



Improving Nutrition and Health Service Delivery in Refugee Camps along the Thailand – Burma/ Myanmar Border

International Rescue
Committee

Dr. Chaw Yin Myint
Nutrition Consultant
January to February 2014



The Border
Consortium

Acknowledgements

To Ms. Cathy Ayer, Dr. Myat Thura, Ms. Oranutt Narapruet, Ms. Preeyalak Sataranon and Mr. David Allen for their kind support throughout the study, for which I am very thankful. In addition, I am grateful to the interpreters, moderators and note-takers for their helpful assistance during the course of this study.

I would like to express my appreciation to the TBC Nutrition Officers from the four refugee camps in which the study took place: Mae La, Umpiem Mai, Mae La Oon, and Ban Mae Surin. My gratitude extends to the Field Coordinators from health agencies operating in the camps for their facilitation of this study; it could not have run so smoothly without their help. My appreciation further extends to Dr. Philippe Travers from PU-AMI, Dr. Verena Carrara from SMRU, Dr. Aye Aye Moe from ARC, Dr. Susanne Rastin from MI, and Dr. Nyi Wynn Soe from IRC for their kind collaboration.

I would like to heartily thank the stakeholders who willingly discussed and provided valuable information by giving their precious time in the focus groups and in-depth interviews.

My deepest thanks to IRC for supporting this study through PRM, who sought to find gaps to improve the implementation of the nutrition program in the refugee camps along Thailand-Burma/Myanmar border. My special thanks go to Dr. Kyaw Win Sein and Roman Perez Velasco who provided suggestions for the study and comments for the report.

Abbreviations

AN	Antenatal Care
ARC	American Refugee Committee
CCSDPT	Committee for Coordination of Services to Displaced Persons in Thailand
CHW	Community Health Worker
CMT	Community Managed Targeting
EBF	Exclusive Breastfeeding
FGD	Focus Group Discussion
GAM	Global Acute Malnutrition
GM	Growth Monitoring
HA	Health Agency
HIV	Human Immunodeficiency Virus
IEC	Information, Education and Communication
INGO	International Non-Governmental Organization
IPD	In-Patient Department
IRC	International Rescue Committee
KnWO	Karen Women Organization
KWO	Karen Women Organization
MI	Malteser International
MSG	Monosodium Glutamate
NGO	Non-Governmental Organization
OPD	Out-Patient Department
PU-AMI	Première Urgence – Aide Médicale Internationale
SFP	Supplementary Feeding Program
SMRU	Shoklo Malaria Research Unit
TB	Tuberculosis
TBC	The Border Consortium
TFP	Therapeutic Feeding Program
TOPS	Taipei Overseas Peace Service
UNICEF	The United Nations Children's Fund
WHO	World Health Organization

Table of Contents

I.	Executive Summary	7
	Recommendations for TBC	13
	Recommendations for partner health agencies.....	14
II.	Background	15
III.	Objectives.....	16
	Overall Objective	16
	Specific Objectives.....	16
IV.	Methodology.....	18
	Setting	18
	Participants and procedures.....	18
	Data collection	19
	Analysis.....	19
V.	Results and Discussion	20
1.	Knowledge, attitudes and practices of the beneficiary group: pregnant women, lactating mothers and caregivers of children under five years of age.....	20
1.1.	General knowledge and practices regarding nutrition	20
1.2.	Knowledge, attitudes and practices of breastfeeding (<i>early initiation of breastfeeding, exclusive breastfeeding, and continuing breastfeeding</i>)	20
1.3.	Knowledge, attitudes and practices in complementary feeding for children aged six-23 months (<i>introduction of complementary foods, minimum dietary diversity, minimum meal frequency, consumption of iron-rich or iron-fortified foods</i>)	21
1.4.	Knowledge, attitudes and practices of family planning.....	22
1.5.	Knowledge, attitudes and practices of personal hygiene.....	22
1.6.	Barriers to exclusive breastfeeding	22
1.7.	Unmet needs of the community regarding health services and nutrition.....	23
1.8.	Antenatal clinic.....	23
1.9.	Supplementary foods provided for normal and malnourished pregnant/lactating women and moderately malnourished children through the Supplementary Feeding Program (SFP).....	24
1.10.	Therapeutic Feeding Program (TFP) for severely malnourished children at the inpatient department.....	25
1.11.	Cooking demonstrations of AsiaREMix.....	25

1.12. <i>Vitamin A supplementation and deworming program among children under five years of age</i>	25
1.13. <i>Growth monitoring of children under five years of age</i>	25
1.14. <i>Nursery school lunch program</i>	25
2. Knowledge and capacity of camp-based staff	25
2.1. <i>Knowledge of camp-based staff regarding nutrition</i>	25
2.2. <i>Challenges regarding nutrition and health service delivery faced by health agencies</i>	
26	
2.2.1. <i>At the antenatal clinics</i>	26
2.2.3. <i>Therapeutic Feeding Program for severely malnourished children at the inpatient department</i>	26
2.2.4. <i>Cooking demonstrations of AsiaREMix</i>	27
2.2.5. <i>Vitamin A supplementation and deworming program among children under five years of age</i> 27	
2.2.6. <i>Growth monitoring of children under five years of age</i>	27
2.2.7. <i>Nursery school lunch program</i>	27
2.2.8. <i>Provision of family planning program</i>	27
2.2.9. <i>Provision of sanitation program</i>	27
2.3. <i>Challenges regarding nutrition program support faced by TBC</i>	27
2.3.1. <i>Support to health agencies</i>	27
2.3.2. <i>Support to communities</i>	28
3. Gaps in TBC's support to health agencies, other related organizations, and the community with regards to the nutrition program	28
3.1. <i>Support to health agencies</i>	28
3.2. <i>Support to the community</i>	28
VI. Recommendations	29
1. Recommendations for TBC	29
2. Recommendations for partner health agencies.....	30
VII. Guidelines.....	31
1. Guidelines for nutrition education and campaigns	31
2. Guidelines for TBC to ensure/develop the capacities and skills of camp-based staff involved in nutrition-related programs	34
3. Guidelines for TBC to enhance support for partner agencies/organizations in nutrition programs and monitoring and evaluation frameworks	35

VIII. References	40
Appendices.....	41
Appendix 1: Case Studies.....	41
Appendix 2: TFP Guidelines.....	42
Appendix 3: SFP Guidelines.....	43
Appendix 4: Interview Questions	44
Appendix 5: AsiaREMix Composition.....	48

I. Executive Summary

Background: There is an estimated 130,000 Burmese refugees currently living along the Thailand-Burma/Myanmar border across nine refugee camps. Consequently, health, education, environmental health, protection, and food and shelter needs are fundamentally met by international donors and non-governmental organizations (NGOs) working along the Thailand-Burma/Myanmar border. The Border Consortium (TBC), together with partner health agencies, provides nutrition services within the camp communities. With regards to the nutritional statuses of children under five years of age in the camps, chronic malnutrition (stunting) rates are found to be high, at a range of 34.3% to 41.5%, while border-wide global acute malnutrition (GAM) rates are lower than World Health Organization (WHO) standards, ranging between 2% to 4.2%. This study aims to provide recommendations to TBC and the health and related agencies working in the refugee camps along Thailand-Burma/Myanmar border by exploring the barriers to access proper nutrition for infants and young children, as well as by gathering relevant information on implementation, including the challenges of providing nutrition and health service delivery. In addition, detailed information on other important aspects, such as the quality of diets and context-specific social problems (i.e. social problems that are common within refugee camps) will be discussed to aid in the formulation of new strategies to reach further program effectiveness in the camps.

Objective: To provide TBC and all health and related agencies working in the nine border camps with recommendations on improving service delivery to reduce/prevent chronic stunting among children.

Method: The qualitative study was conducted in four selected Burmese refugee camps along the Thailand-Burma/Myanmar border from 20th to 31st January 2014. These four camps were Ban Mae Surin (Site 2), Mae La Oon, Mae La, and Umpiem Mai. The study utilized three methods of data collection: focus group discussions (FGDs), in-depth interviews (IDIs), and direct observations. FGDs and IDIs were conducted by using semi-structured guiding interview questions. A total of nine FGDs and 13 IDIs were conducted among beneficiaries (pregnant/lactating mothers and caregivers of children under five years of age) and camp-based staff. Observations were executed at antenatal clinics, a Supplementary Feeding Program (SFP) unit, and a cooking demonstration session.

Results: Results from the study are described under three main themes: i) knowledge, attitudes and practices of the beneficiary group; ii) health and nutrition service delivery by health agencies; iii) nutrition program activities supported by TBC.

1. Knowledge, attitudes and practices of the beneficiary group: pregnant women, lactating mothers and caregivers of children under five years of age

1.1. General knowledge and practices regarding nutrition

Regarding the general knowledge of nutrition, although some participants were able to state the classification of food groups, some of them still had not heard about food groups. Participants generally do not recognize the importance of the daily consumption of food varieties from each food group, or that AsiaREMix is essential to meet their daily nutritional requirement. Please refer to Appendix 5 for the composition of AsiaREMix.

1.2. Knowledge, attitudes and practices related to breastfeeding (early initiation of breastfeeding, exclusive breastfeeding, and continuing breastfeeding)

It was found that most of the mothers interviewed have knowledge and have practiced early initiation of breastfeeding (i.e. within one hour after delivery). Some also practice exclusive breastfeeding. However, some mothers from Mae La camp do not practice exclusive breastfeeding for up to six months after birth, and some mothers from other camps have not heard about exclusive breastfeeding and its benefits. The foods introduced are usually water and rice (unmindful of the baby's age), which are in line with the culture and the belief that it would prevent hunger and crying while the mother goes out to work. Most of the mothers continue to breastfeed for more than two years.

1.3. Knowledge, attitudes and practices of complementary feeding for children aged six to 23 months (introduction of complementary foods, minimum dietary diversity, minimum meal frequency, consumption of iron-rich or iron-fortified foods)

The knowledge level of complementary feeding in all four refugee camps was found to be very poor. Cultural norms and beliefs also hinder the provision of quality complementary feeding. Overall complementary feeding practices (time of introduction, minimum dietary diversity, minimum meal frequency, consumption of iron-rich foods, and so on) do not meet the UNICEF guidelines in order to prevent acute and chronic malnutrition.

1.4. Knowledge, attitudes and practices of family planning

Most of the participants had already heard about various family planning methods (oral contraceptive (OC) pills, three-monthly injections, intrauterine contraceptive device (IUCD) and sterilization), but only half had practiced them at the time of this study.

1.5. Knowledge, attitudes and practices of personal hygiene

All of the participants interviewed knew when to wash their hands. However, some participants washed their hands without using soap.

1.6. Barriers to exclusive breastfeeding, proper nutrition, and care for children

The barriers that were discussed which impede the provision of proper nutrition include: the lack of knowledge on how to provide nutritious food to children; large family sizes with many children; socioeconomic constraints; lack of time due to other work or chores. In addition, the locally available foods in these Burmese/Myanmar refugee camps are predominantly plant-based, which will be one of the reasons for inadequate nutrient content of complementary foods to prevent stunting.

1.7. Unmet needs of the community regarding health services and nutrition

Services that respondents expressed they require to improve the health and nutritional status of their children include: medicine, nursing care, provision of nutritious food (milk, canned fish, red beans, etc.), formula milk, an ample supply of food rations, especially rice (there were complaints of insufficient supplies from two camps), and proper care from clinic health staff, such as providing time for counseling. Participants are also worried that hospitals and clinics in the camps might close in the near future, in light of the changes that are occurring. These voices from the community portray a deep-seeded insecurity that is rife within the camps.

Support received from health agencies and other related organizations

1.8. Antenatal clinic

Regarding the nutrition program, pregnant women reported that they received multivitamins and iron tablets during their antenatal period. The deworming program and iodized salt promotion were inconsistently provided among the four camps visited. Although education regarding breastfeeding was provided, few obtained information about different food groups and family planning methods during antenatal care, and almost none interviewed received any information on complementary feeding during this time.

1.9. Supplementary foods provided for normal and malnourished pregnant/lactating women and moderately malnourished children through the Supplementary Feeding Program (SFP)

The current supplementary food provided, AsiaREMix, is found to be inadequate in its protein content. For children between six and 24 months, milk protein should be included in supplementary feeding in order to prevent chronic malnutrition (stunting).

1.10. Therapeutic Feeding Program (TFP) for severely malnourished children at the inpatient department

If the weight-for-height of a child is < -3 on the Z-score of the WHO growth standard, he/she would be admitted to the inpatient department to receive therapeutic feeding until weight-for-height is improved to ≥ -2 on the Z-score. The child would then be transferred to the SFP.

1.11. Cooking demonstrations of AsiaREMix

Camp communities receive cooking demonstrations of AsiaREMix every month by health agency staff, together with TBC staff. During the sessions, health staff explain the ingredients of AsiaREMix and its various cooking methods. However, they do not place an emphasis on the importance of daily consumption of AsiaREMix for children.

1.12. Vitamin A supplementation and deworming program among children under five years of age

Children aged six to 59 months receive Vitamin A supplementation. Biannually, 100,000 IU of Vitamin A is administered to children aged between six and 12 months, and 200,000 IU is provided to children between 13 and 59 months of age. All children older than 12 months of age also receive deworming tablets biannually from health agencies.

1.13. Growth monitoring of children under five years of age

Children under three years of age receive growth monitoring every month, while children in the three to five years age group undergo monitoring every six months. Besides being informed about the measured weight of their children, however, parents have not received explanations on the growth chart that is used.

1.14. Nursery school lunch program

Nursery school children, usually aged between three and five years, receive lunch prepared by the school daily. TBC supports this program by providing five baht per child per day with which to purchase food. The children bring rice from their homes (as often as they are able) and the school lunch program provides various accompaniments according to the lunch schedule, which includes snacks made with AsiaREMix twice per week.

2. Knowledge and capacity of camp-based staff

2.1. Knowledge of camp-based staff regarding nutrition

Most of the camp-based staff have basic knowledge of breastfeeding practices, AsiaREMix and the different food groups, but they generally do not sufficiently know about complementary feeding practices, and how to educate them on this. Knowledge on communication strategies for beneficiaries among camp-based staff was also found to be weak.

2.2. Challenges regarding nutrition and health service delivery faced by health agencies

2.2.1. At the antenatal clinics

No significant challenges were reported regarding the delivery of nutrition and health services at the antenatal clinics.

2.2.2. Supplementary Feeding Program (SFP) for normal and malnourished pregnant/lactating women, and moderately malnourished children

Health agency representatives expressed five main challenges regarding the SFP. Firstly, it has been challenging to deal with mothers who are ineligible to receive formula milk according to SFP guidelines (e.g. mothers with twin babies). Secondly, malnutrition cases have been missed in the past. Thirdly, staff reported that some parents of moderately malnourished children do not regularly attend follow-up appointments after they are discharged from the TFP; instead they requested for community health workers (CHWs) or TBC staff to conduct a home visit. Fourthly, some parents complain that their children do not like the taste of AsiaREMix. Lastly, and the most challenging, is that some health agency staff have found non-cured/default cases in the SFP, whereby there were no plans for further management, besides referrals to screenings for underlying diseases.

2.2.3. Therapeutic Feeding Program (TFP) for severely malnourished children at the inpatient department

Two main challenges were found relating to the delivery of health services to severely malnourished children: i) patients come to hospital at a very late stage with complications, and ii) some patients abscond from the hospital before gaining their target weight, for fear of having to stay longer.

2.2.4. Cooking demonstrations of AsiaREMix

Some patients complained that the demonstrated recipes for AsiaREMix require cooking oil, which they do not have enough of to cook with at home.

2.2.5. Vitamin A supplementation and deworming program among children under five years of age

These programs were reported to be running smoothly without any significant challenges.

2.2.6. Growth monitoring of children under five years of age

Most of the children attend growth monitoring regularly. Only some parents do not bring their children for growth monitoring, giving reasons that they simply do not want to attend, or that they are too busy. Community health workers (CHWs) are responsible for home visits to monitor these children.

2.2.7. Nursery school lunch program

Following ration reductions through TBC's Community Managed Targeting (CMT) initiative, some children can no longer bring rice for their school lunches (as they would habitually do for the program). It was also reported that sometimes the water supply to the nursery schools in Umpiem Mai camp gets cut off.

2.2.8. Provision of family planning program

Although health agencies provide family planning counseling, some patients are still reluctant to accept advice given due to religious reasons or underlying diseases. There is also a limited number of doctors able to perform sterilization (i.e. there is only one SMRU doctor available in Mae La camp).

2.2.9. Provision of sanitation program

A persistent challenge faced by health staff is that some patients do not change their personal hygiene behaviors, even after health education has been provided.

2.3. Challenges regarding nutrition program support faced by TBC

2.3.1. Support to health agencies

Although staff from some camps generally feel more confident in conducting growth monitoring and delivering the SFP by accepting technical support from the TBC Nutrition Officers, there were some health agency staff members who are reluctant to collaborate with TBC (e.g. to provide information regarding malnutrition cases).

There is also no office for TBC Nutrition staff in Umpiem Mai and Ban Mae Surin (Site 2) camps. Staff from these camps prefer to be stationed around the nutrition service delivery points in order to be in a better position to provide technical support promptly and work collaboratively with health agency staff.

2.3.2. Support to communities

TBC finds that there is generally poor community participation during follow-up home visits. In addition, some parents being illiterate, makes it difficult for them to understand the health messages provided by TBC. Limited human resources is also a persistent challenge; the few numbers of camp-based staff tend to hinder the activities of the nutrition program. Requests for formula milk from non-eligible mothers are, moreover, another challenge faced by camp-based staff from TBC and health agencies.

3. Gaps in TBC's support to health agencies, other related organizations, and the community with regards to the nutrition program

3.1. Support to health agencies

Health agencies require more frequent refresher trainings to compensate for the rapid turnover rate of staff, and to build their capacity in knowledge of complementary feeding, promotion of the growth monitoring chart, management of default malnutrition cases, and in the competency to understand and to impart the knowledge of the reasons and benefits for consuming AsiaREMix. Moreover, training modules, thus far, have not covered communication methods and strategies in conveying nutrition-related messages to the community.

3.2. *Support to the community*

The acknowledgement that some malnutrition cases have been overlooked indicates that TBC's home visit activities still have some gaps to fill. The promotion of exclusive breastfeeding and complimentary feeding may require not only the conveyance of nutrition-related messages, but also the training of camp-based staff to support mothers and caregivers.

Recommendations for TBC

Policy

- TBC should expand on further support of exclusive breastfeeding – for example, a workplace policy to support breastfeeding of working mothers

Communication

- Ensure communications at multiple levels, including inter-personal communications, and communications with communities and partners
- TBC should provide consistent and accurate IEC materials to all camps in order to convey messages uniformly among all camps
- New communication strategies should be introduced to mobilize community participation in the nutrition program (e.g. communication campaigns, video clips, role plays)
- The development of messages should be simple and understandable to mothers (e.g. instead of saying they should be feeding 'nutritious foods', they should be encouraged to feed their children eggs three times a week, or to give them meat, and so on)

Training

- TBC should provide refresher trainings to health agency staff at least twice per year
- During refresher trainings, implementations weaknesses and gaps in knowledge found in this study should be emphasized, such as: i) how to support the exclusive breastfeeding practice of mothers; ii) complementary feeding methods for the promotion of quality complementary feeding (i.e. to prevent chronic malnutrition/stunting); iii) management of default cases from the SFP according to TBC guidelines; iv) signs that a baby is not receiving sufficient breast milk, and the possible causes (particularly in cases where mothers request formula milk); v) communication strategies most suitable for the refugee community (e.g. emphasizing the benefits of exclusive breastfeeding practices and the consequences of mixed feeding, as well as reasons to consume AsiaREMix); vi) building the skills of both health agency and TBC camp-based staff to counsel and support mothers on the IYCF program

Monitoring and Evaluation

- TBC camp-based staff should report to the Nutrition Officer if they cannot convince a caregiver to bring their child for follow-up checks

- TBC Nutrition Field Officers should provide more regular practical (rather than theoretical) training to camp-based health agency staff in delivering nutrition services, so as to support their needs in the time between refresher trainings. It should be noted that already trained community workers need continued mentoring and encouragement to improve their skills

Active Case Detection

- TBC should strengthen its active case detection in the community in order to avoid longer durations and poor prognoses of late cases due to complications. This would also help TBC catch up to the window of opportunity period to prevent stunting (i.e. within two years of age). This can be done by following up with children who do not attend the six-monthly growth monitoring

Options to Support Quality Complementary Feeding

- TBC should consider different kinds of supplementary foods, such as ready-to-eat food options instead of merely offering AsiaREMix. This is because the study found that daily consumption of AsiaREMix is not widely practiced in any of the four camps visited, making it difficult to reach the program goal of preventing acute and chronic malnutrition.
- The provision of AsiaREMix alone will not prevent stunting (as discussed in section 1.9.). Therefore, TBC should consider providing eggs (at the very least), meat and dairy products to children

Recommendations for partner health agencies

- Health agency staff should improve communication skills for conveying messages to the community regarding exclusive breastfeeding methods, complementary diets, and family planning practices
- Health agency should provide support groups (e.g. made up of community health workers) for lactating mothers in exclusive breastfeeding practices
- Provision of nutrition services should be uniformed and follow WHO/UNICEF guidelines; some camps promote iodized salt while others do not, and some camps provide deworming tablets to pregnant women while others do not
- Health agencies should consider accepting technical support from TBC, as more streamlined and collaborative efforts could result in better management of the nutrition program
- Communications should be strengthened between TBC and partner health agencies, contact with the appropriate TBC Nutrition Officer should not be delayed if there are any problems regarding the nutrition program (e.g. difficulty managing default cases in the SFP)
- Health agencies should consider collaborating with the Camp Committees to support environmental sanitation, particularly in order to provide continuous water supply to the community

II. Background

There is an estimated 130,000 Burmese refugees currently living along the Thailand-Burma/Myanmar border across nine refugee camps, from which they are not permitted to leave according to Thai law, and where entry by outsiders is highly restricted. Consequently, health, education, environmental health, protection, and food and shelter needs are fundamentally met by international donors and non-governmental organizations (NGOs) working along the Thailand-Burma/Myanmar border. The Border Consortium (TBC) has operated in the camps along the border for over twenty years, and is regarded as the primary agent which delivers services to meet such needs. TBC also provides food ration baskets to refugee households. (Jan-Jun 2013)

Among the various issues facing refugee communities, nutritional statuses, especially among children under five years of age, is an important issue to be addressed. According to serial nutrition surveys which were conducted by TBC between 2003 and 2011, border-wide global acute malnutrition (GAM) rates are lower than World Health Organization (WHO) standards, ranging between 2% - 4.2 %. However, chronic malnutrition (stunting) rates are found to be high at a range of 34.3% - 41.5% in the same border-wide biennial nutrition surveys. These rates fall into 'high' and 'very high' categories according to WHO classification: <20% is 'acceptable', >30% is 'high' and >40% is 'very high'. Moreover, chronic malnutrition rates are found to be nearing 50% in some camps (January-June 2013; Gardner, November 2010).

To prevent malnutrition and improve nutritional statuses within the general camp population, partner health agencies, such as the Shoklo Malaria Research Unit (SMRU), Première Urgence – Aide Médicale Internationale (PU-AMI), the American Refugee Committee (ARC), Malteser International (MI), and the International Rescue Committee (IRC) are responsible for the implementation of various nutrition program initiatives, which include: growth monitoring; Vitamin A supplementation and deworming of children under five years of age; detection of malnourished pregnant and lactating mothers; provision of multi-vitamins and iron tablets to pregnant women; management of the Supplementary and Therapeutic Feeding Programs (SFP/TFP), targeting nutritionally vulnerable populations, including pregnant or lactating women, infants unable to breastfeed, malnourished children and adults, patients with Tuberculosis (TB), HIV and other chronic illnesses, as well as patients unable to consume normal diets. TBC's nutrition program supports these activities by providing of not only the required supplementary food in all nine refugee camps, but also technical support, training, and general oversight to partner health agencies.

To raise awareness of nutrition among the camp populations, TBC and partner health agencies collaboratively provide nutritional education to those individuals and groups whose nutritional needs are higher than those of the general population. Furthermore, TBC supports the nursery school lunch program in partnership with INGOs and CBOs, including the Karen Women Organization (KWO), the Taipei Overseas Peace Service (TOPS), the Karen Women Organization (KNWO), and the Education Committee of the camps to ensure that young children receive a nutritious lunch each day for stable early childhood development.

To improve the nutrition service provision to the vulnerable populations in these refugee camps, periodic independent studies and surveys have been conducted. This study also aims to provide recommendations to TBC and all the health and related agencies working in refugee camps along Thailand-Burma/Myanmar border by exploring the barriers to access proper nutrition for infants and young children among refugee communities; and by gathering relevant information on implementation, including the challenges of providing nutrition and health service delivery. In addition, detailed information on other important aspects, such as the quality of diets and context-specific social problems (the social problems commonly found to occur within the refugee camps) will be discussed to aid in the formulation of new strategies to reach further program effectiveness in the refugee camps.

III. Objectives

Overall Objective

To provide TBC and all health and related agencies working in the nine border camps with recommendations on improving service delivery to reduce/prevent chronic stunting among children.

Specific Objectives

1. To review refugee household knowledge, especially mothers, in infant and young child feeding practices, complementary feeding practices, and child caring practices, using qualitative methods and providing recommendations to improve the capacity of caregivers
2. To assess support received from health agencies and other related organizations on child feeding and caring practices, and provide recommendations to improve support to mothers
3. To assess the knowledge and capacity of camp-based staff from partner health, education and livelihoods agencies which are involved in the delivery of nutrition support to caregivers and mothers, and provide specific recommendations to TBC for improving skills and capacity
4. To assess any gaps in TBC's support to health agencies, other organizations and community in the delivery of nutrition services, and provide recommendations to TBC for improving support
5. To recommend to TBC and partner agencies innovative strategies to better reach families with young children, with the aim to improve the level of appropriate knowledge and feeding and caring practices

Research questions to address objectives:

OBJECTIVE 1: knowledge of mothers and caregivers

- To what extent do mothers/caregivers understand the food groups, AsiaREMix, exclusive breastfeeding, and complementary feeding methods?
- What are the current practices of mothers/caregivers regarding daily intake, breastfeeding and complementary feeding?

OBJECTIVE 2: support received from health agencies and other related organizations

- What were the mothers told or advised to do to improve the nutritional statuses of themselves and their babies during the pregnancy/lactating period?
- What were the messages conveyed by health care providers regarding child feeding and caring practices, and how were the messages conveyed?
- What services are provided relating to nutrition?

OBJECTIVE 3: knowledge and capacity of camp-based staff

- To what extent do camp-based staff understand the importance and methods of young child feeding and complementary feeding?
- What kinds of messages are usually conveyed to pregnant/lactating mothers at the antenatal clinics and SFP units?

OBJECTIVE 4: gaps in TBC's support to health agencies and other organizations

- What are the gaps in TBC's support to health agencies and organizations regarding nutrition services?

OBJECTIVE 5: formulate innovative strategies to better reach families with young children:

- What are the unmet needs of the refugee community regarding nutrition services?
- What are the challenges of nutrition service delivery?

IV. Methodology

Setting

The study was conducted in four selected Burmese refugee camps along the Thailand-Burma/Myanmar border between 20th January and 31st January 2014. The four camps were: Ban Mae Surin (Site 2), Mae La Oon, Mae La, and Umpiem Mai. A theoretical approach was taken to conduct qualitative research and data analysis.

Participants and procedures

In this study the consultant collected information regarding the knowledge, practices and receipt of services related to TBC's nutrition program among pregnant women, lactating mothers and caregivers of children under five years old, who are categorized under various nutritional statuses ('normal', 'moderately malnourished', or 'severely malnourished') by conducting a series of focus group discussions ('FGDs'). Additionally, in-depth interviews (IDIs) with caregivers of moderately and severely malnourished children revealed the factors that contribute to the malnutrition. Assessments of the extent of the nutrition services currently being provided and the challenges of implementing service delivery, including collaborative processes between health agencies and TBC, were conducted during FGDs among camp-based staff from both partner health agencies and TBC. The information from IDIs with nutrition program level staff from each partner health agency and TBC is annexed in this study, and the total number of FGD and IDI sessions are outlined in *Table 1* below. The consultant provided FGD training prior to sessions to two note-takers, one interpreter and one moderator in each camp. Apart from FGDs (beneficiary group), which could only be conducted in the Karen language, FGDs (provider group) and IDIs were moderated by the consultant. Prior informed consent in writing was obtained from each participant before to each session. All FGDs and IDIs were recorded by digital recorder following consent from the participants, which were then transcribed. Feedback sessions of the FGD transcriptions were conducted among facilitators the next day in all camps. All data has been kept confidential in a password-protected electronic file, accessible only by the consultant. Direct observations were executed at two antenatal clinics, two SFP units, and one cooking demonstration session.

Table 1: Total number of FGD and IDI sessions in all four camps

Each FGD comprised of 8-9 participants

Stakeholder Group	In-depth Interviews	Focus Group Discussions
Beneficiaries (pregnant women, lactating mothers, and caregivers of children under 5 years with various levels of nutritional status)	3	5
Camp-based staff	-	4
Program level staff	10	-
Total	13	9

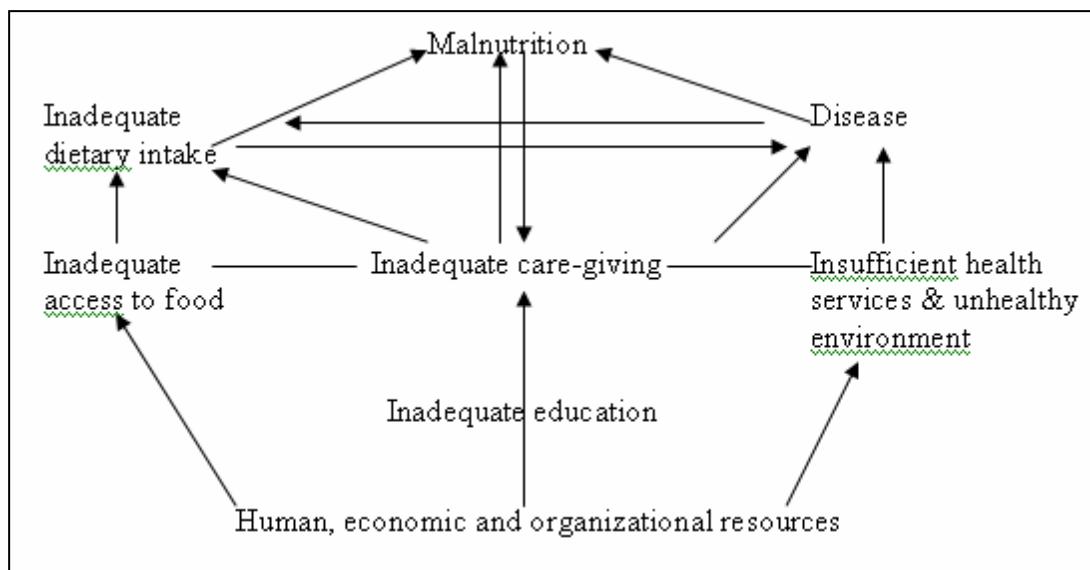
Data collection

The study utilized three methods of data collection: focus group discussions (FGDs), in-depth interviews (IDIs), and direct observations. FGDs and IDIs were conducted by using semi-structured guiding interview questions (provided in Appendix 1). IDIs included a free-listing component on nutrition services provided by health agencies and trainings provided by TBC. The anticipated length of time for each IDI was 40-60 minutes, while FGDs lasted 60-80 minutes. Through FGDs and IDIs, the consultant aimed to conduct meaningful conversations, while the direct observation aimed to record routine procedures in a natural setting. FGDs gave the team the unique ability to arrange for a group of individuals from the concerned population to meet and discuss topics of interest under the guidance and facilitation of a moderator. Through this method, perceptions, norms, social dynamics, experiences, and opinions of the participants were harnessed through stimulating interaction and dialogue.

Analysis

Data entry and database management, including the coding of transcribed raw field notes, were done through CDC EZ-Text software¹. Each group of data was summarized under a relevant theme that was thought to be valuable and informative. The themes were classified into five parts according to the objectives of the study, based on the UNICEF Conceptual Framework of the Causes Determinants of Malnutrition.

Figure 1: UNICEF Conceptual Framework of the Causes Determinants of Malnutrition



¹ CDC EZ-Text was designed by the US Centers for Disease Control and Prevention (CDC) as a free software. In this study, it was used to organize data.

V. Results and Discussion

Results are described under three main themes: i) knowledge, attitudes and practices of the beneficiary group; ii) health and nutrition service delivery by health agencies; iii) nutrition program activities supported by TBC.

1. Knowledge, attitudes and practices of the beneficiary group: pregnant women, lactating mothers and caregivers of children under five years of age

1.1. General knowledge and practices regarding nutrition

Regarding the general knowledge of nutrition, although some participants were able to state the classification of food groups, there were still some who had not heard about food groups. Most participants did not know that they should consume foods from all three groups on a daily basis. TBC has trained camp residents on three food groups classified by their benefits, and which are easy to remember². The reasons for which these foods should be consumed were also not known or understood.

Moreover, participants did not mention that they consume the fortified flour (AsiaREMix) provided in the SFP feeding protocol on a daily basis. They were also unaware of the benefits of AsiaREMix (i.e. the required micronutrients that AsiaREMix contains), particularly for the refugee camp setting. Both pregnant women and lactating mothers usually cook and eat vegetables with fish paste. At least one to two participants from each FGD reported that they routinely took monosodium glutamate (MSG) as a side dish (i.e. not as a condiment or only mixed in with food).

1.2. Knowledge, attitudes and practices of breastfeeding (early initiation of breastfeeding, exclusive breastfeeding, and continuing breastfeeding)

It was found that most of the mothers interviewed were well-informed and had practiced early initiation of breastfeeding (i.e. within one hour after delivery). Some also practiced exclusive breastfeeding. One study conducted among Karen refugees living in Mae

"I've never heard about food groups"

"Yes, I heard about food groups – they are vegetables, meat and fish"

"I heard that we should eat meat and fish to get energy and that they are nutritious"

"We usually eat vegetables with fish paste, salt, MSG and chili powder at home"

"I gave both milk and rice to my baby since 3 months of age. I did this with all of my children"

"I introduced rice to my son since he was 3 months old because he did not gain weight while the other children of a similar age were gaining weight"

² The three food groups conveyed by TBC are: i) the Energy group, including carbohydrates and fats; ii) the Body Building group, containing protein from all kinds of meat and beans; iii) the Protective group, which are micronutrients that help the body function and provide protection from diseases.

La camp revealed that initiation of breastfeeding within one hour after delivery stood at 91.2%, and exclusive breastfeeding up to the time of discharge was at 99.3% among term deliveries³ of mother and baby pairs (White, Carrara et al., 2012). However, some mothers from Mae La camp did not practice exclusive breastfeeding for up to six months after birth, and some mothers from other camps have yet to hear about exclusive breastfeeding and its benefits. Only one respondent out of eight from each FGD in the study had practiced exclusive breastfeeding for up to six months after giving birth. Some of them introduced complementary foods to their babies as early as two to three months of age. The food introduced was usually water and rice, which is in line with the culture and the belief that it would prevent hunger and crying while the mother goes out to work, unmindful of her baby's age. One caregiver of a severely malnourished child replied during an IDI that he introduced rice to his child from three months of age because he wanted his child to gain weight like other children. Respondents said that they usually continue breastfeeding for more than two years.

1.3. Knowledge, attitudes and practices in complementary feeding for children aged six-23 months (introduction of complementary foods, minimum dietary diversity, minimum meal frequency, consumption of iron-rich or iron-fortified foods)

None of the respondents interviewed in the FGDs reported that they had received health education on complementary feeding, the frequency with which it should be practiced, which foods should be added, and so on. They had only been educated on what to do during the introduction period (i.e. introducing complementary feeding at the age of six months). However, in practice, only one respondent out of eight from each FGD had introduced complementary foods when their child reached the age of six months. This is reflected in one review which discusses the introduction time of solid foods to babies from nine countries across the Asia-Pacific region, reported in various studies. The review reported that all studies found exclusive breastfeeding times to be less than the WHO optimal recommendation time, indicating that early introduction of solid foods is a common occurrence in the Asia-Pacific region (Inoue and Binns, 2014). Reasons for the early introduction of solid foods in this specific study are discussed in the above section, which includes reasons pertaining to culture and beliefs, and the misunderstanding of early childhood development.

"I gave rice with vegetables and MSG in a complementary diet for my baby"

"I gave only rice balls to my baby for up to one year"

"The frequency of meals is two times per day"

"If they want to eat AsiaREMIX, I fry it"

"I stir AsiaREMIX with sugar and oil in a bottle - then my children can help themselves when they want"

³ Term delivery refers to births occurring around the due date (9 months +7 days of the last menstrual period of their mother). Note that this 99.3% signifies only the period between delivery and discharge from the hospital, and not up to six months after birth, which is the WHO's recommended period for exclusive breastfeeding.

The food usually given as complementary diet is boiled rice, administered up to one year of age. Some caregivers add vegetables, eggs, meat, fish and oil, meaning that one year-old children are being given a normal adult diet. One mother also reported that she adds vegetables with MSG to her child's complementary diet. Caregivers should know which varieties of food should be added to a complementary diet in order to achieve normal childhood development. Moreover, the new Infant and Young Child Feeding (IYCF) guidelines recommend that at least four or more food groups are added from the new seven classifications of food groups: grains, roots and tubers; legumes and nuts; dairy products (milk, yoghurt, cheese); flesh foods (meat, fish, poultry, and liver/organ meats); eggs; Vitamin A rich fruits and vegetables, and other fruits and vegetables.

The average meal frequency in the camps is two times per day. Together, this frequency and the overall quality lacking in complementary diets do not meet TBC's IYCF guidelines adapted from UNICEF's guidelines (June 2012). Although mothers and caregivers provide AsiaREMix to their children (baked, steamed, added to curries, or as deep-fried snacks), no respondent reported that they provide AsiaREMix to their babies on a daily basis. They also only know that AsiaREMix can give their children energy, but do not understand all of its benefits.

1.4. Knowledge, attitudes and practices of family planning

Most of the participants had already heard about various family planning methods (oral contraceptive (OC) pills, three-monthly injections, intrauterine contraceptive device (IUCD) and sterilization), but only half had practiced them at the time of this study. Reported reasons for not using family planning methods include religious beliefs, fear, and various misconceptions about their need and effectiveness.

One caregiver reported that her daughter stopped breast feeding because she was afraid of transmitting her heart disease to her baby.

"I am afraid to take OC pills"

"I do not use any family planning methods right now because these medicines are not suitable for me"

1.5. Knowledge, attitudes and practices of personal hygiene

All of the participants interviewed knew when to wash their hands. They usually wash their hands before and after eating, before preparing food for their children, after using the toilet, after returning from outside, after touching dirty things, and so on. However, some participants washed their hands without using soap.

1.6. Barriers to exclusive breastfeeding, proper nutrition, and care for children

The barriers that were discussed which impede the provision of proper nutrition include: the lack of knowledge on how to provide nutritious food to children; large family sizes with many children (at least one to two participants from each FGD expressed this concern); socioeconomic constraints (expressed by two to three participants from each FGD); lack of time due to other work or chores. For example, about half of the mothers interviewed in Umpiem Mai camp

(including one lactating mother) work as mobile laborers (i.e. laborer of a demanding but unstable job). In addition, the locally available foods in the refugee camps are predominantly plant-based, which contributes to the inadequate nutrient content of complementary foods to prevent stunting. These context-specific findings of barriers to proper nutritional access would be useful for TBC's IYCF programming (June 2012).

"The problem is that I am busy; I do not have time to take care of the child"

"The barrier for me is that I don't know which kinds of food I should give to my child and how to cook"

"Yes, I have a problem. My husband is the bread-winner of the family but he uses the money to drink alcohol and buy drugs"

"Meat products and dairy products are not easily accessible in our area and are also very expensive"

"Our family cannot afford to buy meat"

1.7. Unmet needs of the community regarding health services and nutrition

Services that respondents expressed they require to improve the health and nutritional status of their children include: medicine, nursing care, provision of nutritious food (milk, canned fish, red beans, etc.), formula milk, an ample supply of food rations, especially rice (there were complaints of insufficient supplies from two camps), and 'proper care'⁴ from clinic health staff. Participants are also worried that hospitals and clinics in the camps might close in the near future, in light of the changes that are occurring. These voices from the community portray a deep-seeded insecurity that is rife within the camps.

"I wish to consult a doctor about my son who has been admitted to hospital in this camp for severe malnutrition. I would like to know the reason for this disease. Did we care for him improperly, or did he already have underlying diseases? The clinic staff did not inform the doctor or take me to meet him"

Support received from health agencies and other related organizations

1.8. Antenatal clinic

Regarding the nutrition program, pregnant women reported that they received multivitamins and iron tablets during their antenatal period. One camp (Mae La) additionally runs a deworming program for pregnant women following stool tests; there are no deworming programs for

⁴ The consultant's point of view is that communications between the patients and health staff need to be improved in order to avoid unnecessary misunderstandings.

pregnant women in any other camp visited. It is an evidence-based recommendation by WHO that deworming as part of the routine antenatal care is a cost-effective strategy for reducing maternal anaemia and infant mortality rates at six months, as birth weights of babies thus increase (WHO 2005). The promotion of iodized salt takes place only in one camp (Umpiem Mai) for pregnant women. Iodine is an essential nutrient for the development of fetuses and young children; the requirement of iodized salt among pregnant women is 66% more than for non-pregnant women. (WHO, 5 February 2014). Although education regarding breastfeeding was provided, few obtained information about different food groups and family planning methods during antenatal care, and almost none interviewed receives any information on complementary feeding during this time.

1.9. Supplementary foods provided for normal and malnourished pregnant/lactating women and moderately malnourished children through the Supplementary Feeding Program (SFP)

The supplementary foods received from health agencies by all pregnant women include: 1.5kg of AsiaREMIX, 0.5kg of pulses, and 0.5ltr of vegetable oil. Normal lactating women and malnourished pregnant women receive: 2kg of AsiaREMIX, 0.5kg of pulses, and 1ltr of vegetable oil. Malnourished lactating mothers receive 2kg of AsiaREMIX, 1kg of pulses, and 1ltr of vegetable oil.

The supplementary food received by normal children aged six to 24 months is AsiaREMIX from the general ration basket⁵, while children who are moderately malnourished receive 4kg of SFP-REMIX (AsiaREMIX mixed with milk powder and vegetable oil) and 0.5ltr of vegetable oil (for cooking). Please refer to the detailed SFP guidelines in Appendix 3.

One cohort study reveals that significant improvement in child length gain was greater in the group that received high protein (6.4g 100ml-1), high energy (91kcal 100ml-1) supplements during the first three years of life than in the no-protein, low-energy (33kcal 100ml-1) supplement group. Dry skimmed milk was the predominant source of energy and protein in the first group. Both supplements were fortified with several micronutrients (iron, fluoride, thiamine, riboflavin, niacin, ascorbic acid and Vitamin A) in equal concentrations by volume. Child length gain was greater during the first three years of life (+0.9cm in the first year, +1.0cm in the second year and +0.4cm in the third year) in high-protein, high-energy supplement receiving groups. The AsiaREMIX provided – which is the only available supplementary food – contains micronutrients, but not milk protein, which has evidence-based growth-stimulating effects even in situations where nutrient intake is adequate. For children between six and 24 months, milk protein should be included in the supplementary feeding in order to prevent stunting (Kathryn G. Dewey and Khadija Begum, 2011).

⁵ A new formula, ‘BabyBright’, has also been piloted in two camps (Umpiem Mai and Ban Don Yang) for children aged between six and 24 months. It is hoped that BabyBright will be launched in other camps in the near future.

1.10. Therapeutic Feeding Program (TFP) for severely malnourished children at the inpatient department

If the weight-for-height of a child is < -3 on the Z-score of the WHO growth standard, he/she would be admitted to the inpatient department to receive therapeutic feeding until weight-for-height is improved to ≥ -2 on the Z-score. The child would then be transferred to the SFP. Please refer to Appendix 2 for the detailed TFP protocol.

1.11. Cooking demonstrations of AsiaREMix

Camp communities receive cooking demonstrations of AsiaREMix every month by health agency staff, together with TBC staff. During the sessions, health staff explain the ingredients of AsiaREMix and its various cooking methods. However, they do not place an emphasis on the importance of daily consumption of AsiaREMix for children.

1.12. Vitamin A supplementation and deworming program among children under five years of age

Children aged six to 59 months receive Vitamin A supplementation. Biannually, 100,000 IU of Vitamin A is administered to children aged between six and 12 months, and 200,000 IU is provided to children between 13 and 59 months of age. All children older than 12 months of age also receive deworming tablets biannually from health agencies.

1.13. Growth monitoring of children under five years of age

Children under three years of age receive growth monitoring every month, while children in the three to five years age group undergo monitoring every six months. Besides being informed about the measured weight of their children, however, parents have not received explanations on the growth chart that is used.

1.14. Nursery school lunch program

Nursery school children, usually aged between three and five years, receive lunch every day cooked by the school. TBC supports this program by providing five baht per child per day with which to purchase food. The children bring rice from their homes (as often as they are able) and the school lunch program provides various accompaniments according to the lunch schedule, which includes snacks made with AsiaREMix twice per week.

2. Knowledge and capacity of camp-based staff

2.1. Knowledge of camp-based staff regarding nutrition

Most of the camp-based staff have basic knowledge of breastfeeding practices, AsiaREMix and the different food groups, but they generally do not sufficiently know about complementary feeding practices, and how to provide education on this. Staff could also elaborate on family planning methods and personal hygiene at the antenatal clinics. However, knowledge on

communication strategies among camp-based staff was found to be weak. They usually inform beneficiaries of “what to do”, without explaining “what the benefits” of following their guidance would be, and what the consequences of wrong care practices are.

2.2. Challenges regarding nutrition and health service delivery faced by health agencies

2.2.1. At the antenatal clinics

No significant challenges were reported regarding the delivery of nutrition and health services at the antenatal clinics. Interview questions included the topics of exclusive breastfeeding education, the provision of multivitamins, and deworming programs (where applicable).

2.2.2. Supplementary Feeding Program (SFP) for normal and malnourished pregnant/lactating women, and moderately malnourished children

Health agency representatives expressed five main challenges regarding the SFP. Firstly, it has been challenging to deal with mothers who are ineligible to receive formula milk according to SFP guidelines (e.g. mothers with twin babies). Secondly, one camp-based staff member informed that malnutrition cases have been missed in the past. In one case, staff found out that all the children in one family were malnourished and thus was spotted only when their mother was admitted for hospitalization. Thirdly, staff reported that some parents of moderately malnourished children did not regularly attend follow-up appointments after they are discharged from the TFP; the reasons for this should be explored. Instead, they requested for community health workers (CHWs) or TBC staff to conduct a home visit. Fourthly, some parents complained that their children do not like the taste of AsiaREMix. Lastly, and the most challenging, is that some health agency staff found non-cured/default cases in the SFP, whereby there were no plans for further management, besides referrals to screenings for underlying diseases. Consequently, the same patients were re-enrolled in the SFP consecutively, sometimes two or three times. During observation, the default cases re-enrolled without any progress turned out to be children under two years of age, enrolled at a time when a child is at an age when it is the period of opportunity to prevent stunting. This process have an impact on CCSDPT's HIS data.

“Some children, even without underlying diseases, do not gain weight. We don't know how to manage this kind of problem”

2.2.3. Therapeutic Feeding Program for severely malnourished children at the inpatient department

Two main challenges were found relating to the delivery of health services to severely malnourished children: i) patients come to hospital at a very late stage with complications, and ii) some patients abscond from the hospital before gaining their target weight, for fear of having to stay longer.

2.2.4. Cooking demonstrations of AsiaREMix

Some patients complained that the demonstrated recipes for AsiaREMix require cooking oil, which they do not have enough of to cook with at home.

2.2.5. Vitamin A supplementation and deworming program among children under five years of age

These programs were reported to be running smoothly without any significant challenges.

2.2.6. Growth monitoring of children under five years of age

Most of the children attend growth monitoring regularly. Only some parents do not bring their children for growth monitoring, giving reasons that they simply do not want to attend, or that they are too busy. Community health workers (CHWs) are responsible for home visits to monitor these children, as well as to encourage their parents to regularly take their children to the clinics.

2.2.7. Nursery school lunch program

Following ration reductions through TBC's Community Managed Targeting (CMT) initiative, some children can no longer bring rice for their school lunches (as they would habitually for the program). It was also reported that sometimes the water supply gets cut off to the nursery schools in Umpiem Mai camp.

2.2.8. Provision of family planning program

Although health agencies provide family planning counseling, some patients are still reluctant to accept advice given due to religious reasons or underlying diseases. There is also only one doctor who is able to perform sterilization, and he can only visit the SMRU clinic in Mae La camp once per month. Finally, it was reported that some patients do not return to hospital for follow-up checks after delivery and discharge.

2.2.9. Provision of sanitation program

A persistent challenge faced by health staff is that some patients do not change their personal hygiene behaviors, even after health education has been provided.

2.3. Challenges regarding nutrition program support faced by TBC

2.3.1. Support to health agencies

Although staff from some camps generally feel more confident in conducting growth monitoring and delivering the SFP by accepting technical support from the TBC Nutrition Officers, there were some health agency staff members who are reluctant to collaborate with TBC (e.g. to provide information regarding malnutrition cases).

There is also no office for TBC Nutrition staff in Umpiem Mai and Ban Mae Surin (Site 2) camps. Staff from these camps prefer to be situated around the nutrition service delivery points in order to provide technical support promptly and work collaboratively with health agency staff.

2.3.2. *Support to communities*

TBC finds that there is generally poor community participation during follow-up home visits (i.e. sometimes only the children are at home; the parents do not want to give time to TBC staff, or they cannot be persuaded to take their children to the clinics). In addition, some parents are illiterate, so it is difficult for them to understand the health messages provided by TBC.

Limited human resources is also a persistent challenge; the few numbers of camp-based staff tend to hinder the activities of the nutrition program.

Finally, camp-based staff from both health agencies and TBC reported that non-eligible mothers according to the SFP guidelines frequently ask for formula milk (i.e. mothers with twins, or scanty breast milk – as explained above in section 2.2.1).

3. Gaps in TBC's support to health agencies, other related organizations, and the community with regards to the nutrition program

3.1. *Support to health agencies*

Health agencies reported that the frequency of refresher trainings is currently insufficient. Staff in some camps only receive refresher training once per year. However, TBC's training on the SFP guidelines, growth monitoring methods, and the sharing of nutritional survey data of children under five years of age have been very useful for health agency staff. Due to the high turnover of health agency staff, some new staff have yet to be properly trained.

The lack of knowledge in complementary feeding, the promotion of the growth monitoring chart, management of default malnutrition cases, and in explaining the reasons for the benefits of consuming AsiaREMix among the camp based-staff could be the focal points in filling the gaps in future refresher training modules, nutrition program monitoring, and communications between health agency and TBC staff. Moreover, training modules, thus far, have not covered communication methods and strategies in conveying nutrition-related messages to the community.

3.2. *Support to the community*

The acknowledgement that some malnutrition cases have been overlooked indicates that TBC's home visit activities still have some gaps to fill. Promoting exclusive breastfeeding and complimentary feeding may require not only message conveyance, but also further training of camp-based staff to support mothers and caregivers.

VI. Recommendations

1. Recommendations for TBC

Policy

- TBC should expand on further support of exclusive breastfeeding – for example, a workplace policy to support breastfeeding of working mothers

Communication

- Ensure communications at multiple levels, including inter-personal communications, and communications with communities and partners
- TBC should provide consistent and accurate IEC materials to all camps in order to convey messages uniformly among all camps
- New communication strategies should be introduced to mobilize community participation in the nutrition program (e.g. communication campaigns, video clips, role plays)
- The development of messages should be simple and understandable to mothers (e.g. instead of saying they should be feeding ‘nutritious foods’, they should be encouraged to feed their children eggs three times a week, or to give them meat, and so on)

Training

- TBC should provide refresher trainings to health agency staff at least twice per year
- During refresher trainings, implementations weaknesses and gaps in knowledge found in this study should be emphasized, such as: i) how to support the exclusive breastfeeding practice of mothers; ii) complementary feeding methods for the promotion of quality complementary feeding (i.e. to prevent chronic malnutrition/stunting); iii) management of default cases from the SFP according to TBC guidelines; iv) signs that a baby is not receiving sufficient breast milk, and the possible causes (particularly in cases where mothers request formula milk); v) communication strategies most suitable for the refugee community (e.g. emphasizing the benefits of exclusive breastfeeding practices and the consequences of mixed feeding, as well as reasons to consume AsiaREMix); vi) building the skills of both health agency and TBC camp-based staff to counsel and support mothers on the IYCF program

Monitoring and Evaluation

- TBC camp-based staff should report to the Nutrition Officer if they cannot convince a caregiver to bring their child for follow-up checks
- TBC Nutrition Field Officers should provide more regular practical (rather than theoretical) training to camp-based health agency staff in delivering nutrition services, so as to support their needs in the time between refresher trainings. It should be noted that already trained community workers need continued mentoring and encouragement to improve their skills

Active case detection

- TBC should strengthen its active case detection in the community in order to avoid longer durations and poor prognoses of late cases due to complications. This would also help TBC catch up to the window of opportunity period to prevent stunting (i.e. within two years of age). This can be done by following up with children who do not attend the six-monthly growth monitoring

Options to support quality complementary feeding

- TBC should consider different kinds of supplementary foods, such as ready-to-eat food options instead of merely offering AsiaREMix. This is because the study found that daily consumption of AsiaREMix is not widely practiced in any of the four camps visited, making it difficult to reach the program goal of preventing acute and chronic malnutrition.
- The provision of AsiaREMix alone will not prevent stunting (as discussed in section 1.9.). Therefore, TBC should consider providing eggs (at the very least), meat and dairy products to children

2. Recommendations for partner health agencies

- Health agency staff should improve communication skills for conveying messages to the community regarding exclusive breastfeeding methods, complementary diets, and family planning practices
- Health agency should provide support groups (e.g. made up of community health workers) for lactating mothers in exclusive breastfeeding practices
- Provision of nutrition services should be uniformed and follow WHO/UNICEF guidelines; some camps promote iodized salt while others do not, and some camps provide deworming tablets to pregnant women while others do not
- Health agencies should consider accepting technical support from TBC, as more streamlined and collaborative efforts could result in better management of the nutrition program
- Communications should be strengthened between TBC and partner health agencies, contact with the appropriate TBC Nutrition Officer should not be delayed if there are any problems regarding the nutrition program (e.g. difficulty managing default cases in the SFP)
- Health agencies should consider collaborating with the Camp Committees to support environmental sanitation, particularly in order to provide continuous water supply to the community

VII. Guidelines

1. Guidelines for nutrition education and campaigns

1.1. The importance of communication guidelines

This communications strategy is developed to create a supporting environment in order to achieve successful implementation of nutrition program delivery, particularly for the IYCF initiative. The communications strategy includes awareness-raising and promotion targeted at pregnant/lactating mothers of the benefits of exclusive breastfeeding, complementary feeding practices, and consuming a healthy diet. The specific goals of the strategy can be divided into two groups as shown in the table below: i) attitudes and understanding of camp-based staff, and ii) awareness, understanding, and demand creation on the beneficiaries' side.

(i) Providers (camp-based staff)	(ii) Beneficiaries
<ul style="list-style-type: none">• Providers have a positive attitude towards exclusive breastfeeding, complimentary feeding and healthy diet consumption by pregnant and lactating mothers• Providers understand each and every message that they convey to refugee communities• Providers understand how to convey messages, and know how to evaluate the effects of the communications campaign	<ul style="list-style-type: none">• Create an understanding of the benefits for both mothers and babies of exclusive breastfeeding, optimal complementary feeding, and the impact on the babies' nutritional statuses during pregnancy and lactation• Create awareness of the magnitude and consequences of stunting in the communities• Create demand for exclusive breastfeeding and optimal complementary feeding, as well as the other services offered under the nutrition program

1.2. The content of the communication guidelines

The content of the guidelines should include: i) the fundamental messages to be communicated, and (ii) communications planning and methods.

Fundamental messages to be communicated

Types of messages can be divided into two groups, as seen in the Table I below: i) messages for camp-based staff, and ii) messages for beneficiaries. For the camp-based staff, the messages should comprise a brief explanation of the nutrition program, such as services to be provided, as well as the common misunderstandings, beliefs and cultural norms found to hinder the program within the communities. Messages for the beneficiaries should include the following key points: i) the effect of mothers' nutritional statuses on her baby's growth; ii) nearly half of all children aged under five are stunted in their communities; iii) the first two years of their children's lives provides the window of opportunity to prevent stunting; iv) stunting is a risk factor for diminished survival, childhood and adult health, learning capacity, and productivity. Furthermore, messages should include services provided by the nutrition program.

Table I: Messages for camp-based staff and beneficiaries

Messages for camp-based staff
1. Information about the nutrition program 2. Services to be provided under the nutrition program 3. Misunderstandings, beliefs and cultural norms common within the communities
Messages for beneficiaries
4. Information about the nutrition program 5. Services to be provided under the nutrition program 6. Key messages: i) the effect of mothers' nutritional statuses on her baby's growth; ii) nearly half of all children aged under five are stunted in their communities; iii) the first two years of their children's lives provides the window of opportunity to prevent stunting; iv) stunting is a risk factor for diminished survival, childhood and adult health, learning capacity, and productivity

Communication planning and a selection of means for communications: what is the most suitable way to convey messages?

Communications/campaign media and activities should be selected to fit well with the refugee community context in order to create the most impact. Campaign planning helps to organize and transform ideas into tasks, as seen in the examples in Table II (beneficiaries) and Table III (providers), which would then be transformed into an action plan. Issues to be considered include the usage of plain language, selecting specific communications media, setting objectives, meanings assigned in messages, communication channels, the timeline, and frequency of implementation.

Table II: Example of a communication plan for beneficiaries

Communication media	Objectives	Channels	Activities	Frequency
Video clips	<ul style="list-style-type: none"> • Awareness • Knowledge 	<ul style="list-style-type: none"> • Local authority offices • Coffee shops • Health centers (AN clinics, SFP units) 	Played in public areas	Continuous
Role play	<ul style="list-style-type: none"> • Awareness • Knowledge 	<ul style="list-style-type: none"> • Community fairs • Community sports areas 	Played along with other public activities, e.g. during special occasions	On special occasions
Pamphlets/posters	<ul style="list-style-type: none"> • Awareness • Knowledge 	<ul style="list-style-type: none"> • Grocery shops • Health centers • Schools 	Peer-to-peer educating among parents/caregivers; group education; take-home materials	Continuous
Events	Create demand for the nutrition services	<ul style="list-style-type: none"> • Community fairs • Community sports areas 	Public/section forums	On special occasions

Table III: Example of a communication plan for camp-based staff

Communication tools	Objectives	Materials	Frequency
Workshops and trainings for camp-based staff	Create positive attitudes/understanding of responsibilities and messages	Training Tools	As appropriate

In addition, it is recommended that the campaign be branded in order to make it publicly recognizable. The branding tasks include designing a campaign title (or campaign brand name), designing a campaign logo, establishing a set of campaign colors, and creating a campaign tag

line. Simple, everyday language should be used to create the title of the nutrition/IYCF campaign, and to describe the services provided. The use of illustrations, slogans or verses, presenters, and songs can also be useful, and helps to instill positive attitudes about the program.

After planning, an action plan should be made. Task prioritization, assignees and deadlines should be identified in order to achieve the most desirable communication impact.

1.3. Challenges

In order to achieve the most desirable communication impact, effective management of the workflow is important. There must be a formally assigned group(s) of people to take responsibility of each task in the action plan. At the same time, overall communication performance should be supervised and monitored.

2. Guidelines for TBC to ensure/develop the capacities and skills of camp-based staff involved in nutrition-related programs

Training modules should include the following topics:

- 1) Infant and young child feeding counseling

Suggested references:

Generic community based infant and young child feeding counselling package (UNICEF 2010)

http://www.unicef.org/nutrition/index_58362.html

Learning from Large-Scale Community-based Programmes to Improve Breastfeeding Practices: Report of ten-country case study (WHO/UNICEF/AED/USAID 2008)

http://www.unicef.org/nutrition/files/Learning_from_Large_Scale_Community-based_Breastfeeding_Programmes.pdf

Infant young child feeding counseling: An integrated course (WHO/UNICEF 2006).

The section on HIV is in the process of being updated in light of the 2010 recommendations on HIV and infant feeding

<http://www.who.int/nutrition/publications/infantfeeding/9789241594745/en/index.html>

- 2) Emphasis placement on SFP guidelines (TBC)

3. Guidelines for TBC to enhance support for partner agencies/organizations in nutrition programs and monitoring and evaluation frameworks

3.1. The importance of monitoring and evaluation guidelines

Monitoring is an ongoing activity that is used to follow up on whether the activities being implemented are proceeding according to plan, so that timely action can be taken to correct any deficiencies detected. In contrast, evaluation is carried out periodically to measure the program's effects for the purpose of future planning, implementation and decision-making.

3.2. Basic principles of monitoring and evaluating (M&E) the program

- Design the plan for M&E prior to program implementation
- The M&E plan needs to link to the objectives of the program, and should be accountable to policymakers or funders who make the decisions on resource allocation
- Select high priority program measures that should be monitored and evaluated in a reasonable and timely fashion without compromising quality
- Set up simple, practical monitoring systems
- Gather the baseline data before monitoring the progress of the program
- Collect only relevant data that you will use in M&E
- Employ independent evaluators who understand the context of the program

3.3. M&E framework

Most data used in M&E can be derived from routine administrative data based on plans and activities, except those related to awareness, attitudes and practices of exclusive breastfeeding and complementary feeding, as well as the remaining barriers to accessing nutrition services. These need to be collected through a community survey (e.g. a questionnaire and/or focus group discussions). A sample M&E framework is described in *Table IV*. Indicators for assessing infant and young child feeding practices, provided through the links below, could facilitate data collection and the harmonization of assessment approaches.

1) References for programming

Programming Guide on Infant and Young Child Feeding (UNICEF 2012)

http://www.unicef.org/nutrition/files/Final_IYCF_programming_guide_June_2012.pdf

2) References for IYCF indicators for program monitoring and evaluation

Indicators for assessing infant and young child feeding practices: Part 1 Definitions

(WHO/UNICEF/IFPRI/USAID/AED/FANTA/UC Davis 2008)

http://www.unicef.org/nutrition/files/IYCF_updated_indicators_2008_part_1_definitions.pdf

Indicators for assessing infant and young child feeding practices: Part 2

Measurement (WHO/UNICEF/USAID/AED2010)

http://www.unicef.org/nutrition/files/IYCF_Indicators_part_II_measurement.pdf

Table IV: Sample M&E Framework

Narrative Summary	Objectively verifiable indicators	Means of verification	Important assumption
Goal: To improve nutrition service delivery to reduce/prevent chronic stunting among children living in refugee camps along the Thailand-Burma/Myanmar border	% reduction of acute malnutrition rate % reduction of chronic malnutrition rate	Medical records and reports from health agencies (yearly for acute malnutrition rate, and 2 yearly for chronic malnutrition rate)	Data needs to be updated and validated regularly
Objectives: 1) To enhance knowledge of camp-based staff on benefits of exclusive breastfeeding, optimal complementary feeding practices, SFP/TFP guidelines and communication/counseling skills	% of camp-based staff have knowledge on IYCF, including communication/counseling skills	Questionnaires using guidelines (6 monthly)	Health agencies cooperate in the nutrition program (IYCF)
2) To enhance knowledge of refugees on benefits of exclusive breastfeeding and optimal complementary feeding practices	% of refugees have knowledge	Questionnaires using guidelines (6 monthly)	Community leaders cooperate in the nutrition program (IYCF)
3) To increase the public awareness about exclusive breastfeeding and complementary feeding	% of refugees have awareness	Questionnaires (6 monthly)	Community leaders cooperate in the nutrition program (IYCF)
4) To encourage behavioral change among refugees	% of refugees practice exclusive breastfeeding and optimal complementary feeding	Observations, questionnaires and survey form (6 monthly)	Community participation
5) To establish a communications campaign	Establishment of a communications campaign	Report	Coordination and collaboration with camp committees, health agencies & community

Narrative Summary	Objectively verifiable indicators	Means of verification	Important assumption
<p>Output</p> <p>1) Camp-based staff gained knowledge on IYCF and communication/counseling</p> <p>2) Refugees gained knowledge on IYCF</p> <p>3) Behavioral change among refugees</p>	<p>% of camp-based staff gained knowledge on IYCF and communication/counseling</p> <p>% of refugees gained knowledge on IYCF</p> <p>(Indicators adapted from UNICEF)</p> <p>Proportion of children born in the last 24 months who were put to the breast within one hour of birth</p> <p>Proportion of infants 0–5 months of age who are fed exclusively with breast milk</p> <p>Proportion of infants 6–8 months of age who receive solid, semi-solid or soft foods</p> <p>Proportion of children 6–23 months of age who receive foods from 4 or more food groups</p> <p>Proportion of breastfed and non-breastfed children 6–23 months of age who receive solid, semi-solid, or soft foods (but also including milk feeds for non-breastfed children) the minimum number of times or more</p>	<p>Pre-test and Post-test questionnaire and survey form (6 monthly)</p> <p>Pre-test and Post-test questionnaire and survey form (6 monthly)</p> <p>Report (quarterly) Survey (6 monthly)</p>	<p>Cooperation of health agencies</p> <p>Cooperation of community</p> <p>Community participation Notes: The 7 foods groups used for tabulation of this indicator are: <ul style="list-style-type: none"> — grains, roots and tubers — legumes and nuts — dairy products (milk, yogurt, cheese) — flesh foods (meat, fish, poultry and liver/organ meats) — eggs --vitamin-A rich fruits and vegetables — other fruits and vegetables <p>Minimum is defined as: <ul style="list-style-type: none"> — 2 times for breastfed infants 6–8 months — 3 times for breastfed children 9–23 months </p> </p>

Narrative Summary	Objectively verifiable indicators	Means of verification	Important assumption
	<p>Proportion of children 6–23 months of age who receive a minimum acceptable diet (apart from breast milk)</p> <p>Proportion of children 6–23 months of age who receive an iron-rich food or iron-fortified food that is specially designed for infants and young children</p>		— 4 times for non-breastfed children 6–23 months
Process			
1) Training provided for camp-based staff (from health agencies and TBC), self-help group trainer, community health workers	No. of training provided (e.g. 6 monthly)	Record and report	Training tools are prepared and resource persons are trained
2) Communications campaign	Establishment of communications campaign (before starting the IYCF program)	Record and report	Collaboration with camp committees, health agencies & community
3) Conveying messages to the community	<p>No. of videos shown at antenatal clinic/SFP unit</p> <p>No. of distributed pamphlets/posters</p>	Record and report	All activities are conducted
4) Provision of exclusive breastfeeding and complementary feeding support group	<ul style="list-style-type: none"> • Establishment of exclusive breastfeeding and complementary feeding support group • 80% of lactating mothers/caregivers participate in the self-help group 	Report	All activities are conducted

Narrative Summary	Objectively verifiable indicators	Means of verification	Important assumption
5) Counseling for exclusive breastfeeding and complementary feeding	Counseling session once/week	Counseling records	Resource persons are trained
Input Resource persons	No. of camp-based staff (from health agencies and TBC), self-help group trainer, community health workers	Record and report	Received training provided by TBC
Training tools	-	Record and report	Reliable and accurate instruction (should be used in simple language)
Budget	-		

VIII. References

1. Global Database on Child Growth and Malnutrition, World Health Organization.
2. (Jan-Jun 2013). The Border Consortium: Program Report, The Border Consortium.
3. (Jun 2012). Programming guide: Infant and Young Child Feeding, UNICEF.
4. Gardner, A. (Nov 2010). A Nutrition and Food Security Review: Protecting Nutritional Status And Saving Food Costs, Thailand Burma Border Consortium.
5. Inoue, M. and C. W. Binns (2014). "Introducing solid foods to infants in the Asia Pacific region." *Nutrients* **6**(1): 276-288.
6. Kathryn G. Dewey and and Khadija Begum (2011). "Long-term consequences of stunting in early life." *Maternal & Child Nutrition*.
7. White, A. L., V. I. Carrara, M. K. Paw, Malika, C. Dahbu, M. M. Gross, W. Stuetz, F. H. Nosten and R.
8. McGready (2012). "High initiation and long duration of breastfeeding despite absence of early skin-to-skin contact in Karen refugees on the Thai-Myanmar border: a mixed methods study." *Int Breastfeed J* **7**(1): 19.
9. WHO. (5 Feb 2014). "Iodine Supplementation During Pregnancy." Retrieved 12 March 2014, 2014, from http://www.who.int/elenia/titles/iodine_pregnancy/en/.
10. WHO (2005). Report of the third global meeting of the partners for parasite control, WHO.

Appendices

Appendix 1: Case Studies

3 case studies		
Moderate malnutrition Case	Severe Malnutrition Case	Previously severe malnutrition and now improve to moderate
<ul style="list-style-type: none"> • Grandmother take care her grandson since 3 yr of age and he is now 5 yr old. • Present history of diarrhea and pneumonia frequently. • Breast feeding stopped since one yr of age. • Daily diet include junk food, soft drink, tea, etc. • I cannot give attention for my grand son as I am the only one person who taking care of four children (my three children together with this grand son) at home. I also open the shop at my home to earn extra income. 	<ul style="list-style-type: none"> • Present history of similar illness in previous child who died at the age of 11 month. • Present history of low birth weight in present child. • Weaning diet started since 3 month of age in order to increase weight although health care providers send message about exclusive breast feeding. • Type of food for weaning diet are: tea, bean, deep fried things • My baby did not get significant weight gain since after birth. Only weight gain 0.5 Kg at the age of 2-3 month. • Our family went to Mae Sod for work about 2 months and when we come back my child was admitted to TFP. • I wish doctors could investigate whether our child caring practice was inappropriate or was there any underlying diseases present in my child. 	<ul style="list-style-type: none"> • I am 28 yr old and I have 6 children. History of abortion 1 time. All delivery were attended by traditional birth attendance in Myanmar at home. I underwent sterilization that was arranged by HA from this camp. • I did not take more food during pregnancy and lactating period. • Because of scanty breast milk, I introduced rice to my child since 3 weeks of age. • My child got only one time of immunization until now (2 yr). • I give SFP-REMIX everyday to my child. • We cannot effort to buy fresh food.

Appendix 2: TFP Guidelines

THERAPEUTIC FEEDING GUIDELINES Thailand Burma Border Consortium

Basic Principles

TBBC supports foods for therapeutic feeding programs to all medical agencies working in the Thai-Burmese border camps.

Target groups include:

- severely acutely malnourished children, adolescents, and adults

Health and social workers should follow up in the household to determine the cause of severe malnutrition, including possible illness, not attending clinic, etc.

Protocols and Formulas

The complete medical protocol for therapeutic feeding programs is stated in the Burmese Border Guidelines (starting on p. 108).

Evaluation and treatment protocols can also be found in The Management of Severe Malnutrition (WHO). These include treatment protocols for standard treatment of vitamin and mineral deficiencies.

Phase 1 Feeding Protocol

The specific objectives are the treatment of the medical complications and restoration of the normal metabolic functions including:

- medical treatments and prevention of dehydration, infections, hypothermia, hypoglycaemia, heart failure, very severe anaemia etc.

This is accomplished by:

- nutritional treatment based on a low energy and protein diet (in total 100 Kcal/kg/d for children, 40 Kcal/kg/d for adults), given in frequent fractionated meals (8-12 meals per 24-hours)

- very close daily monitoring of the patient
- admit to IPD (severe malnutrition is a medical emergency and MUST be treated in the IPD)
- Provide fortified high energy milk (HEM) every 2-3 hours according to weight throughout the day and night..
- The child should receive Phase 1 HEM between 8-12 times during each 24 hours, not to exceed 3 hours between meals.
- Use a nasogastric tube if child cannot drink.

Phase 2 Feeding Protocol

Child can begin Phase 2 after 2-7 days. Patient should be free from oedema, be in good clinical condition and have regained appetite.

The specific objectives of Phase II are the rapid weight gain of the patient (for children: 10-20 g/kg/day).

This is accomplished by:

- a nutritional treatment based on a high energy diet divided in 6 meals a day
- medical treatment
- regular monitoring of the patient
- development of emotional and physical activities

Appendix 3: SFP Guidelines

GUIDELINES FOR SUPPLEMENTARY FEEDING AND MEDICAL FACILITY FOOD PROVISION

Thailand Burma Border Consortium, 2012

Basic Principles

TBBC provides technical support and foods for supplementary feeding programs (SFP) to all partner health agencies working in the Thai-Burmese border camps. An agreement will be signed annually to formalize the partnership.

Target groups

TBBC provides 3 types of SFP programs.

A. Blanket feeding

Blanket feeding provides supplementary food to all members of an at-risk group. These groups include:

1. **All pregnant and lactating women** and malnourished pregnant / malnourished lactating women.
Objectives
 - a) To prevent nutritional deterioration and related mortality and morbidity in pregnant and lactating women who have additional nutritional needs
 - b) To restore nutritional status in those moderately malnourished within this vulnerable group
 - c) To encourage regular prenatal and antenatal care by pregnant and lactating women and provides an environment for health and nutrition education
2. **All children 6 to 24 months** attending growth monitoring and promotion programs.
Objectives
 - a) To improve the diets of children 6 months to 24 months, regarded as a vulnerable group
 - b) To prevent acute and chronic malnutrition and related morbidity and mortality
 - c) To increase participation in growth monitoring and promotion activities

B. Targeted Feeding

Targeted feeding provides supplementary food to nutritionally

vulnerable individuals to prevent and treat malnutrition. These groups include:

1. **Moderately malnourished children** 6 months to 10 years
2. **Chronically ill patients** with specific conditions (restricted to guidelines)
3. Children or adults with **disabilities** who are unable to consume their regular diet
4. **TB and/or HIV patients**
5. **Infants unable to breastfeed** including orphans and adopted infants (restricted to guidelines)
Objectives
 - a) To provide extra calories, protein and micronutrients to prevent or ensure recovery from malnutrition and/or illness and support the special nutrient needs of compromised individuals.

C. Medical facilities

TBBC supports food to medical facilities serving refugees and IDPs. These groups include:

1. **In-patients or other medical facility patients from outside camps** - plus one companion - that do not receive rations from TBBC
2. **Patient house residents** - plus one patient companion - residing in partner health agency accommodations located outside camps to receive medical attention in Thai facilities
Note: IPD patients from outside camps who hold Thai ID are not eligible for reimbursement from TBBC.
Rationale
 - a) IPD patients from outside camps are not eligible for TBBC ration entitlement
 - b) Refugees from camps receiving care in Thai facilities and staying in patient houses are unable to access their TBBC ration entitlement

Thailand Burma Border Consortium, 2012

Appendix 4: Interview Questions

Interview questions for program level staff

Date –

Title/Organization –

Camp –

1. Ageyr
2. Gender	2.1. Male 2.2. Female
3. Marital Status	3.1. Single 3.2. Married 3.3. Separated/divorced 3.4. Widow
4. Educational background
5. Ethnicity
6. Religion
7. Duration of working in current position

- 8. What are the current interventions that your organization implemented in this camp?
- 9. How many sector/organization require collaborating in this camp re: nutrition program? How do they work?
- 10. How does TBC support to your organization re: with nutrition program?
- 11. Would you like to tell me about your role and responsibility re: with nutrition program?

Probe: M & E

Training to camp-based staff

- 12. What are the goals of nutrition program at your organization and tell me the barriers to reach that goal?
Probe: other factors such as...socio demographic factors, educational level of beneficiaries, changed ration policy
- 13. What are the success stories of your organization regarding with nutrition program?
Probe: which strategies/implementations
- 14. Would you like to give me your comment on refresher training?
Probe: frequency/duration....enough or not
Effectiveness/ improve level of knowledge and skill of camp-based staff
- 15. From your point of view, which kind of intervention may help to improve nutritional status of the children in your catchment area?
Probe: which kind of interventions is lacking in this camp compare to standard guidelines

Interview guide questions for Beneficiary groups

1. Nutrition for pregnant and breast feeding women
 - Do you know about varieties of food (food groups)? What are they? Which kind of benefit do you got from each food groups?
 - Which kind of food that you usually take every day?
 - Do you think gradual increasing of weight is important for you throughout your pregnancy period? How often do you usually require measuring weight?
 - Which kind of services that you got during AN period?
2. Infant and young child feeding practice
 - When will/did you start breast feeding to your baby?
 - Would you like to give me your breast feeding experience/plan for your future baby up to 6 month? (initial time, frequency, together with water or other foods, etc)
 - Would you like to show me the position of breast feeding?
 - How do you prepare to continue breast feeding when you go outside?
3. Complementary feeding practice
 - When did/will you introduce complementary feeding to your child?
 - Would you like to give me your complementary feeding experience/plan for your future baby from 6 up to 9 months of age?
 - Would you like to give me your complementary feeding experience/plan for your future baby from 9 up to 12 months of age?
 - Would you like to give me your complementary feeding experience/plan for your future baby from 12 up to 24 months of age?
(Continue breast feeding or not, frequency, types of food, etc.)
 - How do you give Asia Remix to your child?
4. When will you bring your child to the health facility?
5. Which kind of food that you usually give when your child sick when your child age is less than 6 month/more than 6 month?
6. When do you usually wash your hand? How to wash?
7. What are the ways of family planning? Would you like to let me know about your family planning practice?
8. Do you child have weight chart? How often your child require to measure weight and height by health care provider? Which area (colored) is the best for your child and why?
9. Which kind of action did you take when you child was not in normal zone?
10. What are the barriers to provide proper diet to your child?
11. Which kind of support that you usually get re: nutrition from service providers? (such as Vit. A, iodide salt, de worming)
12. Which kind of support that you want more from the service providers to improve the nutritional status of your child?

Severe Malnourished child

Questions for Provider groups

1. Which kind of information that you usually give H.E of nutrition for pregnant and breast feeding women? Where? When?
2. Is IYCF program introduced at your catchment area?
3. What are the important things in infant and young child feeding practice?
4. What are the important of complementary feeding practice?
5. Have you ever talked about indications to come to the clinic?
6. Which advice did you usually give when the child is sick re:food?
7. Have you ever told about personal hygiene and sanitation practice to the care giver and how?
8. Where do you usually give family planning counseling?
9. Do you have confidence in growth monitoring and using weight chart?
10. Which kind of services that you usually given for children under 5 years of age?
11. What are the barriers to provide nutrition program in your community? How do you solve it?
12. What are the treatment provided at TFP and SFP?
13. How often do you usually attend the training re:nutrition (probably provided by TBC)/what are the theme?
14. What do you think about this refresher training? (more frequent, enough)
15. Collaborative program with TBC ...how to/what are they?
16. Which kind of support that you want more from TBC to improve delivery of the nutrition program in your catchment area?

Appendix 5: AsiaREMix Composition

Asia REMIX

Composition

Ingredients	By Weight
rice flour	60%
soy bean flour	30%
sugar	9%
Macronutrients	
kcal per 100 grams	410
protein	15%
fat	6%
Micronutrients per 100 grams	
vitamin A (dry acetate 325 CWS/F)	500 RE
thiamine (mononitrate)	0.9 mg
riboflavin (universal)	1.5 mg
niacin (niacinamide)	4.8 mg
folate (folic acid)	120 mcg
vitamin C (ascorbic acid)	48 mg
vitamin B12 (0.1% WS)	1.2 mg
zinc (sulphate)	5 mg
iron (ferrous fumarate)	16 mg
calcium (carbonate)	100 mg