅ ។</p> <ul style="list-style-type: none"> <li>• Contrôlez la température de la préparation avant de servir.</li> </ul> <p>*de préférence les laits infantiles FRANCE Bébé. Si votre bébé ne termine pas son repas, ne conservez pas la préparation.</p>
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Figure 4-9 Commercially produced complementary food product labels in Cambodia displaying images of feeding bottles.



#### 4.3.1.2.2 Consistency

Of the applicable products (cereals, homogenized and pureed foods and rusks if made into a porridge), 4% of the labels directly included the recommendation to feed the product with a spoon and 32% implied this recommendation by including an image of a spoon (Question 6.5, Table 4-4). Furthermore, of the applicable products (18 cereals in total), 11% of the labels qualified as 'yes' (compliant) and 50% qualified as 'partial' compliance to the recommendation to state that the product should be fed in a soft or semi-soft form (Question 9, Table 4-4). None of the non-liquid products recommended that they be fed in a liquid form, which based on international guidance is inappropriate for a cereal type product (Question 10, Table 4-4). It could be considered prudent for STAG 1b to potentially be broadened to also include that products should not be promoted for use in a liquid form (excluding beverages).

#### 4.3.1.3 STAG 1c: Products should not be portrayed as equivalent or superior to breast milk.

Infant and young child feeding practice messages contained on the labels of commercially produced complementary foods may imply that the complementary food is equivalent or superior to breast milk. These statements do not always directly state that the product is equivalent/superior to breast milk and determining if this is the case is generally subjective. See Table 4-10 for a full list of examples of feeding practices listed on the product labels. In some cases a nutrient content claim could imply that a complementary food is equivalent or superior to breast milk. No examples of this were found in Cambodia labels.

#### 4.3.1.4 STAG 1d: Products should not be promoted as a replacement for breast milk.

This recommendation, as with STAG 1c (products should not be portrayed as equivalent or superior to breast milk), is highly subjective. No such practices were observed on the few labels in this study that contained text in Khmer. It seems that there is the need for specific guidance on terminology that is considered to be inappropriate so as to ensure that label text does not imply that the product is a replacement for breast milk.

Product labels could also imply that they are to be used as a replacement for breast milk if there is a recommendation to feed in a bottle or as a liquid. This practice has been covered under sub-section 4.3.1.2.

#### 4.3.1.5 STAG 1e: Products should not be promoted using brands/labels/logos that are the same/similar to those used for breast-milk substitutes.

##### 4.3.1.5.1 Cross-promotion

Thirty-four percent (n=24) of the commercially produced complementary foods included in the study were manufactured by companies that also manufacture breast-milk substitutes available in Cambodia. Amongst these manufacturers, the checklist questionnaire showed that cross-promotion between the commercially produced complementary foods and breast milk substitutes occurred. There was either a resemblance between the product color schemes/designs, names and/or slogans/mascots or other symbols on 42% of the product labels (Question 14, Table 4-4). Of the 24 relevant labels, 6 (25%) had a similar color scheme or design to the breast-milk substitute, a similar name was used by 1 (4%) and 8 (33%) had a similar slogan, mascot or symbol (Table 4-8). See Table 4-9 for pictorial examples.

Furthermore, it was found that 8% of the commercially produced complementary foods that were produced by a manufacturer that also produces breast-milk substitutes were labeled in a way that also promoted the company's breast-milk substitutes by including pack-shots of these products on the label and/or directly referring to the company's infant formula/follow-up formula/growing-up milks in the preparation instructions (Question 14.1, Table 4-4).

Table 4-8 Similarities between the labels of commercially produced complementary foods and breast-milk substitutes manufactured by the same companies in Cambodia (n=24).

Similarities	Number of labels	Percentage of labels
Similar color schemes/designs	6	25
Similar names	1	4
Similar slogans/mascots/symbols	8	33

Table 4-9 Example of cross-promotion between breast-milk substitutes and commercially produced complementary foods in Cambodia.

Example of a complementary food product label that cross-promotes the manufacturer's breast-milk substitute by directly referring to one of the manufacturer's breast-milk substitutes:

Translated English text	Original Khmer text
<i>That the milk for an infant is preferable is [Manufacturer name].</i>	ដែលគួរអោយចូលចិត្តទឹកដោះគោសំរាប់ទារក ប្រុងបែប ។ បើគូនរបស់លោកអ្នកញ៉ាំមិនអស់ទេ

Similarity between product label color schemes/designs, names and/or slogans/mascots or other symbols of breast-milk substitutes and complementary foods:



#### 4.3.1.6 STAG 1f: Daily ration size should not exceed the amount of energy needed from complementary foods by breastfed children.

##### 4.3.1.6.1 Daily ration

Sixty-eight percent of the labels provided a daily ration or serving size and 11% of the labels provided enough information to calculate the total daily ration (Question 6.6, Table 4-4). In addition, most of the labels (72-89%) did not provide sufficient information to determine if a daily ration of the product exceeded the recommended energy intake from complementary foods for a breastfed child.

The single serving size or daily ration of 13% of the products, for which calculations could be made for children 6 to 8.9 months, exceeded the recommended daily energy intake for complementary foods for a breastfed child. This figure decreased to 6% for products for the older age category of 9 to 11.9 months and to 7% for products for the 12 to 23.9 month age group (Questions 11.1, 11.2 and 11.3 respectively, Table 4-4).

##### 4.3.1.7 Suggested addition to STAG criterion 1

##### 4.3.1.7.1 Infant and young child feeding messages

##### 4.3.1.7.2 Feeding practices


A message or recommendation regarding feeding practices for infants and young children in the Khmer language were found on 4% (n=3) of the labels of commercially produced complementary foods, including messages on breastfeeding and complementary feeding and these messages have been categorized and examples provided in Table 4-10.

Table 4-10 Messages/recommendations regarding feeding practices for infants and young children used on commercially produced complementary food labels in Cambodia (n=3).

Categories of messages regarding feeding practices for infants and young children	Number of labels	Percentage of labels	Example text from labels	
			Translated English text	Original Khmer text
<b>Breastfeeding / Milk feed messages:</b>				
Recommended for up to 24 months	3	100	<i>Nothing is better than exclusive breastfeeding until 6 months of age and continue breastfeeding until 2 years of age or beyond.</i>	គ្មានអ្វីប្រសើរជាងការបំបៅកូនដោយទឹកដោះម្តាយតែមួយមុខគត់រហូតបាន ៦ ខែ និងបន្តការបំបៅដោះម្តាយរហូតដល់បានអាយុ ២ ឆ្នាំ ឬលើសពីនេះ
Breastfeeding is best for your baby	3	100	<i>Nothing is better than exclusive breastfeeding until 6 months of age and continue breastfeeding until 2 years of age or beyond.</i>	
Breastfeeding is recommended for up to 6 months	3	100	<i>Nothing is better than exclusive breastfeeding until 6 months of age and continue breastfeeding until 2 years of age or beyond.</i>	
Breastfeeding continued while introducing solids	2	67	<i>Nothing is better than exclusive breastfeeding until 6 months of age and continue breastfeeding until 2 years of age or beyond.</i>	
Promotion of manufacturer's milk as best for baby	2	67	<i>That the milk for an infant is preferable is [Manufacturer name].</i>	
				ដែលគួរអោយចូលចិត្តទឹកដោះគោសំរាប់ទារក ព្រូងបែប ។ បើកូនរបស់លោកអ្នកញាំមិនអស់ទេ

Categories of messages regarding feeding practices for infants and young children	Number of labels	Percentage of labels	Example text from labels	
			Translated English text	Original Khmer text
Recommendation: WHO	1	33	<i>The principle of World Health Organization that guides the raising of infants with breast milk as long as possible after the advice to use of nutritious food.</i>	គោលការណ៍របស់អង្គការសុខភាពពិភពលោក ណែនាំឱ្យចិញ្ចឹម កូនដោយទឹកដោះម្តាយជាបន្តបន្ទាប់តាមដែលអាចធ្វើទៅបាន បន្ទាប់ពីការណែនាំឱ្យប្រើអាហារបំប៉ន
Breastfeeding should continue as long as possible	1	33	<i>The principle of World Health Organization that guides the raising of infants with breast milk as long as possible after the advice to use of nutritious food.</i>	
<b>Complementary feeding messages:</b>				
Readiness: Age	3	100	<i>From 6 months of age and above, your infant starts needing a complementary food to help meet nutritional needs. Therefore, please feed your infant with the Stage 1 [Manufacturer name] infant cereal, which is a delicious soft food, is proper for the digestive system of a child.</i>	ចាប់ពីអាយុ ៦ ខែឡើងទៅ កូនរបស់អ្នកចាប់ផ្តើមត្រូវការអាហារទន់បន្ថែម ដើម្បីជួយបំពេញបន្ថែមនូវតម្រូវការជីវជាតិអាហារូបត្ថម្ភ ដូច្នេះសូមផ្តល់បរិភោគស្តេដណាក់ កាលទី ១ (Stage 1) ដល់កូនរបស់អ្នកដែលជាអាហារទន់ មានរសជាតិស្ងាញ់ សមស្របជាមួយប្រព័ន្ធលាយអាហាររបស់ក្មេង
Readiness: Ask health professional	2	67	<i>Uphold the advice of your physician or pharmacist when using the [Manufacturer name] cereal for your infant.</i>	គោរពតាមដឹកនាំនៃគ្រូពេទ្យ ឬឱសថការីរបស់លោកអ្នកនៅពេលប្រើប្រាស់ ធុញជាតិ ព្រូងបេបេសរាប់កូនរបស់លោកអ្នក
Type: Cereals	2	67	<i>Therefore, please feed your infant with the stage 1 [Manufacturer name] infant cereal, which is a delicious soft food, is proper for the digestive system of a child.</i>	ដូច្នេះសូមផ្តល់បរិភោគស្តេដណាក់ កាលទី ១ (Stage 1) ដល់កូនរបស់អ្នកដែលជាអាហារទន់ មានរសជាតិស្ងាញ់ សមស្របជាមួយប្រព័ន្ធលាយអាហាររបស់ក្មេង
Type: Range of tastes	2	67	<i>The most proper taste for your infant! Choosing [Product name] is the informed choice for your infant's daily health.</i>	រសជាតិសមស្របបំផុតសំរាប់កូនលោកអ្នក! ជ្រើសរើសបរិភោគស្តេដណាក់ គឺជាការជ្រើសរើសដ៏ត្រឹមត្រូវសំរាប់សុខភាពប្រចាំថ្ងៃរបស់កូនលោកអ្នក
Readiness: Too early introduction	1	33	<i>The reminding of danger to health that is caused by the introduction of products to an infant before he/she reaches a growing age, and the products will be consumed according to the advice of health staff.</i>	ការដាស់តឿនពីការគ្រោះថ្នាក់ដល់សុខភាពដែលបណ្តាលមកពីការណែនាំផលិតផលមុនពេលទារក ដល់អាយុជំនាក់ ហើយផលិតផល នឹងត្រូវបានប្រើប្រាស់តាមដំបូន្មានបុគ្គលិកសុខាភិបាល
Type: Other foods	1	33	<i>Consume a package of 35 grams per day in addition to the breast milk and other daily foods, which is sufficient for the growth of your infant.</i>	ប្រើមួយកញ្ចប់ ៣៥ក្រាម ក្នុងថ្ងៃ បន្ថែមពីលើទឹកដោះម្តាយ និងអាហារប្រចាំថ្ងៃដទៃទៀត គឺគ្រប់គ្រាន់សំរាប់ការលូតលាស់របស់កូនលោកអ្នក
Type: Texture	1	33	<i>Let's introduce soft food for your infant.</i>	សូមណែនាំនូវអាហារទន់សម្រាប់កូនរបស់អ្នក
Type: Variety	1	33	<i>Infants Grow and the Infant's Food Evolves. Various foods constitute the key stages for the growth of your infant.</i>	ទារកធំជាតិ និងចំណីអាហាររបស់ទារកវិវឌ្ឍឡើង ចំណីអាហារប្លែកៗ ជាដំណាក់កាលគន្លឹះសំរាប់ការ រីកលូតលាស់នៃទារករបស់លោកអ្នក
Use: Not a breast-milk substitute	1	33	<i>Important Information: This product cannot substitute breast milk.</i>	ព័ត៌មានសំខាន់ៗ ផលិតផលនេះមិនអាចជំនួសទឹកដោះម្តាយបានទេ
Ingredients suitable from 4 months	1	33	<i>The [Manufacturer name] cereal is perfect for the introduction of various foods from 4 months of age and gives rise to search for its new taste and nature for your infant.</i>	ធុញជាតិព្រូងបេបេ ល្អឥតខ្ចោះសំរាប់ការចាប់ផ្តើមនូវចំណី អាហារប្លែកៗតាំងពីអាយុ ៤ ខែ និងបណ្តាលអោយស្វែងរកនូវរសជាតិ និងសភាពថ្មីៗរបស់វាដល់កូនលោកអ្នក



Categories of messages regarding feeding practices for infants and young children	Number of labels	Percentage of labels	Example text from labels	
			Translated English text	Original Khmer text
Frequency: Regular meals	1	33	<i>The cereal consumed at each meal provides nutrition that your infants need to sustain their growth and development.</i>	អាហារមួយពេលៗ បានផ្តល់នូវ អាហារូបត្ថម្ភដែលកូនរបស់លោកអ្នក ត្រូវការ ដើម្បីទ្រទ្រង់ដល់ការរីកធំជាតំ និងការរីកចម្រើនរបស់ពួកគេ
Manufacturer's nutrition plan (with stages, flavors and / or actual products)	1	33	<i>Plan on provision of complementary food fod growth. STAGE 1: Foremost soft food. From 6 months of age. STAGE 2: New tastes.From 8 months of age. STAGE 3: Dietary fibre and more delicious. From 1 to 3 years of age. STAGE 4: For solid foundation.</i>	

Using the Code of Marketing of Breast-Milk Substitutes to Guide the Marketing of Complementary Foods to Protect Optimal Infant Feeding Practices (Quinn et al., 2010), it recommends that complementary food product labels should emphasize the importance of exclusive breastfeeding for the first six months followed by the addition of complementary foods with continued breastfeeding for two years and beyond. The checklist data revealed that only 4% of product labels stressed the importance of exclusive breastfeeding for the first six months of life (Question 6.2.1, Table 4-4) and 1% of labels included a message which weakened this recommendation (Question 6.2.2, Table 4-4). See Table 4-12 for examples of young child feeding messages found on the labels of commercially produced complementary foods in Cambodia.

The message of the importance of the addition of complementary foods from six months of age together with continued breastfeeding up to two years or beyond was stated on only 3% of labels (Question 6.3.1, Table 4-4) and a further 1% of the labels 'partially' highlighted this message. The 3% of labels that included a complementary feeding message were found to undermine the recommendation by including other conflicting text regarding feeding practices for infants and young children (Question 6.3.2, Table 4-4). See Table 4-11 for examples.

This research indicates that the STAG should consider expanding STAG 1 to ensure that messages/recommendations regarding infant and young child feeding practices support and not undermine exclusive breastfeeding for the first 6 months of life followed by the introduction of complementary foods together with continued breastfeeding to two2 years or beyond.

Table 4-11 Infant and young child feeding messages on commercially produced complementary food labels in Cambodia.

Translated English text	Original Khmer text
<p>Example of messages on Cambodian commercially produced complementary food labels that support and undermine <b>breastfeeding</b></p>	
<p><b>Supporting the breastfeeding message</b></p>	
<p><i>Nothing is better than exclusive breastfeeding until 6 months of age and continue breastfeeding until 2 years of age or beyond.</i></p>	<p>គ្មានអ្វីប្រសើរជាងការបំបៅកូនដោយទឹកដោះម្តាយតែមួយមុខគត់រហូតបាន ៦ ខែ និងបន្តការបំបៅ ដោះម្តាយរហូតដល់បានអាយុ ២ ឆ្នាំ ឬលើសពីនេះ</p>
<p><b>Undermining the breastfeeding message</b></p>	
<p>[These messages both appear on the same label as the above message that supports breastfeeding.]</p>	
<p><i>That the milk for an infant is preferable is [Manufacturer name].</i></p>	<p>ដែលគួរអោយចូលចិត្តទឹកដោះគោសំរាប់ទារក ប្រុងបែប ៗបើកូនរបស់លោកអ្នកញ៉ាំមិនអស់ទេ</p>
<p><i>The [Manufacturer name] cereal is perfect for the introduction of various foods from 4 months of age and gives rise to search for its new taste and nature for your infant.</i></p>	<p>ធុញជាតិប្រុងបែប ល្អគិតខ្លោះសំរាប់ការចាប់ផ្តើមនូវចំណីអាហារប្លែកៗតាំងពីអាយុ ៤ ខែ និងបណ្តាលអោយស្វែងរកនូវរសជាតិ និងសភាពថ្មីៗរបស់វាដល់កូនលោកអ្នក</p>
<p>Example of messages on Cambodian labels that support and undermine <b>continued breastfeeding when introducing commercially produced complementary foods</b></p>	
<p><b>Supporting the continued breastfeeding when introducing complementary foods message</b></p>	
<p><i>From 6 months of age and above, your infant starts needing a complementary food to help meet nutritional needs. Therefore, please feed your infant with the Stage 1 [Manufacturer name] infant cereal, which is a delicious soft food, is proper for the digestive system of a child.</i></p>	<p>ចាប់ពីអាយុ ៦ ខែឡើងទៅ កូនរបស់អ្នកចាប់ផ្តើមត្រូវការអាហារទន់បន្ថែម ដើម្បីជួយបំពេញបន្ថែមនូវតម្រូវការជីវជាតិអាហារូបត្ថម្ភ ដូច្នេះសូមផ្តល់បរិភោគត្នោតណាក់ កាលទី ១ (Stage 1) ដល់កូនរបស់អ្នកដែលជាអាហារទន់ មានរសជាតិស្វាញ់ សមស្របជាមួយប្រព័ន្ធណាយអាហារ របស់ក្មេង</p>
<p><b>Undermining the continued breastfeeding when introducing complementary foods message</b></p>	
<p><i>The reminding of danger to health that is caused by the introduction of products to an infant before he/she reaches a growing age, and the products will be consumed according to the advice of health staff.</i></p>	<p>ការដាស់តឿនពីការគ្រោះថ្នាក់ដល់សុខភាពដែលបណ្តាលមកពី ការណែនាំផលិតមុនពេលទារក ដល់អាយុជំនាក់ ហើយផលិតផល នឹងត្រូវបានប្រើប្រាស់តាមដំបូន្មានបុគ្គលិកសុខាភិបាល</p>
<p><i>Uphold the advice of your physician or pharmacist when using the [Manufacturer name] cereal for your infant*.</i></p>	<p>គោរពតាមខិត្តវិន័យនៃគ្រូពេទ្យ ឬឱសថការីរបស់លោកអ្នកនៅពេលប្រើប្រាស់ ធុញជាតិ ប្រុងបែបសំរាប់កូនរបស់លោកអ្នក</p>

\*This example has been used but highlights that there are discrepancies between requirements in Codex Standards and WHO Guidelines.

The fact that there are discrepancies between requirements on Codex Standards and WHO Guidelines highlights the importance of providing countries with detailed guidance on what constitutes appropriate messaging and to ensure that global standard setting bodies are aligned in their recommendations / requirements.

Gaps in available guidance on the labeling of complementary foods:

*“Recommendations regarding consulting a healthcare professional for advice on infant feeding may have been provided by manufacturers on the basis of the Codex Standard for Processed Cereal-based Foods for Infants and Young Children (Codex Alimentarius, 2006) which states that “the label shall include a statement indicating that the decision when precisely to begin complementary feeding, including any exception to six months of age, should be made in consultation with a health worker, based on the individual infant’s specific growth and development needs”. Quinn et al. (2010) argue that the Guiding Principles for Complementary Feeding of the Breastfed Child (PAHO, 2003), which explicitly call for the introduction of complementary foods at six months of age, supersede this recommendation. These guiding principles are based on a WHO Expert Consultation on the Optimal Duration of Exclusive Breastfeeding (WHO, 2001b) that considered the results of a systematic review of the evidence. The 2012 update of the original systematic review by Kramer and Kakuma (2012) supports recommending, as a general policy, exclusive breastfeeding for the first six months of life in both developing- and developed-country contexts. Messages regarding feeding practices for infants and young children provided by complementary food labels should not contradict, undermine, offer an alternative to or imply an exception to the recommendations of Code and WHA resolutions, other normative guidance such as the WHO Global Strategy for Infant and Young Child Feeding (WHO, 2003) and the Guiding Principles for Complementary Feeding of the Breastfed Child, and should be consistent with and supportive of national nutrition policy. This does not negate the need for health professionals to manage infants individually and to address adverse outcomes appropriately (Kramer & Kakuma, 2012).”*

Sweet et al., 2012b

[4.3.2 STAG 2: Promotion is inappropriate if it contributes to childhood obesity and non-communicable diseases.](#)

**4.3.2.1 STAG 2a: Products should be limited in saturated fat, trans-fatty acids, free sugars and salt.**

Table 4-12 shows the nutrients listed on the labels of the commercially produced complementary foods.

**4.3.2.1.1 Nutrient Composition**

The nutrient composition data extracted from the commercially produced complementary foods labels are presented in Table 4-12. The information is stratified by product category: cereal/porridge, homogenized/pureed foods, tea/juice/water and snacks/finger food. The nutrient content per 100g as provided on the label was then used to calculate a 100 kcal serving. The last column of the table presents the calculated percentage of DRI/RNI or WHO recommendations in each 100kcal serving.

The research shows that there is inconsistent provision of the nutritional information between manufacturers, both in terms of the nutrients included and the format for presenting the information. For example, nutrition information on 18 (28%) of the products was displayed per serving while 46 labels (72%) provided it per 100g and the nutritional content for some nutrients on product labels were given as a ‘% daily value’, with no value or reference provided for these daily values. These practices could make it challenging for mothers/caregivers to compare products. See Figure 4-5 in section 4.3.1.1.1 and Figures 4-13 and 4-14 in section 4.3.6 for examples of this.

Even though nutritional information was not consistently provided for all nutrients, the findings show that cereal products (n=16) tended to provide adequate amounts of energy, protein, fats, and key micronutrients, especially when it is considered that a 100kcal portion provides 50% of the daily energy needs of complementary foods for a 6 – 8 month old breastfed child. In the 6 – 8 month group, both the carbohydrate component and the sugar component are considered to be high. There are currently no guideline recommendations on the proportion of sugar to total energy for those aged <24 months. However since sugar is under scrutiny, the reference for children >24 months was used to provide some indication of the percentage sugar (see Appendix G).

The homogenized/pureed food (n=26) contained less energy and carbohydrate per 100g but their sugar content per 100kcal was twice that of the cereal products.

Seven of the products were tea/juice/water, and as expected their sugar content per 100kcal portion was the highest of the product categories.

Fourteen snack foods were included in the sample and they were comparable in terms of energy, fat, carbohydrate and sugar to the cereal products.

Table 4-12 Nutrient composition as declared on the labels of commercially produced complementary foods in Cambodia (n=63).

Nutrient	100 g Mean (minimum – maximum)	100 kcal Mean (minimum – maximum)	% DRI / RNI per 100 kcal <sup>a</sup>		
			6 – 8 months	9 – 11 months	12 – 23 months
<b>Cereal/porridge (n=16)</b>					
Energy (kJ) (n=16)	1703 (1603 - 1791)	420 (417 - 425)			
Energy (kcal) (n=15)	406 (377 - 429)	100 (100 - 100)	50	33	18
Protein (g) (n=15)	11.9 (4.8 - 15.7)	2.9 (1.3 - 4.0)	33	35	33
Carbohydrates (g) (n=15)	68.9 (11.0 - 88.6)	17.1 (2.6 - 23.5)	74 - 95	50 - 66	28 - 36
Sugar <sup>b</sup> (g) (n=8)	18.1 (0.0 - 44.0)	4.6 (0 - 11.4)		92	
Dietary fibre (g) (n=11)	3.2 (0.0 - 7.0)	0.70 (0.0 - 1.63)		-	
Total fat (g) (n=14)	6.7 (0.4 - 10.0)	1.6 (0.1 - 2.4)	13 - 16	9 - 11	5 - 6
SFA (g) (n=6)	1.2 (0.0 - 3.5)	0.30 (0.0 - 0.85)		-	
MUFA (g) (n=2)	3.4 (2.8 - 4.0)	0.83 (0.68 - 0.98)		-	
PUFA (g) (n=2)	2.35 (1.4 - 3.3)	0.57 (0.34 - 0.80)	19	11	6
Trans FA (g) (n=3)	0.07 (0.00 - 0.10)	0.02 (0.00 - 0.02)		-	
LA (g) (n=8)	2.6 (1.0 - 4.4)	0.62 (0.24 - 1.05)	62 - 89	41 - 62	22 - 34
ALA (g)	-	-		-	
Vitamin A (µg RE) (n=8)	351.2 (220.0 - 570.0)	88.4 (58.4 - 146.2)		22	
Vitamin A (IU)	-	-		-	
Sodium (mg) (n=15)	139.6 (0.0 - 300.0)	35.3 (0.0 - 72.9)		10	
Calcium (mg) (n=12)	371.1 (16.0 - 740.0)	90.8 (4.2 - 189.7)	23	23	18
Iron (mg) (n=10)	8.9 (2.5 - 25)	2.4 (0.6 - 6.4)	27	27	40
Zinc (mg) (n=7)	1.6 (0.8 - 2.5)	0.40 (0.21 - 0.61)	10	10	8
<b>Homogenised/pureed Food (n=26)</b>					
Energy (kJ) (n=26)	313 (210 - 422)	419 (415 - 425)		-	
Energy (kcal) (n=26)	75 (50 - 101)	100 (100 - 100)	50	33	18
Protein (g) (n=26)	2.1 (0.2 - 4.0)	2.8 (0.4 - 5.6)	31	33	32
Carbohydrates (g) (n=26)	12.5 (5.3 - 22.5)	16.8 (8.0 - 26.5)	73 - 93	49 - 65	27 - 35
Sugar <sup>b</sup> (g) (n=26)	7.1 (1.1 - 18.6)	9.5 (1.7 - 20.9)		190	
Dietary fibre (g) (n=23)	1.3 (0 - 3.0)	1.9 (0.0 - 5.0)		-	
Total fat (g) (n=26)	1.7 (0.0 - 3.9)	2.2 (0.0 - 4.6)	18 - 22	12 - 15	6 - 8
SFA (g) (n=18)	0.61 (0.00 - 2.0)	0.78 (0.0 - 2.27)		-	
MUFA (g) (n=3)	1.4 (1.3 - 1.6)	1.9 (1.8 - 2.2)		-	
PUFA (g) (n=3)	0.40 (0.4 - 0.40)	0.55 (0.45 - 0.69)	18	11	6
Trans FA (g) (n=6)	0 (0 - 0)	0 (0 - 0)		-	
LA (g) (n=6)	0.57 (0.26 - 1.03)	0.86 (0.37 - 1.56)	86 - 123	57 - 86	31 - 48
ALA (g) (n=9)	0.14 (0.04 - 0.180)	0.14 (0.06 - 0.27)	108 - 175	70 - 108	38 - 58

Nutrient	100 g Mean (minimum – maximum)	100 kcal Mean (minimum – maximum)	% DRI / RNI per 100 kcal <sup>a</sup>		
			6 – 8 months	9 – 11 months	12 – 23 months
Vitamin A (µg RE)	-	-	-		
Vitamin A (IU)	-	-	-		
Sodium (mg) (n=25)	47.2 (0.0 - 149.0)	64.5 (0.0 - 240.3)	18		
Calcium (mg) (n=2)	104.0 (58.0 - 150.0)	116.0 (70.7 - 161.3)	29	29	23.2
Iron (mg) (n=2)	0.32 (0.0 - 0.63)	0.38 (0.0 - 0.77)	4	4	6
Zinc (mg) (n=1)	1.5 (1.5 - 1.5)	1.6 (1.6 - 1.6)	39	39	33
<b>Tea/juice/water (n=7)</b>					
Energy (kJ) (n=7)	144 (65 - 213)	418 (417 - 419)	-		
Energy (kcal) (n=7)	35 (16 - 51)	100 (100 - 100)	50	33	18
Protein (g) (n=7)	0.19 (0.00 - 0.70)	0.61 (0.00 - 1.79)	7	7	7
Carbohydrates (g) (n=7)	7.9 (3.5 - 11.9)	22.8 (20.9 - 23.8)	99 - 127	67 - 88	37 – 48
Sugar <sup>b</sup> (g) (n=7)	6.9 (3.4 - 9.6)	20.5 (18.3 - 23.1)	820		
Dietary fibre (g) (n=6)	0.02 (0.00 - 0.10)	0.04 (0.00 - 0.22)	-		
Total fat (g) (n=7)	0.03 (0.00 - 0.10)	0.13 (0.00 - 0.60)	1 – 1.3	0.7 - 0.9	0.4 – 0.5
SFA (g)	-	-	-		
MUFA (g)	-	-	-		
PUFA (g)	-	-	-		
Trans FA (g)	-	-	-		
LA (g)	-	-	-		
ALA (g)	-	-	-		
Vitamin A (µg RE)	-	-	-		
Vitamin A (IU)	-	-	-		
Sodium (mg) (n=8)	9.3 (0.0 - 30.0)	28.2 (0.0 - 66.0)	8		
Calcium (mg) (n=1)	0.07 (0.07 - 0.07)	-	-		
Iron (mg)	-	-	-		
Zinc (mg)	-	-	-		
<b>Snacks/finger foods (n=14)</b>					
Energy (kJ) (n=14)	1582 (648 - 2090)	418 (417 - 422)	-		
Energy (kcal) (n=14)	378 (155 - 500)	100 (100 - 100)	50	33	18
Protein (g) (n=14)	10.6 (0.0 - 28.6)	3.1 (0.0 - 8.2)	35	37	35
Carbohydrates (g) (n= 14)	70.2 (2.8 - 25.0)	18.2 (1.8 - 25.0)	79 - 101	54 - 70	29 – 38
Sugar <sup>b</sup> (g) (n=13)	22.4 (0.0 - 57.1)	5.6 (0.0 - 13.3)	112		
Dietary fibre (g) (n=12)	1.2 (0.0 - 8.3)	0.36 (0.00 - 2.49)	-		
Total fat (g)(n=14)	5.4 (0.0 - 28.6)	1.5 (0.0 - 6.4)	13 - 15	8 - 10	4 – 5
SFA (g) (n=8)	0.83 (0.00 - 4.30)	0.30 (0.00 - 1.36)	-		
MUFA (g) (n=1)	3.5 (3.5 - 3.5)	2.3 (2.3 - 2.3)	-		
PUFA (g) (n=1)	2.1 (2.1 - 2.12)	1.4 (1.4 - 1.4)	47	28	16
Trans FA (g) (n=10)	0.0 (0.0 - 0.0)	0.0 (0.0 - 0.0)	-		
LA (g)	-	-	-		
ALA (g)	-	-	-		
Vitamin A (µg RE)	-	-	-		
Vitamin A (IU)	-	-	-		
Sodium (mg) (n=13)	237.5 (0.0 - 714.3)	69.4 (0.0 - 272.6)	20		
Calcium (mg) (n=2)	167.5 (15.0 - 320.0)	39.7 (3.7 - 75.8)	10	10	8
Iron (mg) (n=3)	4.7 (0.0 - 8.0)	1.1 (0.0 - 2.0)	12	12	18
Zinc (mg) (n=1)	5.0 (5.0 - 5.0)	1.2 (1.2 - 1.2)	29	29	25

<sup>a</sup> See Appendix G for recommendations and calculations

<sup>b</sup> Sugar values were captured from any mention of sugar in the nutritional information on the label and not specifically added sugar. Currently there are no guidelines for recommendation on the proportion of sugar from total energy for those aged <24 months however since sugar is under scrutiny, we used a recommended cut-off for those >24 months: Total sugars should not exceed 5.0 gr / 100 gr of solid food or 2.5 gr / 100 ml of beverage (PAHO 2011), see appendix G for further details.

#### 4.3.2.2 STAG 2b: The portion size shown or recommended should provide an appropriate energy amount for the meal or part of a meal that it is designed to provide.

The energy needs from complementary foods for infants with ‘average’ breast milk intakes in developing countries are provided in Table 4-13 (PAHO, 2003). These values were calculated by estimating children’s total energy requirements at different ages and subtracting the average energy intake from breast milk (PAHO, 2003). From six months of age, mothers/caregivers should feed their child a variety of foods to ensure that their nutrient needs are met (PAHO, 2003). Commercially produced complementary food labels should therefore recommend a daily ration that does not exceed the total energy needs from a variety of complementary foods, in order to discourage overconsumption of the product which could result in the partial or total displacement of continued breastfeeding as well as other locally available and appropriate foods forming part of the diet (Quinn et al., 2010).

Table 4-13 Daily energy needs from complementary foods and recommended number of meals for the breastfed child.

Age (months)	Daily energy needs from complementary foods for the breastfed child [kJ/day (kcal/day)]	Number of meals of complementary foods per days
6-8	837 (200)	2-3 (plus 1-2 snacks)
9-11	1,255 (300)	3-4 (plus 1-2 snacks)
12-23	2301 (550)	3-4 (plus 1-2 snacks)

Adapted from PAHO (2003)

In this study, except for cereal products, most of the labels did not provide enough information to calculate a proposed daily ration (based on the serving and recommended number of servings per day on the label).

Table 4-14 shows the energy provided by the cereal products per serving; without milk (since those products where the daily rations could be calculated did not require added milk). For the remaining products, the manufacturers did not provide the necessary information to calculate the daily ration.

Six of the product labels provided a daily ration, and a daily ration was calculated for a further two products (all in the cereal category) by multiplying the recommended serving size (g) by the number of servings per day, as stated on the label. The data shows that the daily ration ranged between 58 – 623 kcal per day. Half of the products’ daily ration was >200 kcal, which would increase the risk of breast milk displacement in at least the 6-8 month age category. The study did not consider the appropriateness of the portion size but this would be valuable in meeting the STAG recommendation and should possibly be added to the checklist (Table 4-4).

Table 4-14 Energy calculations per portion and per daily ration, without the addition of milk, of commercially produced complementary foods in Cambodia.

Product Category	Cereals/porridges
Number of products	8
Energy / 100g (kcal)	412 (390 - 420)
Serving size (g)	34.6 (14 - 50 )
Daily ration (g)	65.8 (14 - 150)
Energy per serving (no added milk) (kcal)	142 (58 - 208)
Energy per daily ration (no added milk) (kcal)	270 (58 - 623)

### 4.3.3 STAG 3: Promotion is inappropriate if the product does not make an appropriate contribution to infant and young child nutrition in the country.

#### 4.3.3.1 **STAG 3a: Products that do not adhere to applicable standards for safety and nutrient composition.**

The scope of this research did not include any assessment of the products contents.

##### 4.3.3.1.1 **Mandatory and other label information**

It is a globally accepted practice/requirement for all food labels to provide certain information regarding ingredients, traceability and even nutritional information (Codex, 1985). This study found that 4% of the labels provided an ingredients list (in Khmer), 94% of labels included a batch number and 97% of products included a best before date. Although 97% percent of all labels provided the nutrition composition of the product (which was used to do the calculations in sections 4.3.2.1 and 4.3.2.2), only 3% of products contained the nutrition information in Khmer. Three products were purchased after the best before date (see Table 4-15 and Questions 6.8 – 6.11 of Table 4-4).

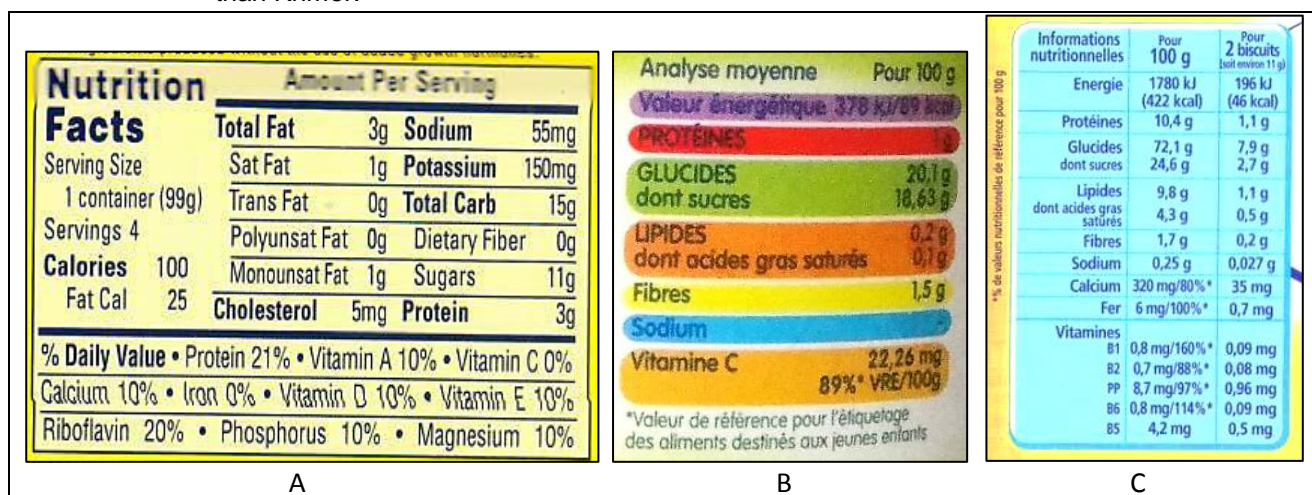
Table 4-15 Selected label information included on the labels of commercially produced complementary food labels in Cambodia (n=70).

Mandatory and other label information	Number of labels	Percentage of labels
Best before date	68	97
Ingredients list	3	4
Nutrition composition information in any language	65	93
Nutrition composition information in Khmer	2	3
Batch number	66	94
Purchased after best before date <sup>a</sup>	3	4

<sup>a</sup>It could not be determined if one product had expired as the expiry date had rubbed off.

This research illustrates that manufacturers are inconsistent with the information provided on product labels (see Figure 4-10). The inconsistent presentation of the nutritional information may be confusing to a mother and may make it difficult to compare the nutritional value of products. There is a need to provide specific guidance on the presentation of the nutrition information tables on product labels for commercially produced complementary foods.

Figure 4-10 Examples of other representations of nutrition information displayed on labels of commercially produced complementary foods in Cambodia that appear in languages other than Khmer.



#### 4.3.3.2 **STAG 3b: Products should provide essential nutrients other than calories.**

See Table 4-12 for a summary of the nutrition composition of commercially produced complementary food products found in Cambodia, based on the information provided on the label.

#### 4.3.3.3 **STAG 3c: Promotion should encourage a diet based on a wide variety of foods, including minimally processed fruits, vegetables, and animal-source foods.**

See Table 4-10 for a summary and examples of the infant and young child feeding practices messages provided on commercially produced complementary food labels in Cambodia.

None of the labels in this study were considered to provide any such messages and as such guidance from the STAG on the types of messages that would be considered appropriate would be valuable.

#### 4.3.4 STAG 4: Promotion is inappropriate if it undermines the use of suitable home-prepared and/or local foods.

In Cambodia, the majority (99%) of the available commercially produced complementary food varieties are imported (see Table 4-2). Table 4-10 provides the infant and young child feeding practice messages that are provided on the commercially produced complementary food labels in Cambodia and it appears that none of these messages directly undermine home-prepared and/or local foods but neither do they promote these practices.

It was noticed that some products made use of flavors that could be considered inappropriate, since they are not normally found in family foods and could therefore undermine the traditional diet. Examples of flavors that could possibly be considered to be inappropriate include '*rice, maize and honey*', '*apples and cinnamon with oatmeal*', and '*custard with banana*'. Likewise, there were some examples of flavors that might be considered to be appropriate, since they could normally be included as family foods - '*rice and carrot*', '*wheat with fish*' and '*vegetables and beef*' (see Figure 4-11).

Data analysis on the flavor variants of products has not been done, and based on the methodology of this study it would not be meaningful to conduct analysis on flavors, since only one flavor variant of each product was chosen. This practice however highlights the need for more detail regarding what constitutes undermining (or supporting) local foods.



Figure 4-11 Examples of images displaying flavors that could potentially appropriate and inappropriate from labels of commercially produced complementary foods in Cambodia.



**4.3.4.1 STAG 4a: Products should not be marketed as a complete substitute for home-prepared and/or local foods.**

This research shows that STAG 4a is a difficult and highly subjective criterion to assess and it would be valuable for the WHO STAG to provide more detailed guidance on the types of messages that could be perceived to be included. Alternatively, suggested wording could be provided that should be on the labels of products that would ensure that they are used together with / as part of the traditional diet. The assumption made is that home-prepared / local foods are sufficiently nutritious to meet all the infant and young child's requirements, but this may not always be the case.

No product labels explicitly stated that they were a complete substitute for home-prepared and/or local foods, however a number of products contained text that could be considered to suggest that the product is beneficial / potentially similar to or as good as home-prepared and/or local foods:

- Translated English text: *From 6 months of age and above, your infant starts needing a complementary food to help meet nutritional needs. Therefore, please feed your infant with the stage 1 [Manufacturer name] infant cereal, which is a delicious soft food, is proper for the digestive system of a child.*

Original Khmer text: ចាប់ពីអាយុ ៦ ខែឡើងទៅ កូនរបស់អ្នកចាប់ផ្តើមត្រូវការ អាហារទន់បន្ថែម ដើម្បីជួយបំពេញបន្ថែមនូវតម្រូវការជីវជាតិអាហារូបត្ថម្ភ ។ ដូច្នេះសូមផ្តល់បរិភោគស្តេដណាក់ កាលទី ១ (Stage 1) ដល់កូនរបស់អ្នកដែលជាអាហារទន់ មានសុវត្ថិភាព សមស្របជាមួយប្រព័ន្ធរំលាយអាហារ របស់ក្មេង ។

- Translated English text: *[MANUFACTURER NAME] infant cereal is the cereal made of grain, which is based on a nutritional formula for your infants who have just started to eat the first soft food. The cereal consumed at each meal provides nutrition that your infants need to sustain their growth and development. The serving size fits in the small stomach sizes of infants.*

Original Khmer text: សម្រាប់កូនរបស់លោកអ្នកដែលទើបតែចាប់ផ្តើមទទួលទាននូវអាហារទន់ដំបូង ។ អាហារមួយពេលៗ បានផ្តល់នូវអាហារូបត្ថម្ភដែលកូនរបស់លោកអ្នកត្រូវការ ដើម្បីទ្រទ្រង់ដល់ការរីកធំធាត់ និងការវិវត្តន៍របស់ពួកគេ ។ បរិមាណអាហារដែលទទួលទានម្តងៗ សមស្របទៅតាមទំហំក្រពះរបស់ពួកគេដែលនៅតូចនៅឡើយ ។

- Translated English text: *The most proper taste for your infant! Choosing [Product name] is the informed choice for your infant’s daily health. Consume a package of 35 grams per day in addition to the breast milk and other daily foods, which is sufficient for the growth of your infant.*

Original Khmer text: រសជាតិសមស្របបំផុតសំរាប់កូនលោកអ្នក ! ជ្រើសរើសបរិភោគរឿងគឺជាការជ្រើសរើសដ៏ត្រឹមត្រូវសំរាប់សុខភាពប្រចាំថ្ងៃរបស់កូនលោកអ្នក ។ ប្រើមួយកញ្ចប់ ៣៥ក្រាម ក្នុង១ថ្ងៃ បន្ថែមពីលើទឹកដោះម្តាយ និងអាហារប្រចាំថ្ងៃដទៃទៀត

These examples highlight the subjectivity of this criterion.



**4.3.4.2 STAG 4b: Promotion should not suggest that commercial products are inherently superior to home-prepared foods.**

As with STAG 4a, this is a difficult and subjective criterion and more detailed guidance is required.

No commercially produced complementary foods explicitly stated that they are superior to home-prepared foods. However a practice was observed whereby manufacturers provided images and text termed ‘nutrition development plans’. These plans generally provided feeding practice messages that cross-promoted other products from the manufacturer by making use of stages and flavors that are part of the manufacturer’s portfolio of products (see Figure 4-12). It could be considered that these plans subtly imply that the manufacturer’s products are superior to or could replace traditional diets. This highlights the need for the WHO STAG to give further guidance as to promotion practices that suggest the superiority of commercially produced complementary foods to home-prepared foods.

Furthermore, certain non-nutrition claims could potentially be assessed to infer superiority of the product over the local diet by for example emphasizing the quality of the product (see Table 4-18).

Figure 4-12 Images showing manufacturer-endorsed nutrition plans on commercially produced complementary foods in Cambodia that cross-promote other products in the manufacturer's portfolio.

	<p>Plan on provision of complementary food for growth.</p> <p>STAGE 1: Foremost soft food. From 6 months of age.</p> <p>STAGE 2: New tastes. From 8 months of age.</p> <p>STAGE 3: Dietary fibre and more delicious. From 1 to 3 years of age.</p> <p>STAGE 4: For solid foundation.</p>	<p>គម្រោងផ្តល់អាហារបន្ថែមសម្រាប់ការលូតលាស់</p> <p>STAGE 1: អាហារទន់ដំបូងបំផុត ចាប់ពីអាយុ ៨ ខែ</p> <p>STAGE 2: អាហារសរសៃ និងមានរសជាតិកាន់តែស្អាត ចាប់ពីអាយុ ១ ឆ្នាំ ដល់ ៣ ឆ្នាំ</p> <p>STAGE 3: អាហារសរសៃ និងមានរសជាតិកាន់តែស្អាត ចាប់ពីអាយុ ១ ឆ្នាំ ដល់ ៣ ឆ្នាំ</p> <p>STAGE 4: សម្រាប់មូលដ្ឋានគ្រឹះដ៏រឹងមាំ</p>
		
<p>[Text in Vietnamese, therefore not translated.]</p>		

**4.3.4.3 STAG 4c: Promotion should not imply that home-prepared or local foods should be delayed until after commercial products are fed.**

None of the labels directly stated that the feeding of home-prepared or local foods should be delayed until after commercial products are fed. However, some feeding practices messages may be considered to imply that the commercially produced complementary foods should be offered before home-prepared or local foods. For example, some cereal products included the messages:

- Translated English text: “Stage 1: Foremost soft food.”  
Original Khmer text: STAGE 1: អាហារទន់ដំបូងបំផុត
- Translated English text: “Good points of grains: [Product name] Infant Cereal is the cereal made of grain, which is based on a nutritional formula for your infants who have just started to eat the first soft food.”  
Original Khmer text: ចំណុចល្អរបស់គ្រាប់ធញ្ញជាតិ [Product name] ជាបឋម ផលិតពីគ្រាប់ធញ្ញជាតិ ដែលត្រឹមត្រូវតាមក្បួនអាហារូបត្ថម្ភ
- Translated English text: “The [Manufacturer name] cereal is perfect for the introduction of various foods from 4 months of age and gives rise to search for its new taste and nature for your infant.”  
Original Khmer text: ល្អឥតខ្ចោះសំរាប់ការចាប់ផ្តើមនូវចំណីអាហារប្លែកៗកាន់តែច្រើន ចាប់ពីអាយុ ៤ ខែ និងបណ្តាលអោយស្វែងរកនូវរសជាតិ និងសភាពថ្មីៗរបស់វាដល់កូនលោកអ្នក ។

See Table 4-10 for a full list of the prevalence and examples of feeding practices messages.

This research highlights that the STAG 4 criteria are subjective and it would be valuable for the WHO STAG to provide more detailed guidance on the types of messages that are appropriate/inappropriate. Alternatively, suggested wording could be provided that should be included on the label of commercially produced complementary foods, that clearly states that such products should be used together with / as part of the traditional diet and not as a substitute to a varied, balanced diet. This is however based on the assumption that home-prepared / local foods are sufficiently nutritious to meet the infant and young child's requirements but this assessment was not part of the scope of this study.

#### 4.3.5 [STAG 5: Promotion is inappropriate if it is misleading, confusing, or could lead to inappropriate use.](#)

##### 4.3.5.1 **STAG 5a: Health claims should not be allowed unless specifically approved by national or international authorities.**

The STAG criteria refer only to health claims, not nutrition claims, being inappropriate. Various claims were found on commercially produced complementary foods in Cambodia. These included nutrient content claims, nutrient function/other function/IMPLIED health claims and non-nutrition claims. See section 4.3.6.1.1 for a complete description of the prevalence of as well as examples of the various categories of claims.

##### 4.3.5.1.1 **Nutrition and Health Claims**

Codex Alimentarius has clear definitions for the various categories of nutrition and health claims commonly used/permitted on foods (see Table 4-16).

Table 4-16 Codex Alimentarius definitions of categories of nutrition and health claims.

<b>Nutrition claim</b>	Any representation which states, suggests or implies that a food has particular nutritional properties including but not limited to the energy value and to the content of protein, fat and carbohydrates, as well as the content of vitamins and minerals. The following do <u>not</u> constitute nutrition claims: the mention of substances in the list of ingredients; the mention of nutrients as a mandatory part of nutrition labeling and quantitative or qualitative declaration of certain nutrients or ingredients on the label if required by national legislation. Nutrition claims include nutrient content claims and nutrient comparative claims.
<b>Health claim</b>	Any representation that states, suggests, or implies that a relationship exists between a food or a constituent of that food and health. Health claims include nutrient function/other function/IMPLIED health claims and reduction of disease risk claims.
<b>Nutrient content claim</b>	A nutrition claim that describes the level of a nutrient contained in a food e.g. source of calcium.
<b>Nutrient comparative claim</b>	A claim that compares the nutrient levels and/or energy value of two or more foods. Examples: "reduced"; "less than"; "fewer"; "increased"; "more than".
<b>Nutrient function claim</b>	A nutrition claim that describes the physiological role of the nutrient in growth, development and normal functions of the body. "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."
<b>Other function claim</b>	Concerns specific beneficial effects of the consumption of foods or their constituents, in the context of the total diet on normal functions or biological activities of the body. Such claims relate to a positive contribution to health or to the improvement of a function or to modifying or preserving health e.g. 'Substance A (naming the effect of substance A on improving or modifying a physiological function or biological activity associated with health). Food Y contains x grams of substance A.'

<b>Reduction of disease risk claim</b>	Relates to 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. Food X is low in nutrient or substance A.'
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Two of the labels included a nutrient content claim in Khmer (Question 15, Table 4-4). Examples include:

- Translated English text: *"Iron, zinc, vitamin A, vitamin C."*  
Original Khmer text: ជាតិដែក ស័ង្កសី វីតាមីន A វីតាមីន C
- Translated English text: *"[MANUFACTURER AND BRAND NAME] PRO PLUS™ is composed of BIFIDUS BL an importance foodstuff."*  
Original Khmer text: [MANUFACTURER AND BRAND NAME] PRO PLUS™ ផ្សំទៅដោយ BIFIDUS B<sub>L</sub> និងសារជាតិអាហារសំខាន់ៗ
- Translated English text: *"Our responsibilities: No fat."*  
Original Khmer text: ការទទួលខុសត្រូវរបស់យើង: គ្មានជាតិប្រេង

Denoting relevant information such as a nutrient content claim may be seen as helpful, since some claims could highlight nutrients of public health importance to this age group (e.g. iron and zinc) and are clearly measurable (e.g. according to Codex guidelines, a 'source of...' claim requires that the product provides 15-30% of the NRV of the specific vitamin per serving). Guidance is however necessary to help countries establish which nutrition claims could be considered appropriate, how they should be worded and the appropriate nutrient profile of the products that could carry such claims.

None of the commercially produced complementary food labels displayed nutrient comparative claims or reduction of disease risk claims. (Questions 16 and 18, Table 4-4).

Four percent of the labels included a nutrient function/other function/IMPLIED health claim (Question 17, Table 4-4). See Table 4-17 for full details of the nutrient function/other function/IMPLIED health claim included on the commercially produced complementary foods in Cambodia. Some such claims may be considered appropriate, depending on their structure and wording, if they address nutrients of public health concern such as (Translated English text) *"Iron is the important composition of hemoglobin in the red blood cell, which brings oxygen to feed all parts of the body. Zinc is an important substance for growth. Vitamin A is important for the function of eyes."*  
(Original Khmer text: ជាតិដែក ជាសារជាតិផ្សំសំខាន់ របស់អេម៉ូក្លូប៊ីនក្នុងក្រាប៌លាមក្រហម ដែលនាំយកអុកស៊ីសែនទៅចិញ្ចឹមគ្រប់ផ្នែកនៃរាងកាយ. ជាតិស័ង្កសី ជាសារជាតិសំខាន់សម្រាប់ការរីកធំ ជាក់. វីតាមីន A មានសារៈសំខាន់ចំពោះ មុខងាររបស់ភ្នែក)

Other nutrient function/other function/IMPLIED health claims may be considered inappropriate, such as (Translated English text) *"[MANUFACTURER NAME] uses a monopolistic technique, called CHE (Cereals Hydrolyzed Enzymatically) that can dissolve carbohydrate, e.g. rice or wheat, making it become tiny components, which is easy to digest. Help make the internal membrane of intestines become strong and absorb well."*

(Original Khmer text: ណែនាំឱ្យប្រើប្រាស់បច្ចេកទេសផ្គត់ផ្គង់មុខដែលមានឈ្មោះថា CHE ដែលអាចបំបែកសារធាតុកាបូអ៊ីយ៉ាត ដូចជា អង្ករ ឬ ស្រូវសាលី ឱ្យទៅជាសមាសភាគតូចៗ ងាយស្រួលក្នុងការរំលាយអាហារ ។ ជួយធ្វើឱ្យគ្នាសាខាងក្នុងនៃពោះវៀនរឹងមាំ និងបើកស្រូបបានល្អ ។)

Table 4-17 Nutrient function/other function claims/implied health claims made on commercially produced complementary food labels in Cambodia (n=3).

Claims	Number of labels	Percentage of labels
Branded processing technique	1	33
B Vitamins function	1	33
Diverse	1	33
Easy to digest	1	33
Growth	1	33
Health	1	33
Iron absorption	1	33
Iron function	1	33
Nutrition/nutritious	1	33
Palate/taste development	1	33
Phosphorous function	1	33
Potassium function	1	33
Probiotic function	1	33
Sodium function	1	33
Vision	1	33
Vitamin A function	1	33
Vitamin B1 function	1	33
Vitamin C function	1	33
Vitamin D function	1	33
Vitamin E function	1	33

Certain nutrient function claims are represented in the form of images rather than words (see Figure 4-13). If a mother/caregiver is unable to read the language on the label, s/he might think that Figure 4-13, image A implies that the product will assist with oral or dental development and that Figure 4-13, image B implies that the product could help the baby to sleep and that Figure 4-13, image C implies that the product will assist with her child's growth.

Figure 4-13 Examples of images on commercially produced complementary foods in Cambodia that could be interpreted as nutrient function/other function/implied health claims.



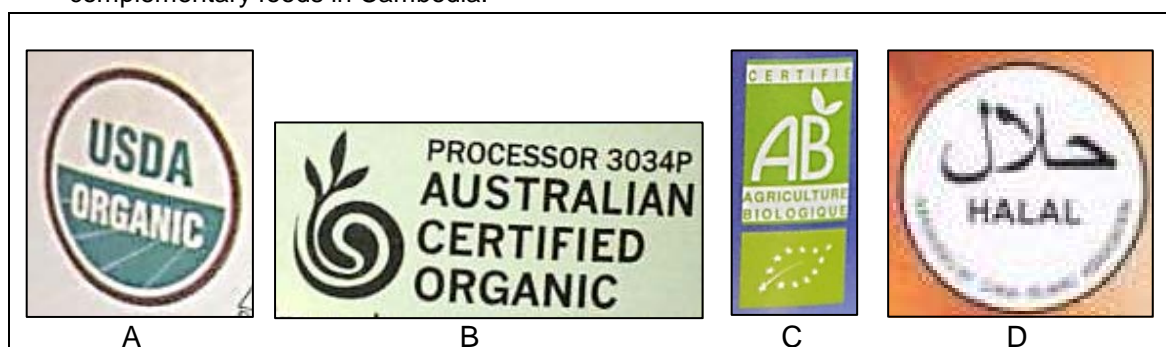
It was noted that manufacturers use a variety of different formats for presenting the nutrition information on the label. In some cases these draw attention to a specific nutrient/group of nutrients that could give the impression to a mother/caregiver that these are especially important and this could possibly be considered inappropriate (See Figure 4-15). The STAG should consider giving advice on how the nutrition information table should be formatted.

Some products used non-nutrition claims (see Table 4-18) to highlight a benefit of the product. Non-nutrition claims were found on 26% (n=18) of labels. Organic claims (61%) were the most prevalent non-nutrition claims made on labels followed by additive related claims (17%). In addition, some non-nutrition claims do not appear as words but in the form of images/symbols (see Figure 4-14). Consideration needs to be given to if non-nutrition claims on foods for infants and young children could be inappropriate.

Table 4-18 Non-nutrition claims made on commercially produced complementary food labels in Cambodia (n=18).

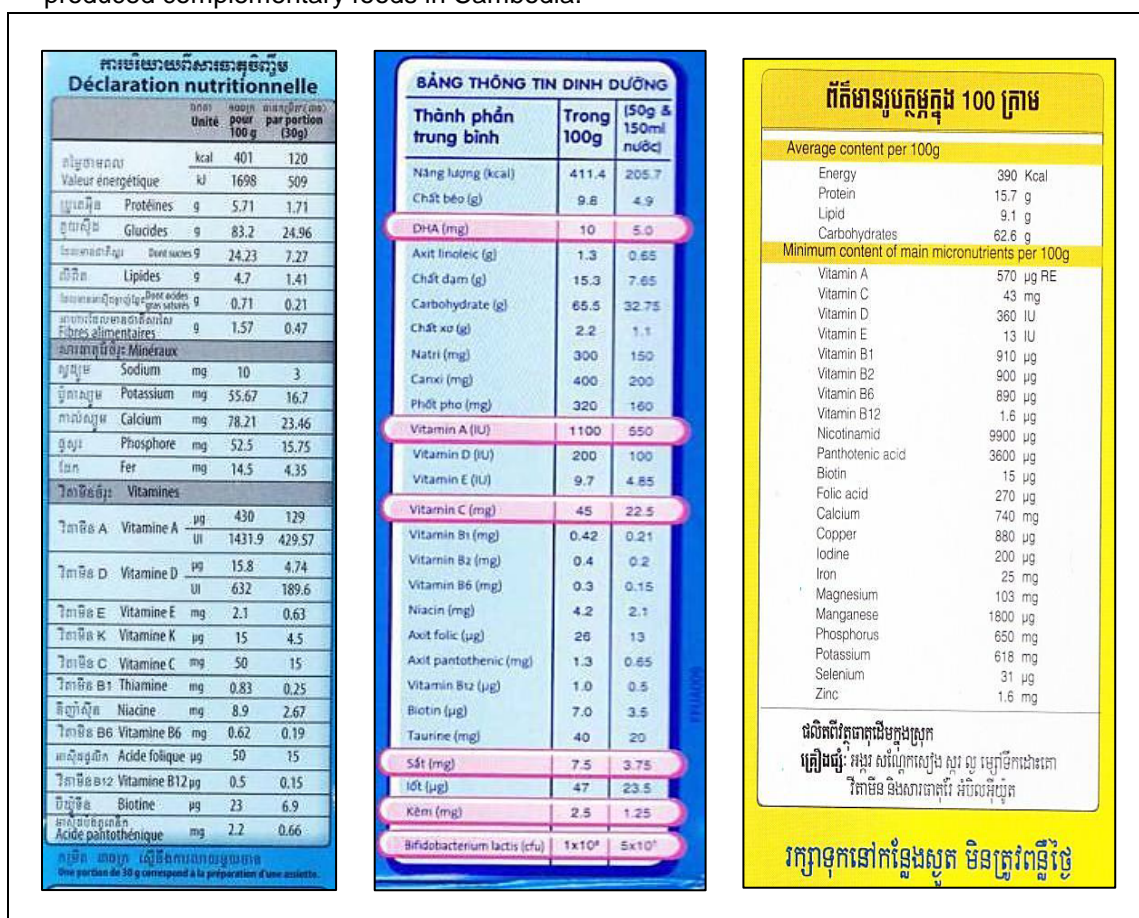
Claims	Number of labels	Percentage of labels
Organic (see Figure 4-14, images A, B and C)	11	61
Additives	3	17
Certification: Religious (see Figure 4-14, image D)	2	11
Certification: Safety/Quality	2	11
Origin	2	11
Wholegrain	2	11
Allergens	1	6
Certification: Agricultural	1	6
Packaging	1	6
Quality	2	11
The informed choice	1	6
Other	1	6

Figure 4-14 Examples of non-nutrition claims that are presented as symbols on commercially produced complementary foods in Cambodia.



The nutritional information on the labels of the commercially produced complementary foods was presented in a number of different formats. Figure 4-15 shows various ways in which manufacturers presented nutrition information, with image A grouping nutrients according to vitamins and minerals, image B highlights certain macronutrients, and image C simply lists nutrients according to 'average content' for macronutrients and 'minimum content' for micronutrients. Of interest is that, image C is taken from a product label that contains all the label text in Khmer, except for the nutrition information table.

Figure 4-15 Examples of different formats for presenting nutrition information tables on commercially produced complementary foods in Cambodia.



4.3.5.2 STAG 5b: Information and instructions should be clear and correct and appropriate for the language and literacy of the target population.

The labeling study did not assess literacy, but the checklists were completed from a mother/caregivers perspective. For all labels that did not include text in Khmer (as required in the Cambodian regulations) only images on the label were assessed, as it was assumed that a Cambodian mother/caregiver could not understand the text if it was not in Khmer. In addition, letter size was not assessed.

4.3.5.2.1 Language

Results from the checklist showed that none of the commercially produced complementary foods provided all the label text in Khmer. This is a significant finding as it means that all the labels of these products breached the Cambodian general food labeling regulations that require food labels to be presented in Khmer. Three labels (4%) did however provide most of the text in Khmer (Question 1, Table 4-4). The labels contained text predominantly in English and French. Details on the languages used on the labels are provided in Table 4-19.



Table 4-19 Details on the languages used on the labels of commercially produced complementary foods in Cambodia.

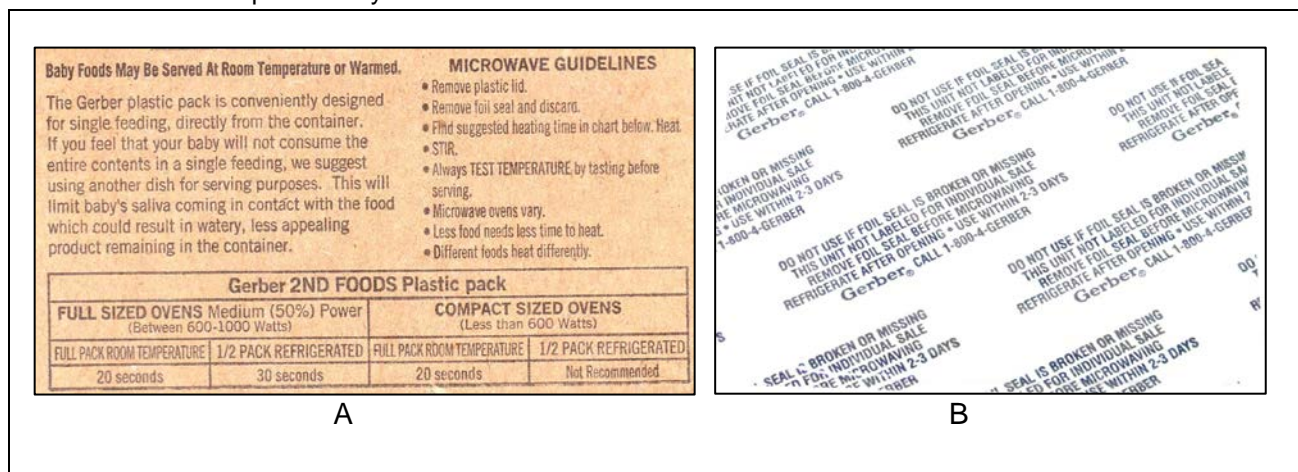
Label information provided in the following language(s)	ALL information provided in:		SOME information provided in:	
	Number of labels <sup>a</sup>	Percentage of labels	Number of labels	Percentage of labels
English	33	47	12	17
Khmer	-	-	3	4
French	23	33	-	-
Other (non-official language)	10	14	12	17
Not applicable	-	-	48	69

<sup>a</sup>This value does not add up to 70 (the total n) because there were 4 labels where label information was shown in a number of different languages and these labels did not contain all label text/content completely in one language

#### 4.3.5.2.2 Inserts

Ten percent (n=7) of the commercially produced complementary foods in Cambodia contained an insert<sup>1</sup>. Eighty-six percent of these inserts provided mandatory label information in English (in most cases, preparation and use instructions) that was not present on the label itself. See Figure 4-16 for an example of one product that contained two forms of inserts. The product is a homogenized/pureed food that is packaged in a plastic tub with a cardboard sleeve. The first insert provides required preparation and use instructions and safety messages but it is printed on the reverse side of the cardboard packaging and not the main label (see Figure 4-16, image A). The second insert provides required warning information on the peel off cover of the plastic tub that is not present on the main label. In addition it also provides storage instructions and a customer care line that is also present on the main label (see Figure 4-16, image B).

Figure 4-16 Example of product with two forms of inserts included in a commercially produced complementary food in Cambodia.



#### 4.3.5.2.3 Preparation and use

The majority of products (73%) were ready-to-eat/drink, 13% were 'instant' but required the addition of water and 9% were 'instant' but required the addition of milk. See Table 4-20 for a complete breakdown of the categories of preparation type included on the labels of the commercially produced complementary foods in Cambodia.

<sup>1</sup> For the purposes of this study, an "insert" is defined as printed information (excluding the product label) that is inserted into the product or affixed to it e.g. a package insert, fix-o-form, under-lid leaflet, information printed on the reverse side/backing of a "peel-away"/removable label or on the reverse side of the packaging etc. Further information can be found in Appendix F.

The checklist shows that only 3 of the labels (4%) provided instructions for safe and appropriate preparation and use in Khmer (Question 6.4, Table 4-4). Two labels (3%) provided instructions indicating 'Consistency: smooth/avoid lumps' and two labels (3%) indicated 'How to feed: Feed child'. The following messages were found on one label (1%) each: 'Consistency: adjust as desired', 'Type of milk: infant formula, 'Use as advised by health practitioner' and 'Frequency: X no. of times per day'.

Table 4-20 Type of preparation recommended on commercially produced complementary food labels in Cambodia (n=70).

Categories of preparation type	Number of labels	Percentage of labels
Ready to eat/drink	51	73
Instant - add water	9	13
Instant - add milk	6	9
Instant - add water or milk	2	3
Heat	2	3

Based on the current checklist design, product labels score a 'yes' if they have any (even if only one) of the above preparation and use instructions present on the label. However, there is no guidance on the appropriateness of the wording of the preparation and use instructions, or a recommendation on a minimum set of preparation and use instructions. See Table 4-21 for examples of the types of wording and images of some preparation and use instructions found on the product labels.

Considering that most of the commercially produced complementary food labels were not assessed for their text, as it was not in Khmer, the images were assessed as it was felt that mothers/caregivers would use these in the absence of being able to understand the text.

With regard to preparation and use, various images were used and the appropriateness thereof was difficult to determine. It therefore appears prudent to suggest that more detailed guidance is required as to what constitutes 'appropriate instructions'. In addition, it is also important to consider whether, in instances where either the product label is in a language that a mother/caregiver cannot understand or when a mother/caregiver is illiterate, if an image would be able to appropriately convey an important message such as a preparation and use instruction.

Table 4-21 Examples of preparation and use instructions and images on commercially produced complementary food labels in Cambodia.

<b>Examples of potentially appropriate preparation and use images</b>	
<b>Cereals/porridges:</b>	
 <p><b>CÁC BƯỚC CHUẨN BỊ</b></p> <ol style="list-style-type: none"> <li>1 Rửa sạch tay trước khi chế biến thức ăn cho bé. Đảm bảo các vật dụng phải hoàn toàn sạch sẽ</li> <li>2 Cho 150ml nước ấm vào chén</li> <li>3 Rắc từ từ (khoảng 5 muỗng canh) Bột ăn dặm Nestlé</li> <li>4 Khuấy đều cho đến khi bột mịn, cho bé ăn bằng thìa sạch</li> </ol>	 <p><b>วิธีหมัก/Preparation</b></p> <ol style="list-style-type: none"> <li>1 ล้างมือและทำความสะอาดอุปกรณ์ที่ใช้ก่อนการเตรียม Wash your hands before preparing baby's food. Make sure all utensils are thoroughly clean.</li> <li>2 ใส่น้ำอุณหภูมิ 150 มล. (5 ออนซ์) ที่ต้มและต้มแล้ว Measure lukewarm previously boiled water 150 ml (5 oz.) into a clean weaning bowl.</li> <li>3 ใส่นมผง 50 กรัม (5 ช้อนโต๊ะ) Add 50 g (5 rounded table spoons) of this product.</li> <li>4 คนให้เข้ากัน ใช้ป้อนเด็กได้ Stir until smooth. Feed your baby with a clean spoon.</li> </ol>
	 <p><b>HƯỚNG DẪN PHA CHẾ</b></p> <p>Rửa tay sạch trước khi chuẩn bị bữa ăn cho bé. Đảm bảo các vật dụng phải hoàn toàn sạch sẽ. Đun nước sôi khoảng 05 phút, sau đó để nguội đến mức còn ấm (khoảng 50 °C)</p> <p>Bột nước ấm vào tô rồi nhào tung muỗng bột ngũ cốc dinh dưỡng <b>Milnelac Alpha Thịt Bò Hàu Cỏ</b> theo định lượng như bằng hướng dẫn cách muối bột</p> <p>Khuấy đều cho đến khi bột mịn hoàn toàn và cho bé ăn bằng muỗng sạch</p>
<b>Snacks/finger food: [rusks]</b>	
 <p>Cho 2 bánh Milna vào chén sạch</p> <p>Put 2 pcs Milna Rusk into a clean bowl.</p> <p>Thêm vừa đủ sữa hay nước đun sôi để nguội</p> <p>Add infant milk or boiled warm water sufficiently.</p> <p>Khuấy đều đến khi có một chén bột ăn dặm ngon lành</p> <p>Stir thoroughly and it's ready to serve.</p>	 <p>Milna có thể dùng trực tiếp dạng bánh để giúp răng phát triển</p> <p>Milna Rusk can be served directly as biscuit to facilitate the growth of teeth.</p>
	 <p>ck up. <b>Learning To Pick Up</b></p>
<b>Homogenized/pureed food: [image found on an insert]</b>	
 <p>EK 18-44 [3]348 Carrot boeuf</p>	

**Examples of potentially inappropriate preparation and use images**

**Cereals/porridges:**



**Teas/juices/water:**



**4.3.5.2.4 Safety messages**

Table 4-22 provides the categorized safety messages which are a subset of the instructions for the preparation and use of the product. Ninety-six percent of the commercially produced complementary food labels did not include any preparation and use or safety messages in Khmer (Question 6.4, Table 4-4).

Table 4-22 Safety messages used on commercially produced complementary food labels in Cambodia (n=3).

Categories of safety messages	Number of labels	Percentage of labels
Use clean/wash surfaces/equipment/utensils	3	100
Use boiled/clean water	2	67
Wash hands	2	67
Allow to cool	1	33
Feed from bowl not bottle	1	33
Test temperature before feeding	1	33
Use as advised by health professional	1	33




The manner in which safety messages are evaluated according to the checklist is similar to that for preparation and use instructions, whereby if a product includes a single safety message, it qualifies as having safety messages. However there is no guidance on the quality of the message(s) or a minimum set of standards that should be used. The following example should be considered for appropriateness: Translated English text: “Uphold the advice of your physician or pharmacist when using the [Manufacturer name] cereal for your infant.”

(Original Khmer text: គោរពតាមឱវាទនៃគ្រូពេទ្យ ឬឱសថការីរបស់លោកអ្នកនៅពេលប្រើប្រាស់ ធាតុជាតិ ប្រុងបេបេសំរាប់កូនរបស់លោកអ្នក.) The indication to ‘follow the advice of your doctor or pharmacist’ is appropriate for the labels of breast-milk substitutes but appropriate messages and wording for safety messages on the labels of complementary foods needs to be considered and more specific advice would be valuable.

As with preparation and use instructions, some safety messages were conveyed through images

(see Figure 4-17). Future research could test the understanding by mothers/caregivers in order to determine whether or not images can adequately describe safety messages and/or convey other label information.

Figure 4-17 Examples of safety messages that are depicted as images on the labels of commercially produced complementary foods in Cambodia.

Testing of the temperature before feeding:	Use boiled/clean water:	Wash hands:
		

#### 4.3.5.2.5 Storage

Only 4% of the labels of the commercially produced complementary foods provided information on storage instructions in Khmer (Question 6.7, Table 4-4). The types of instructions are shown in Table 4-23.

Table 4-23 Types of storage instructions provided on commercially produced complementary food labels in Cambodia (n=3).

Categories of storage instructions	Number of labels	Percentage of labels	Example text from labels	
			Translated English text	Original Khmer text
General storage	2	67	<i>Store it in a dry place, which is not exposed to the sun.</i>	រក្សាទុកនៅកន្លែងស្ងួត មិនត្រូវពន្លឺថ្ងៃ
Storage after opening	2	67	<i>Close the [manufacturer name] cereal package properly after each use and store it in a dry cool place.</i>	បិទកញ្ចប់ធាតុគ្រាប់បែបបេអាយ បានល្អឡើងវិញក្រោយពីប្រើប្រាស់ម្តង ម្កង ហើយទុកដាក់នៅកន្លែងត្រជាក់ និងស្ងួត
Length of storage after opening	2	67	<i>Please exhaust the [Manufacturer name] infant cereal within 3 weeks after the tin was opened.</i>	សូមប្រើបេអាយ អាយតូអេស ក្នុងរយៈពេល ៣ សប្តាហ៍ បន្ទាប់ពីបើកកម្រប
Storage conditions to avoid	2	67	<i>After each use, please close the tin tightly, and store it in a dry, cool place and <u>do not exposed to the sunlight.</u></i>	សូមបិទកម្របកំប៉ុងឱ្យជិត បន្ទាប់ពីបើកប្រើរៀងរាល់លើក ហើយទុកដាក់កំប៉ុងនៅកន្លែងស្ងួត ត្រជាក់ និងមិនត្រូវកំដៅថ្ងៃ

#### 4.3.5.2.6 Warnings

The checklist data (Question 12, Table 4-4) showed that 96% of the labels did not provide one or more of the stipulated warnings (including a warning stating the health hazards/potential risks of inappropriate preparation, use and storage, or advising against certain preparation/use/storage practices). Table 4-24 provides details on the warnings, categorized into themes.

Table 4-24 Warnings provided on commercially produced complementary food labels in Cambodia (n=3).

Categories of warnings	Number of labels	Percentage of labels
<b>Warnings related to use/feeding</b>		
Not suitable for children under x months	1	33
Too early introduction of this food must be done under guidance of your healthcare professional	1	33
<b>Warnings related to storage</b>		
Discard unfinished food or drink	3	100
Prevention of Microbial Contamination <sup>a</sup>	2	67
<b>Warnings related to preparation</b>		
Follow the preparation instructions	1	33
Do not sweeten	1	33
Do not add salt	1	33

<sup>a</sup> Since this product contains viable bacteria follow the instructions as per storage

Similarly to preparation and use instructions and safety messages, warnings may be portrayed through the use of images (see Figure 4-18) and the appropriateness needs to be considered.

Figure 4-18 Examples of images that could portray warnings that were used on labels/inserts of commercially produced complementary foods in Cambodia.



#### 4.3.5.3 STAG 5c: Promotion should not imply that products contain more of an ingredient than they in fact do.

Examples of potentially misleading images relating to the ingredients of commercially produced complementary foods are shown in Figure 4-19. Twenty-one percent (n=15) of product labels used an image of an ingredient that could be considered misleading when compared to the product's ingredient list. The images display a whole fruit or vegetable (such as a banana or carrot) on the front of the label, which could imply to the mother/caregiver that the product is equivalent to feeding the child the whole fruit or vegetables. However, when the ingredients list is examined, the products contain 'natural banana flavor', 'carrot flakes (4%)' and 'carrot powder' and do not give any indication of how these equate to the actual fruit/vegetable.

The categorization of imagery as misleading is not a labeling practice that was included in the checklist and could be considered to be added or included in guidance. See section 4.3.7.1.1 for a further description of the types of images commonly found on complementary food labels.

Figure 4-19 Potentially misleading image relating to the ingredients of a commercially produced complementary food in Cambodia.



**Celia**  
**Develop Cereals**  
INSTANTANÉES • INSTANT • فورية الذوبان  
Sans gluten  
Avec la juste dose de sucre  
Source de 8 vitamines  
A ajouter au lait infantile  
Dès l'âge de 6 mois  
Découverte des Goûts

**INGREDIENTS :** Rice flour (64%), maltodextrins, sucros, **carrot flakes (4%)**, vitamins (C, E, PP, D, A, B5 ,B1, B2, B6, B12, B9, H), ferrous sulphate.

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Gerber  
**Graduates**  
Puffs  
cereal snack  
Banana  
Whole Grains



cereal snack  
**Banana**  
naturally flavored with other natural flavors  
Whole Grains

**INGREDIENTS:** RICE FLOUR, WHOLE WHEAT FLOUR, WHEAT STARCH, SUGAR, WHOLE GRAIN OAT FLOUR, DRIED APPLE PUREE, LESS THAN 2% OF TEA AND DICALCIUM PHOSPHATE, NATURAL BANANA FLAVOR, VITAMIN E (D-ALPHA-TOCOPHEROLS (FOR FRESHNESS), SOY AND SUNFLOWER LECITHIN, ZINC SULFATE, ALPHA TOCOPHERYL ACETATE, VITAMIN E), ELECTROLYTIC IRON, CARAMEL COLOR, TURMERIC EXTRACT COLOR, NIACINA-MIDE (A B VITAMIN), PYRIDOXINE HYDROCHLO-RIDE (VITAMIN B6), RIBOFLAVIN (VITAMIN B2), THIAMINE HYDROCHLORIDE (VITAMIN B1), VITAMIN B12 (CYANOCOBALAMIN).

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TAKE ONE  
**Take One**  
**Baby Bites**  
Carrot Taste  
100% Whole Grain Oats  
Great Taste, No Mess  
Baked & Easily Digestible  
No Artificial Colors or Flavors  
No Preservatives  
Gluten, Egg & Peanut Free  
Low in Fat & No Trans Fat  
No Added Fats or Oils  
Each Serving Individually Wrapped for Convenience  
Net Wt. 50g (1.76 oz) 26 Rusks

**INGREDIENTS:** JAPONICA RICE, POTATO STARCH, SUGAR, **CARROT POWDER**, SEA SALT, CALCIUM CARBONATE.

#### 4.3.6 Other/Gaps in STAG criteria

Based on the review and analysis of labels of commercially produced complementary foods in Cambodia, several additional labeling components emerged that are recommended for inclusion in the discussion and guidance on the inappropriate promotion of foods for infants and young children.

##### 4.3.6.1.1 Images

This research shows that images of ingredients / product composition are the most commonly used images on commercially produced complementary foods and were found on 91% of the labels, ready-to-eat / prepared product images (49%), brand mascots (49%) and images of mother and baby animals (36%) were also commonly found on the product labels. A full list of images found on the labels of commercially produced complementary foods in Cambodia are listed in Table 4-25 and some examples of images not discussed elsewhere in this report are provided in Figure 4-20.

Certain images, in addition to those already included in the criteria, found on the labels of commercially produced complementary foods need to be assessed for their appropriateness. Especially in populations where illiteracy is high, consideration and guidance needs to be given regarding how images could be used to communicate certain messages. In cases, such as Cambodia, where the majority of label information is not in the country's national language, images become an important method of communicating important information to the mother/caregiver and so their appropriateness and/or understanding is vitally important.

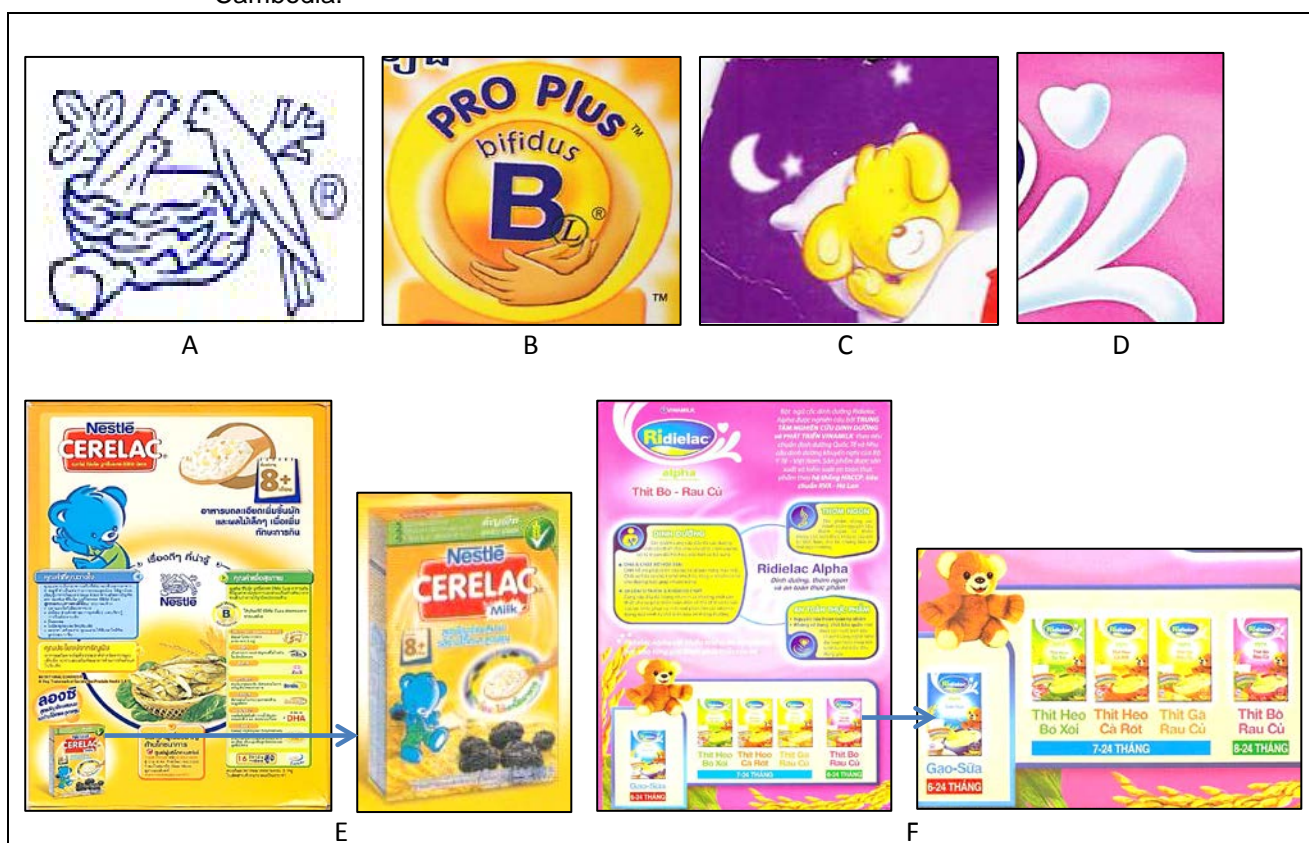
Table 4-25 Images used on the labels of commercially produced complementary foods in Cambodia (n=70).

Image	Number of labels	Percentage of labels
Ingredients/Composition	64	91
Ready-to-eat/prepared product	34	49
Brand mascots	29	41
Animals: Mother and babies (see Figure 4-20, image A)	24	34
Design elements: Stars/Moon/Sun/Clouds/Rainbow (see Figure 4-20, image C)	23	33
Preparation/Use illustrations	22	31
Bowl	18	26
Scientific images/Branded ingredients	17	24
Design elements: Leaves/Trees/Plants/Flowers/Landscapes/Shells	16	23
Design elements: Ticks and arrows	14	20
Jug of milk	13	19
Design elements: Hearts/Circles (see Figure 4-20, image D)	12	17
Telephone/Computer Mouse/Email Envelope	11	16
Mother's arms embracing (see Figure 4-20, image B)	10	14
Other products (see Figure 4-20, images E and F)	9	13
Foods that are not ingredients	5	7
Animals/Insects	3	4
Raw product	3	4
Animals: Babies displaying stages of development	2	3
Mother and child	2	3
Same product (includes previous front-of-pack shot or picture of individual portions within the container)	2	3

Images of a feeding bottle, infant formula, toys and an endorsement image (of a medical doctor) featured once on a label.



Figure 4-20 Examples of images found on commercially produced complementary food labels in Cambodia.



#### 4.3.6.1.2 Endorsements

It appears that manufacturers make use of endorsements or text conveying expertise in order to increase the appeal of a product. Four percent (n=3) of commercially produced complementary food labels contained some form of endorsement (see Table 4-26).

Table 4-26 Endorsements/Text conveying expertise used on commercially produced complementary food labels in Cambodia (n=3).

Categories of endorsements/ text conveying expertise	Number of labels	Percentage of labels	Example from labels	
			Translated English text	Original Khmer text
Manufacturer	2	67	<i>The [Manufacturer name] NUTRITION laboratory specialized in foodstuff for children brings along and provide you with the honey [Manufacturer name] cereal.</i>	Le laboratoire FRANCE BéBé NUTRITION, ឯកទេសខាងចំណីអាហារសំរាប់កុមារ នាំមកជូននិងផ្តល់ជូនលោកអ្នកនូវ ធាញជាតិប្រុងបេរបេសជាតិទឹក ឃ្នុំ
Manufacturer represented as expert	2	67	<i>Manufactured with the supports of the French expert.</i>	ផលិតដោយមានការគាំទ្រពីអ្នកជំនាញ រាង
Research body	1	33	<i>BENEFITS FROM [MANUFACTURER NAME]'S NUTRITION RESEARCH</i>	N/A

The use of endorsements or the manufacturer portraying themselves as experts in infant feeding may not be appropriate on commercially produced complementary foods and guidance on this practice is considered to be necessary.

#### 4.3.6.1.3 Invitation to interact

An invitation for the consumer to interact with the manufacturer by some means was provided on all the labels of commercially produced complementary foods in Cambodia. Ninety-one percent of the labels offered interaction through their website which was followed by 61% providing a customer care line. See Table 4-27 for the full list of invitation to interact categories.

Table 4-27 Types of invitation for the consumers to interact with the manufacturer used on commercially produced complementary food labels in Cambodia (n=64)<sup>a</sup>.

Invitation to interact	Number of labels	Percentage of labels
Website	58	91
Customer care line	39	61
QR code	17	27
Telephone number	9	14
Email address	7	11
Fax	3	5
Postal Address	1	2

<sup>a</sup> Although the invitations to interact were not all written in Khmer; websites, phone numbers, QR codes and email addresses were considered internationally recognizable and were thus recorded.

Currently there is no guidance available on what would be considered appropriate invitations by manufacturers to interact with consumers on the labels of commercially produced complementary foods that are not produced by manufacturers that also produce breast-milk substitutes.

With regards to an invitation for the purchaser to interact with the company, 42% of the commercially produced complementary foods that were produced by companies that also manufactured breast-milk substitutes included an invitation to interact which is a violation of the *Code*.

The study results highlight that there are a number of issues regarding what types of invitations to interact with the consumer by the manufacturer of commercially produced complementary foods are appropriate. For the purposes of this study, since limited guidance is available, assumptions had to be made regarding what invitations to interact by manufacturers that produced both breast-milk substitutes and commercially produced complementary foods were deemed appropriate. The provision of company contact details for the purposes of reporting product defects or quality issues were deemed as acceptable and these included customer care lines, email addresses and postal addresses. However, the provision of websites, quick response (QR) codes (see Figure 4-21) and other such invitations to interact with the manufacturer may not be appropriate, as they usually result in the consumer being exposed to additional and often promotional information. QR codes often link the consumer to a website or YouTube link that is either an advert or a video purporting to be educational but using branded products. Further guidance is considered necessary.

Figure 4-21 Example of a Quick Response code included on a commercially produced complementary food label in Cambodia.



#### 4.3.6.1.4 Slogans/tag lines

Slogans and tag lines in Khmer were used on 3 of the labels:



- Translated English text: *'Let's introduce soft food for your infant'*  
Original Khmer text: សូមណែនាំនូវអាហារទន់សម្រាប់កូន របស់អ្នក
- Translated English text: *'Infants grow and the infants' food evolves'*  
Original Khmer text: ទារកធំធាត់ និងចំណីអាហាររបស់ទារកវិវឌ្ឍន៍ឡើង
- Translated English text: *'The most proper taste for your infant!'*  
Original Khmer text: រសជាតិសមស្របបំផុតសំរាប់កូនលោកអ្នក !

Some of these slogans can also be categorized as other labeling practices. For example, *'Let's introduce soft food for your infant'* is categorized as a complementary feeding message and *'The most proper taste for your infant!'* is categorized as a non-nutrition claim. It should be considered whether or not it is appropriate to use slogans such as these on commercially produced complementary foods.

#### 4.3.6.1.5 Country-specific labeling practices

In Cambodia, a practice was observed whereby two commercially produced complementary food labels stated that they had Ministry of Health approval for the label (see Figure 4-22). Neither the *Sub-Decree on the Marketing of Products for Infant and Young Child Feeding (No.133)* nor the *Prakas on Cambodian Standard CS 001-200 related to labeling of food product* state that labels require Ministry of Health approval, although promotions require approval (Kingdom of Cambodia, 2000; Kingdom of Cambodia, 2005).

Figure 4-22 Examples of commercially produced complementary food label in Cambodia with Ministry of Health approval.

	<p>Ministry of Health approval statement</p>
<p><b>Translated English text</b> The license of the Ministry of Health allowing for the utilization of the content of the Label No. 0534FEC/DFEC dated 23 May 2012 will expire on 11 May 2015.</p>	<p><b>Original Khmer text:</b> លិខិតអនុញ្ញាតរបស់ក្រសួងសុខាភិបាលឱ្យប្រើប្រាស់ខ្លឹមសារស្លាកសញ្ញាលេខ ០៥៣៤ អបស/ឱអបស ចុះថ្ងៃទី ២៣ ខែ ឧសភា ឆ្នាំ ២០១២ អស់សុពលភាពនៅថ្ងៃទី ១១ ខែ ឧសភា ឆ្នាំ ២០១៥</p>
	<p>Ministry of Health approval statement</p>
<p><b>Translated English text</b> The license of the Ministry of Health allowing for the utilization of the content of the Label No. 0395 FEC/DFEC dated 26 March 2012 will expire on 29 March 2014.</p>	<p><b>Original Khmer text:</b> លិខិតអនុញ្ញាតរបស់ក្រសួងសុខាភិបាលអោយប្រើប្រាស់ខ្លឹមសារស្លាកសញ្ញាលេខ០៣៩៥ អបស/ឱអបសចុះថ្ងៃទី២៦ ខែមីនា ឆ្នាំ២០១២ អស់សុពលភាពថ្ងៃទី២៩ ខែមីនា ឆ្នាំ២០១៤</p>

A further practice observed on 3% (n=2) of labels was the provision of the cost of using the product for six months (see Table 4-28). A provision of the *Sub-Decree on the Marketing of Products for Infant and Young Child Feeding (No.133)* is that labels should contain a statement indicating the total cost of feeding the infant, but this provision is only for products used during the first six months. One of the two products indicated an age of introduction from four months and so this

information is required and the other product label indicated an age of introduction from six months and so this information can be considered as voluntary additional information provided to the consumer.

Table 4-28 Example commercially produced complementary food labels in Cambodia that specify the cost to feed the product to a child for 6 months.

Translated English text	Original Khmer text
<p>• If you feed an infant on this porridge powder within a period of 6 months, you will spend 91,250 Riels.</p>	<p>• បើឱ្យកូនញ៉ាំម្សៅបបរនេះក្នុងរយៈពេល 6ខែ លោកអ្នកត្រូវចំណាយប្រាក់អស់ 91250រៀល ។</p>
<p>If you feed an infant on the [product name] cereal, you will spend approximately 120, 000 Riels within a period of 6 months.</p>	<p>ផ្កាយរៀតបានរាយបង្ហាញ ឬលើសឡើយ ។ បើលោកអ្នកឱ្យកូនញ៉ាំ ឆ្នោតពិស្រ្រាង់បែប ក្នុងរយៈពេល៦ខែ លោកអ្នកត្រូវចំណាយប្រាក់ប្រហែល១២០០០០រៀល ។</p>

Although this practice of providing the cost of feeding the product for a six month period was only observed in Cambodia, it would be valuable for the STAG to give consideration to the appropriateness of this practice.

#### 4.4 Summary of labeling practices observed in the ARCH Project labeling study where guidance is required as to whether they are appropriate or not, that are not clearly covered by the WHO STAG criteria:

- The provision of infant and young child feeding messages.
- The use of images, including images relating to product cross-promotion as well as images of ingredients;
- The use of nutrition claims. (STAG 5a only refers to health claims).
- Specific guidance on the minimum requirements and quality of preparation and use instructions, storage instructions and warnings.
- Requirements for nutrient content and daily ration information.
- The types of invitations to interact with the manufacturer.

## 5 RESULTS AND DISCUSSION OF COMMERCIALY PRODUCED FOODS FOR GENERAL CONSUMPTION COMMONLY FED TO CHILDREN UNDER THE AGE OF TWO YEARS

### 5.1 Description of commercially produced foods for general consumption commonly fed to children under the age of two years products

The characteristics of the strategically selected 32 commercially produced foods for general consumption commonly fed to children under the age of two years included in the study are shown in Table 5-1.

Thirty-one products (97%) in the sample were shelf stable and 1 product was fresh (3%). Eight sub-categories of food products were included in the sample: biscuits/cookies (22%), cakes/sponge cake (3%), candy/sweets/chocolate (9%), chips/crisps (13%), yogurt (3%), soft drinks (6%), other sweetened beverages (22%) and other snacks (country-specific products such as instant noodles, sweetened breakfast cereals and others) (22%).

Twenty-two percent of the products were imported from Vietnam, 19% imported from Thailand, 13% from America and 9% from Malaysia. Sixteen percent were locally produced products (see Table 5-2). The products were manufactured by 27 different companies (see Figure 5-1) and represented 31 different brands (see Figure 5-2). Due to the sampling methods employed in this study, it is recognized that the sample is not representative of the entire category of commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia, but is an indication of some of the brands and manufacturers in this product category.

Table 5-1 Characteristics of the strategically selected commercially produced foods for general consumption commonly fed to children under the age of two years included in the study in Cambodia (n=32).

Product characteristics	Number of products	Percentage of products (%)
<b>Product origin:</b>		
Locally manufactured products	5	16
Imported products	27	84
<b>Product format:</b>		
Food	22	69
Beverage	10	31
<b>Product category:</b>		
Biscuits/cookies	7	22
Cake/sponge cake	1	3
Candy/sweets/chocolate	3	9
Chips/crisps	4	13
Yogurt	1	3
Soft drinks	2	6
Other sweetened beverages	7	22
Other snacks (country specific products: instant noodles, sweetened breakfast cereals and other)	7	22
<b>Storage:</b>		
Shelf stable	31	97
Fresh	1	3

Table 5-2 Country of origin of the commercially produced foods for general consumption commonly fed to children under the age of two years included in the study in Cambodia.

Country of origin	Number of products	Percentage of products (%)
Vietnam	7	22
Thailand	6	19
Cambodia	5	16
America	4	13
Malaysia	3	9
Austria	1	3
Brazil	1	3
China	2	3
France	1	3
Indonesia	1	3
Japan	1	3

Figure 5-1 Manufacturers represented in the commercially produced foods for general consumption commonly fed to children under the age of two years included in the study in Cambodia (n=26).

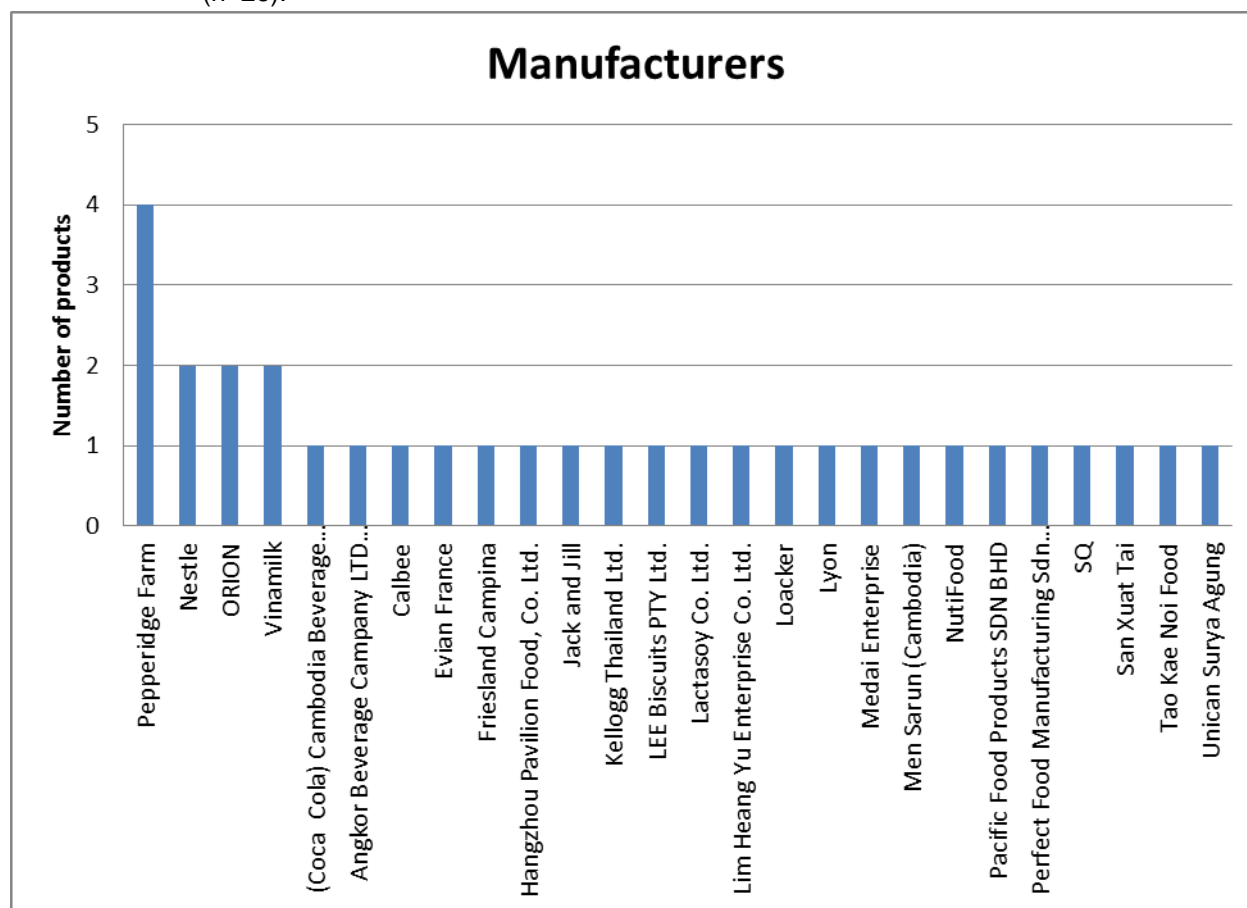


Figure 5-2 Brands represented as commercially produced foods for general consumption commonly fed to children under the age of two years included in the study in Cambodia (n=31).

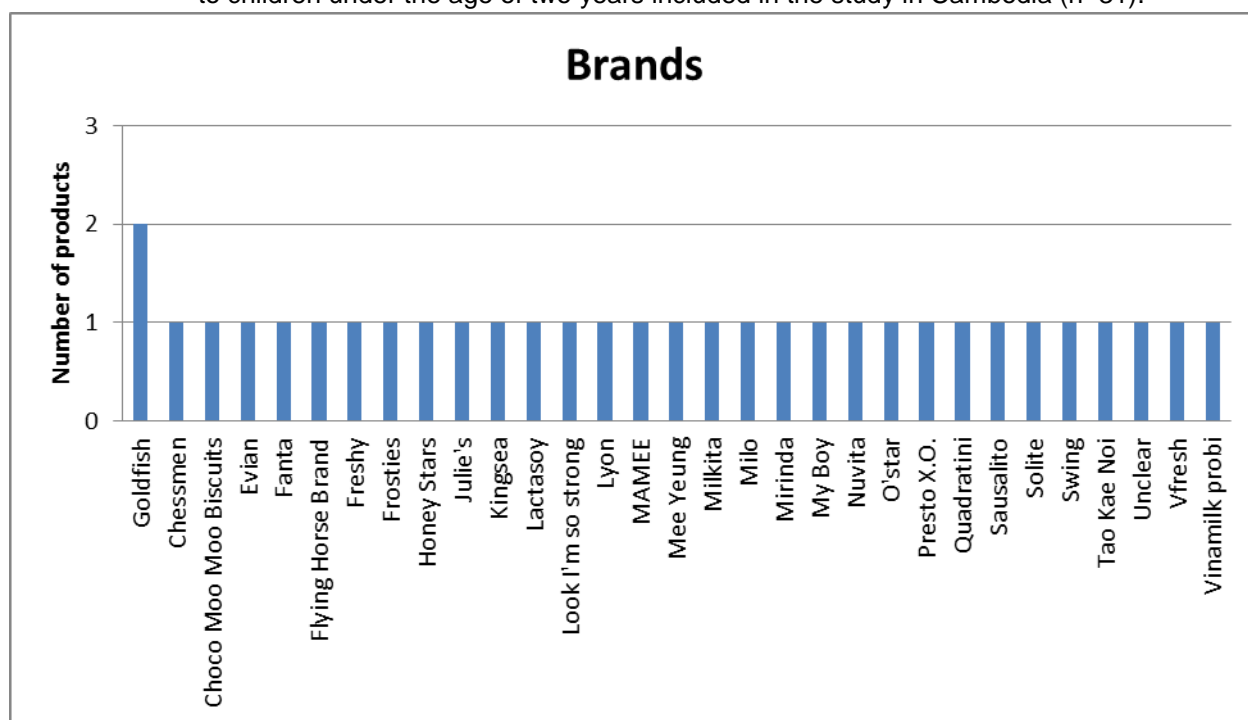


Table 5-3 provides information on the cost of the products per 100g and per serving size. The product serving sizes were calculated based on the amount/volume which provides approximately 100kcal or half the daily energy requirement from complementary food of the breastfed child 6 – 8 months.

Table 5-3 Costs of selected commercially produced foods for general consumption commonly fed to children under the age of two years included in the study in Cambodia per unit (g) and mean cost per serving by product category (n=30) and presented in two currencies [Cambodian Riel (KHR) and United States Dollar (USD)].

Product category	Mean cost per 100g (Lowest cost – Highest cost)	Mean cost/serving (Lowest cost - Highest cost) <sup>a</sup>
<b>Biscuits/cookies</b>		
<b>All products (n=7)</b>		
KHR	5424.51 (2041.48–2041.48)	1104.39 (384.58–1553.01)
USD	1.32 (0.50-1.90)	0.27 (0.09-0.38)
Imported products (n=7)		
KHR	5424.51 (2041.48-7757.64)	1104.39 (384.58-1553.01)
USD	1.32 (0.50-1.90)	0.27 (0.09-0.38)
Locally manufactured products (n=0)		
<b>Cake/sponge cake</b>		
<b>All products (n=1)</b>		
KHR	2041.45	-
USD	0.50	-
Imported products (n=1)		
KHR	2041.45	-
USD	0.50	-



Product category	Mean cost per 100g (Lowest cost – Highest cost)	Mean cost/serving (Lowest cost - Highest cost) <sup>a</sup>
Locally manufactured products (n=0)		
<b>Candy/sweets/chocolate</b>		
<b>All products (n=2)</b>		
KHR	2858.08	672.29 (629.37–715.20)
USD	0.70	0.16 (0.15–0.17)
Imported products (n=2)		
KHR	2858.08	672.29 (629.37–715.20)
USD	0.70	0.16 (0.15–0.17)
Locally manufactured products (n=0)		
<b>Chips/crisps</b>		
<b>All products (n=4)</b>		
KHR	6634.83 (2449.78–11840.61)	1379.50 (449.13–2277.75)
USD	1.63 (0.60–2.90)	0.34 (0.11–0.56)
Imported products (n=3)		
KHR	8029.84 (6124.46 –11840.61)	1690.03 (1134.84-2277.75)
USD	1.96 (1.50–2.90)	0.41 (0.28-0.55)
Locally manufactured products (n=1)		
KHR	2449.78	449.13
USD	0.60	0.11
<b>Yogurt</b>		
<b>All products (n=1)</b>		
KHR	1633.19	1542.49
USD	0.40	0.37
Imported products (n=1)		
KHR	1633.19	1542.49
USD	0.40	0.37
Locally manufactured products (n=0)		
<b>Soft drinks</b>		
<b>All products (n=2)</b>		
KHR	408.29 (408.29-408.29)	745.41 (734.93–755.89)
USD	0.10 (0.10-0.10)	0.18 (0.18-0.19)
Imported products (n=0)		
Locally manufactured products (n=2)		
KHR	408.29 (408.29-408.29)	745.41 (734.93 – 755.89)
USD	0.10 (0.10-0.10)	0.18 (0.18-0.19)
<b>Other sweetened beverages</b>		
<b>All products (n=7)</b>		
KHR	2624.76 (816.59-4491.26)	3884.72 (793.18-14567.02)
USD	0.64 (0.20–1.10)	0.95 (0.19 – 3.56)
Imported products (n=7)		
KHR	2624.76 (816.59-4491.26)	3884.72 (793.18-14567.02)
USD	0.64 (0.20–1.10)	0.95 (0.19 – 3.56)

Product category	Mean cost per 100g (Lowest cost – Highest cost)	Mean cost/serving (Lowest cost - Highest cost) <sup>a</sup>
Locally manufactured products (n=0)		
<b>Other country-specific snacks</b>		
<b>All products (n=6)</b>		
KHR	3967.29 (122.48-11432.32)	2495 (170.49-9528.45)
USD	1.38 0.97 (0.03-2.80)	0.61 (0.04-2.33)
Imported products (n=4)		
KHR	5614.08 (1224.89-11432.32)	3077.09 (408.29-9528.44)
USD	1.38 (0.30-2.80)	0.75 (0.10-2.33)
Locally manufactured products (n=2)		
KHR	673.69	170.49
USD	0.17	0.04

<sup>a</sup>A serving size was calculated to provide 100 kcal which is approximately half the daily energy requirement from complementary food of the breastfed child 6-8 months of age.

A cost comparison was undertaken to assess price differences per 100kcal portion between the commercially produced complementary foods and commercially produced foods for general consumption commonly fed to children under the age of two years. Table 5-4 shows that in general, imported products were more expensive than locally produced products. When comparing the individual food items, the data shows that commercially produced complementary food products in this sample were between 8 – 90% more expensive than commercially produced foods for general consumption commonly fed to children under the age of two years. When comparing food categories, the three different sub-categories of commercially produced complementary foods were between 1.2 and 4.8 times more expensive than the combined group of commercially produced foods for general consumption commonly fed to children under the age of two years. With reference to beverages, it was also found that those among the commercially produced foods for general consumption commonly fed to children under the age of two years were (3.6 times) cheaper than those promoted as complementary foods.

No published studies were found pertaining to the cost of the diet in Cambodia. However Geniez et al. (2014) conducted a study in Nepal to assess the affordability of a nutritious diet<sup>2</sup> which consists of adequate energy, fat, protein and 13 additional micronutrients. The authors estimated that in the Kathmandu Valley region, to obtain a nutritious diet, NPR 22945.00/person/year was required. ARCH study data from Nepal showed that cereals accounted for 10% and 20% of the annual budget for a nutritious diet, for local and imported products respectively (conservatively estimated as 1 portion per day multiplied by 7 days/week and 52 weeks respectively). Furthermore, commercially produced foods for general consumption commonly fed to children under the age of two years (excluding beverages) accounted for 39% of the estimated budget if using imported products and 10% if using locally produced products. Hence it would be useful to assess the cost of a nutritious diet in Cambodia so as to better understand its affordability and the proportion that such foods contribute to a family's food budget.

<sup>2</sup> A nutritious diet is calculated to provide the cost (based on local current market prices) of a theoretical nutritious diet for a 'reference family' consisting of one breast-fed child 12-24 months of age, one child 11-12 years, one child 16-17 years, one adult and women aged 30-59 years and who are moderately active.

Table 5-4 Cost comparison (based on serving size) between commercially produced complementary foods and selected commercially produced foods for general consumption commonly fed to children under the age of two years (excluding beverages) and beverages in Cambodia.

Product origin	Currency	Commercially produced complementary foods				Commercially produced foods for general consumption commonly fed to children <2 years of age	
		Cereals/ porridges	Puréed food	Snack/ finger food	Tea/water/ juice	Combined foods excluding beverages	Beverages
Locally produced	KHR	556.17	-	-	-	309.80 (170.449 – 449.12)	745.41 (734.93 – 755.89)
	USD	0.13	-	-	-	0.07 (0.04 – 0.11)	0.18 – 0.19)
Imported products	KHR	1676.96 (889.18 - 3157.55)	7696.21 (3441.03 - 16286.94)	6407.88 (1328.58 - 13626.46)	14070.61 (5343.61 - 32555.59)	1579.53 (384.58 – 9528.45)	3884.72 (793.18 – 14567.02)
	USD	0.41 (0.21 - 0.77)	1.88 (0.84 - 3.98)	1.56 (0.33 - 3.33)	3.44 (1.30 - 7.97)	0.38 (0.10 – 2.33)	0.95 (0.20 – 3.57)

## 5.2 Summary of answers to commercially produced foods for general consumption commonly fed to children under the age of two years checklist questions and data generated from labels database

The results of the labeling practices checklist together with data generated by the labels database, which documents current commercially produced foods for general consumption commonly fed to children under-two years labeling practices in Cambodia, are presented in Table 5-5.

The primary aim of the creation of a checklist for commercially produced foods for general consumption commonly fed to children under the age of two years was to objectively identify products which could be considered as being suitable for children under the age of two years. This is illustrated by the inclusion of the following questions in Table 5-5: C1-C24; C26 and C31.

Table 5-5 Cambodia checklist results: Commercially produced foods for general consumption commonly fed to children under the age of two years labeling practices (n=32).

Checklist of labeling practices		Potential answers	Number of labels	Percentage of labels
C1.	Age/age range for use that is $\geq$ 24 months	Yes	1	3
		No	31	97
C2.	Does the product label include phrases such as “from the start”; “for the whole family” or “first stage”?	Yes	1	3
		No	31	97
C3.	Does the product label contain any words or a product description that indicate that it is suitable for a child?	Yes	1	3
		No	31	97
C4.	Does the product label show an image of babies or children appearing to be under the age of 2 years?	Yes	2	6
		No	30	94
C5.	Does the product label recommend feeding the product from a feeding bottle?	Yes	0	
		No	32	100
C6.	Does the product label show an image of a feeding bottle?	Yes	1	3
		No	31	97
C7.	Does the product label show an image of a real person, such as a celebrity or sport’s star, that has appeal to children?	Yes	1	3
		No	31	97

Checklist of labeling practices		Potential answers	Number of labels	Percentage of labels
C8.	Does the product label show an image of a cartoon character or fictional movie character that has appeal to children?	Yes	2	6
		No	30	94
C9.	Does the product label show an image of a brand mascot that has specific appeal to children?	Yes	6	19
		No	26	81
C10.	Does the product label contain any representation of fantasy or adventure themes that has appeal to children?	Yes	9	28
		No	23	72
C11.	Does the product label contain information about or an image of a free gift, toy or collectible item with appeal to children?	Yes	1	3
		No	31	97
C12.	Does the product label show an image of a toy?	Yes	4	12
		No	28	88
C13.	Are any colors, shapes or designs used on the product label that has particular appeal to children?	Yes	13	41
		No	19	59
C14.	Does the product label contain or refer to a competition, voucher or game with appeal to children?	Yes	4	13
		No	28	88
C15.	Does the product label contain a joke, rhyme or short story with appeal to children?	Yes	2	6
		No	30	94
C16.	Does the product packaging have a particular shape, or does the product label show that the food contained has a particular shape, that has appeal to children?	Yes	8	25
		No	24	75
C17.	Does the product have a physical appearance, texture or any other novelty (not identified from any other questions) that would have specific appeal to children?	Yes	5	16
		No	27	84
C18.	Does the product label indicate a flavor that would specifically appeal to children?	Yes	2	6
		No	30	94
C19.	Are there any emotive claims (e.g. implying "fun") or statements on the product label that are directed towards children or their caregivers?	Yes	0	
		No	32	100
C20.	Does the product label indicate that the product is portioned in, for example, "mini" or "bite size" portions?	Yes	3	9
		No	29	91
C21.	Does the product label indicate that the product can be adapted to be suitable for a child?	Yes	0	
		No	32	100
C22.	Does any information on the product label imply that a balanced and varied diet cannot provide adequate nutrients to growing children?	Yes	0	
		No	32	100
C23.	Does the product label include warnings that are specifically intended for children?	Yes	0	
		No	32	100
C24.	Is the product labeled in a way that also promotes the company's breast-milk substitutes or complementary foods by using similar (a) Color schemes or designs, (b) Names, (c) Slogans, mascots, logos or other symbols, as used for breast-milk substitutes/complementary food brands?	Yes	1	3
		No	4	12
		NA	27	85
C25.	Does the product label include a portion / serving size?	Yes	19	59
		No	13	41
C26.	Does the product label provide nutrition information as a percentage RDA/NRV/GDA for children younger than 2 years of age?	Yes	0	
		No	32	100
C27.	Does the product label make any nutrient content claims?	Yes	2	6
		No	30	94
C28.	Does the product label make any nutrient comparative claims?	Yes	0	
		No	32	100
C29.	Does the product label make any nutrient function/other function claims?	Yes	1	3
		No	31	97
C30.	Does the product label make any reduction of disease risk claims?	Yes	0	
		No	32	100

Checklist of labeling practices		Potential answers	Number of labels	Percentage of labels
C31.	Does the product label make any other claims (excluding nutrition/health claims) that imply suitability for a child?	Yes	0	
		No	32	100
C32.	Is the product label written in the appropriate language(s) of the country in which the product is sold?	Yes	2	6
		No	27	84
		Partial	3	9
C33.1	Ingredients list?	Yes	3	9
		No	29	91
C33.2	The nutrition composition/analysis of the product?	Yes	0	0
		No	32	100
C33.3	Batch number?	Yes	25	78
		No	7	22
C33.4	Best before date?	Yes	26	81
		No	6	19
C34.	Is there an invitation on the label to make contact (direct or indirect) with the company's marketing personnel?	Yes	18	56
		No	14	44
C35.	Country-specific question for Cambodia: For sweetened condensed milk/ skimmed milk/ other similar products: Does the product label contain a clear, conspicuous warning that the product should not be used to feed IYC?	Yes	0	
		No	1	3
		NA	31	97

### 5.3 Labeling practices of commercially produced foods for general consumption commonly fed to children under the age of two years

As the inappropriate promotion of foods fed to infants and young children is under the spotlight in WHA resolution 65.6, in order to ensure optimal infant and young child feeding, it was considered important for this study to also consider the category of commercially produced foods for general consumption commonly fed to children under the age of two years. For optimal feeding, it is important to ensure that restrictions on the promotion of appropriately formulated commercially produced complementary foods, such as those developed according to the Codex Alimentarius 'Guidelines on Formulated Complementary Foods for Older Infants and Young Children', do not result in mothers/caregivers selecting commercially produced foods for general consumption commonly fed to children under the age of two years of a poor nutritional quality, since there are fewer guidelines governing their promotion that may lead to the belief that such products are suitable for and perhaps even beneficial (if they make nutrition and health claims) to infants and young children (in addition to often being less expensive). Furthermore, consideration also needs to be given to the possibility that restrictions on the promotion of appropriately formulated commercially produced complementary foods, may result in manufacturers removing the age recommendation for their products so as not to fall into the 'infant' (person under the age of 12 months) and more specifically 'young child' (person under 24 months of age) category and therefore being able to promote their products.

The STAG Technical Paper on 'Definition of inappropriate promotion of foods for infants and young children' states that 'there is recognition that some processed foods and drinks that are promoted for the general population may be consumed by infants and young children. These products were not included in the context of foods intended for infants and young children' (WHO, 2013a). Thus this report did not assess the labeling practices of commercially produced foods for general consumption commonly fed to children under the age of two years according to the WHO STAG criteria for the inappropriate promotion of foods for infants and young children.

As discussed in the methods section of this report, since there is no formal guidance for the marketing of this group of products, the structure of the commercially produced foods for general consumption commonly fed to children under the age of two years labeling practices checklist (see Appendix E) was based on the commercially produced complementary foods checklist and adapted to include the principles of international guidance available on the marketing of foods and beverages to children (WHO, 2004; CI, 2008; WHO, 2010; IASO, 2012). In so doing, the aim was to determine whether there was anything on the product label that could possibly encourage a mother/caregiver to feed the product to an infant or child younger than two years of age, even though there was no such explicit recommendation on the product. This report describes labeling practices on the strategically selected commercially produced foods for general consumption commonly fed to children under the age of two years that could potentially indicate to a mother/caregiver that the product was suitable for a child under-2 years of age. The checklists were, as far as was possible, completed from a mother/caregivers perspective.

### 5.3.1 Languages

It is generally accepted by authoritative bodies such as Codex Alimentarius that the information and instructions on product labels should be clear and in the appropriate language of the country (Codex, 1985). Ninety-four percent (n=30) of the labels breached Cambodian legislation which requires all text on food labels to be presented in Khmer (Question 32, Table 5-5). The predominant language on labels of the selected commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia was English (see Table 5-6).

Table 5-6 Languages in which label information was provided on selected commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia.

Label information provided in the following language(s)	ALL information provided in:		SOME information provided in:	
	Number of labels	Percentage of labels	Number of labels	Percentage of labels
English	17	50	15	47
Khmer	3	6	3	9
Other (non-official language)	6	19	13	41
NA	6	19	8	8

### 5.3.2 Mandatory and other label information

It is a globally accepted best practice for all food labels to provide certain information including an ingredients list and traceability (Codex, 1985). This study found that 9% of the labels provided an ingredients list, 78% include a batch number and 81% included a best before date. Eighty-one percent of the labels provided the nutrition composition/analysis of the product but no labels provided this nutrition information in Khmer. Six (19%) products were purchased after their best before dates. This is a cause for concern in Cambodia. An additional six (19%) products contained an illegible/unclear expiration date (Questions C33.1 – C33.4 respectively, Table 5-5 and Table 5-7).

Table 5-7 Selected label information included on the labels of selected commercially produced complementary food labels in Cambodia (n=32).

Mandatory and other label information	Number of labels	Percentage of labels
Best before date	26	82
Ingredients list	3	9
Nutrition composition information in any language	26	81
Nutrition composition information in Khmer	0	0
Batch number	25	78
Purchased after best before date <sup>a</sup>	6	19

<sup>a</sup>It could not be determined if six products had expired as the expiry date was missing.

### 5.3.3 Age related recommendations, feeding instructions and phrases

One product label (3%) had an age range that specifically indicated that it was to be used for children above 24 months (Question C1, Table 5-5), by stating: ‘*This product is for child with age of 2 and above*’. (Original Khmer text: ផលិតផលនេះគឺសម្រាប់កុមារដែលមានអាយុ 2 និងខាងលើ) (see Figure 5-3, image A). One product label included a phrase for use that could imply suitability for children under six months of age (Question C2, Table 5-5) by including the word ‘*Baby*’ on the product label, with no age of introduction present (see Figure 5-3, image B). One product label implied that the product was suitable for a child because the packaging of the product was in the shape of a baby feeding bottle (Question C3, Table 5-5) (see Figure 5-3, image C).

Figure 5-3 Examples of labels of commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia using phrases or representations that could imply that the product is suitable for children over or under 6 months of age.



### 5.3.4 Preparation and use instructions

When a product contained preparation/use information/instructions, 3% stated that they were ‘instant-add milk’ and 1% were ‘cook-add water’. One label had a preparation and use instruction in Khmer which stated: ‘*Add boiling water, allow to stand for 3 min then serve*’.

### 5.3.5 [Storage instructions](#)

Four (13%) of the labels contained storage instructions. General storage instructions were found on all of the four labels (for example: Translated English text: *'Please keep in dry, cold, and hygiene place.'* Original Khmer text: សូមរក្សាទុកនៅក្នុងកន្លែងស្ងួតត្រជាក់និងអនាម័យ) and one product label also stated storage conditions to avoid (Translated English text: *'Store it in a dry place and avoid exposure to the sun.'* Original Khmer text: ទុកដាក់កន្លែងស្ងួត និងជៀសវាងត្រូវពន្លឺថ្ងៃ).

### 5.3.6 [Warnings, safety messages and inserts](#)

None of the product labels contained warnings or safety messages in Khmer and no inserts were found in any of the selected commercially produced foods for general consumption commonly fed to children under the age of two years.

### 5.3.7 [Nutrient composition](#)

Nutrient composition data from the labels of selected commercially produced foods for general consumption commonly fed to children under the age of two years are presented in Table 5-8. Product labels have been grouped according to the various product categories. The 100g nutrient content information found on the label was then calculated as a 100kcal serving. The last column of the table presents the calculated percentage of DRI/RNI or WHO recommendations in each 100kcal serving. Further details on how the DRI/RNI per 100kcal portion was calculated can be found in Appendix G.

All but one of the labels provided nutritional information, however it should be noted that manufacturers were inconsistent with the information they provided, and therefore not all nutrients could be compared.

The general trend, with the exception of the beverages, based on the nutrition information provided is that the selected commercially produced foods for general consumption commonly fed to children under the age of two years were relatively high in sugar, high in fat and contained adequate to low amounts of protein with correspondingly low levels of micronutrients. This is indicative of what is generally considered to be the case for 'energy dense snack' products. Thus these products may not be suitable for infants and young children, who although they may have high energy and macronutrient requirements, also have high micronutrient requirements and nutrient quality is critical.

The assessment of the actual nutrient composition in comparison to the nutrient composition declared on the label and the associated quality of the products were not included in the scope of this research.



Table 5-8 Declared nutrient composition of selected commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia (n=25).

Nutrient	100 g Mean (minimum – maximum)	100 kcal Mean (minimum – maximum)	% DRI / RNI per 100 kcal <sup>a</sup>		
			6 – 8 months	9 – 11 months	12 – 23 months
<b>Biscuits/cookies (n=7)</b>					
Energy (kJ) (n=7)	2030 (1929 – 2221)	418 (418 – 419)	-		
Energy (kcal) (n = 7)	486 (462 – 531)	100 (100 – 100)	50	33	18
Protein (g) (n = 6)	7.2 (3.3 - 10.0)	1.5 (0.7 - 2.1)	17	18	17
Carbohydrates (g) (n = 6)	65.8 (56.3 - 70.0)	13.7 (10.6 - 15.0)	60 - 76	40 - 53	22 - 29
Sugar <sup>p</sup> (g) (n = 6)	18.5 (0.0 - 38.5)	3.9 (0.0 - 7.7)	78		
Dietary fibre (g) (n = 6)	2.4 (0.0 - 3.8)	0.5 (0.0 - 0.8)	-		
Total fat (g) (n = 6)	20.8 (16.7 - 31.3)	4.3 (3.6 - 5.9)	36 - 43	24 - 29	13 – 15
SFA (g) (n = 6)	9.6 (3.3 - 15.6)	2.0 (0.7 - 2.9)	-		
MUFA (g) (n = 2)	7.5 (6.67 - 8.33)	1.6 (1.4 - 1.8)	-		
PUFA (g) (n = 2)	3.3 (3.3 - 3.3)	0.7 (0.7 - 0.7)	23	14	8
Trans FA (g) (n = 6)	0 (0 - 0)	0 (0 - 0)	-		
LA (g)	-	-	-		
ALA (g)	-	-	-		
Vitamin A (µg RE) (n = 3)	474.3 (0 - 1423)	101.5 (0 - 304.5)	25		
Vitamin A (IU)	-	-	-		
Sodium (mg) (n = 6)	447.6 (230.8 - 833.3)	93.2 (46.2 - 178.3)	27		
Calcium (mg) (n = 4)	158.8 (0 - 635.0)	34.0 (0.0 - 135.9)	9	9	7
Iron (mg) (n = 2)	2.1 (0 - 4.2)	0.45 (0.0 - 0.90)	5	5	8
Zinc (mg)	-	-	-		
<b>Cake/sponge cake (n=1)</b>					
Energy (kJ)	1962 (1962 - 1962)	418 (418 - 418)	-		
Energy (kcal)	469 (469 - 469)	100 (100 - 100)	50	33	18
Protein (g)	6.2 (6.2 - 6.2)	1.3 (1.3 - 1.3)	14.6	15.4	14.8
Carbohydrates (g)	58.9 (58.9 - 58.9)	12.5 (12.5 - 12.5)	54 – 69	37 – 48	20 – 26
Sugar <sup>p</sup> (g)	30.6 (30.6 - 30.6)	6.5 (6.5 - 6.5)	130		
Dietary fibre (g)	3.6 (3.6 - 3.6)	0.77 (0.77 - 0.77)	-		
Total fat (g)	23.2 (23.2 - 23.2)	4.9 (4.9 - 4.9)	41 – 49	2 – 33	14 – 18
SFA (g)	11.1 (11.1 - 11.1)	2.4 (2.4 - 2.4)	-		
MUFA (g)	-	-	-		
PUFA (g)	-	-	-		
Trans FA (g)	0 (0 - 0)	0 (0 - 0)	-		
LA (g)	-	-	-		
ALA (g)	-	-	-		
Vitamin A (µg RE)	-	-	-		
Vitamin A (IU)	-	-	-		
Sodium (mg)	450.0 (450.0 - 450.0)	95.9 (95.9 - 95.9)	27		
Calcium (mg)	83.3 (83.3 - 83.3)	17.7 (17.7 - 17.7)	4	4	4
Iron (mg)	0.83 (0.83 - 0.83)	0.18 (0.18 - 0.18)	2	2	3
Zinc (mg)	-	-	-		
<b>Candy/sweets/chocolate (n=3)</b>					
Energy (kJ) (n = 3)	1706 (1546 - 1900)	400 (363 - 418)	-		
Energy (kcal) (n = 3)	428 (400 - 455)	100 (100 - 100)	50	33	18
Protein (g) (n = 1)	-	-	-		
Carbohydrates (g) (n = 2)	88.8 (86.7 - 90.9)	20.8 (20.0 - 21.7)	90 - 116	61 - 80	34 – 74
Sugar <sup>p</sup> (g) (n = 2)	68.8 (46.7 - 90.9)	15.8 (11.7 - 20.0)	316		
Dietary fibre (g)	-	-	-		
Total fat (g) (n = 1)	6.7 (6.7 - 6.7)	1.7 (1.7 - 1.7)	14 - 17	9 - 11	5 – 6
SFA (g)	-	-	-		
MUFA (g)	-	-	-		
PUFA (g)	-	-	-		
Trans FA (g) (n = 1)	0 (0 - 0)	0 (0 - 0)	-		
LA (g)	-	-	-		
ALA (g)	-	-	-		
Vitamin A (µg RE)	-	-	-		
Vitamin A (IU)	-	-	-		
Sodium (mg) (n = 2)	16.7 (0 - 33.3)	4.2 (5.9 - 8.3)	1		
Calcium (mg)	-	-	-		
Iron (mg)	-	-	-		
Zinc (mg)	-	-	-		

Nutrient	100 g Mean (minimum – maximum)	100 kcal Mean (minimum – maximum)	% DRI / RNI per 100 kcal <sup>a</sup>		
			6 – 8 months	9 – 11 months	12 – 23 months
<b>Chips/crisps (n=2)</b>					
Energy (kJ)	2216 (2174 - 2257)	417 (417 - 417)	-		
Energy (kcal)	530 (520 - 540)	100 (100 - 100)	50	33	18
Protein (g)	6.0 (5.0 - 7.0)	1.1 (0.9 - 1.3)	12	13	13
Carbohydrates (g)	56 (55 - 57)	10.6 (10.2 - 10.9)	46 - 59	31 - 41	17 - 22
Sugar <sup>b</sup> (g)	2.0 (1.0 - 3.0)	0.37 (0.19 - 0.56)	7		
Dietary fibre (g)	4.5 (4.0 - 5.0)	0.84 (0.77 - 0.93)	-		
Total fat (g)	33.0 (31.0 - 35.0)	6.2 (6.0 - 6.5)	52 - 62	34 - 41	18 - 22
SFA (g)	15.0 (14.0 - 16.0)	2.8 (2.7 - 3.0)	-		
MUFA (g)	-	-	-		
PUFA (g)	-	-	-		
Trans FA (g)	0 (0 - 0)	0 (0 - 0)	-		
LA (g)	-	-	-		
ALA (g)	-	-	-		
Vitamin A (µg RE)	-	-	-		
Vitamin A (IU)	-	-	-		
Sodium (mg)	370.0 (340.0 - 400.0)	69.6 (65.3 - 74.0)	20		
Calcium (mg)	-	-	-		
Iron (mg)	-	-	-		
Zinc (mg)	-	-	-		
<b>Yogurt (n=1)</b>					
Energy (kJ)	422 (442 - 442)	418 (418 - 418)	-		
Energy (kcal)	106 (106 - 106)	100 (100 - 100)	50	33	18
Protein (g)	3.4 (3.4 - 3.4)	3.2 (3.2 - 3.2)	36	38	36
Carbohydrates (g)	16.3 (16.3 - 16.3)	15.4 (15.4 - 15.4)	67 - 86	45 - 59	25 - 32
Sugar <sup>b</sup> (g)	-	-	-		
Dietary fibre (g)	-	-	-		
Total fat (g)	3.0 (3.0 - 3.0)	2.8 (2.8 - 2.8)	16 - 28	15 - 19	8 - 10
SFA (g)	-	-	-		
MUFA (g)	-	-	-		
PUFA (g)	-	-	-		
Trans FA (g)	-	-	-		
LA (g)	-	-	-		
ALA (g)	-	-	-		
Vitamin A (µg RE)	-	-	-		
Vitamin A (IU)	-	-	-		
Sodium (mg)	-	-	-		
Calcium (mg)	-	-	-		
Iron (mg)	-	-	-		
Zinc (mg)	-	-	-		
<b>Soft drinks (n=1)</b>					
Energy (kJ)	226 (226 - 226)	419 (419 - 419)	-		
Energy (kcal)	54 (54 - 54)	100 (100 - 100)	50	33	18
Protein (g)	-	-	-		
Carbohydrates (g)	13.5 (13.5 - 13.5)	25.0 (25.0 - 25.0)	109 - 139	74 - 96	74 - 52
Sugar <sup>b</sup> (g)	-	-	-		
Dietary fibre (g)	-	-	-		
Total fat (g)	-	-	-		
SFA (g)	-	-	-		
MUFA (g)	-	-	-		
PUFA (g)	-	-	-		
Trans FA (g)	-	-	-		
LA (g)	-	-	-		
ALA (g)	-	-	-		
Vitamin A (µg RE)	-	-	-		
Vitamin A (IU)	-	-	-		
Sodium (mg)	-	-	-		
Calcium (mg)	-	-	-		
Iron (mg)	-	-	-		
Zinc (mg)	-	-	-		

Nutrient	100 g Mean (minimum – maximum)	100 kcal Mean (minimum – maximum)	% DRI / RNI per 100 kcal <sup>a</sup>		
			6 – 8 months	9 – 11 months	12 – 23 months
<b>Other sweetened beverages (n=6)</b>					
Energy (kJ) (n = 6)	514 (129 - 1724)	418 (418 - 419)	-		
Energy (kcal) (n = 6)	123 (31 - 412)	100 (100 - 100)	50	33	18
Protein (g) (n = 6)	3.4 (0.6 - 10.7)	2.9 (1.4 - 3.9)	33	35	33
Carbohydrates (g) (n = 6)	19.8 (5.0 - 74.0)	15.3 (10.9 - 20.8)	66 - 85	45 - 59	25 – 32
Sugar <sup>b</sup> (g) (n = 2)	23.9 (9.6 - 38.2)	10.1 (9.3 - 10.9)	404		
Dietary fibre (g) (n = 2)	2.8 (0.8 - 4.7)	1.0 (0.9 - 1.1)	-		
Total fat (g) (n = 6)	3.3 (0 - 8.3)	2.8 (0 - 4.5)	23 - 28	16 - 19	8 - 10
SFA (g) (n = 6)	-	-	-		
MUFA (g)	-	-	-		
PUFA (g)	-	-	-		
Trans FA (g)	-	-	-		
LA (g)	-	-	-		
ALA (g)	-	-	-		
Vitamin A (µg RE) (n = 3)	106.7 (0.0 - 250)	172.1 (0.0 - 289.5)	43		
Vitamin A (IU)	-	-	-		
Sodium (mg) (n = 3)	54.0 (18.0 - 92.0)	46.6 (22.4 - 59.1)	13		
Calcium (mg) (n = 3)	204.7 (60.0 - 479.0)	132.6 (86.9 - 194.4)	33	33	27
Iron (mg)	-	-	-		
Zinc (mg)	-	-	-		
<b>Other country-specific snacks (n=4)</b>					
Energy (kJ) (n=4)	1429 (502 - 3006)	418 (418 - 418)	-		
Energy (kcal) (n=4)	341.4 (120 - 718)	100 (100 - 100)	50	33	18
Protein (g) (n=4)	6.1 (2.0 - 12.0)	1.8 (1.3 - 2.4)	20	21	20
Carbohydrates (g) (n=4)	47.9 (24.0 - 90.0)	16.3 (8.5 - 23.9)	71 - 91	48 - 63	26 – 34
Sugar <sup>b</sup> (g) (n=2)	13.0 (9.0 - 30.0)	7.7 (7.5 - 8.0)	154		
Dietary fibre (g) (n=3)	1.0 (1.0 - 2.0)	0.68 (0.53 - 0.83)	-		
Total fat (g) (n=3)	5.6 (0.2 - 20.0)	2.0 (0.1 - 4.1)	17 - 20	11 - 13	6 - 7
SFA (g) (n=3)	4.3 (0.2 - 16.0)	1.4 (0.1 - 3.2)	-		
MUFA (g) (n=1)	0.1 (0.1 - 0.1)	0.03 (0.03 - 0.03)	-		
PUFA (g) (n=1)	0.1 (0.1 - 0.1)	0.03 (0.03 - 0.03)	1	0.6	0.3
Trans FA (g) (n=3)	0 (0 - 0)	0 (0 - 0)	-		
LA (g)	-	-	-		
ALA (g)	-	-	-		
Vitamin A (µg RE) (n=1)	266.0 (266.0 - 266.0)	70.5 (70.5 - 70.5)	18		
Vitamin A (IU)	-	-	-		
Sodium (mg) (n=4)	782.49 (0.65 - 2153.8)	174.2 (12.5 - 299.4)	50		
Calcium (mg) (n=1)	0.82 (0.82 - 0.82)	-	-		
Iron (mg) (n=1)	5.0 (5.0 - 5.0)	1.3 (1.3 - 1.3)	14	14	22
Zinc (mg)	-	-	-		

<sup>a</sup>See Appendix G for recommendations and calculations.

<sup>b</sup>Sugar values were captured from any mention of sugar in the nutritional information on the label and not specifically added sugar.

Currently there are no guidelines for recommendation on the proportion of sugar from total energy for those aged <24 months however since sugar is under scrutiny, we used a recommended cut-off for those >24 months: Total sugars should not exceed 5.0 gr / 100 gr of solid food or 2.5 gr / 100 ml of beverage, (PAHO 2011), see appendix G for further details.

### 5.3.8 Portion size and daily ration

Fifty-nine percent of the commercially produced foods for general consumption commonly fed to children under the age of two years found in Cambodia provided recommended portion or serving sizes (see C25, Table 5-5). The relevance of the suggested portion sizes was not assessed in this study.

### 5.3.9 Consistency

None of the commercially produced foods for general consumption commonly fed to children under the age of two years contained an image of a feeding bottle nor did any of the product labels recommend feeding the product from a feeding bottle. However, one product had packaging that was in the shape of a feeding bottle (see Figure 5-3, image C).

### 5.3.10 Cross-promotion

Five products (16%) were produced by manufacturers that also produce breast-milk substitutes. Only one commercially produced food for general consumption commonly fed to children under the age of two years had a similar color scheme to a breast-milk substitute sold in Cambodia (see Figure 5-4).

Figure 5-4 Example of a label of a commercially produced food for general consumption commonly fed to children under the age of two years in Cambodia that could be considered as being cross-promoted with a breast-milk substitute from the same manufacturer.



### 5.3.11 Branded ingredients

Branded ingredients were observed on two (6%) of the labels (see Figure 5-5). Even though these branded ingredients are not in Khmer, it should be considered whether or not they present an image that could be interpreted by a mother/caregiver to be attractive or suggestive as being suitable for children under two years of age.

Figure 5-5 Examples of labels of selected commercially produced food for general consumption commonly fed to children under the age of two years in Cambodia that contain branded ingredients.



### 5.3.12 Endorsements

Only one (3%) of the labels of the selected commercially produced foods for general consumption commonly fed to children under the age of two years contained any form of endorsement. This endorsement stated ‘*Manufactured by [Manufacturer name], under the authority of the [Global manufacturer name].*’

### 5.3.13 Invitation to interact

Invitations to interact not in Khmer were not recorded; however, telephone and fax numbers, email addresses, websites and QR codes were included as they were considered recognizable even if they were not in Khmer. See Figure 5-6 where image A displays an image of the phone and the numbers which it was felt a mother could understand as an invitation to interact, even though it is not in the appropriate language. Image B may or may not be understood by a mother who cannot read the language, since the layout of the numbers might be understood to be a telephone number or not. The format of a website (see images C and D) and email addresses (images E and F) are likely to be understood regardless of the language on the label.

Toll free phone numbers which were specified for countries outside of Cambodia were also not recorded. Six (19%) of the labels of the selected commercially produced foods for general consumption commonly fed to children under the age of two years did not include an invitation to interact, while twenty six (81%) did. Table 5-9 displays all of the categories of invitations to interact that were found on the labels of these products.

It is appropriate, and in many countries a mandatory requirement, for product labels to provide the contact details of the manufacturer for the purpose of reporting product defects or quality issues. The checklist (Table 5-5, Question C34) shows that of the 26 product labels that contained any invitation for the consumer to interact, 18 product labels contained an invitation to make direct or indirect contact with the company’s marketing personnel. The invitation types on these 18 labels included websites and/or QR codes that invite consumers to make contact that is above and beyond the purpose of reporting product defects or quality issues. It needs to be determined whether or not this is appropriate for foods for infants and young children.

Table 5-8 Types of invitation to interact with the manufacturer used on selected commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia (n=26).

Invitation to interact	Number of labels	Percentage of labels
Website	17	65
Telephone number	13	50
Fax	9	35
Customer care line	7	27
Email addresses	7	27

Figure 5-6 Examples of invitations to interact that could be understood by a mother/caregiver even though not in the appropriate language

**Customer care lines:**



A



B

**Websites:**



C



D

**Email address:**



E



F

### 5.3.14 Claims

Codex Alimentarius has clear definitions for the various categories of nutrition and health claims commonly used/permitted on foods (see Table 4-16).

#### 5.3.14.1 Nutrition and Health Claims

Two product labels (6%) made nutrient content claims:

- Translated English text: '330ml provides the energy of 178 kilocalories.'  
Original Khmer text: ផ្តល់ថាមពល ១៧៨ គីឡូកាល់ឡូរី
- Translated English text: 'Rich in vitamins and minerals.'  
Original Khmer text: សំបូរទៅដោយវីតាមីន និង សារធាតុរ៉ែ

One label (3%) provided nutrient function/other function/implied health claims:

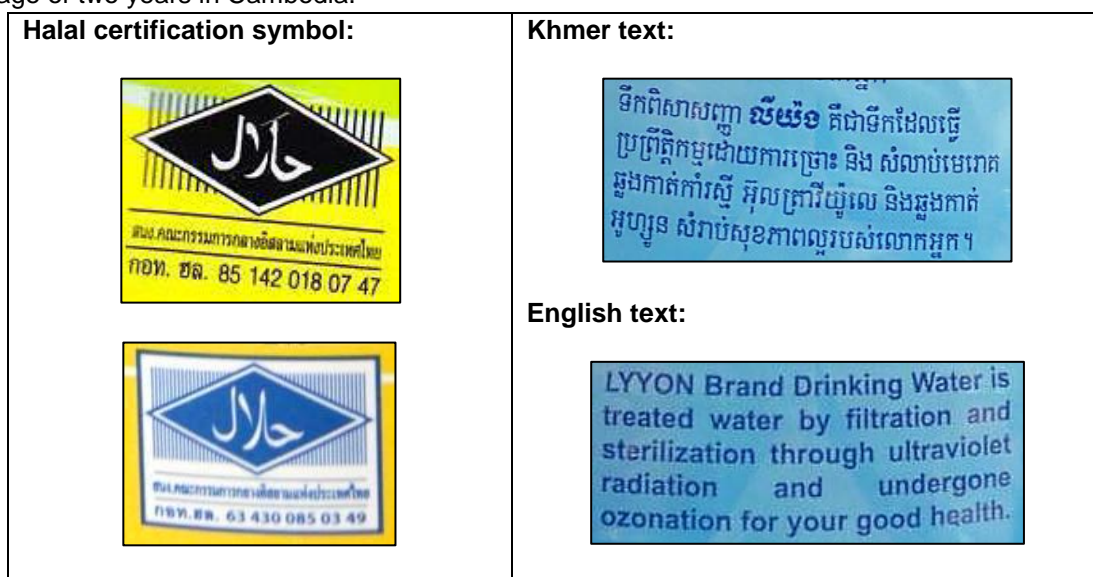
- Translated English text: 'For your good health.'  
Original Khmer text: សម្រាប់សុខភាពល្អរបស់អ្នក

No nutrient comparative or reductions of disease risk claims in Khmer were recorded from any of the labels of commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia.

### 5.3.14.2 Non-nutrition claims

Fifteen (46%) of the labels contained non-nutrition claims. Fourteen of the non-nutrition claims were religious certification symbols (predominantly the Halal symbol) and one label made a claim relating to the preparation/processing of the product, it did however link this to a health outcome (see Figure 5-7).

Figure 5-7 Examples of images portraying non-nutrition claims found on the labels of selected commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia.



Claims are made on the labels of commercially produced foods for general consumption commonly fed to children under the age of two years. Provided the claim meets the requirements in national legislation, they would be permitted and may result in the product being attractive to a mother/caregiver. Research is needed to determine the influence claims on these products have on mothers/caregivers when selecting foods to feed their infant/young child and if they would choose a commercially produced food for general consumption that makes a claim in preference to an appropriately formulated commercially produced complementary food that is not permitted to make any claims.

### 5.3.15 Images

All 32 of the labels of the selected commercially produced foods for general consumption commonly fed to children under the age of two years contained images (Questions C7, C8, C9, and C11 respectively, Table 5-5). Table 5-10 provides a breakdown of the image categories used in this research.

Table 5-9 Images used on the labels of selected commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia (n= 32).

Images	Number of labels	Percentage of labels
Ready-to-eat/prepared product	23	72
Ingredients/composition	22	69
Design elements: Stars/moon/sun/clouds/rainbow	11	34
Endorsement images	11	34
Design elements: Leaves/trees/plants/flowers/ landscapes/shells	9	28
Animals/insects	8	25
Design elements: Hearts/circles	7	22
Foods that are not ingredients	7	22
Brand mascots	6	19
Preparation/use illustrations	6	19
Bowl	5	16
Child	5	16
Other products	5	19
Animals (mother and babies)	3	9
Cup/glass	3	9
Toys	3	9
Telephone/computer mouse/email envelope	2	6
Cartoon characters	2	6
Scientific images/branded ingredient	2	6

Other less common images found on the labels (featuring once only) included: characters/stick figures, feeding bottle; jug of milk; raw product; image of real person/celebrity/sports star who has appeal to children; people using/ with the product.

### 5.3.16 [Labeling practices that could imply suitability to children](#)

A number of other practices were observed on the labels of the selected commercially produced foods for general consumption commonly fed to children under the age of two years and research would be needed to determine whether these would make it appear to a mother/caregiver that the product is suitable for a child under the age of two years and so result in:

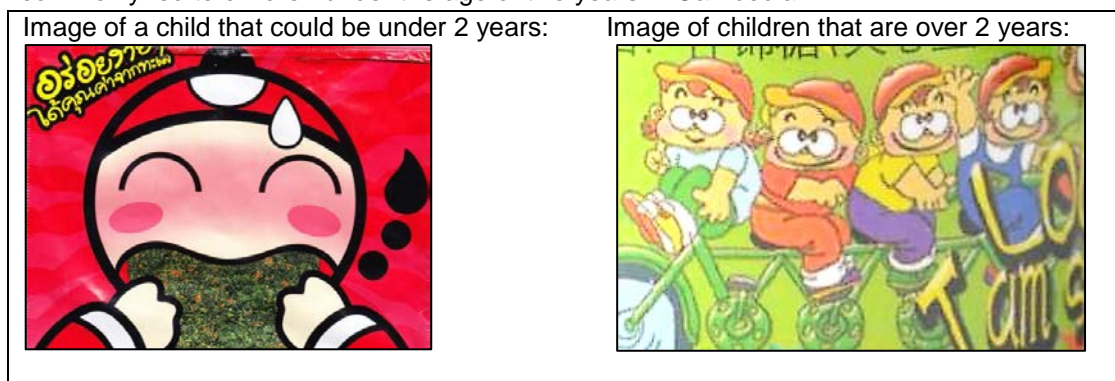
- Her purchasing such products to feed on a regular basis;
- These foods displacing the traditional diet;
- These foods being purchased in preference to an appropriately formulated commercially produced complementary food.

#### 5.3.16.1 *Images that could indicate suitability for children*

An image of an infant or young child that appears to be under two years old was observed on two (6%) of the labels of the selected commercially produced foods for general consumption commonly fed to children under the age of two years and 16% had an image of a child that appeared to be over two years of age (see Figure 5-8).



Figure 5-8 Images of infants/young children appearing to be under and over two years of age that appeared on the labels of selected commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia.



Some images that could potentially be considered as making the product appear suitable for a child and possibly even a child under the age of two years are illustrated in Figure 5-9 and include:

- A real person (such as a celebrity/sports star with appeal to children). Such an image appeared on one (3%) of the labels (see Question C7, Table 5-5; Figure 5-9, Image A).
- A cartoon character/fictional movie character with specific appeal to children. Such an image appeared on two (6%) of the labels (see Question C8; Figure 5-9, Image B).
- A brand mascot image with specific appeal to children. Such an image appeared on 19% of labels (see Question C9, Table 5-5; Figure 5-9, Image C).
- Figure 5-10, illustrates two further examples, one where the brand name is 'My Boy' and the associated image is of a child (see Figure 5-10, Image A) and another where there is an image of a child with the word 'Boy' appearing on his clothing (see Figure 5-10, image B). This could indicate suitability for a child, but not necessarily a child under the age of two years.

Figure 5-9 Images that could potentially be considered as making the product appear suitable for a child and possibly even a child under the age of two years on the packaging of selected commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia.

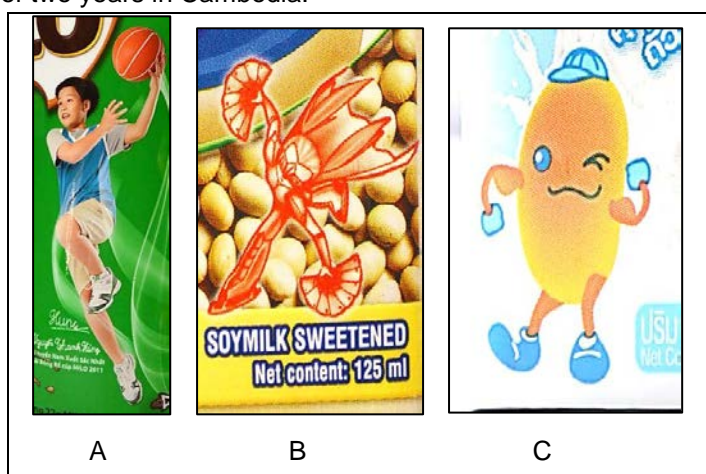
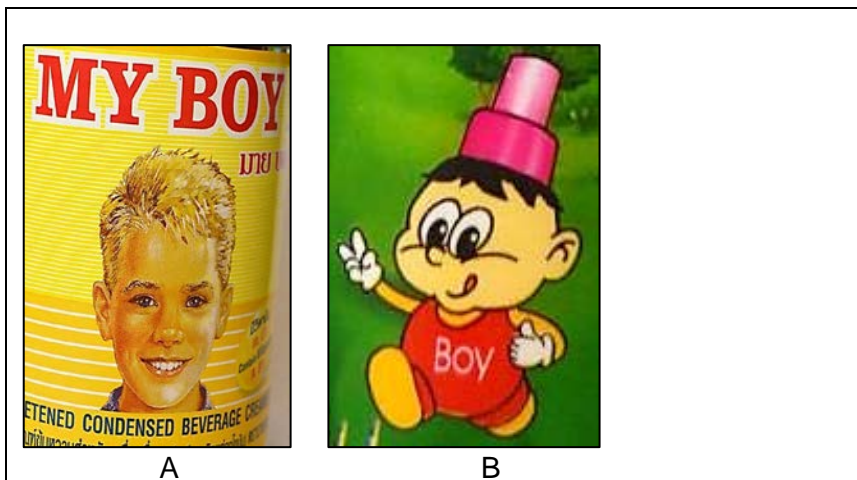
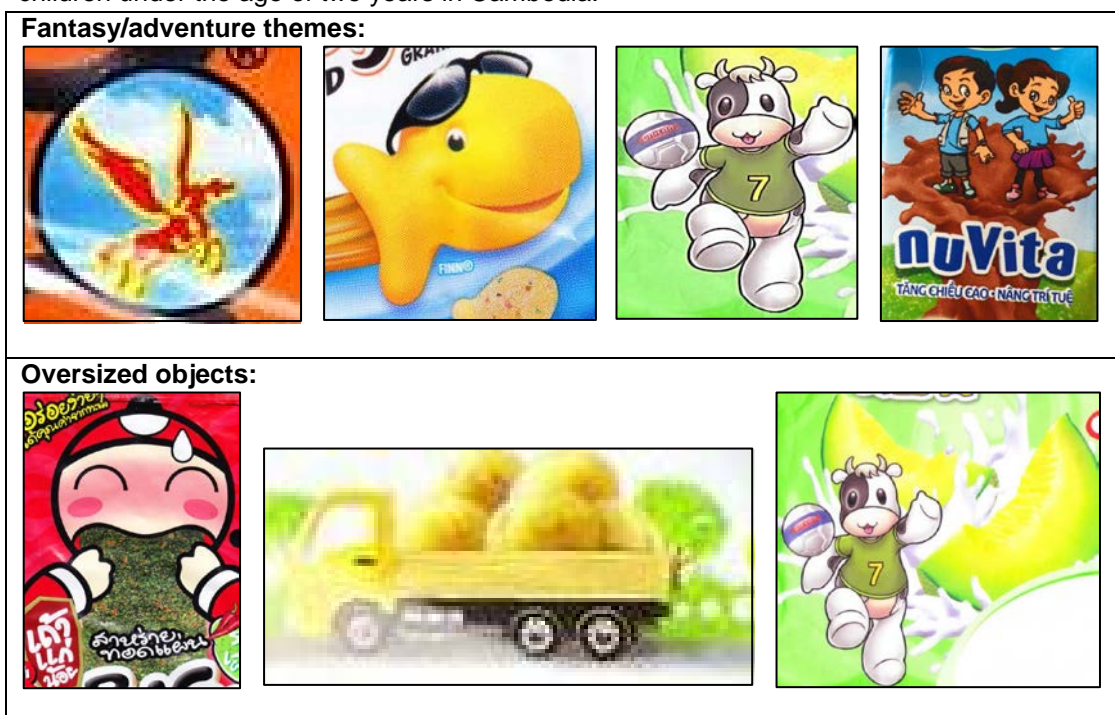


Figure 5-10 Example of images of a boy and use of the brand name 'My Boy' on selected commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia.



Twenty-eight percent of products contained images that conveyed the representation of a fantasy/adventure theme (see Question C10, Table 5-5). Images such as a flying horse, fish wearing sunglasses and cows playing soccer could all be considered to be unrealistic and therefore classified as fantasy/adventure themes. Furthermore, a trend was noticed whereby some products made use of objects (usually a foodstuff) that were oversized in relation to other images (see Figure 5-11)..

Figure 5-11 Examples of images categorized as representing fantasy/adventure themes found on the labels of selected commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia.



It is uncertain whether these types of images could indicate suitability for infants/young children to mother/caregivers and research into perceptions and practices would be valuable.

### 5.3.16.2 *Shape(s) that appeal to children (either label or packaging itself)*

Twenty-five percent of product labels included shapes (either the label or the packaging itself) that could be considered to have appeal to children (see Question C16, Table 5-5).

Examples include:

- The product packaging in the shape of a baby feeding bottle (see Figure 5-12, image A and B);
- A cracker product in the shape of baby fish (see Figure 5-12, image C);
- Biscuits with various shapes embossed on them (see Figure 5-12, image D).

Figure 5-12 Shapes that may be considered to appeal to young children that were part of the selected foods for general consumption commonly fed to children under the age of two years in Cambodia.



It is uncertain whether these product attributes could indicate suitability for infants/young children to mother/caregivers and research into perceptions and practices would be valuable.

### 5.3.16.3 *Slogans/tag-line*

Only one (3%) label displayed a slogan / tag line with the following wording; '*Having [product name] is better than having drug*'. Although this slogan could be considered to be in jest it is not considered appropriate or factual.

#### 5.3.16.4 *Emotive claims*

No emotive claims were recorded on labels of selected commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia.

#### 5.3.16.5 *Toys/Competitions/Rewards*

Four product labels (13%) of the selected commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia contained an image of a toy/competition/reward:

- Three product labels provided a website address for and image of a game that could be played (see Figure 5-13, images A and B);
- Two product labels provided images of soccer balls or basketballs that could be considered toys used to play sport games (see Figure new, image C).

Figure 5-13 Example of images of toys/competitions/rewards on labels of selected commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia.



It is assumed that toys/competitions/rewards would make these products appealing to mothers/caregivers of infants/young children and research into perceptions and practices would be valuable.

#### 5.3.16.6 *Joke/Rhyme/Story*

Two of the product labels (6%) of the selected commercially produced foods for general consumption commonly fed to children under the age of two years included a joke/rhyme/story (see Question C15, Table 5-5 and Figure 5-14).

Figure 5-14 Examples of images on a product label that can be categorized as portraying a joke, rhyme or story found on the labels of selected commercially produced foods for general consumption commonly fed to children under the age of two years in Cambodia..



It is uncertain whether such jokes/rhymes/stories would make these products appealing to mother/caregivers for purchasing for their infants/young children and research into perceptions and practices would be valuable.

#### 5.3.16.7 *Flavors/appearance/texture/other appeal to children*

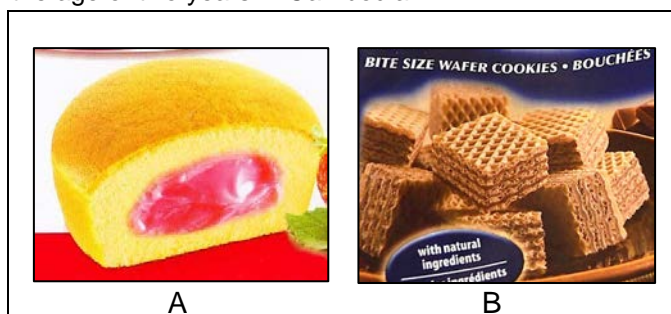
Two product labels (6%) of the selected commercially produced foods for general consumption commonly fed to children under the age of two years were of a flavor variant that could be considered to appeal specifically to children – ‘Vanilla cupcake’ and ‘melon milk’ (see Question C18, Table 5-5).

Sixteen percent of product labels contained text related to the appearance or the texture or some other aspect of the product that could make it appear that the product is suitable for children (see Question C17; Table 5-5):

- Texture: One product had a soft texture with cream inside (see Figure 5-15, image A).
- Small size: One product contained small, bite-size individual products (see Figure 5-15, image B).

It is uncertain whether these product attributes could indicate suitability for infants/young children to mother/caregivers and research into perceptions and practices would be valuable.

Figure 5-15 Product texture and size attributes that may be considered to indicate suitability for young children found amongst selected foods for general consumption commonly fed to children under the age of two years in Cambodia.



#### 5.3.16.8 *Other novelties that could have specific appeal to children*

None of the selected foods for general consumption commonly fed to children under the age of two years in Cambodia products contained:

- any emotive claims (Question C19, Table 5-5);
- information that implies that a balance and varied diet cannot provide adequate nutrients to growing children (Question C22, Table 5-5);
- a warning that is specifically intended for children (Question C23, Table 5-5) or;
- nutrition information as a percentage RDA/NRV/GDA for children younger than two years of age (Question C26, Table 5-5).

## 5.4 Considerations pertaining to the labeling practices of commercially produced foods for general consumption commonly fed to children under the age of two years

The inclusion of selected commercially produced foods for general consumption commonly fed to children under the age of two years in this study was to determine whether there was anything on the product label of this category of foods that could possibly encourage a mother/caregiver to feed the product to an infant or child younger than two years of age, even though there was no such explicit recommendation on the product. It was hypothesized that these labels may contain elements / display practices that could appear to make the product suitable for children and this could therefore potentially encourage mothers/caregivers to choose these possibly energy dense products over more appropriately formulated commercially produced complementary foods.

The nutrient profile and certain label elements/practices of the commercially produced foods for general consumption commonly fed to children under the age of two years in this study indicated that there is reason for concern. Some of the elements/practices to be considered include:

- Nutrition claims;
- Images that could indicate suitability for children;
- Shapes of either the label or the packaging that may appeal to children;
- Use of certain slogans / tag-lines / rhymes or stories;
- Toys / competitions / rewards;



- Representation of fantasy or adventure themes appealing to children;
- Flavors / appearance / textures that appeal to children;
- Invitations for the consumer to interact with the manufacturer.

As this study did not include research into the perceptions and practices of mothers/caregivers regarding product labels, it is uncertain whether the product attributes included in this report either indicate suitability for infants/young children or would result in these products being chosen over other more appropriate foods. Consumer research regarding mothers/caregivers perceptions and practices is required. This research however highlights that it is critical to ensure that there are no unintended negative consequences of any recommendations made regarding the inappropriate promotion of appropriately formulated commercially produced complementary foods.

## 6 CONCLUSIONS

It has been recognized by many eminent organizations that commercially produced complementary foods have a role to play in optimal infant and young child feeding. Based on the findings of this study in Cambodia, five key themes are considered important in striving to ensure optimal infant and young child feeding:

1. Consistent information supports informed choices.

Providing consumers with important and valuable information on products is critical as it is this information that mothers/caregivers are likely to use to make their product choices when selecting from available commercially produced complementary foods.

2. A global market requires global guidance.

There are a number of commercially produced complementary foods available in Cambodia, with imported products (predominantly from France and USA) making up 99% of the available products. In order to ensure optimal infant and young child feeding practices in a global village, consistency of labeling practices becomes important and global guidance is therefore critical.

3. Detailed and specific guidance is required.

There are a number of elements on product labels that are important and in some cases may be open to interpretation. Detailed guidance is therefore required on all label elements to ensure that commercially produced complementary foods provide factual information, promote optimal infant and young child feeding and never undermine breast-feeding while still allowing the right to freedom of choice.

4. Guidance should not result in unintended consequences.

Consideration needs to be given not only to the promotion of commercially produced complementary foods, but also foods not specifically marketed for but commonly fed to children under-2 years of age. It is important to ensure that restrictions on the promotion of the former do not result in mothers/caregivers selecting the latter, which often have a poor nutrient profile, due to the fact that they are less restricted. As such, foods not specifically marketed for but commonly fed to children under-2 years, can imply to mothers/caregivers that they are suitable for infants and young children as they are able to make nutrition and health claims and are less regulated in terms of images and other marketing techniques used on labels.

Furthermore, consideration also needs to be given to the possibility that restrictions on the promotion of appropriately formulated commercially produced complementary foods, may result in manufacturers removing the age recommendation for their products so as not to fall into the 'infant' (person under the age of 12 months) and more specifically 'young child' (person under 24 months of age) category and therefore being able to promote potentially unsuitable products.



5. Monitoring and enforcement of existing policies can be strengthened.

Cambodia adopted many provisions of the *International Code of Marketing of Breast-Milk Substitutes* as national legislation, by enacting the *Sub-decree on Marketing of Products for Infant and Young Child Feeding (No. 133)* in 2005. Although the Cambodian law is relatively comprehensive, it does not cover all labeling provisions of the Code. The WHO recommends that countries should periodically review their regulations in line with the Code and its subsequent WHA resolutions and that monitoring and enforcement requires continued strengthening. In line with this, the Cambodian legislation requires review and its monitoring and enforcement requires strengthening.

The ARCH findings in Cambodia illustrate the need and the opportunity to give more clarity and detailed and practical global guidance on the appropriate promotion of foods for infants and young children. The WHO Position Paper on 'Inappropriate promotion of foods for infant and young children' (Annex 2 of document EB134/5) is a positive step, but more specific guidance is needed within each of the 5 criteria categories. In addition there are some practices that are not included in the 5 criteria that need to be considered and be more clearly defined. This detailed guidance is necessary in order to help countries develop clear and specific regulations for the appropriate promotion of complementary foods.

Specific WHO guidelines on the promotion of commercially produced complementary foods should address multiple aspects of promotion, including but not limited to:

- Appropriate nutrition claims;
- Suggested wording for a statement supporting breastfeeding and the role of local foods;
- Cross-promotion of breast-milk substitutes and complementary foods;
- Appropriate imagery and invitations to interact with consumers;
- Appropriate endorsements; and
- Guidance around product composition, consistency and appropriate daily rations.

There is also an opportunity to address the issue of promotion of foods not marketed directly for, but commonly fed to infants and young children, by strengthening the support of the WHO *Recommendations on the marketing of foods and non-alcoholic beverages to children* as a foundation. For example this study found that commercially produced foods not marketed for but commonly fed to children under two years contained a number of claims including nutrient content claims and nutrient function / other function / implied health claims. If such claims are prohibited on appropriately formulated commercially produced complementary foods it may lead to the scenario where a mother/caregiver evaluates the commercially produced foods for general consumption commonly fed to children under the age of two years as being more suitable to feed to her child.

Furthermore compared to commercially produced complementary foods, foods not marketed to but commonly fed to children under two years cost between 30 – 80% less per portion, depending on whether a locally produced or imported product. This could be a critical factor which may influence the purchase of such products.

Providing consumers with important and valuable information on products is critical, as it is this information that mothers/caregivers are likely to use to make their product choices when selecting from available foods. However any information provided must be factual, promote optimal infant and young child feeding, and never undermine breastfeeding.

Consideration therefore needs to be given to both the promotion of commercially produced complementary foods and foods not marketed for but commonly fed to children under-two years of age. These two categories must not be viewed in isolation. For optimal infant and young child feeding it is important to ensure that restrictions on the promotion of the former do not result in mothers/caregivers selecting the latter, due to the fact that they are less restricted and as such can imply to mothers that they are suitable for infants and young children. This could potentially be significant in populations with a lower literacy/education level.

Consideration also needs to be given to the possibility that if there are total restrictions on all promotion of appropriately formulated commercially produced complementary foods, manufacturers may decide to remove the age recommendation for their products. More research is needed to explore these.

The findings of the ARCH Project in Cambodia indicate that more guidance is needed on a number of label elements as discussed in this report, in order to both strengthen the *International Code of Marketing of Breast-Milk Substitutes*, enacting the *Sub-decree on Marketing of Products for Infant and Young Child Feeding (No. 133)* and to enable effective monitoring and enforcement of labeling practices. This is crucial in further advancing Cambodia's efforts to promote optimal feeding practices for infants and young children and scale up nutrition, while also allowing caregivers the right to freedom of choice.

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## 8 APPENDICES

### 8.1 APPENDIX A:

#### INFORMAL STORE SAMPLING METHODS FOR CAMBODIA

#### CAMBODIA: INSTRUCTIONS FOR INFORMAL STORE VISITS

##### SANGKAT SAMPLING:

- **11 Formal Stores** (CS01-CS04; CS06; CS08-CS13) have been selected and visited for the Cambodian Labeling and POS Promotion Study
- **20 Informal Stores** (CS14-CS33) must now be located and visited from a random sample of 8 urban sangkat (communes):
  - 8 sangkat have been randomly sampled from a total of 41 urban sangkat making up the four urban khans (districts) in Phnom Penh, and are provided in Table 1 as ‘Sangkat Randomly Sampled’
  - 2 informal stores must be visited for each ‘Sangkat Randomly Sampled’ (1 **Small Grocery/Neighborhood Store** and 1 **Convenience Store**). Thus a total of 8 **Small Grocery/Neighborhood Stores** and 8 **Convenience Stores** must be visited
  - In addition 1 **Independent Pharmacy** must be visited per khan. Thus a total of 4 **Independent Pharmacies** must be visited.
  - If the 20 Informal Stores (4 **Independent Pharmacies**, 8 **Small Grocery/Neighborhood Stores** and 8 **Convenience Stores**) cannot be located in the ‘Sangkat Randomly Sampled’, missing stores must be located in neighboring sangkat as described further on in this document
- A total of 31 stores will be included in Cambodia’s Labeling and POS Promotions Study (11 Formal Stores and 20 Informal Stores)
- Additional detail regarding the ‘Sangkat Randomly Sampled’ (Table 1) is provided in Table 2.

**Table 1:** Random Sampling of Urban Sangkat in Phnom Penh for Informal Store Visits

PHNOM PENH URBAN SANGKAT			NO. OF SANGKAT INCLUDED IN RANDOM SAMPLE	SANGKAT RANDOMLY SAMPLED	NO. OF INFORMAL STORES VISITED <i>(small grocery/neighborhood store; convenience store; independent pharmacy)</i>
PROVINCE	KHAN (DISTRICT)	URBAN SANGKAT (COMMUNE)			
Phnom Penh	1. Chamkar Mon	12	2	3; 12	5 (2;2;1)
	2. Doun Penh	11	2	4; 5	5 (2;2;1)
	3. Prampir Meakkakra	8	2	1; 4	5 (2;2;1)
	4. Tuol Kouk	10	2	5; 9	5 (2;2;1)
<b>Total:</b>	<b>4</b>	<b>41</b>	<b>8</b>		<b>20 (8;8;4)</b>
<b>Informal stores</b>					<b>20</b>
<b>Formal stores</b>					<b>11</b>
<b>Total stores</b>					<b>31</b>



**Table 2:** Detailed Information on Urban Sangkat Randomly Sampled in Phnom Penh

Khan Code	Khan (District) Name	No. allocated for random selection	Sangkat (Commune) Code	Sangkat (Commune) Name (in alphabetic order)	Population	Small Grocery / Neighborhood Store	Convenience Store	Independent Pharmacy (example)*
<b>PROVINCE: PHNOM PENH</b>								
<b>01</b>	<b>Chamkar Mon</b>							
		1	04	Boeng Keng Kang Bei	22 200			
		2	02	Boeng Keng Kang Muoy	12 440			
		3	03	Boeng Keng Kang Pir	11 202	1	1	1
		4	11	Boeng Trabaek	8 652			
		5	05	Oulampik	9 638			
		6	12	Phsar Daeum Thkov	21 977			
		7	01	Tonle Basak	30 234			
		8	08	Tumnob Tuek	17 428			
		9	06	Tuol Svay Prey Ti Muoy	13 621			
		10	07	Tuol Svay Prey Ti Pir	10 717			
		11	10	Tuol Tumpung Ti Muoy	12 375			
		12	09	Tuol Tumpung Ti Pir	10 731	1	1	0
<b>02</b>	<b>Doun Penh</b>							
		1	04	Boeng Reang	7 210			
		2	07	Chakto Mukh	10 312			
		3	08	Chey Chummeah	12 372			
		4	09	Phsar Chas	7 018	1	1	1
		5	05	Phsar Kandal Ti Muoy	9 427	1	1	0
		6	06	Phsar Kandal Ti Pir	7 334			
		7	03	Phsar Thmei Ti Bei	10 313			
		8	01	Phsar Thmei Ti Muoy	6 411			
		9	02	Phsar Thmei Ti Pir	7 387			
		10	10	Srah Chak	39 269			
		11	11	Voat Phnum	9 263			

03 Prampir Meakkakra								
		1	08	Boeng Prolit	10 169	1	1	1
		2	06	Mittakpheap	10 163			
		3	05	Monourom	11 227			
		4	03	Ou Ruessei Ti Bei	7 673	1	1	0
		5	04	Ou Ruessei Ti Buon	9 418			
		6	01	Ou Ruessei Ti Muoy	8 133			
		7	02	Ou Ruessei Ti Pir	9 518			
		8	07	Veal Vong	25 489			
04 Tuol Kouk								
		1	07	Boeng Kak Ti Muoy	15 147			
		2	08	Boeng Kak Ti Pir	29 171			
		3	10	Boeng Salang	29 935			
		4	09	Phsar Daeum Kor	14 542			
		5	03	Phsar Depou Ti Bei	8 248	1	1	1
		6	01	Phsar Depou Ti Muoy	10 659			
		7	02	Phsar Depou Ti Pir	11 008			
		8	06	Tuek L'ak Ti Bei	25 869			
		9	04	Tuek L'ak Ti Muoy	13 493	1	1	0
		10	05	Tuek L'ak Ti Pir	13 122			
						<b>8</b>	<b>8</b>	<b>4</b>
						<b>20</b>		

**\*Independent Pharmacies** may be visited in any Sangkat on condition that 1 pharmacy is visited per khan and that only 4 pharmacies are visited in total.

#### STORE VISITS:

- Follow the instructions provided in 'Activity Plan POS Promotion and Phase 2B'.
- The remaining instructions provided in this document are additional to those provided in 'Activity Plan POS Promotion and Phase 2B' so please also read the Activity Plan again and ensure you are familiar with its contents.

#### PREPARING FOR STORE VISITS:

- The *Informal Stores Sampled List* has been prepared for you (the point of departure and store codes have been added). Please check that it is correct and add the full address for the sangkat headquarters (point of departure). The 'Store Type', 'Store Name', 'Store Address' and 'GPS coordinates' can only be completed from the *Store Characteristics Form* once the store has been located and not before store visits.

- Plan the route and store visits per day:
  - Print out sangkat maps for all the ‘Sangkat Randomly Sampled’ (Table 1). It would be useful if each sangkat map also showed neighboring sangkat in case you need go these sangkat (e.g. if insufficient informal stores are found in the randomly selected sangkat).
  - Determine how many and which sangkat can be visited in a day and plan a route that makes sense to you. For each khan, we recommend visiting both randomly sampled sangkat before moving on to the next khan (in order to ensure that you find 1 independent pharmacy). However the order of khan visited is not important.
  - Make sure that you have enough time at the end of the day (or before going out to stores at the beginning of the next day) to upload the updated *Data Collection Form*, and to scan and upload the *POS Promotion Forms*, *Store Characteristics Forms* and *POS Promotion Photographs* to Dropbox, before going to the next set of stores. Saving to Dropbox needs to be done on a daily basis, not only after all of the Informal Store visits have taken place.

**DEPARTURE POINT** (from which field workers can travel to find the informal stores):

- The Sangkat Headquarters (1 per sangkat) should be used as the point of departure in each randomly sampled sangkat.
- Locating Sangkat Headquarters:
  - These are indicated on your sangkat maps. You may also wish to make use of the Google Maps smartphone application, which has GPS that could guide you to the sangkat headquarters.

**LOCATING INFORMAL STORES:**

- From the departure point, informal stores must be located by:
  - Asking an adult female passer-by where the nearest informal store is (providing an example of the store you are looking for e.g. nearest Small Grocery/Neighborhood Store that sells breast-milk substitute and/or commercially produced complementary food). If no females are present, ask a male. You will need to think of terminology to clearly describe breast-milk substitute / commercially produced complementary food to the passer-by (e.g. ‘infant formula e.g. Nan’ and ‘baby cereal or other baby foods e.g. Cerelac’) as relevant in Cambodia.
  - If there is no one available to ask, throw a pen/pencil in the air and when it lands, start walking in the direction that the tip of the pen/pencil points to. If the pen/pencil points to an impossible route, try again until it points to a possible route. Walk until encountering a passer-by to ask for directions, or until encountering the relevant informal store.
  - After visiting the first store, ask a passer-by or the store manager for directions to the next nearest informal store (or continue on the randomly selected route) until you have located 2-3 informal stores for that sangkat, as relevant.
  - Monitor your movements against the sangkat maps/Google Maps to ensure that if you cross over into the next sangkat, you record the correct sangkat name against the name of the store in the ‘Informal Stores Sampled List’. NB: do not include stores in sangkat outside of the relevant khan.

**INFORMAL STORES TO BE VISITED PER SANGKAT:**

- In total, you will need to locate:
  - 8x *Small Grocery/Neighborhood Stores*
  - 8x *Convenience Stores*
  - 4x *Independent pharmacies*

- **Locating Independent Pharmacies:**
  - Locate 4 *Independent Pharmacies* in total (see Table 2 for an example of where pharmacies could be visited, however independent pharmacies can be visited in any of the randomly sampled sangkat as long as 1 pharmacy is visited per khan).
  - If for example, you look for a pharmacy in Boeng Keng Kang Pir (Chamkar Mon) but cannot find one, you can then look for one in the subsequent sangkat (e.g. Tuol Tumpung Ti Pir, Chamkar Mon).
  
- **Insufficient Informal Stores per sangkat:**
  - If any of the 'Sangkat Randomly Sampled' do not contain sufficient *Informal Stores*, visit a neighboring sangkat in the same khan in order to locate the remaining *Informal Stores* e.g. if the randomly sampled sangkat only has 1 of the 2 store types needed and you move to a neighboring sangkat, only look for the remaining store type in the neighboring sangkat.
  - Bear in mind that no more than 2 - 3 informal stores can be visited per sangkat (i.e. 1 *Small Grocery/Neighborhood Store* and 1 *Convenience Store*, OR 1 *Small Grocery/Neighborhood Store*, 1 *Convenience Store* and 1 *Independent Pharmacy*).
  - Locate the relevant store/s by asking a passer-by or the manager of the previous store visited to direct you to the closest store that sells breast-milk substitute and/or commercially produced complementary food. This will take you out of the randomly sampled sangkat and into a neighboring sangkat. Record the correct sangkat name against the name of the store in the '*Informal Stores Sampled List*'.
  
- **Store doesn't sell breast-milk substitutes/commercially produced complementary foods:**
  - If a *Small Grocery/Neighborhood Store/Convenience Store/Independent Pharmacy* is located but DOES NOT sell breast-milk substitutes / commercially produced complementary foods, after checking the store thoroughly, leave the store and locate the next closest *Small Grocery/Neighborhood Store/Convenience Store/ Independent Pharmacy* that does sell breast-milk substitute / commercially produced complementary food.
  - Locate the next closest relevant store/s by asking a passer-by or the manager of the previous store visited to direct you to the closest store that sells breast-milk substitute and/or commercially produced complementary food. This may take you out of the randomly sampled sangkat, in which case record the correct sangkat name against the name of the store.
  - Record this information in the '*Informal Stores Sampled*' form (last column) in order to keep track of how many stores needed to be 'replaced'.
  - When adding a replacement store to the '*Informal Stores Sampled*' list (i.e. if you run out of store codes for the Sangkat you are in) using the empty rows on page 2 and 3, allocate a new store number starting at CS34.
  - The next store should be located by asking a passer-by/store manager (as described previously), and if none are available make use of the pen/pencil to determine your route (as described previously).
  
- **Store owner does not provide permission to conduct the store visit / asks field workers to leave the store before they have completed Labeling Study and/or POS Promotion activities:**
  - Leave the store and replace it with the next closest *Small Grocery/Neighborhood Store/ Convenience Store/Independent Pharmacy* that sells breast-milk substitute / commercially produced complementary food.
  - Record this information in the '*Informal Stores Sampled*' form (last column) in order to keep track of how many stores needed to be 'replaced'.
  - When adding a replacement store to the '*Informal Stores Sampled*' list (i.e. if you run out of store codes for the Sangkat you are in) using the empty rows on page 2 and 3, allocate a new store number starting at CS34.

- **Stores to exclude:**
  - Store types visited as part of the formal store visits.
  - Non-store based retailers (e.g. traditional markets, informal vendors and street hawkers).
  - Any informal store types not included on the Informal Distribution Channels sheet in your '*List of Stores Scoped*'.
  - Any informal store that does not sell breast-milk substitute / commercially produced complementary food.

/ENDS

## 8.2 APPENDIX B:

### CAMBODIA DATA COLLECTION FORM

#### ARCH LABELING STUDY: DATA COLLECTION FORM (26 June 2013)

The following is a sample 'Data Collection Form' for use during 'PHASE 2B: Products purchased by HKI country Staff'

**Note:**

- The 'Data Collection Form' for your country will be created by adapting your final 'Master List'.
- Examples have been provided in italics and should be deleted before using the form.
- You may need to add more rows for new products/increase row heights before you print this document for store visits.
- Product numbers and store numbers must be unique.
- Use a new 'Data Collection Form' for each day of purchasing products that has been updated to reflect the previous day's data collection/purchases.

Product Code	Manufacturer / Distributor	Brand Name	Sub-Brand Name	Descriptive Name (as provided on label)	Flavour Variant (pick the most common or first variant)	Age of introduction (in mo/yrs - as provided on label)	Age category (Stages or age descriptor e.g. baby/toddler)	Single / double serving? (Answer: Yes; No; Not Provided)	Packaging	Price (as purchased)	Bought at (store code)	New (N) / Bought in Phase 3 (P3)	Formula for Special Medical purposes	POS CPF (added promotion targets children)
<b>1. BREAST-MILK SUBSTITUTES (BMS)</b>														
<b>A. STARTER / INFANT FORMULA</b>														
C101	DUMEX	Dulac	Gold	Starter infant formula	NA	From 0-6 months	No. 1	Not sure						
C102	Star Alliance	Nature	Gold	Starter infant formula	NA	From 0-6 months	No. 1	Not sure						
C103	Laboratoire France BéBé Nutrition	France BéBé	NA	Préparation pour nourrissons enrichie en fer (Infant formula fortified with iron)	NA	0-6 months	1	No	Tin	\$ 6.20	CS06	NA	No	
C104	Abbott	Gain IQ	NA	Starter infant formula	NA	From birth	No. 1							
C105	Abbott Manufacturing Singapore Pvt	Similac	Advance Eye Q Plus	Infant formula	NA	From birth	1	No	Tin	\$ 10.80	CS06	NA	No	

	Ltd													
C106	Nestle Philippines Inc	Lactogen	Prebio 1	Infant formula	NA	From birth to 1 year	1	No	Tin	\$ 5.20	CS08	NA	No	
C107	Abbott (DKSH)	Isomil	Advance Eye Q Plus	Soy infant formula	NA	From 0-6 months	1	No	Tin	\$ 10.30	CS08	NA	Yes	
C108	Nutrilat Master LM Co, Ltd	Nutrilat	NA	Starter infant formula	NA	From 0-6 months	1	No	Tin	\$ 9.50	CS06	NA	No	
C109	Mead Johson Nutrition	Enfamil A+	NA	Starter infant formula	NA	From 0-6 months	No. 1							
C110	Friesland-Campina	Dutch Baby	NA	Starter infant formula	NA	From 0 to 6 months	Step 1	No	Tin	\$ 4.20	CS08	NA	No	
C111	Friesland-Campina	Frisolac	Gold	New Beginnings infant formula	NA	From 0-6 months	1	No	Tin	\$ 28.30	CS13	NA	No	
C112	Gilbert Laboratories	Physiolac	NA	Lait pour nourrissons (infant formula)	NA	From 0 to 6 months	1	No	Tin	\$ 9.30	CS06	NA	No	
C113	Biofood-nutrition SE	Fabimilk	NA	Infant milk	NA	From birth to 6 months	1	No	Tin	\$ 8.95	CS06	NA	No	
C114	Manufactured by Celia for Lactalis International	Celia	Develop	Infant Milk Powder	NA	Up to 6 months	1	No	Tin	\$ 6.50	CS08	NA	No	
C115	Wyeth Nutritionals (Singapore) Pty Ltd	S-26	Gold	Infant formula	NA	For babies aged 0-6 months	Stage 1	No	Tin	\$ 20.00	CS08	NA	No	
C116	Friesland-Campina	Foremost	NA	Infant Formula	NA	For ages 0-6 months	Step 1	No	Tin	\$ 4.30	CS08	NA	No	
C117	Nutricia Australia Pty Ltd	Karicare	Gold Plus	Infant formula	NA	From birth	1	No	Tin	\$ 27.90	CS08	NA	No	
C118	Namyang Dairy Products	XO	Imperial Dream Five Solution	Infant formula	NA	From birth to 3 months	1	No	Tin	\$ 10.90	CS08	NA	No	
C119	Namyang Dairy Products	XO	Imperial Dream Five Solution	Follow on Formula	NA	Ages 3-6 months	2	No	Tin	\$ 11.25	CS08	NA	No	
C120	PBM Nutritionals	Geegoba by with Iron	NA	Milk-based Infant formula from USA	NA	For babies 0-12 months	-	No	Tin	\$ 18.50	CS08	NA	No	

C121	Guigoz Laboratoires	Guigoz	NA	Lait pour nourrissons en poudre jusqu'à 6 mois (milk powder for infants up to 6 months)	NA	Des la naissance (from birth)	1	No	Tin	\$ 30.40	CS08	NA	No	
C122	Laboratoire France Bébé Nutrition	Nebilia	Equilibre (Balance)	Lait pour nourrissons (Infant formula)	NA	De 0 a 6 mois (From 0 to 6 months)	1	No	Tin	\$ 15.00	CS08	NA	No	
C123	Mead Johnson Nutrition	Enfalac	A+	Infant formula	NA	From birth to 1 year	1	No	Tin	\$ 11.50	CS08	NA	No	
C159	Manufactured by Celia for Lactalis International	Develop	AD: Action Diarrhoea	Dietary food designed for specific medical purposes	NA	0-12 months	NA	No	Tin	\$ 6.90	CS08	NA	Yes	
C160	Gilbert Laboratories	Osmolac	Episodes Diarrheiques (Diarrhoeal episodes)	Aliment dietetique (dietetic food)	NA	From 0 to 12 months	NA	No	Tin	\$ 14.90	CS06	NA	Yes	
C161	Mead Johnson Nutrition (Vietnam)	Enfalac A+	LactoFree care	San pham dinh duong dac biet (special nutritional products)	NA	For children 0-12 months	NA	No	Tin	11.50	CS12	NA	Yes	
C162	Dumex	Dulac	Lactose Free	For infant recover from diarrhoea (Lactoses Free) Untuk tidak toleransi laktosa (for lactose intolerance)	NA	From 0 months to 12 months	NA	No	Tin	\$ 6.85	CS08	NA	Yes	
C163	Nestle-Nederland	NAN	AL110 Lactose Free	For infant recovery from diarrhoea	NA	0-12 months	NA	No	Tin	\$ 9.90	CS08	NA	Yes	
C167	Ly Pack B.V.	Nutrigold	NA	Premium Infant Formula	NA	For babies from 0-6 months	1	No	Tin	\$ 14.85	CS06	N	No	
C168	Danone Dumex (Malaysia) Sdn Bhd	Dulac	NA	Infant formula	NA	From 0-12 months	1	No	Tin	\$ 5.70	CS06	N	No	
C169	Dumex	Dulac	Gold	Super premium	NA	0-12 months	1	No	Tin	\$	CS06	N	No	



										19.00			
C171	Nature's Care Manufacture Pty Ltd	Nature's Care Australia	NA	Super Colostrum Milk Powder, Nutrition Support	NA	(0-6 years)	NA	No	Tin	\$ 60.00	CS06	N	No
C172	H.J. Heinz Co. (NZ) Ltd.	Nurture	Gold+	Premium Infant Formula	NA	From Birth	1	No	Tin	\$ 26.90	CS08	N	No
C177	Abbott Nutrition	Similac	Advance	Complete Nutrition For Your Baby's 1st Year; Milk Based Powder, Infant formula with iron	NA	Birth - 12 months	NA	No	Box	\$ 28.90	CS08	N	No
C185	Pfizer Australia Pty Ltd	S-26 Gold	Newborn	Whey Dominant Premium Infant Formula	NA	From birth	1	No	Tin	\$ 27.40	CS08	N	No
C189	Nestle Nederland	Pre NAN	NA	Special Formula for Feeding of Preterm and low birth weight infants lower than 1800g; Food for special medical purpose	NA	NA	NA	No	Tin	\$ 12.60	CS01	N	Yes
C190	Gilbert Laboratories	Physiolac	HypoAllergique	Lait pour nourrissons (infant milk)	NA	From 0 to 12 months	NA	No	Tin	\$ 16.10	CS01	N	Yes
C191	Manufactured by Nestle Deutschland AG, Imported by Nestle (Thai) Ltd	NAN	H.A.	Infant Formula	NA	From birth to 1 year	1	No	Tin	\$ 13.40	CS02	N	No
C194	Wakodo	HAI HAI	NA	Infant formula	NA	0-6 months	NA	No	Tin	\$ 15.60	CS09	N	No
C196	NutriBio	Lai Lac	NA	Infant Milk	NA	0 - 6 months	1	No	Tin	\$ 7.00	CS11	N	No
C197	Biofood-nutrition SE	Fabimilk	LF-88	Lactose-free Infant Formula	NA	From birth onwards	NA	No	Tin	\$ 7.60	CS11	N	Yes
C198	Guigoz Laboratores	Guigoz	Confort	Formule Epaissie (thickened formula)	NA	Jusqu a 6 mois (up to 6 months)	1	No	Tin	\$ 30.95	CS11	N	Yes

C199	Guigoz Laboratoires	Guigoz	Transit	Lait pour nourrissons (Infant milk)	NA	Jusqu a 6 mois (up to 6 months)	1	No	Tin	\$ 26.00	CS11	N	No	
C1105	Nestle Phillipines, Inc	Lactogen	Low lactose	For the dietary management of infants with slow recovery from diarrhoea, mal-digestion and slow weight gain; Food for Special Medical Purposes	NA	From birth to 5 years old	NA	No	Tin	\$ 6.80	CS11	N	Yes	
C1106	Vinamilk	Dielac	Optimum	Sản phẩm định dưỡng dành cho trẻ từ (nutritional products for children)	NA	From 0 - 6 months of age	Step 1	No	Tin	\$ 9.50	CS13	N	No	
C1107	Vinamilk	Dielac	Alpha	Sản phẩm định dưỡng dành cho trẻ từ (nutritional products for children)	NA	From 0 - 6 months of age	Step 1	No	Tin	\$ 6.10	CS13	N	No	
C1114	Mead Johson Nutrition	Enfamil	Premium Infant	Infant Formula Milk Based Powder with Iron	NA	0 - 12 months	1	No	Tub	\$ 28.00	CS12	N	No	
C1115	Mead Johson Nutrition	Enfamil	Premium Newborn	Infant Formula Milk Based Powder with Iron	NA	N Through 3 months	N	No	Tub	\$ 28.00	CS12	N	No	
C1122	Friesland-Campina	Dutch Baby	Gold	Thực phẩm công thực định dưỡng cho trẻ (Food nutritional formula for children)	NA	Dưới 6 tháng tuổi (under 6 months of age)	Step 1	No	Tin	\$ 17.00	CS13	N	No	
C1124	Gilbert Laboratories	Physiolac	NA	NA Episodes Diarrheiques; intolerance au lactose (Diarrhoeal episodes; Lactose intolerance)	NA	0-12 months	NA	No	Tin	\$ 12.50	CS12	N	Yes	
C1125	Dumex	Mamex	Gold	Lactose Free LF	NA	0 to 12 months	NA	No	Tin	\$ 9.00	CS34	N	Yes	

B. FOLLOW UP FORMULA														
C124	DUMEX	Dupro	Gold	Super premium	NA	6-24 months	Step 2	No	Tin	\$ 18.00	CS08	NA	No	
C126	Laboratoire France BéBé Nutrition	France BéBé	NA	Follow-up infant formula	NA	At 6 month age	2	No	Tin	\$ 15.00	CS08	NA	No	
C129	Abbott Manufacturing Singapore Private Limited	Similac	Advance Eye Q Plus	Follow-on formula	NA	From 6 months to 24 months	2	No	Tin	\$ 19.90	CS08	NA	No	
C130	Nestle Philippines Inc	Lactogen	Prebio 1	Follow-up formula	NA	From 6 months to 3 years	2	No	Tin	\$ 10.90	CS08	NA	No	
C131	Mead Johnson Nutrition	Enfamil A+	NA	Follow-on formula	NA	From 6-12 months	No.2							
C133	Friesland Campina	Dutch Baby	NA	Follow-on formula	NA	From 6-24 months	Step 2	No	Tin	4.20	CS08	NA	No	
C134	Friesland Campina	Frisolac	Gold	First Steps Follow-on formula	NA	From 6-12 months	2	No	Tin	\$ 27.95	CS13	NA	No	
C136	Gilbert Laboratories	Physiolac	NA	Lait (Milk)	NA	After 6 to12 months	2	No	Tin	\$ 19.50	CS06	NA	No	
C138	Biofood-nutrition SE	Fabimilk	NA	Follow-on milk	NA	From 6 months onwards	2	No	Tin	\$ 14.20	CS08	NA	No	
C141	Abbott Laboratories, B.V.	Isomil	Advance Eye Q Plus	Soy Follow-on formula	NA	From 6 months to 12 months	2	No	Tin	\$ 10.50	CS08	NA	Yes	
C142	23 Tola ABC	Milk with maize	NA	Follow-on formula	NA	From 6-24 months	No. 2							
C143	Nutrilat Master LM Co, Ltd	Nutrilatt	NA	Follow-on formula	NA	From 6-12 months	2	No	Tin	8.10	CS06	NA	No	
C145	Wyeth Nutritionals (Singapore) Pty Ltd	S26 Promil	Gold	Follow-on formula	NA	For babies after 6-12 months	Stage 2	No	Tin	\$ 20.00	CS08	NA	No	
C149	Namyang Dairy Products	XO	Imperial Dream Five Solution	Growing up formula	NA	Ages 6 to12 months	3	No	Tin	\$ 11.55	CS08	NA	No	
C152	LYPACK	Nature Gold	NA	Follow on formula	NA	From 6-12 months	No. 2							
C154	PBM	Gueegor		Follow on formula	NA	From 6-	No. 2							

	Nutritional	Baby				12months								
C156	Laboratoire France Bébé Nutrition	Nebilia	Equilibre	Lait de suite (milk follows)	NA	A partir de 6 mois (from 6 months)	2	No	Tin	\$ 15.00	CS08	NA	No	
C170	LY PACK B.V.	Nutrigold	NA	Premium Follow-On Formula	NA	for babies from 6 - 24 months	2	No	Tin	\$ 14.85	CS06	N	No	
C173	H.J. Heinz Co. (NZ) Ltd	Nurture	Gold Plus	Premium Follow-on Formula	NA	From 6 months	2	No	Tin	\$ 21.90	CS08	N	No	
C178	By Celia For Lactalis International	Develop	NA	Follow on milk powder	NA	From 6 to 12 months	2	No	Tin	\$ 6.50	CS08	N	No	
C180	Guigoz Laboratories	Guigoz	Confort	Formule épaissie en cas de petits rejets de lait (Thickend formula for small releases of milk)	NA	Lait de suite de 6 mois jusqu'à 1 an (Milk after 6 months to 1 year)	2	No	Tin	\$ 26.30	CS08	N	Yes	
C181	Guigoz Laboratories	Guigoz	NA	Croissance (Growth)	NA	de 10 mois a 3 ans (10 months to 3 years)	3	No	Box/ Tetrapak	\$ 25.90	CS08	N	No	
C184	Mead Johnson Nutrition	Enfapro	A+	Follow-on Formula	NA	From 6 months to 3 years	2	No	Tin	\$ 11.50	CS08	N	No	
C186	Pfizer Australia Pty Ltd	S-26 Gold	Progress	Casein Dominant Premium Follow on Formula	NA	From 6 months	2	No	Tin	\$ 27.40	CS08	N	No	
C188	Nestle-Deutschland AG, Imported by Nestle (Thai)	NAN	H.A	Follow-on formula	NA	From 6 months to 3 years	2	No	Tin	\$ 24.70	CS01	N	Yes	
C192	H.J. Heinz Co. Aust. Ltd	Nurture	Follow on 2	Casein Dominant Follow-on Formula	NA	From 6 months	2	No	Tin	\$ 19.70	CS02	N	No	
C195	Wakodo	Gun Gun	NA	Follow-up milk	NA	From 9 months to 3 years	NA	No	Tin	\$ 13.20	CS09	N	No	
C1101	Guigoz Laboratories	Guigoz	NA	Lait de suite de 6 mois jusqu a 1 an (Milk after 6	NA	Des 6 mois (From 6 months)	2	No	Tin	\$ 25.70	CS11	N	No	

				months up to 1 year)										
C1102	Guigoz Laboratories	Guigoz	Evloia Relais (Evloia Relay)	En Relais De La'llaaitement Maternel (In relay with breastfeeding)	NA	From 6 months to 1 year	2	No	Tin	\$ 26.00	CS11	N	No	
C1103	Guigoz Laboratories	Guigoz	Transit	En Cas De Petits Troubles Digesties (in case of small digestive disorders)	NA	From 6 months to 1 year	2	No	Tin	\$ 26.00	CS11	N	Yes	
C1104	NutriBio	Lai Lac	NA	Follow On Milk	NA	6 - 12 months	2	No	Tin	\$ 7.00	CS11	N	No	
C1111	Friesland Campina	Dutch Baby	Gold	Thực phẩm công thực định đường cho trẻ (Food nutritional formula for children)	NA	From 6 months and older	2	No	Tin	\$ 16.65	CS13	N	No	
C1112	Vinamilk	Dielac	Optimum	San phẩm dinh dưỡng dành cho trẻ (Nutritional Products for Infants)	NA	From 6 - 12 months	Step 2	No	Tin	\$ 19.35	CS13	N	No	
C1116	Mead Johnson Nutrition	Enfagrow	Premium Toddler	Infant & Toddler Formula Milk based powder with iron	NA	9 months and up	2	No	Tin	\$ 28.00	CS12	N	No	
C1118	Abbott Nutrition	Similac	Go & Grow	Infant Formula with Iron Complete Toddler Nutrition	NA	9 - 24 months	NA	No	Plastic Tub	\$ 28.70	CS12	N	No	
C1121	Manufactured by Hero Espana S.A., Imported by Republica Dominicana	Hero Baby	Avanza	Follow-on Milk	NA	From 6 months	2	No	Tin	\$ 21.00	CS12	N	No	
C1126	Friesland Campina	Foremost	NA	Infant Formula	NA	For ages 6 - 12 months	Step 2	No	Tin	\$ 5.10	CS17	N	No	
C1127	Danone Dumex	Dupro	NA	Follow-up Formula	NA	From 6 - 24 months	2	No	Tin	\$ 10.90	CS19	N	No	

	(Malaysia) Sdn Bhd												
<b>D. OTHER MILK OR MILK-LIKE PRODUCTS</b> in liquid/powdered form, marketed or otherwise represented as suitable for feeding children <2yrs (e.g. growing-up milks, toddler milks, first milks)													
C125	Star Alliance	Nature	NA	Follow-on formula	NA	From 12 months up	No. 2						No
C127	Laboratoire France BéBé Nutrition	France BéBé	NA	Growing-up milk	NA	From 1 year old	3	No	Tin	\$ 15.00	CS08	NA	No
C128	Abbott	Gain IQ	NA	Follow-on formula	NA	From 12-24 months	No. 2						No
C132	Mead Johnson Nutrition (Vietnam)	Enfagrow	A+	Growing up formula	Vanilla	From 1 - 3 years	3	No	Tin	\$ 24.50	CS13	NA	No
C135	Friesland Campina	Friso	Gold	Young Explorer Growing-Up milk	NA	From 1 - 3 years	3	No	Tin	\$ 25.40	CS13	NA	No
C137	Gilbert Laboratories	Physiolac	Croissance (Growth)	Lait de croissance (Growth milk)	Saveur douce vanille (Sweet vanilla flavour)	From 12 months to 3 years	3	No	Tin	\$ 18.50	CS08	NA	No
C139	Biofood nutrition SE	Fabimilk	NA	Growing up formula: Nutritional Supplement for toddlers	NA	1-3 years old	3	No	Tin	\$ 14.20	CS08	NA	No
C140	LYPACK B.V.	Nutrigold	NA	Growing-up milk	NA	For children 1 year old onward	3	No	Tin	\$ 12.30	CS34	NA	No
C144	Nutrilat Master LM Co, Ltd	Nutrilatt	NA	NA	NA	From 12-36 months	3	No	Tin	\$ 8.36	CS06	NA	No
C146	Wyeth Nutritionals (Singapore) Pty Ltd	S26 Progress	Gold	Growing-Up Milk	Vanilla Flavour	For children 1-3 years	Stage 3	No	Tin	\$ 18.50	CS08	NA	No
C147	Nutricia Australia Pty Ltd	Karicare	Gold + Toddler	Nutritional Supplement	NA	From 1 year	3	No	Tin	\$ 26.90	CS08	NA	No
C148	Mead Johnson Nutrition	Enfagrow	A+	Follow on formula	Vanilla flavoured	From 12 months onward	NA	Yes	Tetra Brik	\$ 2.60	CS10	NA	No

C150	Namyang Dairy Products	XO	Imperial Dream Five Solution	Kids formula	NA	Ages 12-36 months	4	No	Tin	\$ 11.95	CS08	NA	No	
C151	Friesland Campina	Foremost	NA	NA	NA	For children ages 1-3 years	123	No	Tin	\$ 5.10	CS17	NA	No	
C153	LYPACK	Nature Gold	NA	Follow-on formula	NA	From 12-24months	No. 3						No	
C155	PBM Nutritional	Gueegor Baby	NA	Follow-on formula	NA	From 1 year up	No. 3						No	
C157	Laboratoire France BéBé Nutrition	Nebilila	Equilibre	Croissance (Growth)	NA	Partir de 1 an (From 1 year)	3	No	Tin	\$ 15.00	CS08	NA	No	
C158	Gigo Group Corporation Ltd	Boppy Care	Gold Toddler	Premium Milk Drink	Delicious Vanilla Flavour	From twelve months; 1-3 years	3	No	Tin	\$ 21.00	CS12	NA	No	
C165	Friesland Campina	Dutch Lady	NA	NA	NA	From 2 years	123	No	Tin	\$ 8.70	CS12	NA	No	
C166	Nestle	Bear	NA	NA	NA	NA	1-2 years							
C174	H.J. Heinz Co. (NZ) Ltd	Nurture	Gold+	Premium Toddler Milk Drink	NA	From twelve months	3	No	Tin	\$ 26.90	CS08	N	No	
C175	Abbott Laboratories Pty Ltd	Isomil	Advance Eye Q Plus	Soy growing-up formula	NA	for 1 to 10 years	3	No	Tin	\$ 21.70	CS08	N	Yes	
C179	Manufactured by Celia for Lactalis International	Develop	NA	Growing up Milk Powder	NA	From 1 to 3 years	3	No	Tin	\$ 6.50	CS08	N	No	
C182	PBM Nutritionals	Geego	Grow	Fortified Milk From USA	NA	For children 1 to 3 years	NA	No	Tin	\$ 17.50	CS08	N	No	
C183	Namyang Dairy Products	XO	Imperial Kid	Kid Formula	Vanilla	1-9 Ages	NA	No	Tin	\$ 10.50	CS08	N	No	
C187	Pfizer Australia Pty Ltd	S-26 Gold	Toddler	Nutritious Milk Drink	NA	From 12 months	3	No	Tin	\$ 22.40	CS08	N	No	
C193	PBM Nutritionals	Nutri Fam USA	NA	Milk from USA	NA	For children of ages from 1 years; 2 years; 3 years	123	No	Tin	\$ 8.50	CS02	N	No	
C1108	Vinamilk	Dielac	Pedia	Nutritious Foods for children	NA	From 1 - 3 years	1+	No	Tin	\$ 18.80	CS13	N	No	

C1109	NutiFood	PediaPlus	NA	San phẩm dinh dưỡng đặc biệt (special nutritional products)	NA	For children from 1 - 10 years	NA	No	Tin	\$ 11.10	CS13	N	No	
C1110	Friesland Campina	Dutch Lady	Gold	Thực phẩm bổ sung cho trẻ (Food supplements for children)	NA	Từ 1 tuổi trở lên (1 year of age and older)	123	No	Tin	\$ 15.10	CS13	N	No	
C1113	Vinamilk	Dielac	Optimum	Thực phẩm bổ sung cho trẻ (Food supplements for children)	NA	From 1 - 3 years	123	No	Tin	\$ 18.75	CS13	N	No	
C1117	Mead Johnson Nutrition	Enfagrow	Premium Older Toddler	Milk Drink Nutrition Tailored for Toddlers	Vanilla	1 year and up	3	No	Tin	\$ 28.00	CS12	N	No	
C1119	NutriBio	Lai Lac	NA	Growing-Up Milk	NA	1 - 3 years old	3	No	Tin	\$ 6.60	CS12	N	No	
C1120	NutiFood	NutilQ	NA	NA	NA	From 1 - 3 years	123	No	Tin	\$ 9.50	CS12	N	No	
C1128	Namyang Dairy Products	XO	Imperial Dream	Kids Formula	NA	Ages 12-36 months	4	No	Tin	\$ 24.60	CS20	N	No	
C1269	Dumex	Hi-Q 1 Plus	Prebio ProteQ	Growing Up / Recombined Milk	UHT Honey Flavoured	From 1 year	3	Yes	Tetra Brik	\$ 2.80	CS10	N	No	
C1279	Vinamilk	Dielac	Alpha	Nutritional products for children	NA	From 1 - 3 years	123	No	Box	\$ 4.70	CS13	N	No	

## 2. COMMERCIALY PRODUCED COMPLEMENTARY FOODS (CPCF)

### A. FOOD

#### A1. SHELF STABLE FOOD

##### A1.1 CEREAL / PORRIDGE

C201	Nestle Products Sdn Bhd	Cerelac	NA	Instant Cereal made of cereal with milk	Rice and soybean	6 months and above	NA	No	Tin	\$ 4.00	CS08	NA		
C202	Celia (for Lactalis International)	Develop	NA	Cereals, Instant	Riz Carottes (Rice and Carrot)	From 6 months	NA	No	Box	\$ 3.30	CS08	NA		



C203	Laboratoire France BéBé Nutrition	France BeBe	NA	Cereales Infantiles non Lactees (Infant cereal non-milk)	Riz-maiz-miel (Rice-maize-honey)	From 4 months	NA	No	Plastic	\$ 2.50	CS08	NA		
C204	Gerber Products Company	Gerber	NA	Cereal	Barley	From 6 months onward	NA							
C205	Gerber Products Company	Gerber	NA	Cereal Oatmeal	Single Grain	NA	Supported Sitter	No	Box	\$ 9.45	CS09	NA		
C206	Produced for PPM (Pharma Product Manufacturing) by Confirel Co., Ltd	Bor Bor Rung Roeung	NA	Complementary food for children from 6 to 24 months of age	NA	From 6-24 months	NA	No	Box	\$ 1.30	CS08	NA		
C207	Vinamilk (Vietnam Dairy Products Joint Stock Company)	Ridielac	Alpha	Bột ngũ cốc định đường (Nutritious Cereal Flour)	Thit heo ca rot (Pork and carrots)	7-24 months	NA	No	Tin	\$ 3.20	CS13	P3		
C208	Vinamilk (Vietnam Dairy Products Joint Stock Company)	Ridielac	Alpha	Bột ngũ cốc định đường (Nutritious Cereal Flour)	Gạo-sữa (Rice Cereal)	6-24 months	NA	No	Tin	\$ 3.20	CS13	P3		
C210	Nestle France	Babi vanille	NA	75% Cereales	NA	From 10 months	NA	No	Plastic Tub	\$ 7.10	CS01	NA		
C212	So Nutritious	Bobor Plus	NA	will check	will check	From 6-24 months	NA	will check	Box					
C257	Nestle Manufacturing (Malaysia) Sdn Bhd	Cerelac	NA	NA	Wheat with fish	8+ months	NA	No	Box	\$ 3.50	CS09	N		
C258	HJ Heinz Company Australia Ltd	Farex	Smooth	Baby Rice Cereal	Pear & Banana	4+ months	NA	No	Plastic Flow Wrap	\$ 3.90	CS09	N		
C259	HJ Heinz Company Australia Ltd	Farex	Pieces to Chew	NA	Muesli with apple	9+ months		No	Plastic Flow Wrap	\$ 3.90	CS09	N		
C270	Nestle France	Ptite Cereale (Little)	NA	Cereale Infantile (Infant Cereal)	5 Cereales	From 6 months	NA	No	Tin	\$ 5.80	CS11	N		

		Cereal)												
C278	Vinamilk (Vietnam Dairy Products Joint Stock Company)	Ridielac	Alpha	Bot ngu coc dinh duong (Cereal Nutrition)	Thit bo rau cu (Vegetable Beef)	From 8 - 24 months	NA	No	Box	\$ 2.65	CS13	N		
C282	Nestle Manufacturing (Malaysia) Sdn Bhd	Cerelac	NA	Infant cereal with milk	Fish and Vegetable	From 8 - 24 months	NA	No	Box	\$ 3.50	CS12	N		
C283	Nestle Manufacturing (Malaysia) Sdn Bhd	Cerelac	NA	Infant cereal with milk	Nutritious Rice with Milk	From 6 - 24 months	NA	No	Box	\$ 3.00	CS12	N		
C291	Nestle Products Sdn Bhd	Cerelac	NA	Infant Cereal with milk	Brown Rice	after 6 months	My First Solid Food	No	Tin	\$ 4.50	CS22	N		
C292	Nurture Inc	Happy Bellies	Organic Super foods	Brown Rice Baby Cereal - Cereal for infant	Brown Rice	NA	NA	No	Tin	\$ 6.00	CS24	N		
<b>A1.2 HOMOGENISED / PUREED FOOD</b>														
C213	Gerber Products Company	Gerber	Nature Select	NA	Banana with apple and pear	NA	Sitter 2nd foods	Yes	Plastic Tub X2 with cardboard sleeve	\$ 2.50	CS01	NA		
C214	Gerber Products Company	Gerber	Nature Select	NA	Bananas	NA	Supported Sitter 1st Foods	Yes	Plastic Tub X2 with cardboard sleeve	\$ 2.20	CS01	NA		
C215	Gerber Products Company	Gerber	Nature Select	NA	Apples and Cinnamon with oat meal	NA	Crawler 3rd Foods	Yes	Glass Jar	\$ 1.70	CS01	NA		
C237	Heinz Wattie's Ltd (distributed in New Zealand)	Wattie's For Baby	Smooth	NA	Custard with Banana	6 - 7 months on wards	Stage 2	Yes	Tin	\$ 1.45	CS08	N		
C238	Heinz Wattie's Ltd (distributed in New Zealand)	Little Kids	NA	NA	Pasta Chicken & Vegetable	1 - 3 Years	For Growing Kids	Yes	Tin	\$ 2.50	CS08	N		

C240	Bledina une societe du groupe Danone (a company of the Danone group)	Bledina	Mon 1er Petit Pot (My first pot)	NA	Banana	from 4 /6 months	Ideal 1 <sup>st</sup> spoon	Yes	Tin	\$ 1.50	CS08	N		
C245	Gerber Products Company	Gerber	Organic	Apple Vanilla Mixed Grain	Apple and Vanilla	NA	Sitter 2nd Foods	Yes	Plastic Tub X2 with cardboard sleeve	\$ 3.20	CS01	N		
C246	Heinz	Heinz	100% Fruit	NA	Pear and Banana	From 6 months up to 3 years	NA	Yes	Glass Jar	\$ 2.15	CS01	NA		
C247	Heinz	Heinz	Smooth	NA	Creamy Banana Porridge	From 6 months up to 3 years	NA	Yes	Glass Jar	\$ 2.20	CS01	N		
C248	Heinz	Heinz	Mashed	NA	Apple and Blueberry Muesli	From 6 months up to 3 years	NA	Yes	Glass Jar	\$ 2.20	CS01	N		
C252	Bledina une societe du groupe Danone (a company of the Danone group)	Blediner	NA	NA	Ratatouille petits macaroni lait une touche de mozzarella (Ratatouille small macaroni and a touch of mozzarella)	From 12 months	NA	Yes	Plastic Tub X2 with cardboard sleeve	\$ 6.10	CS02	N		
C253	Bledina une societe du groupe Danone (a company of the Danone group)	Bledina	NA	NA	Tomates Courgettes Pates Jambon (Tomatoes zucchini pasta ham)	From 8 months	NA	Yes	Glass Jar	\$ 2.60	CS02	N		
C254	Bledina une societe du groupe Danone (a company of the Danone group)	Bledina	NA	NA	Printaniere de Legumes Jambon (Spring vegetable Ham)	From 6 months	NA	Yes	Glass Jar	\$ 2.60	CS02	N		

C255	Nestle France	Ptit Pot (Little Pot)	NA	NA	Pommes (Apples)	From 4/6 months	NA	Yes	Glass Jar X2 with cardboard sleeve	\$ 3.20	CS02	N		
C256	Nestle France	Ptit Pot (Little Pot)	NA	À mélanger avec vos légumes (mix with your vegetables)	Veau (veal)	From 6 months	NA	Yes	Glass Jar X2 with cardboard sleeve	\$ 3.20	CS02	N		
C260	HJ Heinz Company Australia Limited	Organic	Mashed	NA	Creamy oats with fig and sultanas	6+ months	NA	Yes	Glass Jar	\$ 2.60	CS09	N		
C261	HiPP France	HiPP	Biologique	Mon diner bonne nuit (My dinner good night)	Risotto de Legumes (Risotto with Vegetables)	From 8 months	NA	Not sure	Glass Jar X2 with cardboard sleeve	\$ 4.20	CS09	N		
C262	HiPP France	HiPP	Biologique	Ma premier viande (My first meat)	Carottes Pommes de terre Bœuf (Carrots Potatoes Beef)	From 6 months	NA	Not sure	Glass Jar X2 with cardboard sleeve	\$ 4.50	CS09	N		
C263	HiPP France	HiPP	Biologique	Mon diner bonne nuit (My dinner good night)	Tagliatelles Epinards Fromage (Tagliatelle Spinach Cheese)	From 12 months	NA	Not sure	Glass Jar X2 with cardboard sleeve	\$ 6.20	CS09	N		
C264	HiPP France	HiPP	Biologique	delices de fruits (delights of fruits)	Pommes Raisins (Apples Raisins)	From 4/6 months	NA	Yes	Glass Jar X2 with cardboard sleeve	\$ 4.20	CS09	N		
C266	Bledina	Bledichef	NA	NA	Mijote de Carottes et Bœuf (Slow cooker Beef and Carrots)	From 12 months	NA	Yes	Plastic Tub	\$ 4.20	CS09	N		
C267	Nestle France	Ptit Brasse (Little Stirred)	NA	Dessert infantile (infant dessert)	Framboise (Raspberry)	From 6 months	NA	Not sure	Plastic Tub X4 with cardboard sleeve	\$ 4.20	CS09	N		

C272	Nestle France	Naturnes	NA	NA	Pommes, Framboises (Apple, Raspberry)	From 6 months	NA	No	Bottle X4 with cardboard sleeve	\$ 2.20	CS11	N		
C274	Gerber Products Company	Gerber	NA	Yogurt Blends Snack	Pear	NA	Sitter	No	Plastic Tub X4 with cardboard sleeve	\$ 3.70	CS11	N		
C276	Nurture Inc	Happy Baby	Think Outside The Jar	Organic Baby Food	Spinach, mango, and pear	6+ months	2	Yes	Foil pouch with nozzle	\$ 2.00	CS11	N		
C277	Nurture Inc	Happy Baby	Think Outside The Jar	Organic Baby Food	Beef Stew; Savory blend of organic beef & vegetables	7+ months	3	Yes	Foil pouch with nozzle	\$ 2.30	CS11	N		
C281	HJ Heinz Co. Australia Ltd	NA	Mashed with soft pieces	NA	Pumpkin, veg and conscous	8+ months	NA	Yes	Glass Jar	\$ 2.35	CS09	N		
C284	Bledina une societe du groupe Danone (a company of the Danone group)	Bledina	NA	NA	Petits Legumes Riz Agneau (Little Lamb Rice Vegetables)	From 8 months	NA	Yes	Glass Jar X2 with cardboard sleeve	\$ 4.50	CS12	N		
C285	Bledina une societe du groupe Danone (a company of the Danone group)	Bledina	NA	NA	Legumes Verts Pates Dinde (Green Vegetables Past Turkey)	From 9 months	NA	Yes	Glass Jar X2 with cardboard sleeve	\$ 4.50	CS12	N		

### A1.3 SNACKS / FINGER FOODS

C219	Gerber Products Co	Graduates	For toddlers	Cookies	Banana	NA	Toddler	Not Provided	Box	4.10	CS01	NA		
C220	Gerber Products Co	Gerber	Toddler meal crawl	Cracker	NA	NA	Toddler	NA						
C221	Gerber Products Company	Gerber	NA	Organic crunchies	NA	NA	Toddler	NA						
C222	Gerber Products Company	Graduates	Puffs	(Cereal Snack)	Banana	NA	Crawler	NA	Plastic Bottle	\$ 2.00	CS08	NA		

C223	PBM Products LLC	Parent's Choice	Little Puffs; Gerber Graduates	Puffed grain snack	Banana	NA	NA	No	Plastic Bottle	3.50	CS09	NA		
C224	GUANGZHOU YONG WANT FOODS LTD.	BabyBites	Take One	Selected Superior Risk Rusks	Carrot Taste	From 6 months onward	NA	NA	Box	\$ 1.30	CS08	NA		
C230	Nurture, Inc.	Happy munchies	Organic Superfoods	Rice cakes	Apple	7+ months	For Babies and toddlers	NA	Plastic flow wrap	\$ 2.70	CS08	NA		
C236	Gerber Products Co	Graduates	Lil's Crunchies	Baked whole grain corn snack	Mild Cheddar	NA	Crawler	NA	Tin	\$ 2.00	CS08	N		
C249	Nestle France	Ptit Biscuit	NA	Biscuit	NA	From 12 month	NA	No	Box	\$ 5.30	CS01	N		
C265	Gerber Products Co	Graduates for toddlers	Lil' Sticks	Turkey Sticks with canola oil packed in water	Turkey	NA	Toddler	Yes	Glass Jar	\$ 1.80	CS09	N		
C268	HJ Heinz Company Australia	Teething Rusks	NA	NA	NA	6+ months	NA	No	Box	\$ 4.20	CS09	N		
C275	Nurture Inc	Happy Baby	Organic Puffs	Finger Food for Babies; Banana Puffs	Organic Banana	NA	NA	No	Bottle	\$ 4.50	CS11	N		
C280	Kalbe Nutritionals	Milna	NA	Thuc pham bo sung (Food Supplements); Rusk	Orange	6+ months	NA	No	Box	\$ 2.00	CS13	N		
C286	Nurture Inc	Happy Yogis	Organic Superfoods	Yogurt and Fruit Snacks	Banana mango	NA	For Babies and toddlers	No	Plastic Flow Wrap	\$ 2.00	CS11	N		
C2310	Gerber Products Co	Organic	Yoghurt Melts	Freeze-dried yogurt snacks	Red Berries	NA	Crawler	No	Plastic Flow Wrap	\$ 3.50	CS11	NA		
C2326	Gerber Products Co	Graduates	Yogurt Melts	Freeze-dried yogurt and fruit snacks	Strawberry	NA	Crawler	No	Plastic Flow Wrap	\$ 4.00	CS12	N		
C2327	Gerber Products C	Graduates	NA	Yogurt Blends Snack	Mixed Berry	NA	Toddler	No	Plastic Tub X4 with cardboard sleeve	\$ 3.50	CS12	N		

**A1.4 GRAVY / SOUP**

None

**A2. FRESH / FROZEN FOOD**

None

**B. BEVERAGES**

**B1. TEA / JUICE / WATER**

C235	Gerber Products Co	Organic juice	NA	100% Pear Juice with added Vitamin C	Pear	NA	Sitter	No	Bottle	\$ 4.00	CSC01	P3		
C211	Gerber Products Co	100% Juice	NA	Pear Juice (from concentrate)	Pear	NA	NA	Yes	Plastic Jar	\$ 0.95	CS08	NA		
C244	Saint Amand	Saint Amand	NA	Natural Mineral Water	NA	NA	NA	NA	Bottle	\$ 0.85	CS08	N		
C251	La Société des eaux minérales d'Aix-les-Bains (SEAB)	Aix	Les Bains	Eau Minerale Naturelle	NA	NA	NA	Yes	Bottle	\$ 1.00	CS01	N		
C271	Gerber Products Co	Graduates	Fruit Splashes	Water and Fruit Juice Blend Beverage From Concentrate	Tropical	Over 1 Year	Toddler	No	Bottle	\$ 3.70	CS11	N		
C273	Bledina Une société du groupe Danone. (A company of the Danone group.)	Mini Biberon (Mini baby bottle)	NA	Boisson fruitée adaptée à l'enfant (Fruit drink adapted for infants)	Oranges Pommes	From 4 - 6 months	NA	Yes	Glass Jar	\$ 5.50	CS11	N		
C287	Golden Circle Limited	Junior	Fruit and Veg	Citrus Crush Juice	NA	12+ months	NA	Yes	Tetra Brik	\$ 1.00	CS09	N		
C288	Golden Circle Limited	Junior	NA	Fruit Drink; Ready to drink for little tummies	Apple	6+ months	NA	Yes	Tetra Brik	\$ 1.00	CS09	N		
C289	H.J. Heinz Company Australia Limited	Baby's Own	NA	Fruit Drink', 'Diluted ready to drink'	Apple and Blackcurrant	From 6 months	NA	Yes	Glass Jar	\$ 1.40	CS09	N		

**B2. MILKSHAKE POWDER**

None

**C. LIPID NUTRIENT SUPPLEMENTS (LNS)**

None

**D. MICRO-NUTRIENT POWDERS (MNP)**

None

**3. COMMERCIALY PRODUCED FOODS (CPF) for general family consumption that are commonly fed to children under the age of 2 years**

1. BISCUITS / COOKIES (sweet or savoury)														
C301	Lim Heang Yu Enterprise Co. Ltd	Flying Horse Brand	Shakeur a	Grilled Corn Cracker	Corn	NA	NA	Yes	Plastic Flow Wrap	\$ 0.11	CS28	NA		No
C302	Perfect Food Manufacturing (M) Sdn Bhd	Julie's	Golden	Cracker	NA	NA	NA	No	Plastic Flow Wrap	\$ 1.60	CS08	NA		No
C3225	LEE Biscuits (PTE) LTD	Choco Moo Moo Biscuits	NA	Biscuits au chocolate lait saveur (chocolate milk flavour cookies)	Chocolate	NA	NA	No	Foil flow wrap	1.20	CS01	NA		No
C3227	Pepperidge Farm, Inc.	Goldfish	Grahams	Baked Graham Snacks	Vanilla Cupcake	NA	NA	No	Plastic flow wrap	\$ 2.50	CS08	NA		No
C3228	Pepperidge Farm, Inc.	Sausalito	NA	Chocolate Chunk Crispy Cookies	Milk Chocolate Macadamia	NA	NA	No	Plastic flow wrap	\$ 3.80	CS01	NA		No
C3232	A. Loacker Konfekt GmbH	Quadratini	NA	Bite size wafer cookies	Chocolate	NA	NA	Not provided	Plastic flow wrap	\$ 4.30	CS08	NA		No
C3234	Pepperidge Farm, Inc.	Chessmen	NA	Sweet and Simple Cookies	NA	NA	NA	No	Plastic flow wrap	\$ 3.60	CS01	NA		No
C3250	Pepperidge Farm, Inc.	Goldfish	Baby	Backed Snack Cracker	Cheddar	NA	NA	No	Box	\$ 3.00	CS01	N		Yes
2. CAKE / SPONGE CAKE														
C303	San Xuat Tai	Solite	NA	Bánh bông lán tròn (round cake) / Creamy Cupcake	Strawberry	NA	NA	No	Plastic Flow Wrap	2.10	CS08	NA		No
C304	Lim Heang Yu Enterprise Co. Ltd	Sakeura	NA	NA	NA									
3. CANDY / SWEETS / CHOCOLATES														
C305	Unican Surya Agung	Milkita	NA	Melon Milk Candy	Melon	NA	NA	No	Plastic Flow Wrap	\$ 0.60	CS01	NA		No
C306	URC (Thailand) Co. Ltd	Jack and Jill	Presto X.O.	Candy	Coffee	NA	NA	No	Plastic Flow Wrap	\$ 0.80	CS02	NA		No
C323	SQ	Look, I am so strong.	NA	NA	NA	NA	NA	Not Provided	Bottle (shape of baby feeding)	\$ 0.69	CS03	N		Yes



									bottle)					
<b>4. CHIPS / CRISPS</b>														
C307	ORION	O'star	NA	Potato chips Snack	NA	NA	NA	No	Plastic Flow Wrap	\$ 0.70	CS01	NA		No
C308	ORION	Swing	NA	Wavy Potato chips Snack	New York Steak	NA	NA	Not provided	Plastic Flow Wrap	\$ 0.70	CS01	NA		No
C322	Tao Kae Noi Food	Tao Kae Noi	Big Sheet	Roasted Seaweed	Chilli	NA	NA	Yes	Plastic Flow Wrap	\$ 0.30	CS03	N		Yes
<b>5. YOGHURT</b>														
C309	Vinamilk	Vinamilk probi	NA	Bo sung loi khuan (Probiotic supplements)	NA	NA	NA	Yes	Plastic Tub	\$ 0.35	CS08	NA		No
<b>6. SODA / CARBONATED COOL DRINKS</b>														
C311	Cambodia Beverage Company LTD under the authority of the Coca-Cola Company	Fanta	NA	NA	Orange	NA	NA	Not Provided	Can	\$ 0.40	CS01	NA		No
C312	Canned by Cambrew Cambodia for Angkor Beverage Company LTD (Under authority of Pepsico Inc)	Mirinda	NA	NA	Orange	NA	NA	Not Provided	Can	\$ 0.40	CS01	NA		No
<b>7. SWEETENED DRINKS (non-carbonated, In liquid or powder form e.g. fruit drinks, fruit juice)</b>														
C313	Madai Enterprise	Freshy	NA	100% Orange juice with pulp	Orange	NA	NA	Yes	Can	\$ 0.60	CS01	NA		No
C314	Lactasoy Co, Ltd.	Lactasoy	Soymilk	UHT Soymilk	Original Classic	NA	NA	Yes	Tetra Brik	\$ 1.00	CS08	NA		No
C333	Vinamilk Vietnam Dairy Product Joint Stock Company	Vfresh	NA	Soymilk Sweetened	NA	NA	NA	Not Provided	Tetra Brik	\$ 0.75	CS35	N		Yes
<b>8. OTHER - Country Specific CPF</b>														
C315	Men Sarun	Mi Yoeung	NA	Instant Noodles	Beef flavor	NA	NA	Yes	Plastic Flow Wrap	0.20	CS01	NA		No

C316	PT Pacific Food Products SDN BHD	MAMEE	Monster	Noodle Snack	BBQ flavor	NA	NA	No	Plastic Flow Wrap	2.15	CS01	NA		No
C317	Nestle Vietnam	Milo	NA	Chocolate Malt Flavoured Mixed Beverage	NA	NA	NA	No	Bottle	\$ 3.00	CS01	NA		No
C318	Friesland Campina	My Boy	NA	Sweetened condensed Beverage Creamer	NA	NA	NA	No	Can	\$ 0.85	CS01	NA		No
C319	ABC 23 Tola	School Feeding Milk	NA	NA	NA	NA	NA	Yes	Tetra Brik	\$ 0.50	CS05	N		No
C320	ABC 23 Tola	Whole Milk Pasturized	NA	NA	NA	from birth to adult	NA	Yes	Plastic Flow Wrap	\$ 0.50	CS05	N		No
C321	Nestle	Honey Stars	NA	Cereals made with whole grain	NA	NA	NA	No	Cardboard Box	\$ 4.14	CS03	N		Yes
C324	Hangzhou Pavilion Food, Co. Ltd.	Kingsea	NA	AD Ca Milk	NA	NA	NA	Yes	Bottle	\$ 1.10	CS10	N		Yes
C325	NutiFood	Nuvita	NA	NA	Chocolate	NA	NA	Yes	Tetra Brik	\$ 1.45	CS13	N		Yes
C334	Calbee	NA	NA	Potato French Fries Snack	Nori Flavor	NA	NA	Yes	Plastic Flow Wrap	\$ 1.00	CS20	N		Yes
C3242	Evian France	Evian	NA	Natural Mineral Water	NA	NA	NA	NA	Bottle	\$ 0.90	CS08	N		Yes
C3243	Produced by C (Cambodia) Development Co. Ltd. Kingdom of Cambodia. Under Supervision of Thai Nakorn Patana Co. Ltd.	Lyon	NA	Drinking Water for Refreshment	NA	NA	NA	NA	Bottle	\$ 0.50	CS08	N		No
C3290	Kellogg's (Thailand) Ltd	Frosties	NA	Breakfast Cereal, Frosted, toasted flakes of corn	NA	NA	NA	No	Box	\$ 2.55	CS17	N		Yes

ENDS/

## 8.3 APPENDIX C:

### LETTER OF REQUEST TO STORE MANAGER

#### **TO WHOM IT MAY CONCERN**

#### **Re: REQUEST for permission to conduct observations for a study on foods for infants and young children**

Helen Keller International (HKI) is conducting a research project that is gathering information on the promotion of foods consumed by infants and young children in four countries, including *[Insert name of country]*. The data gathered will be provided to relevant stakeholders to guide the development of evidence based policies and programs and so contribute towards improved global child health.

#### **The study will involve the following:**

- One variant of each of the following categories of products, available in *[insert relevant city/metropolis name]*, will be purchased from leading retailers/wholesalers, including your store:
  - Breast-milk substitutes e.g. Infant formulas, follow-up formulas, and toddler milks.
  - Complementary foods e.g. baby cereals/porridges, pureed food, snacks, teas and juices.
  - Snack foods.
- The information contained on the label will be captured and be compared to national and international best practice labeling guidance.
- Any point-of-sale promotions (such as product launches, special displays, sales, shelf tags, issuing of pamphlets etc.) for any of these products will be noted.

#### **Permission required**

The research aims to purchase as many foods for infants and young children as possible in *[Insert name of city/metropolis]*.

In order to do this, the research team would like to purchase some of these products from your store. In addition, we would like to request permission to take photographs of any relevant point-of-sale promotions of the above-mentioned products taking place in your store.

The information gathered will not be reported by store, and will not be used to assess your store in any way – it will only gather the information on the labels of the food products purchased and point-of-sale promotions of these foods.

If you have any questions please feel free to call:

*[Insert relevant names and phone numbers of HKI country staff]*

Thank you in advance for your assistance.

Yours Sincerely,

*[Insert relevant name of HKI country coordinator]*

/ENDS

## 8.4 APPENDIX D:

### LABELING PRACTICES CHECKLIST FOR COMMERCIALY PRODUCED COMPLEMENTARY FOODS

No.	Labeling practice questions:	Answers:	Criteria for choosing answers:
1	Is the product label written in the appropriate language(s) of the country in which the product is sold?	Yes	All label information is written in Khmer.
		Partial	Some (not all) label information is written in Khmer.
		No	No label information is written in Khmer.
2	Does the insert contain any <b>required label information</b> that is NOT present on the label?	Yes	The insert includes required label information that is <b>NOT provided on the label</b> .
		No	Information provided in the insert is: (a) Required label information that is <u>also provided on the product label</u> ; and/or (b) Non-required label information.
		NA	No insert
3	Does the product label specify a recommended age of introduction that is less than 6 months of age?	Yes	Recommended age of introduction is less than 6 months of age (180 days / the 7th month of life).
		No	Recommended age of introduction is 6 months of age (180 days / the 7th month of life) or later.
		NA	The label does not specify an appropriate / recommended age of introduction.
4	Does the product label give instructions indicating how to feed the product to infants younger than six months?	Yes	
		No	
5	Does the product label include phrases such as 'from the start'; 'for the whole family' or 'first stage'?	Yes	The product label uses words or phrases that may, directly or indirectly, indicate that the product is suitable for use from birth; for infants younger than 6 months; for all infants; for the whole family including infants younger than 6 months; + No 'age of intro' / An 'Age of intro' < 6 months
		Partial	The product label uses words or phrases that may, directly or indirectly, indicate that the product is suitable for use from birth; for infants younger than 6 months; for all infants; for the whole family including infants younger than 6 months; + An 'Age of intro' that is equal to or > 6 months
		No	The product label doesn't include any such words/phrases.
6	Does the product label include the following messages:		
6.1	An appropriate/recommended age for use of the product that is six months (180 days) or more.	Yes	Recommended age of introduction is from 6 months of age (180 days / the 7th month of life) or later.
		No	(1) Recommended age of introduction is before 6 months of age (180 days / the 7th month of life); <b>OR</b> (2) No age of introduction is specified.
6.2.1	The importance of exclusive breastfeeding for the first six months of life;	Yes	A message including <u>all three</u> of the following concepts: (a) exclusive; (b) breastfeeding; (c) first 6 months.
		No	No message
		Partial	A message including one or two of the three concepts: (a) exclusive; (b) breastfeeding; (c) first 6 months.
6.2.2	Is a recommendation regarding exclusive breastfeeding for the first six months of life weakened by a message regarding feeding practices for infants and young children?	Yes	A message is provided regarding feeding practices for infants and young children that contradicts, undermines, or offers an alternative to or implies an exception to the recommendation to <b>exclusively breastfeed for the first six months of life</b> .
		No	The recommendation to <b>exclusively breastfeed for the first six months of life</b> is not weakened by messages provided regarding feeding practices for infants and young children.
		NA	The answer to Question 6.2.2 is "No".

No.	Labeling practice questions:	Answers:	Criteria for choosing answers:
6.3.1	The importance of the addition of complementary foods from six months of age with continued breastfeeding up to two years or beyond;	Yes	A message including <u>all three</u> of the following concepts: (a) the addition of complementary foods from six months; (b) continued breastfeeding (after six months); (c) up to two years or beyond.
		Partial	A message including <u>one or two</u> of the three concepts.
		No	No message
6.3.2	Is a recommendation regarding complementary feeding weakened by a message regarding feeding practices for infants and young children?	Yes	A message is provided regarding feeding practices for infants and young children that contradicts, undermines, or offers an alternative to or implies an exception to the complementary feeding recommendation.
		No <sup>a</sup>	The complementary feeding recommendation is not weakened by a message regarding feeding practices for infants and young children.
		NA	The answer to Question 6.3.1 is "No".
6.4	Instructions for safe and appropriate preparation and use.	Yes	Label provides <u>both</u> of the following: (a) preparation and usage instructions; (b) at least one safety message (preparation or use).
		Partial	Label provides <u>a) without b)</u> : (a) preparation and usage instructions; (b) at least one safety message (preparation or use)
		No	No instructions.
6.5	A recommendation to feed the product with a spoon. <b>NOTE: Select 'Not applicable' for Tea / Juice / Water / Milkshake powder AND Snacks / Finger Foods (excluding rusks that are used to make porridges)</b>	Yes	Recommendation to feed the product with a spoon.
		Partial	A <b>picture of a spoon</b> is used on the label.
		No	No recommendation (pictorial or text).
		NA	
6.6	A proposed daily ration/serving. (Or recommended number of servings per day and serving)?	Yes	Label provides <u>both</u> of the following: (a) a proposed daily ration (even if calculated) / recommended number of servings per day; AND (b) serving size.
		Partial	Label provides <u>one</u> of the following: (a) a proposed daily ration/recommended number of servings per day; OR (b) serving size.
		No	No proposed daily ration/recommended number of servings per day nor serving size
6.7	Instructions for safe and appropriate storage?	Yes	Label provides instructions for storage.
		No	No storage instructions
6.8	Ingredients list?	Yes	
		No	
6.9	The nutrition composition/analysis of the product?	Yes	
		No	
6.10	Batch number?	Yes	
		No	
6.11	Best before date?	Yes	
		No	
7	Does the product label recommend feeding the product in a bottle?	Yes	The product label recommends/gives instructions for how to feed the product in a bottle.
		No	The product label makes no mention of bottle feeding.
8	Does the product label show an image of a feeding bottle?	Yes	
		No	
9	Does the product label recommend feeding the product in a soft or semi-soft form? <b>Select 'Not Applicable' for all categories of products</b>	Yes	Recommendation to feed the product in a soft or semi-soft or semi-solid or thick form (using these words).
		Partial	(1) No recommendation but uses <b>an image of the product heaped on a spoon</b> . (2) No recommendation but uses the words soft or semi-soft or semi-solid or thick to describe the product.

No.	Labeling practice questions:	Answers:	Criteria for choosing answers:
	<b>except Cereal/Porridge. Applies to rusks that are used to make porridges.</b>	No	(1) No recommendation nor images as described above. (2) Recommendations to feed the product in a liquid form.
		NA	For the following category of products: Gravy / Soup Mix; Tea / Juice / Water / Milkshake powder; Homogenised / Pureed food; Frozen / Fresh food; Snacks / Finger foods. Applies to rusks that are used to make porridges.
10	Does the product label recommend feeding the product in a liquid form? <b>Select 'Not Applicable' for Gravy / Soup Mix; Tea / Juice / Water / Milkshake Powder.</b>	Yes	Recommendation to feed the product in a liquid form.
		Partial	No recommendation but uses <b>an image of the product pouring off the spoon.</b>
		No	No recommendation or image
		NA	For the following category of products: Gravy / Soup Mix; Tea / Juice / Water / Milkshake powder
11	Does the daily ration (or a recommended serving size combined with a recommended frequency of feeds per day) included on the product label exceed the recommended energy intake from complementary foods for a breastfed child provided below?		<b>For products where an age of introduction is not provided, answer the question for all age categories.</b>
11.1	6 - 8.9 months : 837 kJ/day (200 Kcal/day)	Yes	Greater than
		No	Less than
		Insufficient Information	No daily ration (nor a recommended serving size nor Energy content) provided.
		NA	Product not recommended for this age group (age of introduction from 9 months or older).
11.2	9 - 11.9 months : 1,255 kJ/day (300 Kcal/day)	Yes	Greater than
		No	Less than
		Insufficient Information	No daily ration (nor a recommended serving size nor Energy content) provided
		NA	Product not recommended for this age group (age of introduction from 12 months or older).
11.3	12 - 23.9 months : 2301 kJ/day (550 Kcal)	Yes	Greater than or equal to
		No	Less than
		Insufficient Information	No daily ration (nor a recommended serving size nor Energy content) provided
		NA	Product not recommended for this age group (age of introduction from 2 years or older).
12	Does the product label include a stipulated warning?	Yes	Warnings stating the health hazards/potential risks of inappropriate preparation, use and storage or advising against certain practices (preparation, use or storage).
		No	None
13	Does the product label include images of babies appearing to be older than six months of age?	Yes	<p>Pictures of babies showing achievement of physical or developmental milestones clearly reached after six months of age:</p> <ul style="list-style-type: none"> <li>(a) Standing with assistance;</li> <li>(b) Hands-and-knees crawling;</li> <li>(c) Walking with assistance;</li> <li>(d) Standing alone;</li> <li>(e) Walking alone;</li> <li>(f) 2 teeth;</li> <li>(g) More than 2 teeth.</li> <li>(h) Peddling a tricycle</li> <li>(i) Running</li> <li>(j) Holding objects such as a spoon/cup and self-feeding</li> <li>(k) Kicking a ball</li> <li>(l) Standing on tip toes</li> </ul> <p><b>NB: If the label carries multiple images of children, ALL of the images have to qualify for one of the milestones (a) to (l) above before the answer 'YES' can be selected.</b></p>

No.	Labeling practice questions:	Answers:	Criteria for choosing answers:
		Unclear	Pictures of babies showing 'Milestones: Other / Unclear'. <b>NB: If the label carries multiple images of children, select unclear if none of the images qualify for a 'No' answer, and at least one qualifies for an 'unclear' answer.</b>
		No	(1) Pictures of infants/young children showing physical or developmental milestones commonly associated with infants 0 to 6 months of age such as: (a) 1 tooth; (b) Holding a toy and shaking it; (c) Lying down; (d) Lying on stomach and pushing up to elbows; (e) No teeth; (f) Reclining; (g) Sitting with support; (h) Sitting without support; (2) Head shot of infant (including baby in mothers arms) with no physical or developmental milestones reached after 6 months displayed. (3) Heavily stylized image of a baby with no physical or developmental milestones reached after 6 months displayed. <b>NB: If the label carries multiple images of babies, even if only one of the images displays an infant that fulfils points (1), (2) or (3) above, select NO.</b>
		NA	No images of infants/young children on the label
13.1	Does the product label include an image/ images of baby animals displaying physical or developmental milestones commonly associated with infants younger than six months of age?	Yes	Picture of a baby animal (e.g. a bear) displaying physical or developmental milestones commonly associated with infants younger than six months of age: Lying down; Lying on stomach and pushing up to elbows; Reclining; Sitting with support; Sitting without support.
		No	Any other image of a baby animal.
		NA	No image of a baby animal on the label.
14	In the case of manufacturers that produce both breast-milk substitutes and complementary foods, is the product labeled in a way that also promotes the company's infant or follow up formula by using similar: ① Color schemes or designs ② Names ③ Slogans, mascots or other symbols as used for their infant formula or follow up formula brands?	Yes	Similarities in one or more of the listed elements.
		No	None of the listed similarities
		NA	Company doesn't sell infant formula/follow-up formula/breast-milk substitutes in the country.
14.1	In the case of manufacturers that produce both breast-milk substitutes and complementary foods, is the product labeled in a way that also promotes the company's breast-milk substitutes (e.g. infant or follow-up formula) by including pack-shots of such products on the label and/or directly referring to the company's IF/FUF/GUM? (e.g. to prepare the cereal with the manufacturers FUF)	Yes	Product contains front-of-pack shots of the manufacturers breast-milk substitute. Product contains preparation instructions / infant feeding messages / claims that refer to the manufacturers breast-milk substitute (infant formula/follow up formula/growing up milk)
		No	
		NA	Company doesn't sell breast-milk substitutes (e.g. infant formula or /follow-up formula) in the country.
14.2	In the case of manufacturers that produce both breast-milk substitutes and complementary foods, is there an invitation on the label to make contact (direct or indirect) with the	Yes	E.g. "Contact our nutrition experts" or a web link to a company sponsored baby club or IYCF information/ education service. Does not include the provision of company contact details for the purpose of reporting product defects or quality issues. Quick response (QR) code & website are always considered an invitation to contact; needs to be checked with other label

No.	Labeling practice questions:	Answers:	Criteria for choosing answers:
	company's marketing personnel?		content.
		No	A customer care line, email address and postal address (without any other wording such as 'contact out nutrition experts') is considered to be company contact details for the purpose of reporting product defects or quality issues.
		NA	Company doesn't sell infant formula/follow-up formula/breast-milk substitutes in the country.
15	Does the product label make any nutrient content claims?	Yes	
		No	
16	Does the product label make any nutrient comparative claims?	Yes	
		No	
17	Does the product label make any nutrient function/other function claims?	Yes	
		No	
18	Does the product label make any reduction of disease risk claims?	Yes	
		No	

/ENDS



## 8.5 APPENDIX E:

### LABELING PRACTICES CHECKLIST FOR COMMERCIALY PRODUCED FOODS FOR GENERAL CONSUMPTION COMMONLY FED TO CHILDREN UNDER THE AGE OF TWO YEARS

No.	Labeling practice questions:	Answers:	Criteria for choosing answers:
1	Does the product label specify a recommended age/age range for use that is 24 months or older?	Yes	The label specifies a recommended age/age range for use that is 24 months or older; OR the label specifies that the product is not suitable for children under 24 months of age.
		No*	
2	Does the product label include phrases such as “from the start”, “for the whole family” or “first stage”?	Yes*	The product label uses phrases that may indicate that the product is suitable: for use from birth; for infants or children younger than 24 months; for the whole family (including infants and young children).
		No	
3	Does the product label contain any words or a product description that indicate that it is suitable for a child?	Yes*	The label contains (a) words used to describe a child (e.g. baby; toddler; child; children; kid; kidz etc.); (b) words indicating that the product is intended for a child or a child’s party/religious festival (e.g. school; lunchbox; “Hey Moms!”, “Barbie’s pinktastic play time cupcake mix”; chocolate eggs for “Easter Egg hunts” etc.); AND/OR phrases pertaining to developmental stages of children (e.g. “finger food”; “for teethers” etc.).
		No	
4	Does the product label show an image of babies or children? (that appear to be under 2 years of age)	Yes*	There is a photograph, drawing or any other graphic representation of a baby or a child.
		No	
5	Does the product label recommend feeding the product from a feeding bottle?	Yes*	The product label recommends/gives instructions for how to feed the product in a bottle.
		No	The product label makes no mention of bottle feeding.
6	Does the product label show an image of a feeding bottle?	Yes*	The product label contains an image (photograph/drawing/graphic representation) of a baby feeding bottle.
		No	
7	Does the product label show an image of a real person, such as a celebrity or sport’s star, that has appeal to children?	Yes*	E.g. Hannah Montana, famous soccer player, wrestler, etc.
		No	The product label does not contain an image of a real person known to have appeal to children OR the product label does contain a photo of a real person, but it is not someone with known appeal to children (e.g. a politician, health professional or a chef endorsing a product).
8	Does the product label show an image of a cartoon character or fictional movie character that has appeal to children?	Yes*	The product label shows an image of a cartoon character (e.g. Mickey Mouse, Disney characters, Dora the Explorer, Scooby-Doo, etc.) AND/OR a fictional movie character (e.g. Shrek, Spiderman) that has known appeal to children.
		No	
9	Does the product label show an image of a brand mascot that has specific appeal to children?	Yes*	E.g. Kellogg’s Frosties’ Tony the Tiger, Simba the lion, Nik Nak man, Oros man, Nesquik bunny.
		No	
10	Does the product label contain any representation of fantasy or adventure themes that has appeal to children?	Yes*	E.g. “Unreal world” on Manhattan Gums; “Exotic fruit” flavored ice on Paddle Pop label; “Let the Hunt Begin” on packaging of an Easter Egg; “Rock your world with a starburst of extra delicious, cheesy, moon, star and planet chips” on the Cosmix sweet milk cheese flavor packet.
		No	
11	Does the product label contain information about or an image of a free gift, toy or collectible item with appeal to children?	Yes*	E.g. free stickers, figurines, trading cards – that may or may not be in a set or part of a greater collection; Kinder joy chocolate egg with toy inside.
		Partial	
		No	
12	Does the product label show an image of a toy?	Yes	E.g. a plane, car, teddy bear, balloons, space ship, dinosaurs, bright balls toy animals on the Zoo biscuits packaging, soccer ball on Frostie’s box.
		No*	

No.	Labeling practice questions:	Answers:	Criteria for choosing answers:
13	Are any colors, shapes or designs used on the <b>product label</b> that has particular appeal to children?	Yes*	There are bright colors or shapes (such as circles, triangles, etc.) on the product label that would have particular appeal to children (e.g. the blue, red and yellow circles on Flings packaging).
		No	
14	Does the product label contain or refer to a competition, voucher or game with appeal to children?	Yes*	E.g. puzzles, crosswords, join the dots, SMS or go to a website to enter a competition, voucher for a toy store etc. (including tokens, discounts, promotions)
		No	
15	Does the product label contain a joke, rhyme or short story with appeal to children?	Yes*	E.g. Manhattan's (sweet packet) gum baby sweets with a story about Kylie the Kangaroo on the back panel; Anything implying humor.
		No	
16	Does the <b>product packaging</b> have a particular shape, or does the product label show that the <b>food</b> contained has a particular shape, that has appeal to children?	Yes*	E.g. a cool drink/sweetened beverage that is packaged in a prism-shaped tetrapak (such as Jabba sippy orange drink) or Mickey Mouse head shaped packaging, chips that are dinosaur-shaped, mickey-mouse shaped biscuits / cakes, biscuits with animals on them or animal shaped biscuits.
		No	
17	Does the product have a physical appearance, texture or any other novelty (not identified from any other questions) that would have specific appeal to children?	Yes*	E.g. Flings on the back label states that "Flings are so amazingly light and melty."
		No	
18	Does the product label indicate a flavor that would specifically appeal to children?	Yes*	E.g. marshmallow, bubblegum, cream soda, chocolate potion, strawberry whizz etc.
		No	The product label does not indicate a flavor OR it indicates a flavor (chocolate, vanilla, strawberry) that could appeal to adults and children.
19	Are there any emotive claims (e.g. implying "fun") or statements on the product label that are directed towards children or their caregivers?	Yes*	The product label contains a claim regarding "fun" (e.g. "Bursting with Fun") AND/OR there is information on the product label that implies that a parent who purchases the product is a better, more intelligent, more caring or more generous than a parent who does not (e.g. "we understand that you only want the best for your children..."). E.g: Special, exciting, surprise, your favorite.
		No	
20	Does the product label indicate that the product is portioned in, for example, "mini" or "bite size" portions?	Yes*	E.g. "mini" cheddars/oreos, "bite size" chocolates, "snack bites", "baby" etc.
		No	
21	Does the product label indicate that the product can be adapted to be suitable for a child?	Yes*	E.g. rusks: "mash with milk for young children".
		No	
22	Does any information on the product label imply that a balanced and varied diet cannot provide adequate nutrients to growing children?	Yes*	E.g. "Because parents lead such busy lifestyles, it is difficult to ensure that your child's diet contains all the nutrients they need to grow. Give your child x product daily to ensure that their nutrient needs are met."
		No	
23	Does the product label include warnings that are specifically intended for children?	Yes*	Warnings stating the health hazards/potential risks of inappropriate preparation, use or storage, or advising against certain practices (preparation, use or storage) specifically if used for a young child (e.g. choking hazard, "Mom, don't allow your children to roast marshmallows unsupervised" on the marshmallows label, don't allow consumption unsupervised, etc.).
		Partial	
		No	None of the listed similarities appear on the packaging.
		NA	

No.	Labeling practice questions:	Answers:	Criteria for choosing answers:
24	Is the product labeled in a way that also promotes the company's breast-milk substitutes or complementary foods by using similar (a) Color schemes or designs, (b) Names, (c) Slogans, mascots, logos or other symbols, as used for breast-milk substitutes/complementary food brands?	Yes	There are similarities in one or more of the listed elements.
		NA	The company doesn't sell breast-milk substitutes or complementary foods in this country.
		No	
25	Does the product label include a portion / serving size?	Yes	
		No	
26	Does the product label provide nutrition information as a percentage RDA/NRV/GDA for children younger than 2 years of age?	Yes	
		No	The product label provides nutrition information with a % RDA for children >4yrs (e.g. Fanta Pineapple)
27	Does the product label make any nutrient content claims?	Yes*	E.g. "free from trans fats"; "a source of B vitamins & iron".
		No	
28	Does the product label make any nutrient comparative claims?	Yes*	
		No	
29	Does the product label make any nutrient function/other function claims?	Yes*	E.g. "Amazing B vitamins thiamine, riboflavin and niacin help release the energy in foods".
		No	
30	Does the product label make any reduction of disease risk claims?	Yes*	
		No	
31	Does the product label make any other claims (excluding nutrition/health claims) that imply suitability for a child?	Yes*	E.g. "easy to digest for small tummies".
		No	
32	Is the product label written in the appropriate language(s) of the country in which the product is sold?	Yes	
		No	
33	Does the product label include the following:		
33.1	Ingredients list?	Yes	
		No	
33.2	The nutrition composition/analysis of the product?	Yes	
		No	
33.3	Batch number?	Yes	
		No	
33.4	Best before date?	Yes	
		No	
35	Is there an invitation on the label to make contact (direct or indirect) with the company's marketing personnel?	Yes	
		No	
36	<b>Country specific - Cambodia</b> For sweetened condensed milk/skimmed milk/other similar products: Does the product label contain a clear, conspicuous warning that the product should not be used to feed IYC?	Yes	
		No	

No.	Labeling practice questions:	Answers:	Criteria for choosing answers:
37	<b>Country specific - Nepal</b> For sweetened condensed milk: Does the product label contain a clear and legible caution that it should not be used for infant feeding?	Yes No	

## 8.6 APPENDIX F:

### INSERTS DEFINITION

The Code (WHO 1981) states that “Inserts giving additional information about the product and its proper use, subject to the above conditions, may be included in the package or retail unit.” The conditions referred to are regarding information that must be provided on the product label. In the spirit of the Code, the Draft Guide recommendations (Table 1) were interpreted to mean that an insert containing additional information may be included in the package or retail unit on condition that the information required to be on the product label is not found only in the insert. The Draft Guide recommendations are not interpreted as checking that the required label information is present on the label (dealt with by Questions 4, 7, 12 and 13). As such, the wording of the question was adjusted from the original text to more clearly deal with the issue of prime interest, being whether the insert contains any required label information that is not present on the label.

For the purposes of this report, “required label information” was defined as including:

1. Age of introduction;
2. Message regarding the importance of exclusive breastfeeding for the first six months followed by the addition of complementary foods with continued breastfeeding for two years and beyond; preparation/use instructions;
3. Storage instructions;
4. Daily ration (or serving size and frequency of feeds);
5. Warnings;
6. Ingredients list;
7. Nutrition information;
8. Batch number; and
9. Best before date. Although not stipulated as required label information by the Draft Guide, the last four items listed are required for breast-milk substitutes by the Code (WHO 1981). Thus it is felt that, should this information be provided for a complementary food product, it too should be found on the label and not only in the insert.

## 8.7 APPENDIX G:

### MACRO-AND MICRONUTRIENT NUTRIENT RECOMMENDATIONS

Macro-and micronutrient nutrient recommendations			
Age group	6-8 months	9 – 11 months	12 – 23 months
Energy (kcal) <sup>a</sup>	200	300	550
CHO (g) <sup>b</sup>	18 – 23	26 - 34	48 - 62
Fat (g) <sup>c</sup>	10 - 12	15 - 18	28 – 34
PUFA (g) <sup>c</sup>	<3	<5	<9
LA (g) <sup>c</sup>	0.7 – 1.0	1.0 – 1.5	1.8 – 2.8
ALA (g) <sup>c</sup>	0.08 – 0.13	0.13 – 0.20	0.24 – 0.37
Protein 2 (g) <sup>d</sup>	8.9	8.4	8.8
Weight (kg) <sup>e</sup>	7.9	8.8	10.3
Sodium (mg) <sup>f</sup>		350	
Sugar (g) <sup>g</sup>		<5	
Vitamin A (µg) <sup>h</sup>		400	
Calcium (mg) <sup>h</sup>	400	400	500
Iron (mg) <sup>h</sup>	9	9	6
Zinc (mg) <sup>h</sup>	4.1	4.1	4.8

<sup>a</sup>Pan American Health Organisations (PAHO), World health organization (WHO). Guiding principles for complementary feeding the breastfed child.

[http://www.who.int/nutrition/publications/guiding\\_principles\\_compfeeding\\_breastfed.pdf](http://www.who.int/nutrition/publications/guiding_principles_compfeeding_breastfed.pdf)

<sup>b</sup>Recommendation of 35-45% of energy <http://www.fao.org/docrep/w8079E/w8079e00.htm>

<sup>c</sup>Recommendation for total fat: 45 – 55% of energy ; PUFA; 6-24 months: <15% of total E; LA 6; – 24 months: 3.0 – 4.5% of total E; ALA; 6 – 24 months: 0.4 – 0.6% of total E  
FAO/WHO. 2010. Fats and fatty acids in human nutrition: Report of an expert consultation.  
<http://www.fao.org/docrep/013/i1953e/i1953e00.pdf>

<sup>d</sup>WHO/FAO/UNU. 2007. Protein and amino acid requirements in human nutrition. Report of joint WHO/FAO/UNU Expert consultation. [http://whqlibdoc.who.int/trs/WHO\\_TRS\\_935\\_eng.pdf](http://whqlibdoc.who.int/trs/WHO_TRS_935_eng.pdf)

<sup>e</sup>The weight for age according to the WHO growth standards was used, an average between the weight of boy and girls was used. [http://www.who.int/childgrowth/standards/cht\\_wfa\\_boys\\_p\\_0\\_2.pdf](http://www.who.int/childgrowth/standards/cht_wfa_boys_p_0_2.pdf)  
[http://www.who.int/childgrowth/standards/chts\\_wfa\\_girls\\_p/en/index.html](http://www.who.int/childgrowth/standards/chts_wfa_girls_p/en/index.html)

<sup>f</sup>WHO Guideline Sodium Intake for Adults and Children:

- Children 2 to 5 years the maximum level of 2 g/d should be adjusted downward adjusted on energy requirements of children relative to adults. Specifically states that this guideline does not cover children birth to 24 months
- The 1998 WHO report on Complementary Feeding of Young Children in Developing Countries: a Review of the Current Scientific Evidence recommends .35 g for infants < 24 months of age.

<sup>g</sup>PAHO in a technical document Recommendations from a Pan American Health Organization Expert Consultation on the Marketing of Food and Non-Alcoholic Beverages to Children in the Americas recommends that foods with total sugars: ≤ 5.0 gr / 100 gr of solid food or ≤ 2.5 gr / 100 ml of beverage should not be marketed to children. These guidelines are not specific to young children < 24 months of age.  
[http://www.paho.org/saludyescuelas/index.php?option=com\\_k2&view=item&id=225:recommendations-on-the-marketing-of-food-and-non-alcoholic-beverages-to-children&Itemid=337&lang=en](http://www.paho.org/saludyescuelas/index.php?option=com_k2&view=item&id=225:recommendations-on-the-marketing-of-food-and-non-alcoholic-beverages-to-children&Itemid=337&lang=en) .

<sup>h</sup>FAO (Food and Agriculture Organization of the United Nations)/WHO (World Health Assembly). 2001. Human Vitamin and mineral requirements. Report of a joint FAO/WHO expert consultation Bangkok, Thailand. <ftp://ftp.fao.org/docrep/fao/004/y2809e/y2809e00.pdf>

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