



Point-of-Sale Promotion and Labeling Violations of Breastmilk Substitutes in Cambodia

OBSERVATIONS IN SIX PROVINCES: SECOND PHASE, 2018
REPORT | JULY 2019



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Research disclaimer and suggested citation

Findings presented in this report are based on observations of breastmilk substitute availability and promotions at points-of-sale in six provinces between 30 January and 6 March 2015 and 28 August and 7 September 2018. The number of breastmilk substitute products may increase or decrease after the periods of data collection, as new brands may be introduced, and others might be withdrawn from the markets. The presented findings are not intended to be generalized, but to provide a snapshot of the promotion and labeling practices at sampled points-of-sale.

This research report is jointly produced by Helen Keller International and World Vision International in Cambodia, and therefore it should be cited as the following:

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Contents

Acknowledgements	1
Research disclaimer and suggested citation	1
Executive summary	3
1. Introduction	5
1.1 Background	5
1.2 Research objectives	6
1.3 Terminology	6
2. Methods	8
2.1 Study setting	8
2.2 Sample size and selection	9
2.3 Study tools	9
2.4 Data collection and analysis	10
2.5 Ethics and approval	10
3. Research findings	11
3.1 Sample characteristics	11
3.2 BMS availability at points-of-sale	11
3.3 BMS promotions at points-of-sale	13
3.4 BMS labeling violations	16
4. Discussion and recommendations	19
Annex 1: Labeling standards reviewed	22
Annex 2: Endorsement letter from Department of Drug and Food, Ministry of Health	24
References	25



Executive summary

Helen Keller International (HKI) and World Vision International (WVI) in Cambodia undertook joint research in 2018 to collect information on implementation of Sub-Decree 133 on *Marketing of Products for Infant and Young Child Feeding* (SD133) in six provinces outside of Phnom Penh. The study collected data on the availability, promotional practices, and labeling of breastmilk substitutes (BMS) in 66 stores and pharmacies in Battambang, Kandal, Kampong Thom, Siem Reap, Preah Vihear, and Takeo provinces. Data were compared to similar research carried out in 2015 in the same provinces by HKI and WVI, to describe changes in the adherence and enforcement of SD133.

The following findings show that BMS availability, promotions, and labeling violations continue to be widespread outside of Phnom Penh.

- The availability of BMS products for sale grew from 110 different products in 2015 to 165 in 2018. In the 66 stores visited, the research found 66 different infant formula products (to be used starting from 0-5 months of age), 53 follow-up formula products (to be used starting from 6-11 months), and 46 growing-up milks (to be used starting from 12-23 months) for sale.
- BMS availability increased in all six provinces, with the greatest number of unique products found in Siem Reap and Battambang (117 available in each province).
- BMS promotions were widespread, with 50 of the 66 stores visited (76%) promoting at least one BMS product.
- Compared to 2015, more stores were found with BMS promotions in 2018. Stores with promotions also increased by province, type of store, and type of town/city. The greatest increases were seen in district towns (39% to 67%, respectively) compared to provincial cities (80% to 87%), and in supermarkets, baby shops, minimarts (61% to 94%) compared to pharmacies (47% to 53%).
- In total, 144 promotions were found for BMS products in 2018, which is similar to the 137 promotions observed in 2015.
- Growing-up milks for children 12 months and above appeared in the most promotions (70%) in 2018, even though there were fewer of these products found

for sale. The percentage of promotions including growing-up milks also doubled from 2015 and 2018 (34% to 70%).

- There was a larger number of manufacturers with BMS products for sale (36) and BMS products being promoted (29) in 2018 compared to 2015 (27 and 18, respectively). Only one manufacturer showed a noticeable decrease in the percentage of promotions found in 2018 compared to 2015, but this company was still the manufacturer with the second highest number of promotions in 2018.
- Seven types of promotional practices were assessed in the stores in 2015 and 2018. The most common type of promotion found changed from information materials in 2015 to displays in 2018.
- As in 2015, no single BMS product found across the six provinces in 2018 fully complied with SD133 or WHO's International Code regarding labeling practices. However, on a scale of 0 to -24, with 0 indicating full compliance and -24 indicating no compliance, the average score improved from -16.2 in 2015 to -9.1 in 2018. Improvements were seen for all age categories of BMS.
- The most common violation of the SD133 labeling criteria in 2018 was that 98% of the products did not have a full label in the Khmer language; 45% of products had partial Khmer and 53% had no Khmer language.
- The other four most common SD133 label violations included: 92% contained text that idealized the use of BMS or discouraged/undermined breastfeeding; 76% had images other than ones to illustrate how to prepare the product or to identify the product as BMS; 72% did not have a statement indicating the total cost of feeding an infant with formula for the first six months; and, 63% did not have a statement saying that cup feeding is more hygienic than bottle-feeding.

These findings highlight the critical importance of monitoring and enforcement of SD133. BMS manufacturers and stores in the six provinces are widely violating SD133. Actions by the Royal Government of Cambodia are critical for ensuring adherence to regulations that protect breastfeeding and child health in Cambodia. The Ministry of Health and Ministry of Commerce have been working to improve monitoring of BMS promotions and labeling in points-of-sale, and in early 2019 the Royal Government issued financial penalties to a number of companies in violation of SD133. HKI and WVI congratulate these actions and encourage the government to continue holding manufacturers and stores accountable, and to institute widespread routine monitoring in retail locations throughout Cambodia. We also encourage the Royal Government to review and revise SD133 to include all provisions of the *International Code of Marketing of Products for Infant and Young Child Feeding* and to be in line with the World Health Organization's *Guidance on Ending the Inappropriate Promotion of Foods for Infants and Young Children*. Additionally, continued commitment and implementation of the *Cambodia National Maternal, Infant and Young Child Nutrition Social and Behavior Change Communication Strategy 2019-2025* is crucial for raising awareness on optimal breastfeeding practices.

1. Introduction

1.1 Background

The World Health Organization (WHO) recommends exclusive breastfeeding from birth through to the age of 6 months, and continued breastfeeding along with appropriate complementary feeding until the age of 24 months (WHO, 2003; WHO, 2014). Despite efforts to promote exclusive breastfeeding, rates have declined in Cambodia, from 73.5% in 2010 to 65.0% in 2014 (NIS, 2011; NIS, 2015). In the same period, the prevalence of bottle feeding for babies 0-5 months has grown, from 13.6% in 2010 to 19.8% in 2014. Research in Phnom Penh by the Assessment and Research on Child Feeding (ARCH) project found 43.1% of children 0-5 months had received a breastmilk substitute (BMS) in the previous day, as had 29.3% of children 6-23 months (Pries et al, 2016). Breastfeeding provides a number of benefits to both mother and baby, which BMS lacks (AAP, 2012), therefore their availability and use in Cambodia is of growing concern. The rise in BMS use may be attributable to wide availability and pervasive promotion of BMS in Cambodia (Pries et al, 2016; WVI & HKI, 2015).

In 2005, The Royal Government of Cambodia passed Sub-Decree 133 on *Marketing of Products for Infant and Young Child Feeding* (SD133) (Royal Government of Cambodia, 2005), a legal framework which implements most provisions of the *International Code of Marketing of Breast-milk Substitutes* (the International Code) which was adopted by the World Health Assembly in 1981 (WHO, 1981). The Joint Prakas No. 061 on Implementation of *Sub-Decree on Marketing of Products for Infants and Young Child Feeding* was passed in 2007 to operationalize the implementation of SD133 (MOH, 2015), then in 2014 a multi-sectoral Oversight Board was established to oversee and improve the implementation of SD133 (MOH, 2015). The Oversight Board has two executing arms: the Control Committee that reviews and approves all labels and packaging for BMS products, and the Executive Working Group that oversees monitoring and compliance of SD133 (Hou et al. 2019).

SD133 governs the “marketing of infant and young child feeding products [...] for feeding infants up to twelve months old and young child[ren] up to twenty four months old” (Royal Government of Cambodia, 2005). Article 13 restricts the promotion of BMS at points-of-sale and prohibits advertisements, displays, discounts, prizes or gifts, providing samples, distributing information materials, along with other promotional tactics.

In 2015, World Vision International (WVI) and Helen Keller International (HKI) collaborated to conduct joint research on “Breast-milk Substitute Promotion and Labeling Violations” in six provinces of Cambodia (WVI & HKI, 2015). Previous to this research, little was known about point-of-sale promotions outside of Phnom Penh. The 2015 study provided a situational report to the government and documented violations of SD133. The study collected data in 66 stores and pharmacies in Battambang, Kandal, Kampong Thom, Siem Reap, Preah Vihear, and Takeo provinces to identify the availability of BMS products, the prevalence of BMS promotions, and to document labeling violations of BMS products found for sale in the stores. The study found that BMS products were widely available and promotion was widespread (WVI & HKI, 2015). Over half of the stores visited had at least one promotion, promoting products from 18 of 27 manufacturers with BMS products for sale. Seven promotion types were practiced across the six provinces; information

materials were the most frequently observed promotional type. No single BMS product found in the study fully complied with the SD133 or WHO's International Code labeling requirements. On a scale of 0 to -24, with 0 indicating full compliance and -24 indicating no compliance, the average score of all BMS products was -16.2.

After three years, HKI and WVI undertook a second round of BMS research in 2018 to provide updated information on SD133 implementation and adherence to the Royal Government. Using the same methods as 2015, this study aimed to document the current status of enforcement of SD133 in points-of-sale outside Phnom Penh, and to describe any changes from 2015 to 2018.

1.2 Research objectives

The research had four objectives:

1. To determine current availability of BMS products marketed for children 0-23 months in 6 provinces of Cambodia
2. To calculate current prevalence of promotional practices in points-of-sale for BMS products for children 0-23 months in 6 provinces of Cambodia
3. To collect evidence of current labeling violations of BMS products for children 0-23 months found for sale at points-of-sale in 6 provinces
4. To compare the data on availability, promotions, and labeling violations to the 2015 phase results to describe any changes over time

1.3 Terminology

The study used the following definitions, which are in line with SD133 and the 2015 research:

Breastmilk substitute (BMS): Any formula, milk, or milk-like product marketed as suitable for feeding children younger than 24 months of age. Products were considered marketed as suitable for children if their labels included:

- The words “baby,” “infant,” “toddler,” “young child,” “first milk,” or a synonym
- An age of introduction less than two years on the label, including feeding instructions mentioning children under 24 months of age

The SD133 applies to products for children up to 24 months of age (Royal Government of Cambodia, 2005). In this study, BMS included infant formula (to be used starting from birth to 5 months of age), follow-up formula (to be used starting from 6 months to 11 months), and growing-up milk (to be used starting from 12 months to 23 months). We also included infant or follow-up formulas for special dietary or medical purposes. Excluded were full dietary replacements like Pedia-sure and “mother’s milk” products intended for pregnant or lactating women.

Manufacturer: A corporation or other entity in the public or private sector engaged in the business or function (whether directly, through an agent, or through an entity controlled by/ under contract with it) of manufacturing BMS. In this study, manufacturers distribute BMS products as there is no local production of BMS products in Cambodia.

Point-of-sale: Retail locations, such as store, supermarket, baby shop (selling products like diapers, BMS, baby clothes, and other items for infants and small children), minimart, or pharmacy where BMS products are sold.

Promotion: Any method employed, either in direct or indirect way, to encourage purchase and consumption of BMS products. The following are the types of promotions assessed in this study:

1. **Price-related promotion:** Any promotion related to the price of the product including the use of coupon/stamps, discounts, buy-one get-one, or special discount sales.
2. **Display:** Any form of display including brand shelf, special display or shop windows (detached from shelves), placards/posters/banners, shelf tag/talker/wobbler and new product launch.
3. **Information material:** A printed sheet of paper such as leaflet, pamphlet or flyer, often with illustrations, briefs/summarized information, or advertising, and distributed free of charge to customers.
4. **Free gift:** Infant and young child related items (e.g. toys, baby toiletries, baby/child feeding bowl or cup) that are given away with the purchase of a BMS product as a way to encourage customers to buy the BMS product. Free gifts frequently contain the company/brand of the product on the gift.
5. **Product sample:** A small quantity or example of a BMS product, usually given to the consumers free of charge, intended to show the consumer what the product is like and for the consumer to use, test or judge the product.
6. **Company representative:** A representative or sale agent of any BMS company being present in the store to provide information, samples, or gifts. Representatives may provide product-specific information or general infant and young child feeding information that may be biased towards the company that they work for.
7. **Cross-product promotion:** When a BMS product is promoted together with an infant and young child food product (e.g. a complementary food), a commercial snack product, or another milk/beverage marketed for general consumption (not for children less than 2 years), usually to encourage consumption and brand loyalty.



2. Methods

This study was a cross-sectional descriptive study in six provinces of Cambodia. The study methods followed those in the 2015 research to allow for comparisons of the data. Data were collected between 28 August and 7 September 2018.

2.1 Study setting

The study took place in six provinces in Cambodia including Battambang, Kandal, Kampong Thom, Siem Reap, Preah Vihear, and Takeo. Provinces were selected based on two criteria: 1) high rates of stunting from the Cambodia Demographic Health Survey (CHDS) 2010 (as CDHS 2014 was not available at the time of the 2015 study); and 2) presence of programs for HKI and WVI in Cambodia. Within each province, data were collected in the provincial capital and the main district town of two districts per province. In 2015, the districts were randomly selected from districts in WVI program areas. See **Table 1** for the provinces and districts included in the 2015 research, which were visited again in this study.

Table 1 | Study provinces and locations of data collection in 2015 and 2018

Province	Location of data collection
Battambang	Battambang town (provincial capital) Moung district Ratanak Module district
Kandal	Ta Khmao town (provincial capital) Ponhea Leu district Sa'Ang district
Kampong Thom	Kampong Thom town (provincial capital) Santuk district Stong district
Preah Vihear	Preah Vihear town (provincial capital) Chey Sen district Rovieng district
Siem Reap	Siem Reap town (provincial capital) Pouk district Soth Nikom district
Takeo	Takeo town (provincial capital) Borei Chol Sa district Kirivong district

2.2 Sample size and selection

In the 2015 research, stores were selected purposefully by WVI staff prior to data collection, with five points-of-sale chosen in a provincial capital and three points-of-sale chosen per district town, for a total of 11 points-of-sale per province and 66 points-of-sale for the entire study (WVI & HKI, 2015). The list of stores visited in the 2015 research was used as a resource in selecting the 66 stores in 2018, but the study did not return to the exact same list of stores. In the three years since the first research it was highly likely there would be changes in store name or location, stores could have closed, and new stores could have opened that had a wider variety of BMS products and promotions.

WVI staff in each province, in consultation with local officials and resources, identified the 66 points-of-sale for the 2018 research. To ensure diversity of store types, in provincial capitals at least one of the five stores selected had to be a supermarket, one had to be a pharmacy, and one had to be a baby shop, if available. Of the three stores selected in district towns, at least one had to be a pharmacy.

2.3 Study tools

Three tools were used for data collection in 2015 and 2018: 1) BMS master list; 2) point-of-sale promotion form; and 3) label review checklist.

In 2015, a BMS master list was created to document the availability of BMS products for children under 24 months of age in the six target provinces (WVI & HKI, 2015). The master list was based on a listing first developed by the ARCH project for Phnom Penh in 2013 (Pereira et al, 2016). During the data collection in 2015, any new products for children 0-23 months found in the six provinces not already on the list were added to the master list. In August 2018, HKI and WVI staff visited nine stores in Phnom Penh to verify existing products on the 2015 master list and to add any new products found for sale. The master list captured information on manufacturer, brand, descriptive name, age of introduction, and age category or stage as shown on the label.

The point-of-sale promotion form was an observational checklist adapted from the ARCH project (Champeny et al, 2016; Hadihardjono et al, 2019) and used in the 2015 research to document promotions in each store for BMS products marketed as suitable for children 0-23 months of age. The form captured information on geographic location, store name, type of promotion, and each BMS product observed in the promotion.

During data collection, one sample of each BMS product found available was purchased. The products were brought back to Phnom Penh for a desk review of their package labels. The label checklist was developed by ARCH in 2013 (Pereira et al, 2016; Sweet et al, 2016) and was subsequently used in the first round of research in 2015 (WVI & HKI, 2015). The checklist included 24 items covering violations of standards outlined by SD133 and the International Code (Royal Government of Cambodia, 2005; WHO, 1981). Violations included items such as labels not fully written in Khmer language, lack of age appropriate product information, absence of information on preparation or storage, or no statement on the superiority of breastfeeding. The same checklist was used in 2015 and 2018. See **Annex 1**.

2.4 Data collection and analysis

After arriving at a store and receiving permission from the store owner/manager to carry out data collection, the survey team thoroughly surveyed all areas inside a store to identify all products and promotions for data collection. Information on product availability was captured first. Using a paper copy of the final 2018 BMS master list, the survey team systematically matched each BMS product found throughout the store to the list, checking off each product identified. Any new products found were added to the list for data collection in all following stores. Data were entered into Microsoft Excel each night.

Once all information on product availability was captured, the survey team identified products to purchase. The team then systematically went through the store again, documenting each promotion they found that included a BMS product for children under 24 months of age. The data for the promotion form was collected electronically using mobile tablets and the Android application Open Data Kit (ODK), including photographs of each promotion for documentation and verification.

When data collection was complete in all six provinces, the survey teams returned to Phnom Penh with all the BMS products purchased during data collection. Two team members (one from HKI and one from WVI) carried out the desk review of the product labels, independently completing an electronic checklist for each BMS product using a mobile tablet. Each product began with a score of 0, and had a point removed from its score for each violation found on the label. A score of 0 was the best score, meaning fully compliant with all label regulations, while a score of -24 was the worst, indicating violations of all 24 standards included in the checklist. The scoring for the two team members was compared using Stata 14.0 to identify any items where there were differences, which were then discussed to come to a final decision. Where consensus could not be reached, the research coordinator made the final decision.

Data were cleaned in Microsoft Excel and analyzed in Stata 14.0

2.5 Ethics and approval

Prior to the start of data collection, a permission letter was obtained from Department of Drugs and Food Safety, Ministry of Health. (**Annex 2**) The research was not submitted for ethical review as it only involved collecting information available in a public setting; no data were gathered from human subjects.

Points-of-sale were not notified ahead of time of data collection activities to ensure store owners and managers did not make changes to product availability and/or promotions in attempt to avoid documentation of SD133 violations. Store owners and managers were approached by the study team immediately before data collection began at their store, to inform them of study procedures, including taking photographs and purchasing of BMS products, and to share copies of the letter of approval and informational letter. All efforts were made to ensure data collection did not disturb normal business of the store.



3. Research findings

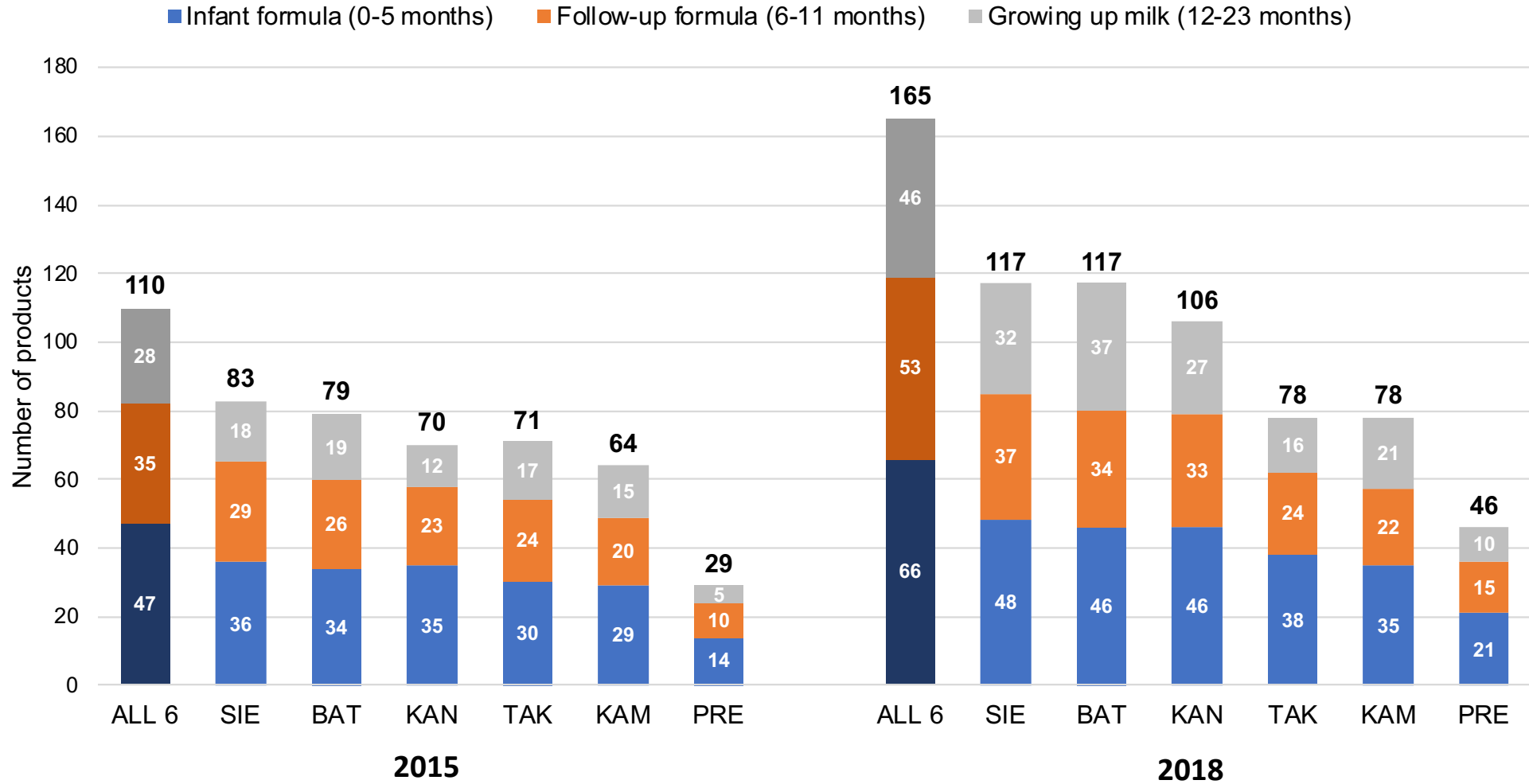
3.1 Sample characteristics

A total of 66 points-of-sale selling BMS were visited across the six provinces: 30 in provincial cities and 36 in district towns. The 66 stores included 3 supermarkets, 30 pharmacies, 15 baby shops, 14 local/informal stores, and 4 minimarts. More pharmacies were visited in 2018 (45% of all stores) than in 2015 (26% of all stores).

3.2 BMS availability at point-of-sale

BMS were widely available at the 66 stores visited. **Figure 1** shows that 165 BMS products were found, including 66 (40%) infant formula products for children less than 6 months, 53 (32%) follow-up formula for children 6-11 months, and 46 (28%) growing-up milks for children 12-23 months. The most products were found in Siem Reap and Battambang, and the fewest in Preah Vihear. The number of different BMS products available for sale was higher in 2018 compared to 2015, with increases found in every province (**Figure 1**).

Figure 1 | Number of BMS products available for sale, by BMS category and province in 2015 and 2018



SIE=Siem Reap; BAT=Battambang; KAN=Kandal; TAK=Takeo; KAM=Kampong Thom; PRE=Preah Vihear

The 165 available BMS products were from 36 different manufacturers, which is higher than the 27 found in 2015. All products were produced outside of Cambodia. The five manufacturers with the most products for sale in 2018 were Namyang Dairy Products (15 products), Nestle (12), Dumex (11), Abbot (9), and Mead Johnson Nutrition (9).

Examining the 66 stores visited, 65 stores sold infant formula (99%), 64 sold follow-up formula (97%), and 54 sold growing-up milks (82%). The five manufacturers seen most frequently in the stores were Nestle, Dumex, Abbott, Gilbert Laboratories, and Ly Pack (**Table 2**). The median number of BMS products found per store was 21 products. Stores carried more infant formula products (median 10 per store) than follow-up formula (median 7 per store) and growing-up milks (median 4 per store).

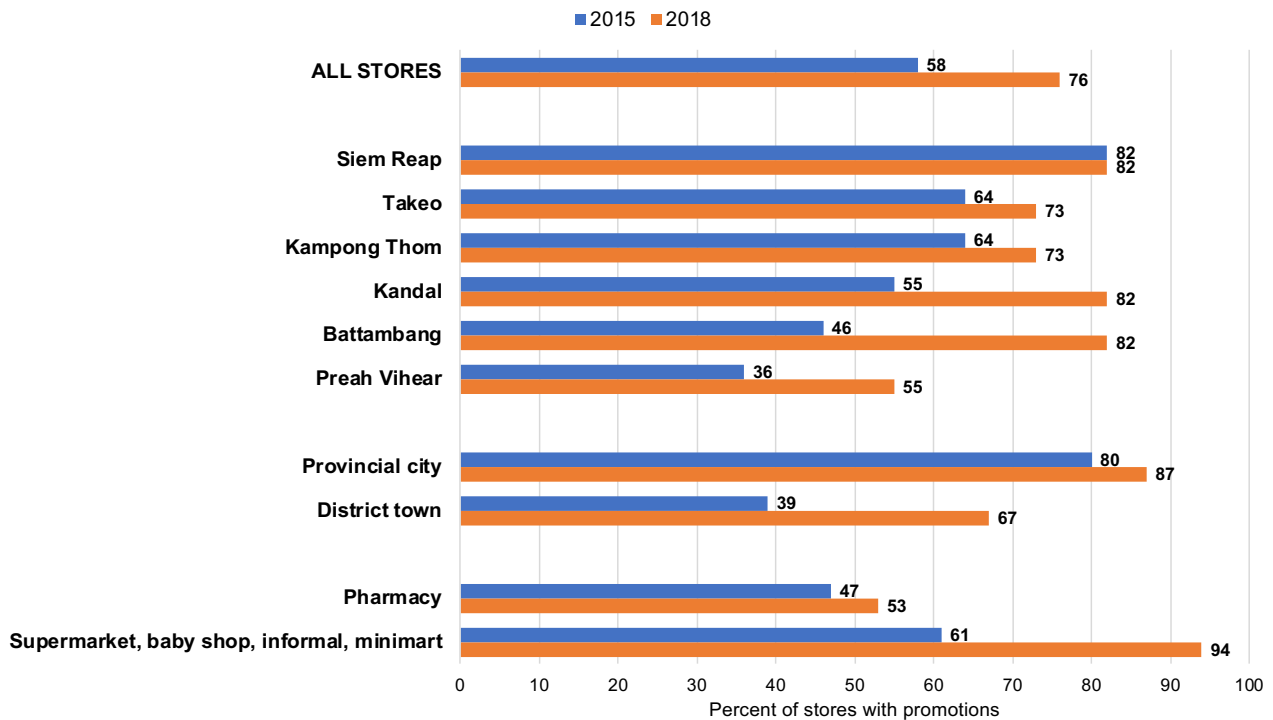
Table 2 | Number and percentage of stores selling BMS products, by manufacturer in 2018

Manufacturer	Stores		Manufacturer	Stores	
	n	%		n	%
Abbott	56	85	Mead Johnson Nutrition	8	12
Able Food	20	30	Namyang Dairy Products	28	42
Angkor	29	44	Neolact	17	26
Aspen Nutritional	8	12	Nestle	59	89
Celia	4	6	Ninolac	3	5
Dana Dairy Group	10	15	NutriBio	17	26
Dumex	58	88	Nutricia	20	30
France Bebe	30	46	Omni Nutrition	6	9
Friesland Campina	1	2	Oz Farm	1	2
Gilbert Laboratories	43	65	Pfizer	5	8
Gotop Group	5	8	Pinnacle Laboratories	14	21
Guigoz Laboratories	11	17	Regilait	23	35
Heinz	1	2	Sodilac	3	5
Hero	8	12	Sunwild	3	5
Honilac Nutrition Limited	8	12	United Dairy	7	11
Inex	4	6	Viplus Dairy	3	5

3.3 BMS promotions at points-of-sale

During data collection, 50 of the 66 stores visited (76%) had at least one BMS promotion for products intended for children under 24 months of age, which is a violation of SD133 (**Figure 2**). Eighty percent or more of stores in Kandal, Battambang, and Siem Reap had BMS promotions. Half of stores in Preah Vihear had promotions, the fewest among the six provinces. All of the supermarkets (3), minimarts (4), and baby shops (15) had promotions. Half of pharmacies (16; 53%) and 86% of local/informal stores (12) were promoting BMS products. Promotions were more frequently found in stores in the provincial city than the district town. Stores had a median number of 2 promotions per store, with the fewest number being one promotion and the highest observed was 18 promotions in a baby shop in Kandal Province. In 2015, the median was 3 promotions per store, ranging from one to 11 promotions.

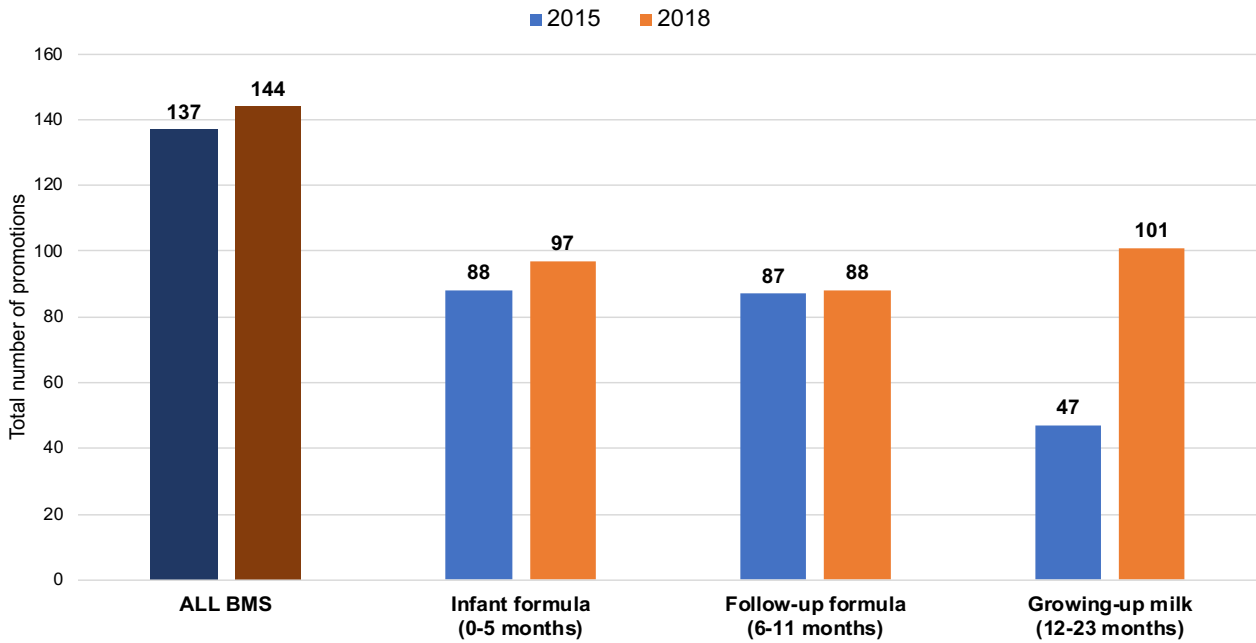
Figure 2 | Percentage of stores with at least one promotion in 2015 and 2018, by province, type of town/city, and by type of store in 2015 and 2018



Compared to 2015, the prevalence of BMS promotions increased (**Figure 2**). In 2018, more stores had at least one promotion, overall and by province, type of store, and type of town/city. The prevalence of stores with promotions increased more in Kandal and Battambang provinces (36 percentage points increase each) compared to the other provinces. The percentage of stores with promotions also grew more dramatically in district towns (28% points) compared to provincial cities (7% points), and in supermarkets, informal stores, and minimarts (33% points) compared to pharmacies (6% points).

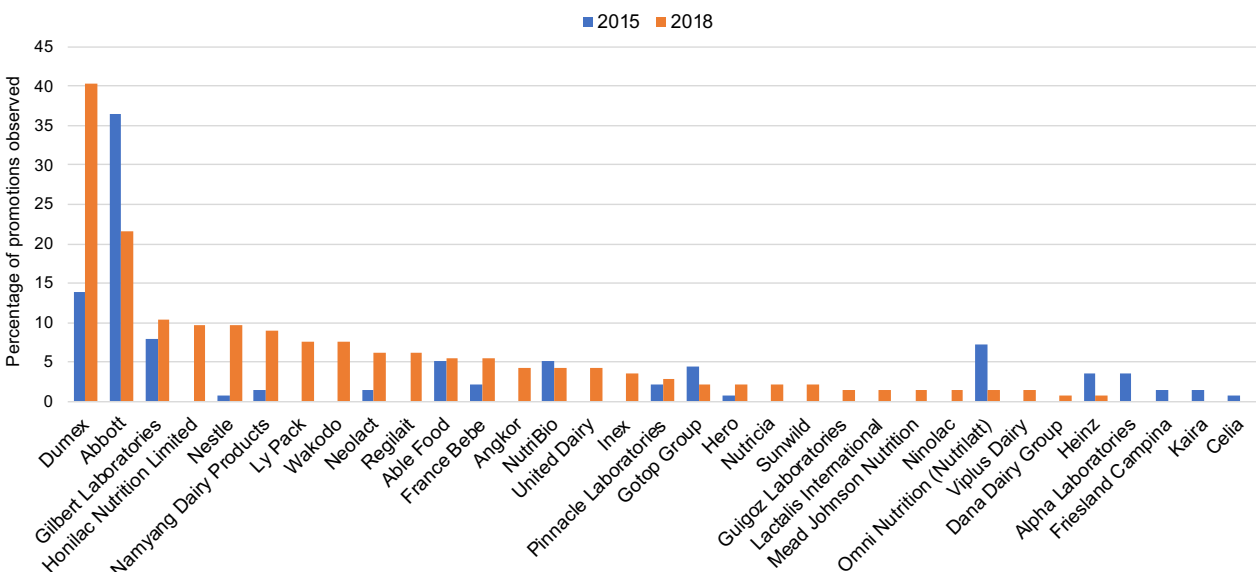
The study found a total of 144 promotions for BMS products for children under 24 months of age in 2018 (**Figure 3**). Promotions could include one or more of the categories of BMS. Growing-up milks appeared in the most promotions (70%), even though there were fewer of these products found available for sale. Infant formula appeared in 67% of the promotions and follow-up formula in 61% of the promotions. The percentage of promotions including infant and follow-up formula remained similar between 2015 (64% and 64%, respectively) and 2018 (67% and 61%); however, the percentage of promotions including growing-up milk doubled (34% to 70%).

Figure 3 | Number of promotions seen across all six provinces, by category of BMS in 2015 and 2018



The manufacturers Dumex, Abbot, Gilbert Laboratories, Honilac Nutrition Ltd, and Nestle had the highest number of promotions in 2018 (**Figure 4**). Nearly half of all promotions included products produced by Dumex (40%). **Figure 4** shows the percentage of all promotions found in 2015 and 2018, by the manufacturers of the products included in the promotion. In 2018, 29 manufacturers had one or more promotions, out of 36 manufacturers with products available for sale (81%). This is an increase compared to 2015, where 18 of 27 manufacturers (67%) were found promoting BMS products. Only one company, Abbott, showed a noticeable decrease in the percentage of promotions found (37% to 22%); but, Abbot was still the manufacturer with the second highest number of promotions in 2018.

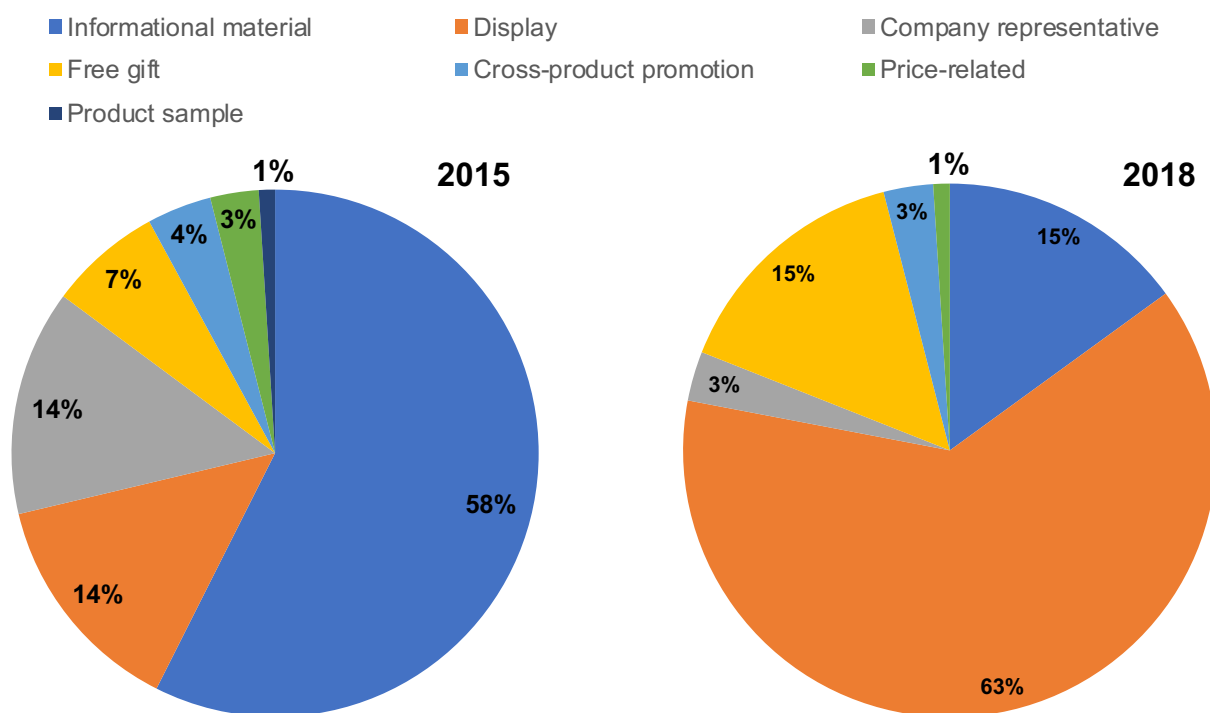
Figure 4 | Percentage of BMS promotions, by manufacturer in 2015 and 2018



The top five brands with the most promotions were Similac (18%), Aptamil (17%), Dupro (14%), Isomil (10%), and Physiolac (10%). Similac and Isomil are produced by Abbott; Aptamil and Dupro by Dumex; and Physiolac by Gilbert Laboratories.

Seven types of promotions were identified in the 2015 and 2018 research (**Figure 5**). In 2015, the most common type of promotion found was information material, including leaflets, pamphlets or flyers. In 2018, this changed and the most frequently found type of promotion was display, including brand shelves, shop window displays, posters, banners, and shelf tags and wobblers. Between 2015 and 2018, the percentage of promotions involving company representatives promoting BMS products decreased, while the use of free gifts increased. The other types of promotional practices remained similar.

Figure 5 | Percentage of BMS promotions, by type of promotion in 2015 and 2018



3.4 BMS labeling violations

Of the 165 different BMS products found available during data collection, 164 were purchased and had their labels reviewed using the same 24-point checklist used in 2015. **Figure 6** shows the mean product score for all BMS products in 2015 and 2018, along with the mean score for the categories of BMS. A score of 0 was the best and -24 the worst, indicating violations of all 24 standards. For all categories of BMS, the scores improved in 2018, indicating improved compliance with SD133 and the International Code. Similar to 2015, none of the products assessed in 2018 fully complied with all 24 standards. The best scores included a -4 for one Neolact product, and -5 for products from Abbott, Dana Dairy Group, Gilbert Laboratories, and Nestle. A summary of the scores by manufacturer is shown in **Table 3**. Scores were better for infant formula products compared to follow-up formula and growing-up milk products.

Figure 6 | Mean product label score, by categories of BMS in 2015 and 2018

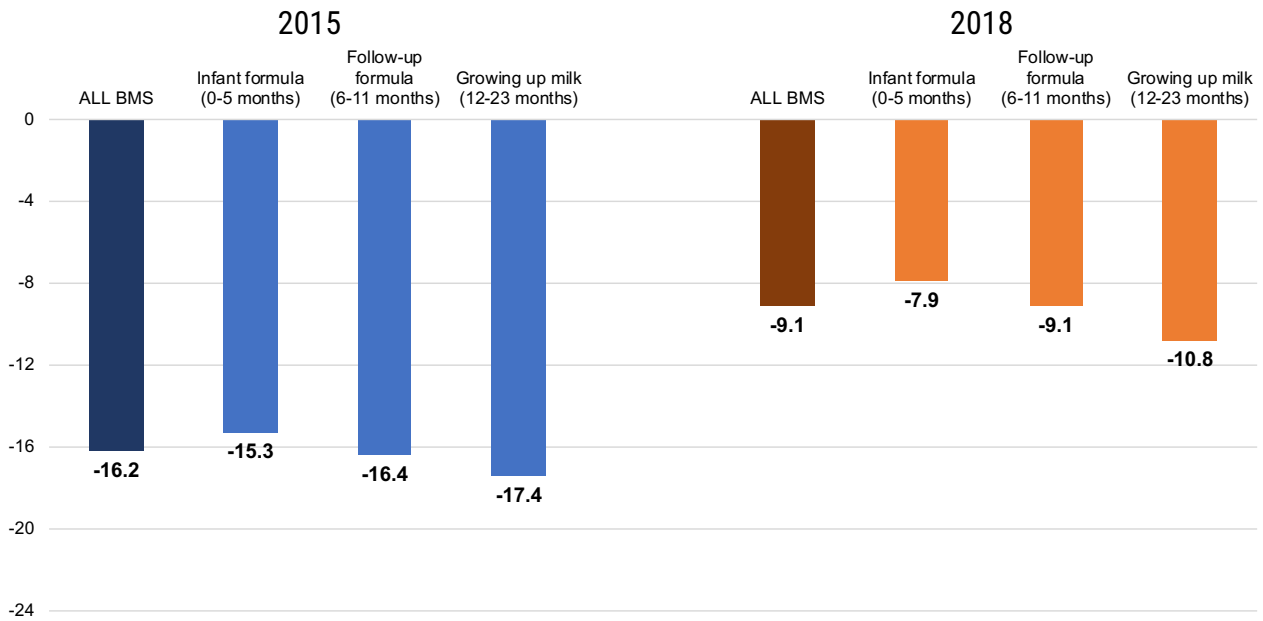


Table 3 | Mean label scores (worse score-best score) for BMS products by manufacturer in 2018. Manufacturers may have had more than one BMS product available for sale and scored.

Manufacturer	Label Score		
	Mean	Worst	Best
Abbott	-6.7	-12	-5
Able Food	-9.0	-9	-9
Angkor	-13.0	-13	-13
Aspen Nutritional	-10.0	-13	-8
Celia	-6.0	-6	-6
Dana Dairy Group	-7.0	-8	-5
Dumex	-9.0	-15	-7
France Bebe	-9.3	-12	-8
Friesland Campina	-6.0	-6	-6
Gilbert Laboratories	-6.5	-9	-5
Gotop Group	-9.3	-12	-8
Guigoz Laboratories	-10.0	-11	-9
Heinz	-9.0	-9	-9
Hero	-9.0	-12	-7
Honilac Nutrition Limited	-9.0	-9	-9
Inex	-14.0	-14	-14
Lactalis International	-9.0	-9	-9
Ly Pack	-6.0	-6	-6

Manufacturer	Label Score		
	Mean	Worst	Best
Mead Johnson Nutrition	-11.8	-15	-8
Namyang Dairy Products	-8.6	-11	-8
Neolact	-4.7	-5	-4
Nestle	-9.7	-15	-5
Ninolac	-9.0	-9	-9
NutriBio	-6.7	-7	-6
Nutricia	-10.8	-14	-9
Omni Nutrition	-11.5	-14	-9
Oz Farm	-11.0	-13	-9
Pfizer	-10.0	-12	-8
Pinnacle Laboratories	-8.4	-9	-8
Regilait	-7.2	-8	-6
Sodilac	-14.0	-14	-14
Sunwild	-11.0	-13	-10
United Dairy	-10.3	-11	-9
Viplus Dairy	-8.7	-11	-7
Vitagermine	-12.0	-13	-10
Wakodo	-8.3	-10	-6

The most common violation of the SD133 labeling criteria identified in 2018 was products that did not have a full label in the Khmer language for the Cambodian market (98%). Forty five percent of the products had partial Khmer and 53% had no Khmer language at all. These products were labeled in English, Thai, French, Spanish, and Japanese. The other most common SD133 label violations included: 92% contained text that idealized the use of BMS or discouraged/undermined breastfeeding; 76% had images other than ones to illustrate how to prepare the product or to identify the product as BMS; 72% did not have a statement indicating the total cost of feeding an infant with formula for the first six months; and, 63% did not have a statement saying that cup feeding is more hygienic than bottle-feeding.



4. Discussion and recommendations

Findings from the 2018 research show that promotions and labeling violations of SD133 are still widespread in the six provinces assessed outside Phnom Penh, and the availability of BMS products for children under 24 months is growing.

Promotion violations of SD133 continue to be observed in retail locations in Cambodia. The total number of promotions marketing BMS products for children 0-23 months was relatively similar to three years before; however, stores with at least one promotion increased. These increases were observed across all provinces, store types, and city types. Siem Reap province was the exception, where the number of stores with promotions remained the same from 2015 to 2018, but the province already had the highest number of stores with promotions in 2015. The expansion of promotional practices, particularly in district towns and in supermarkets, baby shops, and informal stores is concerning and reflects the widening reach of BMS marketing and promotion. This highlights the critical importance of routine monitoring in stores by Ministry of Health and Ministry of Commerce inspectors for BMS promotions, including outside of large provincial cities.

More manufacturers have entered the BMS market in Cambodia and more are promoting their products. A greater number of BMS products were found for sale compared to 2015, with increases seen in all six provinces and in all categories of BMS, particularly growing-up milks for children 12-23 months. The overall number of manufacturers selling products has increased in 2018, and 81% of all manufacturers had at least one promotion violation found in stores. Only one manufacturer with SD133 violations in 2015 had a noticeable decrease in promotions in 2018, but in spite of the decrease, Abbott was still found to be persistently violating SD133. The majority of manufacturers who were not complying with SD133 in 2015, continued with their non-compliance in 2018.

The 2018 research also indicates that manufactures and points-of-sale are changing their promotional practices in Cambodia, with a shift from informational materials to displays and free gifts. Fewer company representatives were found in stores directly promoting BMS products that fall under the scope of age covered by the SD133, yet informal observations during data collection noted representatives were seen promoting BMS products for children 24 months and older. Moreover, other types of promotions were seen for BMS products outside the scope of SD133, often with these promotions using similar images, logos, product names, and packaging to products covered by SD133. Unfortunately, this study was not designed to document and assess this type of promotion and overall promotion of products outside the scope of SD133. However, these types of promotion using similar images and packaging across different categories of BMS products have been documented previously in Cambodia by the ARCH project (Pereira et al, 2016).

Labeling violations remain widespread in Cambodia, with none of the BMS products available for sale fully compliant with SD133 and the International Code requirements. The improvement in label scores across all BMS categories suggests that manufacturers are adhering to more criteria within the government's policy; however, with 45% of labels in partial Khmer and 53% with no Khmer, it is unclear what benefits this improved adherence has for Cambodian caregivers. BMS product labels need to have all elements fully printed in the Khmer language to enable caregivers to make informed choices about the purchase, preparation, and storage of the product. This is particularly critical as the

availability and promotion of products is spreading outside the largest cities of the country. Moreover, labels should no longer contain text that idealizes the use of BMS or contain images, logos, or pictures that otherwise do not illustrate how to prepare the product.

The 2015 report called on the Royal Government to: 1) review imported BMS products for legal compliance; 2) define and enforce terms of penalties specifically for promotion and labeling violations; 3) establish more specific monitoring guidelines of BMS products and monitor compliance at both stores and pharmacies across the country; and, 4) strengthen dissemination and education of the SD133 among manufacturers, government actors, retailers, and the public (WVI & HKI, 2015). The Royal Government has made notable progress on many of these points, led by the Executive Working Group for SD133 and the relevant line ministries. Detailed implementation guidelines have been released by the Executive Working Group, and monitoring tools and procedures for the Ministries of Health and Commerce have been developed and piloted (Hou et al, 2019), and are now being refined. The improvement in the label score may be attributable to improved efforts by the Executive Working Group and line ministries, but there is an urgent need to require and enforce full Khmer language on BMS and other infant and young child feeding product labels. The Royal Government issued financial penalties in early 2019 to a number of companies violating SD133 for promotion and label violations, including lack of Khmer labels. HKI and WVI congratulate these actions; however, these research findings show BMS manufactures and stores continue to widely violate SD133.

HKI and WVI urge the Royal Government to act upon these research findings to further strengthen protections for breastfeeding mothers and their children. Continued commitment and implementation of the *Cambodia National Maternal, Infant and Young Child Nutrition Social and Behavior Change Communication Strategy 2019-2025* is critical for raising awareness on optimal breastfeeding practices (MOH, 2018). The actions of the Executive Working Group for SD133, the Ministry of Health, and the Ministry of Commerce are vital to ensuring adherence to the Sub-Decree and protecting child health in Cambodia. We encourage the Royal Government to continue holding manufacturers and stores accountable and to institute widespread routine monitoring for SD133 in retail locations throughout Cambodia. We also encourage the government to review and revise SD133 to include all provisions of the International Code and to be in line with WHO's *Guidance on Ending the Inappropriate Promotion of Foods for Infants and Young Children* (WHO, 2016). Crucial revisions include:

- Closing the loophole in the SD133 that allows BMS promotions with the approval of the Ministry of Health.
- Prohibiting promotions of BMS products across categories/stages and requiring manufacturers to package and label categories/stages of products in distinct ways. This would prohibit the use of similar text, font types, mascots, slogans, symbols, designs, images, and colors. Evidence shows that caregivers do not pay attention to stages of BMS and perceive products to be a single group of "formula" (Pereira et al, 2016), putting younger infants at risk of receiving an inappropriate product.
- Expanding the SD133 to cover BMS products from 24 to 36 months of age. The WHO *Guidance on Ending the Inappropriate Promotion of Foods for Infants and Young Children* confirms that BMS products are those marketed for feeding children up to three years of age. WHO also states that BMS products for children older than 12 months are unnecessary and interfere with continued breastfeeding (WHO, 2013).

Annex



Annex 1: Labeling standards reviewed

No.	Labeling Standard	Source
TO INCLUDE ON LABEL		
1	A statement of the superiority of exclusive breastfeeding for the first six months and continued breastfeeding until 2 years of age or above	Sub-Decree 133
2	A message indicating the total cost of feeding an infant with formula for the first six months	Sub-Decree 133
3	Label written in Khmer language	Sub-Decree 133
4	Specification of recommended age and/or age range for use	Sub-Decree 133
5	A statement explaining that cup feeding is more hygienic than bottle-feeding	Sub-Decree 133
6	Printed and well-attached label	Sub-Decree 133 and International Code
7	Words such as “important notice” or its equivalent	Sub-Decree 133 and International Code
8	Instructions for appropriate methods, preparation, and use	Sub-Decree 133 and International Code
9	A warning against the health hazards of inappropriate preparation	Sub-Decree 133 and International Code
10	A statement that the product should be used only on the advice of a health worker	Sub-Decree 133 and International Code
11	A statement of the superiority of breastfeeding	International Code
12	A statement on the need for health worker advice on the proper method of use	International Code
13	Nutrition composition and/or analysis of the product	International Code
14	Ingredients used	International Code
15	A warning that powdered infant formula may contain pathogenic microorganisms and must be prepared and used appropriately	International Code
16	Storage instructions	International Code
17	Batch number	International Code
18	Date before which the product is to be consumed	International Code
NOT TO INCLUDE ON LABEL		
19	The term “humanized,” “materialized,” or similar terms or words	Sub-Decree 133 and International Code

No.	Labeling Standard	Source
20	An image of an infant	Sub-Decree 133 and International Code
21	Any images other than those to illustrate the method of preparation or serve to identify the product as a breastmilk substitute	Sub-Decree 133 and International Code
22	Any text that may idealize the use of breastmilk substitutes, and/or discourage or undermine breastfeeding	Sub-Decree 133 and International Code
23	An invitation on the label to make contact (direct or indirect) with the company	International Code
24	Any promotional device to induce sale	International Code

Annex 2: Endorsement letter from Department of Drug and Food, Ministry of Health



លេខ: HKI/CAM/១១៥

អង្គការ ហេលែន ខេលឺរ អន្តរជាតិ
គោរពជូន
លោកឱសថបណ្ឌិត ហេង ប៊ុនគ្រឿត
ប្រធាននាយកដ្ឋានឱសថ ចំណីអាហារ បរិក្ខារពេទ្យ និង គ្រឿងសំណេច

កម្មវត្ថុ: សំណើសុំលិខិតគាំទ្រលើការចុះអង្កេត ពីស្ថានភាពនៃការផ្សព្វផ្សាយនៅទីតាំងលក់និងការលោកបំពានលើច្បាប់សញ្ញាផលិតផលជំនួសទឹកដោះម្តាយ នៅតាមខេត្តចំនួនប្រាំមួយនៃប្រទេសកម្ពុជា រួមមានខេត្តកណ្តាល ខេត្តតាកែវ ខេត្តកំពង់ធំ ខេត្តបាត់ដំបង ខេត្តសៀមរាប និងខេត្តព្រះវិហារ។

សេចក្តីដូចមានចែងក្នុងកម្មវត្ថុខាងលើ ខ្ញុំសូមជម្រាប លោកឱសថបណ្ឌិត ថាក្រុមការងាររបស់ អង្គការ ទស្សនពិភពលោក សហការជាមួយ អង្គការ ហេលែន ខេលឺរ អន្តរជាតិ ប្រចាំប្រទេសកម្ពុជា នឹងចុះអង្កេតធ្វើបច្ចុប្បន្នភាពបញ្ជីផលិតផលជំនួសទឹកដោះម្តាយ ស្ថានភាពនៃការផ្សព្វផ្សាយនៅទីតាំងលក់ និងការលោកបំពានលើច្បាប់សញ្ញាផលិតផលជំនួសទឹកដោះម្តាយ ក្នុងខេត្តទាំង៦ខាងលើ។ ក្រុមការងារនឹងចុះទៅធ្វើការអង្កេតនៅតាមទីតាំងលក់នៅទីរួមខេត្ត និងស្រុកចំនួន២ នៅក្នុងខេត្តនីមួយៗ គឺនៅទីរួមខេត្តចំនួន៥ទីតាំងលក់ និងនៅទីរួមស្រុកនីមួយៗចំនួន៣ទីតាំងលក់។ ការអង្កេតនឹងចាប់ផ្តើមពីថ្ងៃទី២៧ ខែសីហា ឆ្នាំ២០១៨ ដល់ថ្ងៃទី៩ ខែកញ្ញា ឆ្នាំ២០១៨។

អាស្រ័យដូចបានគោរពជម្រាបជូនសូម លោកឱសថបណ្ឌិត មេត្តាផ្តល់លិខិតគាំទ្រក្នុងការចុះអង្កេតនេះដោយក្តីអនុគ្រោះ។

សូម លោកឱសថបណ្ឌិត មេត្តាទទួលនូវការគោរពពីខ្ញុំ។

ថ្ងៃចន្ទ ៩កើត ខែស្រាពណ៍ ឆ្នាំ ច ព.ស ២៥៦២
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