Role of Stakeholders in Promoting Breastfeeding in the Light of the *Breast Milk Substitutes (BMS) Law-2013* in Rural Areas of Bangladesh

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Acronyms

ANC	Antenatal Care
BA	Birth Attendant
BBF	Bangladesh Breastfeeding Foundation
BDHS	Bangladesh Demographic and Health Survey
BF	Breastfeeding
BMS	Breast Milk Substitutes
CS	Civil Surgeon
CSBA	Community Skilled Birth Attendant
EBF	Exclusive Breastfeeding
FWV	Family Welfare Visitor
GHO	Government Health Official
HCP	Healthcare Provider
HNPP	Health Nutrition and Population Programme
IPHN	Institute of Public Health Nutrition
IYCF	Infant and Young Child Feeding
MDG	Millennium Development Goal
MR	Marketing Representative
PNC	Postnatal Care
RED	Research and Evaluation Division
TBA	Traditional Birth Attendant
TTBA	Trained Traditional Birth Attendant
UH & FPO	*Upazila* Health and Family Planning Officer
UNICEF	The United Nations Children's Fund
WHO	World Health Organization

Table of contents

Acronyms iii

Acknowledgements vii

Abstract ix

Chapter 1: Introduction

1.1 Background 1

1.2 BRAC initiative 3

1.3 Rationale 4

1.4 Objectives 4

Chapter 2: Methodology

2.1 Study design and study area 5

2.2 Study population 6

2.3 Sampling method 7

2.4 Data collection tools and procedures 8

2.5 Analysis 8

2.6 Quality control 9

Chapter 3: Findings

3.1 Influencing factors for child feeding practice 10

3.2 Stakeholders' knowledge on BMS Code 18

3.3 Influence of media on BMS and BMS Code promotion 20

3.4 Supportive activities of stakeholders for promotion of breastfeeding and implementation of BMS Code 21

3.5 Stakeholders' behaviour regarding implementation of BMS Code 23

Chapter 4: Discussion and Recommendation

4.1 Discussion 32

4.2 Recommendations 34

References 41

Annex 44

Tables and figures

Table 1: Study population (different level of stakeholders on the BMS Code promotion) 6

Table 2: Sample selection from different administrative levels of two districts 8

Table 3: At a glance stakeholders' knowledge about BMS Code-1984 and New BMS Law-2013 19

Table 4: BMS manufacturing companies compliance regarding labeling and container of BMS products 28

Table A1: Identified barriers to EBF by types of stakeholders 44

Table A2: Influencing persons for BMS feeding by different stakeholders 45

Table A3: Play role in BMS Code implementation 46

Table A4: Person violating the law according to different stakeholders 46

Table A5: Recommendation matrix 47

Figure 1: Information flow chart: Mothers' sources of information regarding BMS 14

Figure 2: Influencing factors pushed certain situation towards positive decision regarding BMS feeding 16

Figure 3: Alternative technique of prescribing BMS 25

Figure 4: Marketing practices of BMS products 27

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Abstract

Breastfeeding is the most natural and unique way of infant feeding for the survival, healthy growth and development of a baby. Improper marketing and promotion of breast milk substitutes (BMS) often affects a mother's choice of breastfeeding. Moreover, in unhygienic conditions, BMS carries a high risk of infection and can be fatal for infants. The International Code of Marketing of BMS was adopted in 1981 by the World Health Assembly in response to the realization that poor infant feeding practices negatively affects health, growth and development of children and a major cause of mortality among infants and young children. Bangladesh is one of the first countries in the world who adopted the BMS Code since its inception in 1984. The government has enacted the "BMS Law-2013" abolishing the "BMS Ordinance 1984" for better enforcement of the Code to reduce the use of BMS. Despite some good progress in policies, actual implementation has been slow. Considering the situation, BRAC Advocacy for Social Change (ASC) identified the necessity for "Promote BMS Code Implementation" aiming to influence policy makers and physicians for endorsement of the BMS Code and mobilize mothers for breastfeeding practices through social communication and advocacy. Research and Evaluation Division (RED) has undertaken a qualitative study to investigate the knowledge level and attitude of stakeholders' in following and upholding the BMS Code as well as identify the existing factors that influence their decisions and actions regarding breastfeeding practices. The present study has identified a number of key barriers to exclusive breastfeeding and the factors that influence BMS feeding instead of breastfeeding. The study findings also indicated that almost all stakeholders have very little or no knowledge about the BMS Law-2013. Regarding the role of media, almost all stakeholders mentioned that media has a great influence on BMS promotion. They believe that media can play an important role in BMS Code implementation as well. The study findings revealed view of the stakeholders regarding BMS Code, opinion about importance of implementation of the Code and current implementation status and marketing strategy of BMS companies. The study has provided recommendations and guidelines to formulate appropriate strategies for the project in building awareness among stakeholders on the BMS Code.

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Chapter 1

Introduction

1.1 Background

If 90 per cent of babies were exclusively breastfed up to five months after their birth and continued the feeding practice from six to eleven months, there would be a significant reduction in child deaths worldwide. WHO and UNICEF have emphasized for many years the importance of maintaining the practices of breastfeeding, as a way to improve the health and nutrition of infants and young children (WHO and UNICEF 2002). The advantages of breastfeeding are widely documented and some research findings also highlighted the disadvantages of formula feeding (Walker 1993; Dudsdieker *et al.* 1994; Gersten 1994). WHO recommends initiation of breastfeeding within 1 hour of birth, exclusive breastfeeding of infants till 6 months of age, and continued breastfeeding until 2 years of age or older (Dyson *et al.* 2005). Globally, breastfeeding has the potential to prevent 220,000 deaths among children under five each year (Bhutta *et al.* 2013). According to WHO report breastfeeding could prevent over three fourths of deaths in early infancy, and 37% of deaths during the second year of life (WHO 2000).

Non-breast fed children are at 14 times higher risk of dying from diarrhoea; 3.6 times higher risk of dying from pneumonia and 2.5 times higher risk of dying from other infections compared to those exclusively breastfed (Vitoria *et al.* 1987). Even predominant or exclusive breastfeeding could reduce 10 times risk of dying compared to non-breastfed infants and 2.5 times risk compared to the infants with partial breastfeeding in developing countries (Bahl *et al.* 2005). A study in Ghana emphasized importance of early initiation of breastfeeding compared to the mixed formula and delayed breastfeeding. The study revealed that infants who were exclusively breastfed during the first hour of life were nine times less likely to die than those who were initiated to mixed formula and breast milk within 72 hours of birth (Edmond *et al.* 2006).

Besides, breastfeeding has long term impact on health such as enhancing cognitive development of children (Victoria *et al.* 1987) and reducing risk of chronic disease (WHO 2000). With regard to mother's health, studies showed that breastfeeding reduces ovarian cancer by 27% to 40% (Gwinn *et al.* 1990; Ness *et al.* 2000; Whittemore *et al.* 1992) and less likely to develop premenopausal breast cancer (Heing *et al*. 1997, Labbok 2001; Collaborative Group on Hormonal Factors in Breast Cancer, 2002). Exclusive breastfeeding (EBF) for the first six months after delivery has an effect on birth spacing that is as effective as contraceptive (Labbok *et al.* 2011). Initiation of breastfeeding immediately after birth releases oxytocin which helps to

reduce postpartum hemorrhage and consequently could reduce maternal mortality (Labbok *et al.* 2011). Further, there is a distinct economic advantage to breastfeeding compared to purchasing formula (Purdy. 2010). In spite of, enormous benefits of breastfeeding for both the children and mothers, globally progress on this issue is both uneven and suboptimum (Cai and Brown 2012; Lutter *et al.* 2011).

The situation in Bangladesh is far from satisfactory. According to the Bangladesh Demographic and Health Survey 2011 the proportion of exclusive breastfeeding is 64% (NIPORT, Mitra and Associates and ICF International 2013). In another study it was found that, only about 10% of the children received exclusive breastfeeding in Bangladesh and this study suggested that the huge gap in breastfeeding practice could be due to lack of awareness of the beneficial effects of breastfeeding and low interaction between health workers and mothers for reinforcement of optimal breastfeeding (Haider *et al.* 2010). Hence, mothers require a good counselor at all contact points that in any situation they would be promoted for optimum duration of breastfeeding and increase the prevalence of EBF (Susiloretni *et al.* 2013).

Research shows that advertising for and marketing of breast milk substitutes (BMS) can undermine a mother's choice to breastfeed (Foss 2006). The lack of information about the benefits of breastfeeding and risks of artificial feeding, together with widespread availability and plausible advertising of BMS, have a significant impact on the decisions that families make about feeding practice of children. For example, a study conducted between 1972 and 2000 found that as the frequency of artificial feeding advertisements in a parenting magazine increased, breastfeeding rates decreased (Foss 2006).

Stakeholder involvement in promoting BMS products is a challenge for ensuring proper 'Infant and Young Child Feeding' (IYCF) practices which contribute to the attainment of MDG 4 and 5 (BBF 2012). Global sales of baby food are projected to grow by 37 per cent (USD $11.5 billion to USD $42.7 billion from 2008 to 2013) and almost two-thirds of this growth is targeted from the Asia-Pacific region (Euro monitor International, 2008). The situation in Bangladesh is quite worrisome as well. Milk food was imported worth USD $ 212.82 million in the fiscal year 2012-13 (Office of the Chief Controller of Import and Export: Monthly commodity wise import data, Available from: URL:http://www.ccie.gov.bd/index.php?cmd=statistics&id=6. (Accessed on 10-9-2014). Marketing and advertising strategy for BMS products are very aggressive and companies often violate the existing regulations. For example, products are displayed in the shops in a manner to make them more visible and attract potential buyers. Moreover, there are continuous advertisements in the print and electronic media about BMS products to influence the choice of mothers. It has been reported that physicians and hospital employees also play a crucial role in influencing individual choice by suggesting use of BMS products for the children/infant. There are serious doubts about the quality of these products as evidences of these products with no registration number and having tampered seal are found frequently (BBF, 2012).

However, the government of Bangladesh is very keen to reduce maternal and under-five child mortality. Bangladesh enacted an ordinance titled "The Breast Milk

Substitutes (regulation of marketing) Ordinance" in 1984 based on the International Code of Marketing of BMS which was adopted in 1981 by the World Health Assembly. According to this ordinance-

a) No person shall promote any BMS either by advertisement or by offering or giving any gift, prize, discount, coupon, or other free item or by any other means.

b) No person shall make, exhibit, distribute, circulate, display or publish any advertisement- (i) promoting the use of any BMS; or (ii) implying or designed to create the belief or impression that BMS feeding is equivalent or superior to breast-milk feeding.

Unfortunately disregard to this ordinance is common at different levels of stakeholders (BBF 2012). The BMS Code-1984 did not include all provisions of the international BMS Code and had limitations in terms of implementation. The ordinance was failed to play a role in regulating the marketing of baby food products. So, there was a need to amend the existing regulation. Considering the overall situation the government enacted a new law titled "Breast Milk Substitutes, Baby Foods, Commercially Manufactured Complementary Baby Foods and its Usable Accessories (Regulation of marketing) Law-2013". (মাতৃদুগ্ধ বিকল্প, শিশু খাদ্য, বাণিজ্যিকভাবে প্রস্তুতকৃত শিশুর বাড়তি খাদ্য ও উহা ব্যবহারের সরঞ্জামাদি (বিপণন নিয়ন্ত্রণ) আইন, ২০১৩). The BMS Law-2013 constitutes 24 sections and covers BMS (0-6 months), Baby food and commercially manufactured complementary baby food (6 months+ to 5 years) and its equipments.

A proper implementation of the BMS Code through strong marketing regulation is more likely to decrease use of BMS. A large-scale survey in Papua New Guinea reported that a law banning the sales of bottles and teats except a prescription resulted in a decrease in bottle feeding and an increase in breastfeeding in the capital city (Biddulph 1981). Research in the Philippines has shown that strong regulations in health facilities decreased distributions of free formula samples from 57.5% in 1986 to 2.8% in 1988 (Popkin *et al.* 1990). In case of Bangladesh there is no data regarding monitoring of BMS Code except one (BBF 2012).

Multiple factors play an important role behind violation of BMS Code, starting from lack of knowledge about BMS Code and/or proper IYCF practices, ignorance about counseling for or adopting appropriate IYCF behaviour, financial incentive of physicians, health workers or retailers etc. Strengthening and enforcing laws regarding BMS marketing among stakeholders is vital for effective promotion of exclusive breastfeeding practices among mothers.

1.2 BRAC initiatives

The BRAC Health, Nutrition and Population Programme (HNPP) was involved in implementing Alive and Thrive initiatives that focuses on reducing malnutrition among

under-two children through proper IYCF practices until 24 months. However, ensuring exclusive breastfeeding for the first six months and feeding breast milk until 24 months has become a challenge in our country. Earlier study in Bangladesh suggested that unless the healthcare providers are prevented from suggesting BMS, it would be difficult to convince mothers for widespread practice of breastfeeding (Haider *et al.* 2010). Considering this situation, BRAC Advocacy for Social Change has initiated a project, "Promote Breast milk Substitutes Code Implementation (PBCI)" for promotion of breastfeeding practices through increasing awareness of stakeholders on BMS Code in Jessore and Sylhet districts facilitating BRAC HNPP. Therefore, it is appropriate to carry out an exploratory study for investigating the role of stakeholders in promoting proper IYCF practices among mothers in accordance with the BMS Code. This study will help to develop effective strategies for the PBCI project to mobilize and motivate stakeholders who are influencing mothers' behaviour in terms of IYCF practices.

1.3 Rationale

This study intends to investigate the knowledge level and attitude of stakeholders in following and upholding the BMS Code, as well as identify the existing factors that influence their decisions and actions regarding breastfeeding practices. Besides, it will help us to comprehend willingness of the stakeholders for promoting breastfeeding among mothers. The findings from the study will provide us with guidelines to formulate appropriate strategies for the PBCI project in building awareness among stakeholders about the BMS Code.

1.4 Objectives

The general objective of this study is to explore the knowledge and practices among stakeholders in Sylhet and Jessore districts, regarding use of BMS Code for promoting breastfeeding among mothers of under-two children.

<u>Specific objectives</u>

1. To understand and identify the influencing factors (both barriers and facilitators) for using BMS instead of BF by mothers of under-2 children;
2. To understand the level of knowledge about the BMS Code among stakeholders;
3. To investigate the influence of media in using BMS and their trend in regard to complying with the BMS Code;
4. To identify possible supportive activities of stakeholders in promoting breastfeeding among mothers.

To understand the factors influencing (both barriers and facilitators) the stakeholders behaviour in terms of implementation of the BMS Code.

Chapter 2

Methodology

2.1 Study design and study area

This is a formative study carried out in two *upazilas* of Sylhet (Beanibazar and Fenchuganj) and two *upazilas* of Jessore (Jessore Sadar and Sharsha) district purposively using qualitative methods (In-depth interview, focus group discussion, informal discussion and observation).

Operational definition

BMS: 'Breast-milk substitute' means any food being marketed or otherwise represented as a partial or total replacement for breast milk, whether or not suitable for that purpose for infants up to six months of age.

Baby food: 'Baby food' refer to any food being marketed or otherwise represented as partial or total substitute to breast milk for children more than six months of age.

Commercially manufactured supplementary baby foods: 'Commercially manufactured supplementary baby foods' refer to any additional food which is manufactured commercially for children aged six months to five years.

Container: 'Container' means any form of packaging of products for sale as a normal retail unit including wrappers.

Label: 'Label' means any tag, brand, mark, pictorial or other descriptive matter, written, printed, stenciled, marked, embossed or impressed on, or attached to, a container (see above) of any products within the scope of this Code.

Promotion: 'Promotion' means BMS, baby foods and commercially manufactured supplementary baby foods and its equipment marketing, distribution, selling and advertising attractively.

Marketing personnel: 'Marketing personnel' means any person whose functions involve the marketing of a product or products coming within the scope of this Code.

Stakeholder: Formal and informal healthcare providers (e.g. doctors, nurses, Family Welfare Visitor (FWV)/Community Skilled Birth Attendant (CSBA)/Trained Traditional Birth Attendant (TTBA)/Traditional Birth Attendant (TBA) and village doctors), Civil Surgeon, *Upazila* Health and Family Planning Officer, community and religious

leaders, shop attendants, marketing representative of BMS manufacturing companies and family members who have influence on feeding practices of under-two children (mothers, fathers and caregivers of the child).

2.2 Study population

This study aims at understanding the knowledge and practice of different level of stakeholders on the BMS Code. Five categories of stakeholders (Table 1) will be targeted through this study.

Table 1. Study population (different level of stakeholders on the BMS Code promotion)

Sl.	Group	Respondents
1	Healthcare provider (formal and informal)	Doctor (pediatrician/obstetrician/general physician), nurse, FWV/CSBA/TTBA/TBA, village doctor
2	District and *Upazila* level GoB health officials	Civil surgeon (CS), *Upazila* health and family planning officer (UH & FPO)
3	Local leaders	Community leaders and religious leaders
4	Promoter of BMS products	Marketing representative of BMS manufacturing company and shop attendants
5	Family members	Mothers (both breast & formula feed group), father and caregiver (grandparents/maternal or paternal aunty) of <2 years child
	Total 5 Groups	14 types of respondents

Healthcare provider (formal and informal)

This category of stakeholders are those who have a possibility of communication with mothers during antenatal/delivery/post natal period or any sort of illness of mothers during breastfeeding period or illness of infants or problem with IYCF during the first two years of child birth. It is assumed that, after birth mothers or their family members are closely exposed to primary care doctors, village doctors, nurses, FWV/CSBA /TTBA/TBA etc. It is also assumed that mothers follow their advices with regard to health problems or IYCF practices. Thus, if these stakeholders are concerned about the WHO recommendations on breastfeeding and BMS Code-2013, certainly they will be able to influence mothers on initiation of breastfeeding within the first hour of child birth, continue Exclusive Breast Feeding (EBF) till 6 months of age and continuation of BF until 23 months of age along with supplementary food.

District and *upazila* level government health officials

The second category of stakeholders is the ones who are responsible for overseeing the implementation of BMS Code. Hence, government health officials who are the authorized people for BMS Code implementation that is civil surgeon (CS) at district

level and *upazila* health and family planning officer at *upazila* level are included in this group.

Local leaders

This group consists of community and religious leaders at the local level. Here, it is assumed that local leaders may be able to play an important role in the community for awareness building concerning breastfeeding and implementation of the BMS Code as it is already proved that at community or local level, these people are very influential.

Promoters of BMS products

Shopkeepers of rural shops who sell/carry BMS products and marketing representative (MR) of BMS manufacturing companies are included in this group.

Family members

The fifth category includes family members (mothers, fathers and caregivers) of around 2 years children who are directly responsible for feeding practice of children. Underlying principle to include this group is to find out their current breastfeeding and BMS feeding practices; and influences related to BMS feeding.

2.3 Sampling method

Purposive sampling was used to select the study participants. Two doctors (pediatrician/ obstetricians/general physicians); a community leader; a religious leader; a nurse; a FWV/CSBA/TTBA/TBA and a village doctor were selected for the interview from each *upazila*. For government health officials, the Civil Surgeon of the district and a UH & FPO from each *upazila* was interviewed. In addition, marketing representatives of BMS manufacturing company and shop attendants were also selected for the study (Table 2).

Mothers' perception on breastfeeding is very important for increasing practice of EBF. Experience shows that perceptions of mother on EBF depend on a host of factors- doctors, birth attendants, relatives etc. Therefore, for designing the programme, mothers' perceptions are considered to be helpful for identifying their information sources on breastfeeding practices. Mothers (with child aging 0-23 months) were selected for the FGD from program areas. In addition, one mother who has started formula feeding within the first 6 months of child birth was selected for interview from each *upazila*.

Table 2. Sample selection from different administrative levels of two districts

Respondent type and mode of interview	Jessore District Sadar & Sharsha	Sylhet District Beanibazar & Fenchuganj	Total
In-depth interview			
Doctor	4	4	8
Nurse	2	2	4
FWV/CSBA/TBA/TTBA	2	2	4
Village doctor/drug seller	2	2	4
Civil surgeon	1	1	2
UH & FPO	2	2	4
Religious leader	2	2	4
Community leader	2	2	4
Shop attendant	4	4	8
Marketing representative	1	1	2
Focus group discussion			
Mothers	2	2	4
Mothers (formula feed)	2	2	4
Father	2	2	4
Caregiver	2	2	4
Total			60

Unstructured observation and discussion: Rural shop, medicine shop, pharmacy, hospital, public markets and other public places

2.4 Data collection tools and procedures

Data were collected from mid January to mid February 2014 by a team of eight anthropologists, all graduate from Jahangirnagar University. Focus group discussions, formal discussions and semi-structured in-depth interviews were digitally recorded and hand written notes were also taken. Later, data were transcribed in English verbatim and documented. Data from unstructured observations were recorded in handwritten notes during fieldwork. Afterwards, research assistants have expanded the field notes and documented properly.

In addition, unstructured observations were conducted on rural shops, medicine shops, pharmacy, public markets and other public places in each district. Through observing billboards and advertisements on BMS, the study tried to explain the extent of compliance with the BMS Code by the BMS manufacturing companies. A detailed plan on qualitative data collection is described in the table.

Based on the predetermined theme semi-structured checklists were developed for in-depth interviews and FGD sessions. All the instruments were pretested before finalization.

2.5 Analysis

Data analysis was conducted manually by research investigators using qualitative content analysis following the concept of Graneheim and Lundman model

(Graneheim and Lundman, 2004). All documentation was done using the MS Excel processor so that data could be quickly filtered during analysis. We used the manifest content, visible and obvious component as well as the latent, underlying meaning of the text, through interpretation, description and expression (Graneheim and Lundman 2004 and Kondracki *et al.* 2002). Then codes and sub-codes were identified and categorized based on research objectives and relevant themes. Findings were summarized by major themes.The primary focus of the study was the BMS Code as well as related IYCF practices such as colostrums feeding, exclusive breastfeeding up to 6 months age, appropriate complementary feeding, continuation of breastfeeding till 2 years of age and responsiveness regarding proper feeding practices.

2.6 Quality control

The research assistants were trained on the goal and objectives of the study, discussion guides for semi-structured interviews and FGDs before the team went for final data collection. The four day long training also included pretesting (in Manikganj district). All checklists were pretested in the field, modified and finalized based on feedback from the respondents. In addition, interviews were administered at private location where privacy issue was involved. FGDs were carried out by female research assistants only in order to allow the mothers to speak freely. After each interview, field notes and audio record were checked by the researchers.

To make sure that answer from the persons we interviewed was the right answer and not only the politically correct one we had to triangulate the answers. Thus to ensure credibility, multiple triangulation methods like respondent/data triangulation (source: Healthcare provider, government health official, local leader, BMS promoter and family members) and methodological triangulation (IDI, FGD and observation) were applied.

Although the findings are not generalized, the research is expected to represent the knowledge and practice of a particular group of stakeholders on BMS Code. Therefore, all information on interview settings and participants were documented during interviews meticulously by the research assistants. Findings of the research were entirely based on interpretation of collected data.

<u>Ethical consideration</u>

Informed verbal consent was taken before each interview wherever required. To ensure confidentiality of the individual respondent during analysis, separate identification number was used for every individual like D-01, D-02… or N-01, N-02. Here ‘D’ for doctor, ‘N’ for nurse, ‘BA’ for FWV/CSBA/TTBA/TBA, ‘VD’ for village doctor, ‘GHO’ for both civil surgeon and *upazila* health officials, ‘S’ for shopkeeper, ‘MR’ for marketing representative of BMS manufacturing company, ‘RL’ for religious leader, ‘CL’ for community leader, ‘M’ for mother, ‘MF’ for mother who started feeding formula milk to her child before 6 months of age, ‘F’ for father and ‘C’ for caregiver.

Chapter 3

Findings

3.1 Influencing factors for child feeding practice

Mothers' knowledge regarding breastfeeding and BMS feeding

In the present study, mother's knowledge regarding breastfeeding was explored through focus group discussion. Although majority of the respondents appeared to have adequate knowledge about colostrum feeding, initiation of breastfeeding (BF) within 1 hour after delivery, exclusive breastfeeding (EBF) up to 6 months, appropriate complementary feeding and continuation of BF till 2 years of age, it seemed that they were not convinced or motivated enough to practice it. For example, the benefits of colostrum feeding were commonly perceived by mothers as '*the first vaccination of child*', '*prevents life threatening diseases of baby',* in reality often mothers could not manage to give colostrum to her child. Regarding EBF, practice was also not commensurate with mothers' knowledge of exclusive breastfeeding.

Healthcare providers and government officials also agreed with the findings. Most of the respondents identified that knowledge about IYCF practice has been increasing significantly over time. One of the doctors stated:

> *"In the past, most of the mothers did not know about the proper feeding practice of child, but now almost all of them are aware about it". (ID: D-01, Fenchuganj)*

Majority of the healthcare providers under different category (of sample population) and government health officials recognized a large gap between current practices and recommended practices on EBF. They identified lack of mothers' knowledge regarding the feeding procedure, proper positioning and attachment of the baby; some other crucial issues (like caesarean delivery, sick/malnourished mother etc); and misconceptions (e.g. only breast milk is not sufficient for proper growth and development of baby) which hinder attainment of universal exclusive breastfeeding.

Mothers' knowledge about advantages and disadvantages of BMS feeding were also revealed in the study. From interviews and FGDs with mothers it was found that most of the mothers had little or no clear knowledge about the disadvantages of BMS. They could not comprehend the short/long term consequences of BMS feeding due to lack of information on the issue. Though some of them were able to mention `vomiting or stomach problem' as an outcome of BMS feeding they seemed to be unable to perceive it as serious health issues. In the words of one mother;

"*It (Koutar Dudh) may be harmful for a baby but I do not know in details about its adverse effect on a child; may be diarrhoea or vomiting or stomach problem…?" But it is very common for a child to suffer from these problems in early age". (ID: M-03,Jessore Sadar)*

Healthcare providers, government health officials, local leaders and shopkeepers opined that "There is no advantage of BMS feeding unless a child is sick or malnourished or mother is not capable of feeding her child with breast milk". **Considering the regional (district level) differences, mother's knowledge about all aspects of feeding practices was higher in Jessore compared to Sylhet division.**

Barriers to exclusive breastfeeding (EBF) practice

A number of barriers for EBF practices were identified in this study as well as different factors that encouraged parents to introduce different types of BMS for a child under 6 months of age. A few of the major reasons were mothers' perception of insufficient breast milk; incomplete breastfeeding/crying babies inability to latch or suck because of sickness/poor nutritional status; sickness or poor nutritional status of mother; twin baby/premature baby/LBW baby; mothers' misconception about the negative impact of BF on body fitness; caesarean baby; working mother; lack of education/awareness; traditional (cultural and religious) practices and misconceptions; insistence of elder family members; death of mother; shyness in case of primipara (woman who delivered a child for the first time) and mothers' impatience.

The explanation of health providers and government health officials behind '*not having enough breast milk*' and '*baby is not getting sufficient breast milk*' were *poor diet of mother.* But the answer was not corroborated by the caregivers who believed quality of mother's diet was developed compared to diet consumed earlier. One paternal grandmother of a child said:

"In the past our mother-in-laws' used to eat rice only with salt, nothing else was given to them even during pregnancy and lactating periods; but those days are gone. Now it is said that if mother eat rice with meat, fish, vegetable; then breast milk will be produced sufficiently". (ID: C-02, Beanibazar)

Government health officials, village doctors, local leaders, marketing representatives, shop attendants, mothers and fathers also linked insufficient breast milk with the *sickness or poor nutritional status of mothers.*

Only health providers recognized *lack of both knowledge and practice of proper 'positioning and carrying technique'* of baby during breastfeeding as the cause for not getting enough breast milk and discontinuing breastfeeding before six months of age. One of the health providers added:

"At present almost all mothers have knowledge about breastfeeding practices but they do not know the proper feeding procedure e.g. positioning and holding technique during breastfeeding."(ID: N-04, Sharsha)

Moreover, *mother's physiological problems such as sore or cracked nipple, hormonal problems and lack of patience* were also identified as responsible factors for insufficient breast milk by doctors and nurses. One of the nurses said:

"Now-a-days, mothers become very much impatient when they find any difficulty regarding breastfeeding and they look for instant alternative solutions."(ID: N-01, Fenchuganj).

Another common barrier that was mentioned by doctors, local leaders, MR, shop attendants and all family members was *sickness and poor nutritional status of baby* which in turn interfered with the ability of the baby to suck. Some of the stakeholders also mentioned about the insufficiency of breast milk in case of *twin baby* and low capability to suck when baby was *premature or had low birth weight* as barrier to EBF.

Another issue emerged from all types of stakeholders. Mothers (mainly living in urban area and from a higher socioeconomic class) themselves believed that breastfeeding had *negative impact on body fitness of mothers* especially on breast size and body shape like sagging of breast.

There was consensus among all stakeholder groups that ensuring EBF for baby is a real challenge for *working mothers.* Manual expression of breast milk was not popular still then according to government health officials and some of the healthcare providers.

In case of *caesarean baby,* initiation of BF was delayed and BMS feeding started immediately after delivery due to mothers' sickness during post operative situation and this acted as a barrier for EBF. One of the doctors mentioned:

"Around 95% of caesarean deliveries, EBF practice is not ensured as family members or relatives introduced BMS to baby when mother is in the post operative period". (ID: D-05, Jessore Sadar)

Lack of education/awareness; traditional (cultural and religious) beliefs and practices; misconception regarding child feeding practice; and insistence of elder family members (especially grandmother) were considered as obstacles for EBF which were more common in Sylhet compared to Jessore. One doctor added:

"Though I am a doctor I could not ensure EBF for my own child because of my mother. I failed to convince her that nothing is required other than breast milk for the first six months and this is the common scenario of this region also". (ID: D-03, Beanibazar)

Some other issues like *death of mother and shyness of the first time mother* was mentioned by some of the stakeholders as impediments to practice EBF.

Influencing person and sources of information for BMS feeding

Child feeding decision was mostly influenced by mother herself, father, grandmother, elderly members of the family, relatives and neighbours. In case of hospital delivery, doctor, nurse and birth attendant also influenced the mother. Apart from doctor and government health officials, all stakeholders mentioned that doctors were the most influencing persons for BMS feeding followed by relatives and neighbours. One mother who was currently feeding BMS to her baby mentioned:

> *"All of my brothers and sisters feed BMS (tiner dudh) to their child as per doctors' suggestion though they are not sick or malnourished. They suggested me to feed BMS to my child also". (ID: MF-01, Fenchuganj)*

Interestingly, mothers themselves sometimes became motivated enough to introduce BMS for their children. *"Sometimes mother or other family members go to shop and ask for milk by stating the age of child" a government health official added. (ID: GHO-02, Jessore).*

Healthcare providers were most trusted persons regarding child feeding decision and BMS. Another mother stated,

> *"Doctor suggested BMS ('koutar dudh') to my child after delivery in hospital as I was little bit sick. If a doctor suggests BMS (koutar dudh) what can we do? Of course we cannot go beyond their suggestion in that situation". (ID: MF-04, Sharsha)*

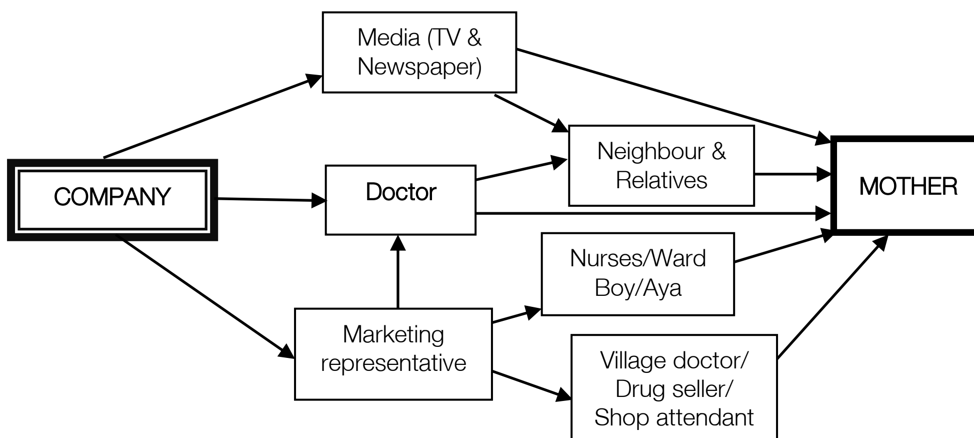
The extent of aggressive marketing of BMS companies was reflected in the statement of a doctor*: "BMS manufacturing companies invest huge money for the promotion of their products so they use as many sources as they can to publicize their products". (ID: D-01, Fenchuganj)*

All stakeholders indicated some common sources from where mothers were being informed about formula feeding (Figure 1). Among all doctors and TV advertisements emerged to be the most common sources of information by all types of stakeholders.

Government health officials and marketing representatives reported that sometimes mothers were directly contacted by company representatives during hospital discharge. However, another marketing representative disagreed and stated:

> "*Only doctors can suggest BMS to the mother; nobody else, even not me. MR themselves never suggest any BMS to any customer; it is prohibited by law". (ID: MR-01, Sylhet)*

Figure 1. Information flow chart: Mothers' sources of information regarding BMS



To counter the promotional influence of BMS manufacturing company, government and other NGOs could and should work for raising awareness about advantages of BF, disadvantages of BMS feeding and BMS Code by creative and uncompromising breastfeeding promotion, utilizing the same channels/media that were leveraged by BMS companies.

Influencing factors for BMS feeding

It was clear that mothers faced adverse environment for successful and continuous breastfeeding when there was a possibility that mother or family members preferred alternative foods other than breastfeeding. The present study also identified a number of influencing factors which pushed mothers and family members who were in this situation to feed BMS as replacement or supplementary to breastfeeding (Figure 2).

Almost all stakeholders recognized that perception of BMS feeding as a *symbol of higher social and economic status or modernization* was one of the key factors that intrigued interest about BMS feeding. Some mothers felt ashamed when they could not afford BMS products because of poverty. It seemed that if they had enough money, definitely they would feed BMS to their babies.

> *"No, we never give BMS to our child. How could we do that? We are poor so we do not have lots of money to buy BMS products like other rich people". (ID: M-01, Fenchuganj)*
>
> *"Only educated and rich people feed their child BMS as BMS product is costly; it must be good for child". (ID: C-03, JessoreSadar).*

Mothers who regularly saw a *relative or friend feeding BMS to their child and heard their positive experience* about it were more likely to feed BMS to their own child. Mothers became more convinced of the efficacy of BMS feeding if they saw a healthy

baby and discovered that the baby took BMS." Visual presentation immensely affects the decision making of parents.

Most of the BMS manufacturing companies conducted their marketing based on this psychology of mother and other family members. They tried to impress mothers with *attractive picture of healthy baby* and happy mother through *TV advertisements or print media.* They also tried to draw attention of mothers and other family members by *displaying the products in the most visible positions in the shops and drug stores.*

> *"In shop and pharmacies, at first attractive BMS will attract or catch the eye of anybody as it positioned in look at first position". (ID: GHO-03, Fenchuganj)*

Promotion of products through doctors and other healthcare providers was the most common business of manufacturing companies. Thus, when *doctors suggested for BMS mothers believed it might be for the betterment of their child.* When a mother was asked about the benefits of Biomil and Lactogen she answered,

> *"If there are no benefits then why should doctors prescribe it? I feed BMS according to doctors' suggestion and of course he suggested it for my baby's' well-being."(ID: M-04, Sharsha)*

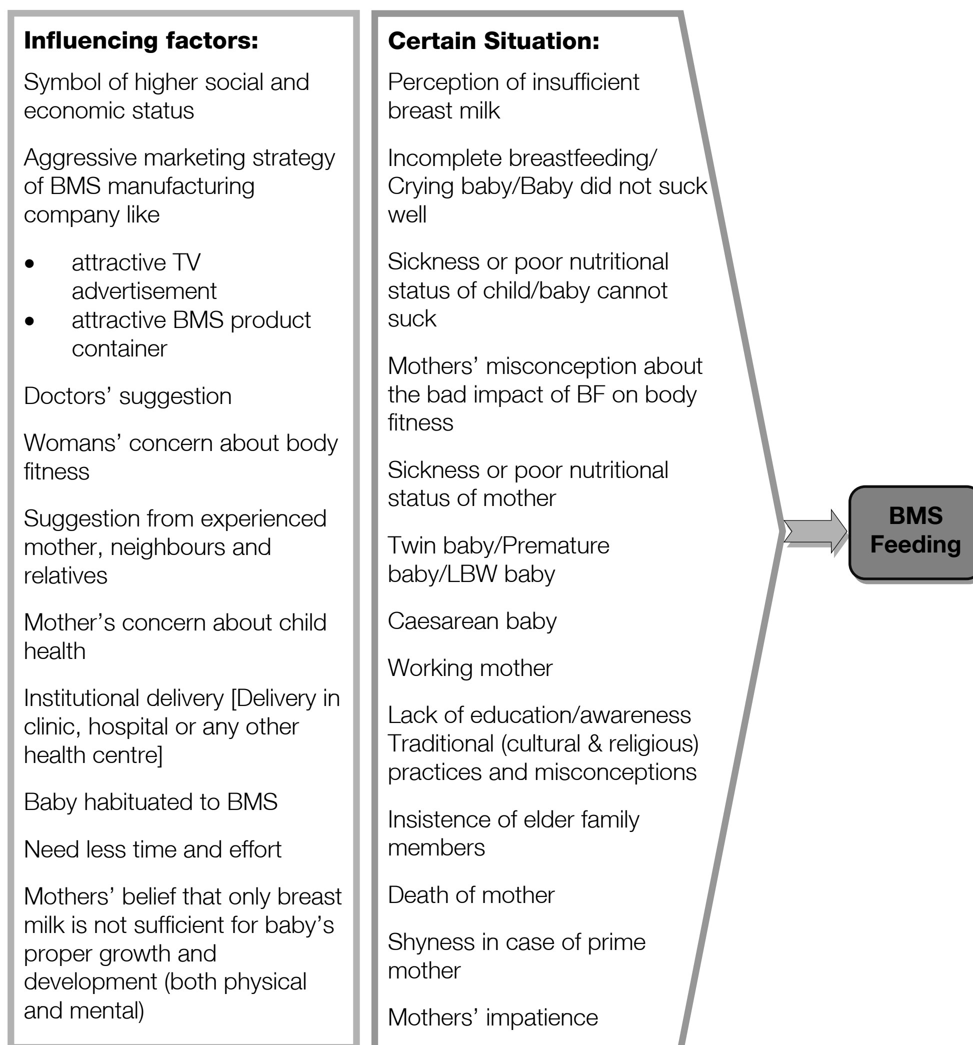
Interestingly, one village doctor identified the opportunistic/expedient use of poor child nutritional status for logical marketing of BMS products,

> *"Malnutrition of children of Bangladesh is a strong weapon of marketing representative for BMS promotion. Marketing representatives said or try to convince that to fulfil the nutritional requirement we need BMS". (ID: VD-03, Jessore Sadar)*

But doctors perceived the situation differently. According to them mothers were very much conscious about their baby's health so it was difficult to convince them otherwise about the bad side of BMS.

> *"Mothers are very much conscious about their child health and nutrition. So, the first step is to convince mothers that breast milk is enough for proper growth and development for the first six months of her baby. Otherwise for their child's well-being they will go for BMS attracted by advertisement". (ID: D-06, Jessore Sadar).*

Figure 2. Influencing factors pushed certain situation towards positive decision regarding BMS feeding



As mentioned by a limited number of stakeholders including healthcare providers and marketing representatives, mothers' have a *perception that only breast milk is not sufficient for proper growth and for child's physical and mental development* or simply to be healthy. Few mothers and caregivers opined in a similar way.

Most of the stakeholders identified that sometimes **mothers had a perception that breastfeeding had a *negative impact on their own body fitness*** especially about breast size and shape; which in turn influenced mothers not to breastfeed. But in almost all cases they added that it was **usually most common among urban, educated and higher socioeconomic class.**

Among the stakeholders, healthcare providers, government health officials and mothers identified that once baby starts on BMS, he/she *becomes habituated in a very short period of time and it is difficult to go back to breastfeeding* again. Doctors and government health officials mentioned two reasons behind this: firstly baby has to suck breast and it needs energy as it is an active process while bottle feeding needs little or no energy; secondly taste of formula milk is more attractive to baby compared with breast milk.

Once mothers start feeding BMS because of end of maternity leave or physical sickness caused by caesarean delivery or any other complication or some health problem of the baby; they cannot go back to breastfeeding again. As part of the research, four mothers were interviewed who fed BMS to their child, three of them initiated BMS because of the aforementioned problems. One of them stated:

> "*After delivery (caesarean) I was sick and that time my mother-in-law bought BMS as per nurse's suggestion. Since then my baby deny taking breast milk. I tried repeatedly but the baby rejected breast milk though he could easily be fed BMS using a feeder. (ID: MF-04, Sharsha)*

> *"Once feeder was started baby stopped taking breast milk. I started my baby with 'Dano' and also fed Lactogen as I was sick in the early period after delivery. But when I was able to breast feed, I failed to initiate breastfeeding". (ID: MF-03, Jessore Sadar)*

Need less time and effort for BMS feeding came out as another influencing factor by doctors and government health officials especially when BMS feeding was introduced as complementary food after six months of baby. Hence, need less time and effort for BMS feeding in contrast to homemade (like *khichuri*) and other complementary food.

In many instances, *multiple situations and influencing factors led mothers to adopt BMS feeding*. One mother mentioned:

> *"As my child always cried; I cannot convince myself that my baby is sufficiently fed so I decided to feed Biomil to my child as I saw my sister-in-law also give Biomil to her child in such situation according to doctors' suggestions. I also heard from my neighbours that if I fed BMS to my child; it will help in brain development". (ID: M 03, Jessore Sadar)*

One of the government health officials summarized almost all influencing factors for BMS feeding in one statement.

> *"Delivery place (institutional delivery); delivery type (C-section); living environment (urban); education of mother (specially lack of health education); socioeconomic status (higher) mothers' or childs' illness after delivery; attractive information about nutritional content, picture of healthy baby and picture of nutritious food in labeling and container of BMS; mothers' over consciousness about perceived good health of her child and perceived impact of breastfeeding on her body shape and fitness make mother more prone to adopt BMS feeding" (ID: GHO-01, Sylhet)*

The present study also explored the timing of BMS initiation to the child. **The main period of introduction of BMS was immediately after delivery and second most frequently cited time was after six months of age when complementary foods was introduced and working mothers went back to work at the end of their maternity leave.** Regarding institutional delivery, BMS feeding started immediately after delivery in most of the cases.

3.2 Stakeholders' knowledge on BMS Code

Though the primary focus of the present study was on the BMS Law-2013; stakeholders' knowledge was investigated for both BMS Code-1984 and BMS Law-2013. Findings revealed that almost all stakeholders had very little or no knowledge about BMS Code-1984 except marketing representatives (Table 3).

"There are many laws in Bangladesh, how many of them do people know?" this was one of the most common comments that was received from stakeholders when asked about the Code and law. Among the healthcare providers all (eight) doctors (two of them know some detail), two nurses (out of 4), one birth attendant (out of 4) and one village doctor (out of 4) heard about the BMS Code but they had no detail knowledge about it. Although doctors were eager to know about the law as two of them said, *"I know about it but it will be nice if you explain more in detail about it" (ID: D-08, Sharsha)*.

Government health officials knew some details about the BMS Code-1984 includes section 3, 4 and 5 of BMS Code-1984. But most of them were not aware about their own responsibility regarding BMS Code implementation. It seemed that they do not know their role; or despite knowing try to avoid; or there was some barrier to play their role properly.

Among local leaders, two out of eight had heard about the restrictions related to BMS products. One religious leader stated: *"I already heard that there is some restriction about BMS products but I don't know about the law".* (ID: RL-03, Jessore Sadar) But they had curiosity to know about the law like doctors. Among the shopkeepers, only one heard about the law only. Family members do not have any knowledge about the law at all.

Table 3. At a glance stakeholders' knowledge about BMS Code-1984 and BMS Law-2013

			BMS Code-1984				BMS Law-2013	
Sl	Group	Respondents type	Never heard	Heard but no detail	Know Some Detail	Detail (all scopes of violation)	Never heard	Heard but no detail
1	Healthcare provider (20)	Doctor (8)		6	2		8	
		Nurse (4)	2	2			4	
		FWV/CSBA/TTBA/TBA (4)	3	1			4	
		Village doctor (4)	3	1			4	
2	GoB Health Officials (6)	Civil surgeon (2)			2		1	1
		UH & FPO (4)		1	3		4	
3	Local leaders (8)	Community leaders (4)	3	1			4	
		Religious leaders (4)	3	1			4	
4	Promoter of BMS (10)	Marketing representative (2)				2	2	
		Shop attendants (8)	7	1			8	
5	Family members (16)	Mothers (4)	4				4	
		Formula feed Mothers (4)	4				4	
		Father (4)	4				4	
		Caregiver (4)	4				4	

N.B.: A summary of the BMS Code was briefed among the stakeholders those who never heard or do not have detail knowledge in purpose of completion of the whole checklist.

> *"At the start of our job, we get training on BMS Code and once a week we have to give test on it thus all MRs know about the Code. We do not speak/do anything beyond the Code. Each MR carries one Code, punishment if he lost it" (ID: MR-01, Sylhet).*

This above mentioned quote reflected that **marketing representatives were exceptionally knowledgeable about the BMS Code-1984. They know almost all forms of violation.** They named the Code as "*Nestle Code"* which was made by the combination of WHO Code and Bangladesh BMS Code which was last updated in June 2013. They believed this law as one of the strongest codes among all.

Regarding the BMS Law-2013, only one **government health official knows in limited extent about the 'BMS Law-2013'.**

3.3 Influence of media on BMS and BMS Code promotion

BMS manufacturing company's mostly use electronic and print media for promotional marketing of BMS products. All stakeholders agreed about the strong role of media - especially television and newspaper concerning BMS products. 'Healthy looking children' in TV media made mothers more attracted to feed BMS. Media was also identified as the most frequently reported source of information regarding BMS products.

Almost all stakeholders believed that media could be the best and most effective way to make people aware about the BMS Code and thus could create and establish the impression about the negative impact of BMS products on child health. Some stakeholders also mentioned to develop an information package about BMS Code and harmful effects of BMS products. A limited number of stakeholders mentioned about some popular TV channels (like "*Star Jalsha and BTV*") in which they mostly exposed and that make them believe that it would be the most appropriate one. One nurse stated:

> *"Now-a-days women are used to watching 'Star Jolsha' all the time so if breastfeeding, BMS products and BMS Code related information are disseminated through this channel, it would be best". (ID: N-03, Jessore Sadar).*

In this regard few perceived that advertisement or story based show (like *Meena cartoon*) can be organized in between the popular drama.

> *"To plan a programme on BMS Code at a separate time will not work; you will have to show it in between a popular programme". (ID: GHO-06, Sharsha)*

The story may include events like the acts of violation, role of duty bearers or authorized persons and the provision of punishment or other consequences. It will be more efficient than simply disseminating some sentences on BMS Code.
One optimistic stakeholder added:

> *"Kothy ache procherei prosar tai ai ainer kotha sob jaygay boroboro kore likhe rakten. Shathe lal kalite likhben j 'Bachchader guradudh hote shabdhan!!' Shobjayga mane hochche billboard, leaflets, newspaper, TV advertisement, hospital ar shamne". [It is said that publicity itself is success. Write everywhere about the law in big letters. Besides also write that 'Be careful about infant formula'. Everywhere means billboard, leaflet, newspaper, TV advertisement and in front of hospital"]. (ID: VD-02, Beanibazar)*

3.4 Supportive activities of stakeholders for promotion of breastfeeding and implementation of BMS Code

Current supportive role and willingness of stakeholders to promote BF and BMS Code implementation

Most of the government health officials and healthcare providers said that they are aware and motivate mothers through counseling for optimal breastfeeding practices and benefits of breastfeeding whenever they come to the hospital during ANC visit, PNC visit and sickness of child or mother. But the study reveals that the provided messages about all IYCF practices are very brief, lack of convincing explanation and without any information regarding the adverse effect of BMS feeding. But they admit that they suggest BMS sometimes due to the demand from the mother or other family members of the child. Worse still, some healthcare providers feel in a way that if someone wants to feed BMS to their child, they (heathcare providers) have nothing to do. As one doctor opined

> *"Infant formula is not harmful for children, but we should limit the use of it because it is not a substitute of breast milk. If anybody thinks it is necessary they can feed BMS to their child." (ID: D-02, Fenchuganj)*

Some government health official and doctors suggest working mothers to pump out breast milk and store it for feeding the baby in their absence. Among the healthcare providers only nurses demonstrate the mothers about proper positioning and attachment for successful breastfeeding.

Most local leaders welcome the law and recognize it as a good initiative for the future generation. Local leaders, shopkeepers and fathers expressed overwhelming interest to know in details about the law and were most promising in making people aware about the Code. When the interviewer briefed the audience about the law; they asked various questions mostly about the Code like *"Is it published as a gazette?"(ID: F-02, Beanibazar); "What will be the punishment if someone violates the Code?"(ID: CL-03, Jessore Sadar).*

Majority of the respondents wanted to contribute in the implementation of the BMS Code from their own positions. Different stakeholders expressed their opinion as shown below:

> *"Though I have no previous knowledge about the BMS Code but now I am aware so I will try my best to promote this law to my student and their guardians". (ID: CL-01, Fenchuganj)*

> *"Maybe I cannot cover 100% but I will try to disseminate the message regarding BMS Code to 98%-99% people in my locality". (ID: RL-02, Beanibazar)*

> *"If parents come to my shop to buy BMS I will advise them to avoid this for babies from 0-6 months for whom only mother's milk is enough. I will never give any kind of*

BMS to my child and I will also try to motivate my relatives and neighbours". (ID: S-03, Jessore Sadar)

From family members, one father said*: "I will try to make my relatives and neighbours aware about BMS Code; I want to work for implementation of this Code".* (ID: F-02, Beanibazar) Village doctors, mothers and caregivers also said that *"I will never suggest any BMS to anybody and if possible I will make them aware about BMS Code" (ID: C-03, Jessore Sadar)".*

Potential key players regarding implementation of BMS Code

Field level health workers are most frequently cited as key role players concerning BMS Code implementation by different types of stakeholders. They relate contribution of field level health worker for community involvement in any intervention. They believed that community movement or awareness is necessary for BMS Code implementation and field level health workers can effectively motivate the community.

Surprisingly doctors were described as one of the most common persons who violated the BMS Law; at the same time, they (doctors) were recognized as the second most common potential key actors for BMS Code implementation by almost all types of stakeholders. It indicates that still now people believe in doctors with their life and it is also an opportunity for doctors to prove that they are the place to rely or to trust.

At the beginning of the study we assumed that local leaders might play an important role in the implementation of the law. Among the stakeholders doctors, birth attendants, mothers and fathers cited imam/local leaders/social leaders as key players for BMS Code implementation.

Political leaders or administrative personnel at district and *upazila* level were mentioned only by government health officials. This might be because they have knowledge about the distribution of responsibility among the authorized persons or institutions.

School teachers were identified as key actors by local leaders and family members who indicated that school teacher has community recognition in this regard. Nurses and drug sellers were also mentioned by some stakeholders as potential players in this area. It is clear that identification or selection of potential key player widely varies from stakeholder to stakeholder.

About organization all types of stakeholder opined that government (specially mentioned different wings under health ministry), NGO (many of them mentioned the name BRAC) and media could play an important role to implement the law. Few stakeholders mentioned that government and NGOs should work in collaboration for implementation of the law.

3.5 Stakeholders' behaviour regarding implementation of BMS Code

Stakeholders' view and attitude towards BMS Code implementation

In the present study stakeholders' view and attitude towards the BMS Code implementation emerged both from observation and responsiveness during the interview regarding BMS Code. Among the respondents, civil surgeon and *upazila* health and family planning officer are the authorized persons for BMS Code implementation. When the interviewers started asking about BMS Code implementation, most of them (5 out of 6 respondents) tried to bypass or avoid the topics. Study findings indicated that though some of them knew the essence of the Code, almost all of them were not very clear about their specific role in BMS Code implementation. In the word of a government health official: "*There is no power in our hand concerning BMS Code implementation". (ID: GHO-02, Jessore)* Some of them even did not feel empowered because "*Mobile court is the domain of magistrates, we can only request them". (ID: GHO-02, Jessore)* Another government health official added: *"Most of the people will not follow my suggestion because Bangladeshi people are only afraid of police" (ID: GHO-03, Fenchuganj)*

Most of the government health officials expressed doubt about the possibility of proper implementation of BMS Code and questioned: *"There are many laws in Bangladesh, how many of them are implemented?" (ID: GHO-06, Sharsha).*They mostly compared the Code with the law of "Smoking and tobacco products uses (control) (amendment) act, 2013" where they identified it (Smoking Law) as the worst example of law implementation in Bangladesh. Among other stakeholders, doctors also shared the same opinion about implementation of this law.

Few of them believed that BMS feeding cannot be stopped by only implementing BMS Code; rather it is an issue of awareness.

> *"Everything cannot be done by implementation of law. Without raising awareness, BMS feeding cannot be stopped". (ID: GHO-06, Sharsha)*
>
> *"We cannot stop people from feeding formula milk; even we may not be able to stop marketing of BMS; we can only make people aware about the disadvantages of formula feeding" (ID: D-05, Jessore Sadar).*

On the other hand, village doctors, local leaders, shopkeepers and fathers showed a positive view towards the law and were hopeful about successful implementation of the Code. Marketing representatives of BMS companies had a completely different view compared to other stakeholders. They perceived that their company was totally in compliance with the law but other BMS companies do not abide by the law at all.

Implementation status of BMS Code and current marketing practices of BMS

All the respondents except MR think that BMS Code is not implemented properly in Bangladesh and many of them have doubts whether it can be implemented at all or not. One of the government health official stated, *"There is no implementation of BMS Code as many other laws of Bangladesh." (ID: GHO-02, Jessore)* Marketing representatives claimed that their companies abide by the law although their own statements regarding other issues contradict with it.

Regarding parties violating the law, different stakeholders opined differently but most commonly they cited doctors, shopkeepers, drug sellers, nurses and BMS companies. Among the stakeholders, only doctors mentioned some other law offenders like aya and ward boy of hospital and village doctor. It is noticeable that when doctors reported about other doctors activities that violated the law they put some adjective before doctor like private practitioners, non-registered doctors, diploma doctors and corrupted doctors.

Commission, gift, financial incentives from the BMS companies emerged as the influencing factors for violating the law from the stakeholders' point of view. One doctor mentioned the unethical economic relationship as *'Give and take policy'*.

According to the healthcare providers, marketing representatives of BMS companies can reach private practitioners or health professionals from their clinics/chambers more easily compared to the doctors/health professionals from government hospitals. One doctor claimed this issue as follows:

> *"Violation is more common in private clinics and chambers; they do not come to Government doctors or hospitals. These corporate companies (BMS companies) can reach these corporate hospitals easily."(ID: D-02, Fenchuganj)*

Present study came up with an interesting finding regarding prescribing BMS by doctors. **Now-a-days doctors do not suggest BMS product directly through prescription rather they give ticks mark in company provided separate slips so as to avoid doctor's involvement in suggesting BMS products.** Sample of such a slip is shown in the following figure (Figure 3) which was collected from one of the doctors during the study period.

Figure 3. Alternative technique of prescribing BMS (Source: A doctor from Jessore Sadar)

Mother's Smile

মাদার্স স্মাইল

প্রাইমা ১
ইনফ্যান্ট ফর্মুলা (০-৬ মাস)

প্রাইমা ২
ফলো-আপ ফর্মুলা (৬-২৪ মাস)

ল্যাকটো ফিক্স

গ্রোআপ

সেরিয়াল
চাল-দুধ (৬-২৪ মাস)

সেরিয়াল
৪ ফল-দুধ-গম (৬-২৪ মাস)

সেরিয়াল
গম-দুধ (৬-২৪ মাস)

সেরিয়াল
মধু-গম-দুধ (৬-২৪ মাস)

মায়ের দুধের বিকল্প অথবা সমকক্ষ অথবা শ্রেষ্ঠ কিছুই নেই।

Front side of the slip

Back side of the slip

Government health officials reported that still now they do not have any report on BMS Code violation and one mentioned the cause, *"Nobody knows the law, so who will report !!".* He also assured that "*If any complain comes, we will talk to District Commissioner (DC) and if the DC decides to send a mobile court then he will send." (ID: GHO-01, Sylhet)*

Only one among six government health officials informed that he had conducted an operation for investigation concerning BMS products.

Marketing of BMS products are always focused on the relationship between healthcare professional and parents in making decisions about infant feeding. However, movement toward the use of direct-to-consumer marketing is also reported. Responses from different groups of stakeholders together indicated a clear picture of existing marketing practices of companies and involvement of healthcare providers, shopkeepers and drug sellers.

This study explored a few broader area of aggressive marketing strategy by BMS companies (Figure 4). For this study, we took eight shops to investigate the display position, labeling and information/picture in container of BMS products (Table 4). From direct observation it was found that BMS products were being displayed in a separate well decorated shelf at the first look position which was a clear violation of section 4.1 of BMS Law-2013. Moreover, all the eight shopkeepers admitted that they got 250-300 taka per month only for the eye catching display. A total of 42 different products of 10 different companies were available in their shops. Awareness message was not found in 9 products; picture of smiling mother and child, cartoon or graph was found in 12 products which violated section 6.1 and 6.2 of BMS Law-2013.

Figure 4. Marketing practices of BMS products

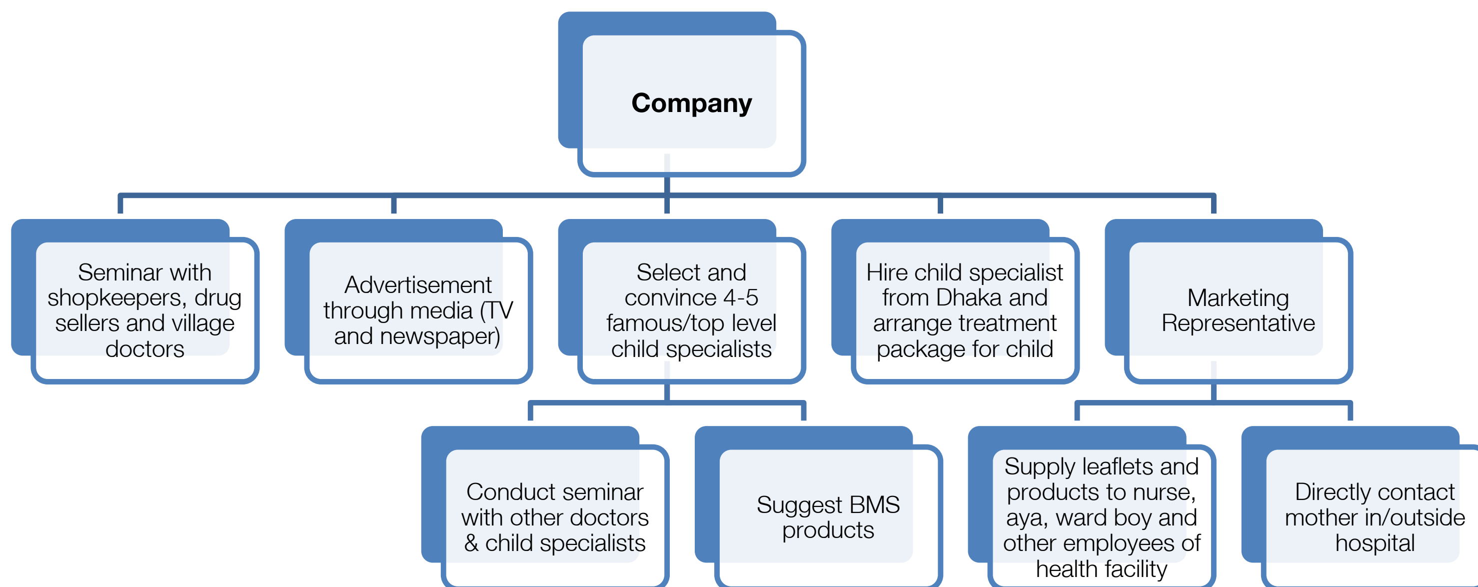


Table 4. BMS manufacturing companies compliance regarding labeling and container of BMS products

	Criteria		Findings
1.	Total shop	:	8 (2 from each *upazila*)
2.	Total company	:	10
3.	Total products	:	42
4.	Most common product found	:	Biomil, Lactogen, My Boy, Cerelac, Baby Care and ….
5.	Awareness message (mostly in English)	:	In 33 products
6.	Batch and Reg. No and Manu. and Exp. Date	:	In all products
7.	Ingredient Composition	:	In all products
8.	Picture (Mother/Child) and Graph/Cartoon	:	In 12 products (Mainly cartoon, Smiling Mum and Baby, nutritious foods like fruits and vegetables)
9.	Preparation and use instruction	:	In all products

Some doctors admitted that they got invitation from BMS companies to attend a seminar. According to the doctors, seminars usually took place in a famous hotel or in a private hospital/clinic. One doctor added:

> *"I got an invitation to attend a seminar in Rose View Hotel, a renowned hotel of Sylhet but I didn't go due to long distance'* (ID: D-04, Beanibazar).

On the contrary, government officials claimed that they were not aware about anything like organizing seminar by BMS companies with doctors/child specialists and they also mentioned that if it was happened, it was beyond their knowledge.

Nevertheless, a marketing representative stated:

> *"We arrange a seminar sometimes once in three months, sometimes once in a month, depending on the company's decision. Our district nutrition officer organizes the seminar with the doctors. They select the top and senior doctors of the region and convince them to disseminate different information in the seminar where participants are all doctors, mainly child specialists. At village level, the doctors who mainly treat children are also targeted for the seminar. Our honourable Mayor was also present in one seminar. In the seminar, they (invited doctors who disseminate information) don't talk about the products, they talk to increase awareness about breastfeeding, benefits of breastfeeding, process of feeding, child nutrition etc' (ID: MR-01, Sylhet)*

But government health official and doctors opined that in the seminar, companies sometimes compare their BMS product with others and try to establish how much it is similar to the breast milk.

MR of a BMS manufacturing company justified arranging seminar as, *"We do not visit doctors but when a new product is launched we organize different seminars for doctors, thus doctors come to know about the product and its use".* (ID: MR-02, Jessore). A government official described this as

> *"Suppose, an advertisement says "Do not smoke, even if it is Abdullah". Here Abdullah is a BRAND of cigarette and by this dialogue they try to discourage smoking and in the mean time it also says that Abdullah is a good brand of cigarette. These seminars follow the same strategy" (ID: GHO-02, Jessore).*

Shopkeepers are also a target group for the seminars arranged by the BMS companies. According to shopkeepers:

> *"Sometimes Nestle arranges seminars for shop attendants" (ID: S-03, Beanibazar)*

> *"Cerelac arranged a workshop in a pharmacy in front of Fenchuganj hospital." (ID: S-02, Fenchuganj).*

> *"BMS companies arrange seminar or workshop to aware the shop attendants about the different categories, age specification and proper displaying of their BMS products." (ID: S-04, Beanibazar)*

> *"In that workshop 3/4 doctors described the qualities of BMS products and also gave suggestion to keep away the formula milk from pesticide and other poisonous things". (ID: S-01, Fenchuganj).*

In response to the question about companies' strategy to promote BMS, one government official answered

> *"For marketing, companies target mothers, relatives and nurses. They give commissions, gifts and cash, sometimes they give money through 'flexiload' to the nurses and motivate emotionally (Amar 5 ta lactogen ajke chalaye den). In Eid or other occasions MR gives sharee or other gifts to nurses and in exchange nurses put a slip or leaflet to the patient or directly suggest BMS. They come to the 'Shishu' ward after evening" (ID: GHO-01, Sylhet).*

However, one government official said, *"Companies target pharmacy, stationery shop, village doctor and other lower level health employees. Once, companies used to come to the doctors for BMS promotion but now they don't come"* (ID: GHO-04, Beanibazar). According to another government official, *"They target 2 types of people. Firstly, mother and child related medical personnel like doctors and paramedics; and secondly, distribution or marketing related personnel like shopkeepers, drug sellers etc".* (ID: GHO-02, Jessore)

Some doctors stated that companies target the doctors who have lots of child patients, target clinics where cesarean deliveries are more common, nurses of labour rooms and delivery rooms; and birth attendants. *"Doctors who are committed to BMS companies, suggest BMS in a certain day and in a certain place which are organized by BMS Company",* (ID: D-08, Sharsha) another doctor added.

One MR of a certain company claimed that BMS companies (except his own company) do not follow the BMS Code and stated:

> *"Biomil provides 5 TK/pack commissions. They keep it secret but if you check the bill you will find it. They influence doctors economically by gifts or commissions and influence shopkeeper by gifts, free sample and commission. They address mothers, nurses and influence them too" (ID: MR-02, Jessore).*

All shopkeepers mentioned that they got *"Product based commission from different companies e.g. per 12 pieces of product 1 is free and money for displaying BMS products"* (ID: S-05, Jessore Sadar). The MR expressed their confidence as, *"If company can convince only 5 most reputed doctors in Jessore then that's enough for successful marketing for this region." (ID: MR-02, Jessore)*

From observation of hospitals (government hospitals), public markets and other public places, no significant advertisement regarding BMS product on billboard or any other forms were found.

<u>Factor influencing BMS Code implementation</u>

Stakeholders believe that some issues may positively influence the implementation of BMS Code. Building awareness among all stakeholders about the BMS Code was mentioned as the first and basic concern for implementation of the Code.

> *"To play an important role in the implementation of this law, the main or fundamental pre-requisite is to know the law first." (ID: D-06, Jessore Sadar) "First, aware the people who are responsible for implementation of the law" (ID: GHO-02, Jessore)* Then, *"To aware people, it is necessary to aware the doctors, nurses and other healthcare provider; mass media can also play an important role regarding this matter". (ID: D-05, Jessore Sadar)*

According to one of the government health officials, provision of award for good implementation of BMS Code will stimulate the working spirit. Besides awareness building, stake holders could be urged to restrict or limit import/production of BMS as the Code limits only marketing but not sales. Stakeholders could be urged to ban all types of advertisement of BMS in media.

Most of the stakeholders emphasized on strong monitoring and provision of punishment:

> *"A strong monitoring unit is needed, mobile court should be formed and hold trial at least one or two per month" (ID: GHO-01, Sylhet) "If 2-4 examples of punishment occur then promotion of BMS Code implementation will dramatically increase" (ID: D-03, Beanibazar).*

Among the stakeholders, those who are authorized to implement the BMS Code mentioned some barriers/threats during taking steps for implementation of the Code. One of them stated:

"*If we demanded 5 mobile courts, we get permission for only one, it makes the work difficult. Sometimes, we have to face difficulties/protest during sample collection which is a challenge for Code implementation." (ID: GHO-01, Sylhet).*

Some of them pointed towards corruption, unethical involvement of politicians and higher authority with the BMS companies.

"We collect samples and send them to Dhaka, Mohakhali to see the purity but we do not get any feedback. We got the result of salt, powder, spices but until now no report on BMS. Either everything is ok or 'okhaneo system kora ache'. BMS Company has long hand and they can manage everything. As we did not get any report, so we could not file case against the company". (ID: GHO-01, Sylhet).

"In our country law is not implemented equally to all. If anyone try to implement the law equally to all he'll be dead soon. Politicians and big businessmen are involved with this and laws rarely reach them. Related institutions are made inactive by giving huge gifts/bribes". (ID: GHO-05, Jessore Sadar).

Surprisingly, neither the BMS Code implementer nor the healthcare provider mentioned the most common and widespread form of violation i.e. the unethical economic relationship of healthcare providers with BMS companies as a barrier to implement the BMS Code.

Chapter 4

Discussion and recommendations

4.1 Discussion

This formative study explored the factors influencing breastfeeding and breast milk substitution, sources of information regarding BMS feeding, stakeholders' knowledge on BMS Code, influence of media on BMS and BMS Code promotion, existing and possible future supportive activity of stakeholders for BF promotion and BMS Code implementation and stakeholder's behaviours regarding the Code implementation from the two districts of rural Bangladesh. Different types of stakeholders were interviewed by using qualitative tools and techniques.

Stakeholder's perception on insufficient breast milk, exclusive breastfeeding and Breast milk substitution

The findings of the present study clearly indicate that now **mothers have sufficient knowledge about 'What' they have to do regarding BF and BMS feeding; but not entirely convinced about 'Why' should they do so and lack knowledge about 'How' will they do which is the reflection of receiving very brief, partial or incomplete and unexplained information. This may be the possible explanation of why knowledge is not translated into practice in case of IYCF.** Though healthcare providers aware mothers about proper IYCF practices, they do it for a very brief period and not in a convincing way; even they mostly never inform mothers about the risks of BMS feeding. Our findings are in agreement with a previous study which demonstrated that when health professionals talked about EBF, they did not provide any convincing explanation for recommending it, its benefits and the disadvantages of mixed feeding or completely avoiding breastfeeding (Moussa Abba *et al.* 2010). Thus, advising a mother to practice IYCF without explaining reasons is not enough to persuade her and does not provide enough information to convey to her family.

Mother's perception of insufficient breast milk and feelings of incomplete breastfeeding, is widely recognized as the most common barrier to EBF (Alive and Thrive 2012), and it is reinforced in the present study. Poor diet of mothers; lack of both knowledge and practice of proper positioning and attachment during breastfeeding; sickness and poor nutritional status of both child and mother were identified as the causes of the myth of insufficient breast milk (Alive and Thrive 2012). Another emerging barrier increases with the rising trend among mothers for delivery by Cesarean section. As initiation of BF is delayed and BMS feeding is started immediately after delivery due to mothers' sickness during post operative situation,

this has been identified as barrier for EBF in a number of studies (Prior *et al.* 2012, Kuyper *et al.* 2014, Alive and Thrive 2012).

Lack of education/awareness; traditional (cultural and religious) beliefs and practices; misconceptions regarding child feeding practice; and insistence of elder family members (especially grandmother) are considered as obstacles for EBF which is more common in Sylhet compared to Jessore. These may also be the reasons for low knowledge of breastfeeding and BMS feeding among respondents of Sylhet compared to respondents of Jessore. Respondent mothers found neighbours/relatives and doctors to be the most influential persons in this study in making the decision about practicing EBF as well as BMS feeding. So these stakeholders should be made aware through community based awareness and advocacy programmes respectively.

Another most common influencing factor of BMS feeding is considering it as a symbol of higher socioeconomic status or modern lifestyle. Aggressive marketing of BMS by manufacturing company positively influences BMS feeding in different ways. Using attractive picture of healthy baby and nutritious foods, TV advertisements, displaying in eye-catching position in shop and using health professionals to suggest it are some of the most effective ideas. However, mother's anxiety about child's health influence their decision to give extra food to the child other than EBF, as a result the child becomes habituated to BMS feeding which also acts as an influencing factor. But in many instances, multiple situations and influencing factors lead mothers to adopt BMS feeding. According to the present study, the main period of introduction of BMS started immediately after delivery especially in the case of Cesarean delivery followed by after six months of age of the child.

One important finding of this study is the identification of doctor and TV advertisement as the most frequent source of information by all types of stakeholders for BMS feeding which is in line with many other studies.

Little knowledge on BMS Code

One of the most important findings of the present study is that almost all stakeholders have very little or no knowledge about the BMS Code-1984 except marketing representatives of BMS manufacturing companies. Regarding the BMS Law-2013, only one government health official knows about it to a limited extent. Similarly, a study conducted in West Africa found that health providers also have limited knowledge on International Code of Breast milk substitution (Aguayo 2003 and Sokol 2007).

BMS Code violation and implementation

A multicentre study showed that leading manufacturers were violating the Code in Thailand, Bangladesh, South Africa, and Poland (Taylor 1998). Although identification of the Code violation by different stakeholders was not the direct objective of the present study but it was found that BMS Code is not implemented properly in

Bangladesh at all. The current study found that doctors along with shopkeepers, drug sellers, nurses and BMS companies are most frequently violating different sections of the law which is in line with the findings of violation report of BBF (BBF 2012). It seems that though doctors frequently violated the Code, still they have a position to play an important role in BMS Code implementation anyway.

This situation requires urgent policy action to ensure that families are provided with objective and consistent information on breast and BMS feeding when they visited doctors. At the same time appropriate counseling can point out the demerits of BMS feeding. As doctors, nurses and at some points mothers were distributed the BMS products by the manufacturing companies, these promotional gifts in the professional environment and within the health facilities should be in audits endorsed by government and health facility administrations.

Role of media in BMS Code implementation

With regard to these findings, media outreach can be an effective advocacy tool as the use of media can broadcast high priority messages quickly and effectively. It can increase understanding, generate buzz, build momentum and unify voices at national, district and community levels behind an important issue like promoting implementation of BMS Code (Alive and Thrive 2011). In our study, all stakeholders have consensus about the strong role of media especially electronic media concerning BMS products which is similar with other study findings (BBF 2012).

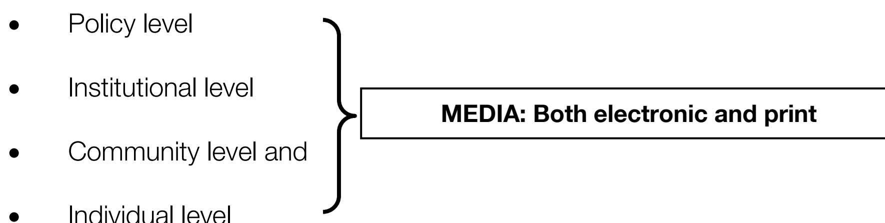
Strengths and limitation of the study

One of the strengths of this study is that though the present study comprises a wide range of stakeholders, a complete field test was conducted including all of them except MRs of BMS manufacturing companies. During the field test, we got extensive insights from different stakeholders which were very helpful for making the checklist more focused and shaping it through some inclusions and exclusions. Our study had some limitations also. All the hospital that we visited, all doctors and nurses were from government health establishments. It would be more realistic if we could incorporate private health facilities as it emerged from the study that BMS Code related practice and healthcare providers behaviour/compliance differ in these two types of establishment. Another issue is that an important potential stakeholder for the implementation of the BMS Code is the District Sanitary Inspector who has not been included in the study population. Moreover, the government health officials and healthcare providers especially doctors and nurses tried to give the impression that in their health establishment/facility everything was running smoothly and they did not promote BMS.

4.2 Recommendations

The present study came up with some programmatic and policy recommendations based on the findings in two broader areas. First, people should have clear knowledge about the BMS Code and its contents. For this purpose each and every

stakeholder has to know and perceive the importance of the BMS Code before going for implementation of the Code. Second, promoting optimum breastfeeding practices and BMS Code implementation by developing a nationwide multilevel targeted advocacy strategy focusing on-



From government and different stakeholders, sustainable and systematic support for enforcement of the BMS Code is crucial. Nationwide strong campaign on the BMS Code by using multiple media is needed to increase awareness at grass roots and national level.

<u>Policy level</u>

- *Implementation of BMS Code should be strengthened by stressing to restrict/limit the import or production of BMS and its equipments to make it less available in market.* BMS from grocery shop or mega shop should be withdrawn. It should be available only in drug shop/pharmacy like medicine and without proper prescription it should not be sold to anybody. A photocopy of prescription should be kept in pharmacy to observe the trend of indication of prescribing BMS.

- ***Implementation of existing laws and policies should be ensured*** **like paid maternity leave for six months and** ***new laws in favour of baby friendly working environment should be enacted*** including more day care facilities within the working organization, paid breastfeeding breaks, part time work arrangements and facilities for expressing and storing breast milk.

- *Strong monitoring system and implementation mechanism can be developed or the existing system* (by BBF) *should be strengthened* to investigate violation of the Code in *collaboration* with other government, international and private organizations interested in this area.

- *BMS Code should be included in the curriculum and training manual of doctor, nutritionist, nurse, midwife and other healthcare providers.*

- ***Advocacy to formulate a prescribing guideline for proper use of BMS product.***

- *Advocacy to formulate specific policy for health facilities and for healthcare providers on BMS Code* and it should be mandatory for all facilities and

healthcare providers to comply with. If they do not comply with the BMS Code, their registrations should be canceled.

Institutional level

- *To ensure good practices, "BF and BMS Code Promotion unit" should be established in each health facilities* which will be responsible for the supervision and monitoring of all activities regarding breastfeeding practices and violation of BMS Code by any person within the facilities. Initially it can be implemented in most of the relevant health facilities on a pilot basis.

- *Rigorous pictorial messages (through billboard, poster and calendar) in doctor's room, delivery room and surroundings of the health facilities should be publicized* to illustrate positive impact of proper breastfeeding, harmful effect of BMS feeding or mixed feeding, violation activities of BMS Code and punishment for violating the Code.

- *ASC should urge to make law implementing institutes more effective and accountable* in the law endorsement activities. Example should be set by executing punishment for violation of the Code. These organizations should be free from commercial influences at any cost.

- *Provision of performance based annual award for the health institution/region and health professionals* by government or other relevant organizations to encourage the continuation of good practices is needed.

- ASC should advocate different key personnel from GO, NGO and other relevant international organizations for the arrangement of *periodical refresher training on BMS Code* for all healthcare providers and other employees within the facilities regularly

- All health facilities related to maternal and child health should have *counseling units* which will provide IYCF related facilities and breastfeeding positioning support.

Community level

- *Community and religious leaders should be fully engaged in promotion of BF and BMS Code implementation.* Community leaders will be particularly effective to advocate fathers and other male family members. Emphasis should be given on religious point of view (Verse 2:286, Surah-al-Baqarah) to convince community people and
- *Network within the existing service providers (GO and NGO) at community level should be developed to ensure regular and sustainable services regarding IYCF* and community-based health workers should be developed (where necessary) to promote breastfeeding, lactation counseling and other IYCF feeding practices.

- *Skills and performance* of community-based workers should be improved through training and providing necessary promotional materials.

- *Existing village meeting* of different programmes of BRAC can be targeted for the *campaign* with community people. Services must go to the door step.

<u>Individual level</u>

Healthcare providers

- *Healthcare providers should have sufficient knowledge about the BMS Code and their specific role regarding implementation of the Code.* In this regard *periodical refreshment training* should be arranged on the BMS Code and sufficient training should be provided to promote appropriate IYCF practices and to support mothers with management of perceived barrier.

- *Healthcare providers should be motivated emotionally such that they are the most trusted person of mothers regarding child health and should be encouraged to:*

    - Counsel parents on appropriate infant feeding during every visit including ANC, PNC, family planning, maternal health, immunization, and sick child care.

    - Explain the benefits of breastfeeding and disadvantages of BMS feeding to motivate mothers to adopt recommended practices.

    - Teach mothers appropriate positioning and attachment during breastfeeding, how to maintain good flow of breast milk and remove other barriers of EBF.

    - Not recommend unnecessarily any types of formula, powdered milk and other products without strong indication.

    - Support mothers to breastfeed child in special situation like caesarian baby, twin baby and preterm baby or LBW baby.

    - Explain to mothers the importance of feeding appropriate homemade complementary foods, in addition to continued breastfeeding after six months.

Government health officials (Implementers/duty bearers)

❖ *Government health officials should be aware about the BMS Code and their specific responsibility/activity.*

❖ *They should be strongly motivated and inspired to involve actively in monitoring and supervision of Code violation and take necessary steps.*

❖ *GHO should be empowered to strictly investigate Code violations and impose immediate legal sanctions directly.*

❖ *Motivation should be given to arrange monthly or quarterly dissemination (workshop, seminar) on BMS Code violation situation* in his/her area with all health officials, healthcare providers and other relevant stakeholders.

❖ *It is needed to make them free from commercial influence through increasing transparency and accountability* regarding Code implementation.

Shopkeepers and drug sellers

❖ *Seminars should be arranged to make shopkeepers and drug sellers aware about the BMS Code* especially activities that are considered violation of the Code and provision of different penalties or punishments for violation.

❖ *They should be motivated not to sell BMS products until the customer provides necessary prescription* by making them aware about the advantages of breastfeeding and negative consequences of BMS feeding in details and by sensitizing about their social responsibility.

Mothers, caregivers, fathers and other family members

❖ *Complete, accurate, timely, and consistent information should be provided to mothers and other family members.* Appropriate time for counseling will be before delivery or during ANC visits. A protective layer around the mother should be created by making them aware about advantages and disadvantages of both BF and BMS so that nothing can convince them to feed BMS and misconceptions about the consequences of BF and BMS feeding should be eliminated.

❖ *Extensive face to face counseling with mothers, caregivers and other family members should be arranged to prevent BMS feeding, encourage breastfeeding and appropriate complementary feeding concentrating on-*

- Counseling to improve maternal nutrition through consuming quality diet and explain the necessity to convince them.

- Demonstrating proper positioning and attachment during breastfeeding.

- Explaining the importance of EBF and negative consequences of inappropriate feeding practices.

- Explaining disadvantages of BMS feeding and convince them that there is no benefit rather bad impact for their child if they are fed with BMS.

- Clearly demonstrating the financial burden for BMS feeding that is high cost, high risk, and a financial and social burden (specially fathers as they have the financial control of the family usually).

- Making them understand that if once BMS feeding started it is difficult to stop BMS feeding so it is wise not to start BMS feeding due to avoidable situation.

- Explaining how they can maintain enough breast milk supply for six months of exclusive breastfeeding.

- Building capacity to estimate the sufficiency of milk consumption by some simple proxy indicators like urination of child at least 6 times a day.

- Strong campaigning on suitable strong alternatives of formula milk (after 6 months of age as complementary feeding) with detailed information at community level.

- Informing mothers to take time and be patient when feeding young children so that they eat adequately.

- Counseling to prevent and treat problems regarding breast or other related issues as early as possible.

- Special counseling for mothers who have caesarian baby, twin baby, and preterm baby or LBW baby.

- Counseling mothers with scientific evidence but in simple way that breastfeeding reestablishes the previous fitness of body and breastfeeding reduces the risk of breast and cervical cancer and about other advantages. So there is no negative impact of BF on body fitness of mothers.

- Encourage people to practice Wet-nursing when mother's lactating ability is hampered due to physical problem.

❖ *Mother groups can be established* to support each other which may be an effective and inexpensive way to counsel mothers regarding these issues.

Role of Media

- *Strong campaign on BMS Code* should be done using all print, electronic and online media.

- *A group with all types of media (TV and newspaper) should be formed* who will repeatedly publish or disseminate BMS Code related events and thus always keep it in news.

- *Top level media personnel from different discipline should be engaged who are highly acceptable and trustworthy to promote BMS Code.*

- *Repeated advertisement, story and issue based programme, should be aired in electronic media targeting all stakeholders.* Dissemination should be in an appropriate time for targeted audience, in *popular channels,* in *between popular TV programmes and story based short dramas* (like Meena cartoon) instead of talk show or just giving messages.

- *For print media, message should be clear, well-taught, understandable, and appropriate with the cultural context* and must explain why it is needed, and what difference it would make. The message needs to be reinforced, by repetition.

- *Emotionally appealing messages and materials* should be developed and disseminated in every way of communication for promoting BF or BMS Code implementation

We have to strengthen knowledge, political commitment and action for BMS Code implementation. BRAC alone will not be sufficient enough for this purpose. All GO, NGO, private organization, international organization should work in a cohesive manner and central co-ordination should be there for this purpose.

Further study is needed to dig into the problems in detailed specifically targeting different vulnerable groups like caesarean baby, premature baby, twin baby, LBW baby and working mother etc. For the successful implementation of BMS Code, advance and in-depth qualitative study is required to explore the marketing strategy of BMS products, the ways of response of stakeholders on it and different forms of violation of the Code.

References

Aguayo VM, Ross JS, Kanon S and Ouedraogo AN (2003). Monitoring compliance with the international code of marketing of breastmilk substitutes in West Africa: multisite cross sectional survey in Togo and Burkina Faso. *British Medical Journal,* 326 (7381):127.

Alive and Thrive (2012): Formative research on infant and young child feeding in Vietnam: Phase 1 Summary Report. Hanoi: Vietnam.

Bahl R, Frost C, Kirkwood BR, Edmond K, Martines J, Bhandari N and Arthur P (2005). Infant feeding patterns and risks of death and hospitalization in the first half of infancy: multicentre cohort study. *Bulletin of the World Health Organization,* 83(6):418-426.

Bangladesh Breastfeeding Foundation (BBF) (2012). Report on pilot project on BMS Code monitoring in Bangladesh 2012. Dhaka: Bangladesh Breastfeeding Foundation.

Bhandari N, Bahl R, Mazumdar S, Martines J, Black RE and Bhan MK (2003). Infant feeding study group: Effect of community-based promotion of exclusive breastfeeding on diarrhoeal illness and growth: a cluster randomized controlled trial. *Lancet*, 361(9367):1418-23.

Bhutta ZA, Das JK, Rizvi A, Gaffey MF, Walker N, Horton S, Webb P, Lartey A and Black RE (2013). Lancet nutrition interventions review group; maternal and child nutrition study group. Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost? *Lancet*. 2013 Aug 3; 382(9890):452-77.

Biddulph J (1981). Advances in international maternal and child health, "Promotion of breastfeeding experience in Papua New Guinea," Vol 1, Oxford, Oxford Press.

Cai X WT and Brown DW (2012). Global trends in exclusive breastfeeding. *International Breastfeeding Journal* 2012; 7**:**12.

Chang K, Spatz DL. The family and breastfeeding laws: what nurses need to know. MCN: *The American Journal of Maternal/Child Nurshing,* 2006 Jul-Aug; 31(4):224-30.

Collaborative Group on Hormonal Factors in Breast Cancer. Breast cancer and breastfeeding: collaborative reanalysis of individual data from 47 epidemiological studies in 30 countries, including 50302 women with breast cancer and 96973 women without the disease, *Lancet*. 2002; 360(9328):187-95.

Dudskieker LB, Getchell JP, Liarakos TM, Hausler WJ and Dungy CI (1994). Nitrate in Baby Foods. *Archives of Pediatric and Adolescent Medicine,* 148:490-94.

Dyson L, McCormick FM, Renfrew MJ (2005). Interventions for promoting the initiation of breastfeeding. *Cochrane Database Syst Rev*; 2: CD001688.

Edmond KM, Zandoh C, Quigley MA, Amenga-Etego S, Owusu-Agyei S and Kirkwood BR: Delayed breastfeeding initiation increases risk of neonatal mortality. *Pediatrics* 2006, 117(3):e380-e386.

Euro monitor International (2008). “Global Packaged Food: Market Opportunities for Baby Food to 2013”.

Foss K and Southwell B (2006). Infant feeding and the media: the relationship between *Parents' Magazine* content and breastfeeding, 1972–2000, *International Breastfeeding Journal*, 2006;1:10.

Gerstein HC (1994). Cow’s milk exposure type I diabetes mellitus. A critical overview of the clinical literature. Diabetes Care, 17:13-19.

Graneheim UH and Lundman B (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness, *Nurse Education Today,* 24:105–112

Gwinn ML *et al.* (1990). Pregnancy, breastfeeding and oral contraceptives and the risk of epithelial ovarian cancer. *Journal of Clinical Epidemiology,* 43:559–568.

Haider R, Rasheed S, Sanghvi TG, Hassan N, Pachon H, Islam S, Jalal CSB (2010). Breastfeeding in infancy: identifying the program-relevant issues in Bangladesh. *International Breastfeed Journal*. 5: 21. November. doi: 10.1186/1746-4358-5-21.

Heinig MJ, Dewey KG (1997). Health advantages of breastfeeding for mothers: a critical review. *Nutrition Research Reviews,* 10 (1):35–56.

Kondracki NL, Wellman NS and Amundson DR (2002). Content analysis: review of methods and their applications in nutrition education, *Journal of Nutrition Education and Behaviour* 34 (4):224–30.

Kuyper E, Vitta B and Dewey K (2014). Implications of cesarean delivery for breastfeeding outcomes and strategies to support breastfeeding, A and T Technical Brief Issue 8: February.

Labbok M, Cooney K and Coly S (1994). Guidelines: breastfeeding, family planning, and the Lactational Amenorrhea Method-LAM. Institute for Reproductive Health. Washington DC.

Labbok MH (2001). Effects of breastfeeding on the mother. *Pediatrics Clinic North America.* 48: 143–158.

Lutter CK *et al*. (2011). Undernutrition, poor feeding practices and low coverage of key nutrition interventions. *Pediatrics.* 128:e1–e10.

Moussa Abba *et al.* (2010). A qualitative study of the promotion of exclusive breastfeeding by health professionals in Niamey, Niger. *International Breastfeeding Journal.* 5:8.

National Institute of Population Research and Training (NIPORT), Mitra and Associates and ICF International (2013). Bangladesh Demographic and Health Survey 2011. Dhaka: Bangladesh and Calverton, Maryland. USA: NIPORT, Mitra and Associates, and ICF Internaltional.

Ness RB *et al*. (2000). Factors related to inflammation of the ovarian epithelium and risk of ovarian cancer. *Epidemiology.* 11:111–117.

Popkin Barry M, Fernandez Maria E and Avila Josephine L (1990). Infant formula promotion and the health sector in the Philippines. *American Journal of Public Health.* 80:74-75.

Prior E, Santhakumaran S, Gale C, Philipps LH, Modi N and Hyde MJ (2012). Breastfeeding after cesarean delivery: a systematic review and meta-analysis of world literature. *American Journal of Clinical Nutrition.* 95(5):113-1135.

Purdy IB (2010). Social, cultural, and medical factors that influence maternal breastfeeding. *Issues in Mental Health Nursing,* 31:365-367.

Sokol e, Aguayo V and Clark D (2007). Protecting breastfeeding in West and Central Africa: 25 years implementing the international code of marketing of breastmilk substitutes. UNICEF Regional Office for West and Central Africa.

Susiloretni KA, Krisnamurni S, Sunarto, Widiyanto SY, Yazid A, and Wilopo SA (2013). The effectiveness of multilevel promotion of exclusive breastfeeding in rural Indonesia. *American Journal of Health Promotion* 28(2):44-45.

Taylor A (1998). Violation of the international code of marketing of breast milk substitutes: prevalence in four countries, *British Medical Journal.* 316:1117-22.

UNICEF (2013). Press release. New York.

Victora CG *et al*. (1987). Evidence for protection by breastfeeding against infant deaths from infectious diseases in Brazil. *Lancet.* 2:319–322.

Walker M (1993). A fresh look at the risks of artificial infant feeding. *Journal of Human Lactation.* 9: 97-107.

Whittemore AS, Harris R and Itnyre J (1992). Characteristics relating to ovarian cancer risk: collaborative analysis of 12 US case-control studies. *American Journal of Epidemiology.* 136:1184–1203.

WHO (2013). Country implementation of the international code of marketing of breast-milk substitutes: status report-2011. Geneva World Health Organization.

WHO (2000). Collaborative study team on the role of breastfeeding on the prevention of infant mortality. Effect of breastfeeding on infant and child mortality due to infectious disease in less developed countries: a pooled analysis. *Lancet.* 355:451–455.

World Health Organization (2002). United Nations Children‘s Fund. *Global Strategy for Infant and Young Child Feeding*. Geneva: Switzerland.

ANNEX

Table A1. Identified barriers to EBF by types of stakeholders

	Barrier of EBF	Types of respondents
1.	Perception of insufficient breast milk	All healthcare providers, government health official, shop attendant, all family members
2.	Incomplete breastfeeding/Crying baby/Baby did not suck well	All healthcare providers, government health official, shop attendant, all family members
3.	Sickness or poor nutritional status of child/baby cannot suck	Doctor, Local leaders, MRs, Shop attendant, All family members
4.	Mothers' misconception about the bad impact of BF on body fitness	All health are providers, government health official, MRs, shop attendant, all family members except mother of formula feed baby
5.	Sickness or poor nutritional status of mother	Village doctor, government health official, local leaders, MR, shop attendant, All family members
6.	Twin baby/Premature baby/LBW baby	Doctor, Mother of formula fed baby
7.	Caesarean baby	Doctor, Village doctor, government health official, local leaders, MR, shop attendant, mother of formula feed baby
8.	Working mother	Doctor, Village doctor, government health official, local leaders, MR, shop attendant, all family members except mother of formula feed baby
9.	Lack of education/awareness Traditional (cultural & religious) practices and misconceptions	Doctor, government health official, MR, father
10.	Insistence of elder family members	Doctor, government health official, MR, All family members
11.	Death of mother	Doctor, MR, Shop attendant
12.	Shyness in case of prime mother	Doctor
13.	Mothers' impatience	Nurse

Table A2. Influencing persons for BMS feeding by different stakeholders

Sl.	Group (n)	Respondents type (n)	Influencing person for BMS feeding
1.	Healthcare provider (20)	Doctor (8)	Experienced neighbour and relatives, Mother to mother, Grandmothers, Mother herself
		Nurse (4)	Experienced neighbour and relatives, Mother to mother, Grandmothers, Doctor
		FWV/CSBA /TTBA/TBA (4)	Mother herself, Doctor, Shopkeeper, Mother to mother
		Village doctor (4)	Doctor, Mother to mother, Experienced neighbour and relatives
2.	GoB Health Officials	Civil surgeon (2)	Nurses, Mother herself
		UH & FPO (4)	Doctors, Experienced neighbour and relatives
3.	Local leaders (8)	Community leaders (4)	Doctors, Nurses, Experienced neighbour
		Religious leaders (4)	Doctors, Nurses, Experienced neighbour and relatives
4.	Promoter of BMS (10)	Marketing representative (2)	Did not mention
		Shop attendants (8)	Doctors, Experienced relatives
5.	Family members (16)	Mothers (4)	Doctors, Nurses, Relatives living in towns
		Formula feed Mothers (4)	Doctors (Child specialist), Experienced neighbour and relatives
		Father (4)	Doctors
		Caregiver (4)	Doctors

Table A3. Play role in BMS Code Implementation

Sl.	Group (n)	Respondents type (n)	Play role in BMS Code Implementation
1.	Healthcare provider (20)	Doctor (8)	Family planning worker, field level health worker, politician, Imam, chairman and member at village level
		Nurse (4)	Field level health worker, doctor, nurse
		FWV/CSBA /TTBA/TBA (4)	Family planning worker, Village doctor, Birth attendant, social leader
		Village doctor (4)	Doctor, Field level health worker
2.	Government Health Officials (6)	Civil surgeon (2)	Political leader or administrative personnel at district and *upazila* level
		UH & FPO (4)	Political leader and administrative personnel at district and *upazila* level, Government Health division, doctor
3.	Local leaders (8)	Community leaders (4)	Doctor, nurse, school teacher
		Religious leaders (4)	Doctor, nurse, school teacher
4.	Promoter of BMS (10)	Marketing representative (2)	Do not mention any person
		Shop attendants (8)	Doctors, salesmen of drug shop
5.	Family members (16)	Mothers (4)	Field level health worker, school teacher, imam
		Formula feed Mothers (4)	Doctor, field level health worker
		Father (4)	Field level health worker, school teacher, imam, chairman and member at village level
		Caregiver (4)	Field level health worker, school teacher

Table A4. Person violating the law according to different stakeholders

Respondents type (n)	Who violated the law*
Doctor (8)	Doctors, nurse, *aya*, ward boy, BMS Company, village doctors, shopkeeper
Nurse (4)	Drug seller, doctors, nurse,
FWV/CSBA /TTBA/TBA (4)	Drug seller, doctors, shopkeeper
Village doctor (4)	Doctor, BMS Company
Civil surgeon (2)	Doctors, nurses, shop keeper, drug seller,
UH & FPO (4)	Shopkeeper, drug seller, doctors, nurse, BMS Company
Community leaders (4)	Doctor, nurse, shopkeeper
Religious leaders (4)	Doctor, shopkeeper
MR (2)	Do not mention
Shop attendants (8)	Doctor
Mothers (4)	Doctor, drug seller
Formula feed Mothers (4)	Doctor
Father (4)	Doctor, BMS Company, shopkeeper, drug seller
Caregiver (4)	Doctor

* *Arranged according to the respondents' citation sequence*

Table A5. Recommendation matrix

Level/ stages	Issues to be highlighted	Specific recommendations
Policy level	Implement BMS Code along with other related laws and policies Revise the existing laws and policies or enact new one where necessary	▪ Prepare and circulate implementation mechanism or rules on BMS Code and other laws & policies like maternity leave, day care facility within the working organization, paid breastfeeding breaks, part time work arrangements and facilities for expressing and storing breast milk ▪ Develop strong monitoring system or strengthened the existing system in collaboration with other organization which are interested ▪ Revise the curriculum and training manual of doctor, nutritionist, nurse, midwife and other healthcare providers based on BMS Code ▪ Advocacy to formulate a prescribing guideline for proper use of BMS product ▪ Advocacy to formulate specific policy for health facilities and for healthcare providers on BMS Code
	Lessen the availability of BMS product in market	▪ Stress to restrict BMS import and production ▪ Withdraw BMS products from grocery shop/mega shop ▪ Make it available only in pharmacy/drug shop ▪ Without proper prescription, BMS products should not be sold to anybody
Institution level	Ensure good practice in each health facilities	▪ Health facility related to maternal and child health should have counseling unit for IYCF related facilities and breastfeeding positioning support ▪ Establish 'BF and BMS Code Promotion unit" to monitor related activities ▪ Rigorous pictorial messages (through billboard, poster, and calendar) in doctor's room, delivery room and surrounding of the health facilities should be publicized ▪ Provision of performance based annual award for the health institution/region and health professionals ▪ Periodical refresher training on BMS Code for all healthcare providers and other employees
	Make law implementing institutes more effective and accountable	▪ Create example by executing punishment for violation of the Code. ▪ Make these institution free from commercial influences at any cost

(Table A5 Continued…)

(….. Continued Table A5)

Community level	Promote proper IYCF practice and BMS Code at community level	▪ Fully engage community and religious leaders for effective promotion ▪ Emphasis should be given on religious point of view ▪ Existing village meeting of different programmes of BRAC can be targeted for the campaign
	Develop network of community based health worker	• Develop network within the existing service providers (GO & NGO) at community level to ensure regular and sustainable services regarding IYCF • Develop community-based health workers (where necessary) • Improve skills and performance of community-based workers through training and providing necessary promotional materials
Individual level	<u>Healthcare providers:</u> Improve their knowledge about BMS Code and their specific role Motivate them to practice properly	• Arrange periodical refreshment training on ➢ BMS Code ➢ promoting appropriate IYCF practice ➢ supporting mothers with management of perceived barrier • Motivate them not to recommend BMS products unnecessarily • Advocate them to provide convincing and comprehensive counseling to mothers regarding IYCF
	<u>Government health officials:</u> Ensure their proper engagement in BMS Code implementation	• Aware about BMS Code and their specific roles • Empower and motivate them to strictly investigate the Code violation • Monthly or quarterly reporting on BMS Code violation situation in his/her area • Make them free from commercial influence through increasing transparency and accountability
	<u>Shopkeepers and drug sellers:</u> Improve knowledge on BMS Code	• Make them aware about BMS Code and activities that are considered violation • Make them aware about negative consequences of BMS feeding
	<u>Mothers, caregivers, fathers and other family members:</u> Awareness building	• Extensive face to face comprehensive and convincing counseling with mothers, caregivers and other family members about negative consequences of BMS feeding and proper IYCF practice • Establish mothers groups to support each other
Media	Fully engage media for awareness building	• Form group/forum consisting of all types of media representatives for holistic impact • Engage popular media personnel • Clear, understandable and appropriate message should be disseminated • Story and issue based programme should be aired in electronic media • Media, channels and time for dissemination should be selected based on targeted audience

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