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The Food Supplementation Process in BRAC Areas Under the Nutrition Project (NNP): An Exploratory Study

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National Nutrition Programme (NNP):
An Exploratory Study**

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CONTENTS

EXECUTIVE SUMMARY.....	1
INTRODUCTION.....	3
Supplementary Feeding.....	4
The process of supplementation.....	4
Programme implementation.....	5
STUDY OBJECTIVES.....	5
METHODOLOGY.....	6
Study area.....	6
Study population and sample size.....	6
Data collection tools and techniques.....	6
Consent.....	9
RESULTS.....	10
Socio-economic and demographic characteristics.....	10
Selection process.....	11
Quality and quantity of the food packets.....	12
Preparation and storage.....	13
Acceptability of the supplementation.....	13
Distribution system of the supplementation.....	15
List of figures	
Mean differences between different processes.....	16
DISCUSSION.....	17
RECOMMENDATIONS.....	18
REFERENCES	19
ANNEXES.....	19
Questionnaires.....	20

EXECUTIVE SUMMARY

Introduction

Local non-government organizations (NGOs) are the major partners of the government of Bangladesh (GOB) for implementing NNP (National Nutrition Project) programme at the grassroots level in rural Bangladesh. BRAC is one of the partners working in 53 *upazilas* out of 105 to implement the NNP programme. BRAC NNP programme continuously keeps records/data on the outcomes of interventions. BRAC has recently decided to assess the whole process of the food supplementation component of the programme.

General objective

This study was undertaken to explore the process of food supplementation in BRAC NNP.

Specific objectives

- To explore the selection process of programme recipients
- To explore the quality and quantity of food in packets for supplementation
- To explore the supplement preparation and storage
- To explore the acceptability of food supplementation among the target groups
- To explore the supplementation production and distribution system

Study design

This is an exploratory study, which aims to design a methodology to conduct a large scale study in future.

Study population

Pregnant women and lactating mother (PW&LM) and under-two children (both enrolled and non-enrolled for supplementation) as well as community nutrition promoters (CNP) of the two *upazilas*.

Study period: December 2005 to January 2006.

Study area: Monohardi and Lakshmipur Sadar *upazilas* under Narsingdi and Lakshmipur districts respectively. Twenty community nutrition centers (CNCs) (10 for Monohardi +10 for Lakshmipur) were randomly selected.

Sample size and sampling method: Purposive sampling. Total 66 PW&LM and 54 under-two children were included from 20 CNCs.

Method: Both qualitative and quantitative methods were used.

Results: Mean age of enrolled PW & LM and children were 24.6 years and 14.5 months respectively. Among mothers, 75% were pregnant and the rests were lactating. Professionally

97% of PW & LM were housewives. According to the self-reported poverty status 43% of the households of mothers and 37% of the households of children were in surplus condition.

In the case of weight and height measurement, almost 22% weights of PW & LM were correctly measured. Comparison was done through repeated measurements in the GM (Growth Monitoring) session by the interviewers and the CNPs, using their own instruments. It was also found that 11% of BMI calculation for mothers (for selecting recipients of food supplementation) was correct. For children, 29% of weight measurements were correct. Eight percent of CNPs could calculate BMI correctly. It may be mentioned here that training of the CNPs in BMI calculation started in December 2005. When the 'date of birth' of children was asked to mothers who kept written records, 64% agreed with the date recorded by the CNPs in the register. At the GM session, 62% of GM cards were used for weight for age.

Seventy-two percent of the CNCs used medium quality of rice for preparing the supplement. In the case of lentil, 97% of the CNCs used poor quality in their food packets. In case of molasses and oil, 79% and 72% were of medium quality. The quality of all ingredients was compared on the basis of local market price, availability, as well as physical appearance.

It was found that 68% of the areas where the food supplementation was prepared were clean while 37% of the women volunteers started working without washing their hands. Seventy-three percent of the CNCs used the pots provided by the programme for oil measurement. Fifty-eight percent of the utensils used for preparing supplementation were food reported as clean. During the food preparation 79% of the CNPs were present at the sites, whereas almost 90% of CNPs were present during distribution. Seventy-four percent of the packets were found to be defective (leakage).

Only 40% of PW & LM regularly visited the centers for feeding the supplementation. In the case of children it was 65%. Seventy-one PW & LM stated that the taste of the supplement was good. Sixty-six of the mothers of children collected the supplementation regularly from CNCs though almost 34% said that they got it at home. For this reason 20% of the children shared the supplement with others. Sixty-three percent of the children could finish the food at CNCs.

In Monohordi about 5 out of 10 CNCs distributed the same number of packets prepared for the recipients. The rest of the CNCs distributed a lesser number of packets in a week. In Lakshmipur one CNC distributed all the packets they prepared. It was found that an extra amount of bill was prepared for the last 7 days in most centers.

Limitations

This is an exploratory study conducted in two *upazilas* and as such may not be generalized.

Conclusion

Better management, training, motivation and commitment among workers at the grassroots level are needed to achieve better outcome.

INTRODUCTION

The National Nutrition Project (NNP) of the government of Bangladesh aims to achieve a substantial and sustainable improvement in nutritional status of women and children of Bangladesh to the level that, by the year 2010, malnutrition will come to an end as a public health crisis. This will be achieved through improved practice of new behaviors and appropriate use of nutrition services by individuals and households, which will be increasingly managed and financed by communities.

The government of Bangladesh and international donors acknowledged that malnutrition was a major barrier to national development and that is why the government planned to invest more than one billion US dollars in nutrition programmes over the next 10-15 years, which is generally known as National Nutrition Project (NNP). NNP consists of two components i) Area-based community nutrition, and ii) National level nutrition services.

Area-based community nutrition involves a core community nutrition service package, where the community nutrition promoter (CNP) i) performs monthly growth monitoring of under-two children and pregnant and lactating mothers, ii) provides nutrition education to individual on child growth and development, iii) provide individual counseling for self-care, and iv) demonstrate the preparation of food supplementation by community women's groups for the mothers with children whose growth is faltering and who are severely malnourished. The process is generally known as food supplementation programme.

NNP is being implemented under two modalities. One is government of Bangladesh-led and the other is non-governmental organization (NGO) assisted. In the first format, the existing network of the Ministry of health and Family Welfare (MoHFW) is used for implementation. The second modality is NGO-led and Government of Bangladesh assisted. The major NGO in this programme is BRAC, whose field implementation of the programme started in 2002. BRAC has neither done any kind of assessment on of the NNP components nor on the whole programme since launching. BRAC continuously keeps records/data on the outcomes of interventions. BRAC has recently decided to assess the whole process of the food supplementation BRAC NNP component of the programme.

Food supplementation is one of the major components of the area-based community nutrition (ABCN). Supplementation always has to be low cost, acceptable to target groups, and effective for desired impact. Supplementation can be ineffective due to any combination of factors such as lack of distributor, lack of sustained administrative support, administrative mismanagement/ misconduct, programme fatigue, unfair means, beneficiary disinterest, and failed access to target population. It also depends on existing service infrastructure as well as awareness of both community and health workers regarding the benefit of supplementation. To ensure proper management of the supplementation programme, it is necessary to assess the whole process in managerial context. To explore the ins and outs of the food supplementation programme, the Research and Evaluation Division (RED) of BRAC carried out an exploratory study on the food supplementation component of BRAC NNP.

SUPPLEMENTARY FEEDING

The purpose of food supplementation is to show the parents, through growth charting and monitoring, the substantial and rapid gains in nutrition status that are possible through feeding small additional quantities of food (provided the child is otherwise healthy and free from heavy parasite infestation). The duration of supplementation is limited to three or four months to avoid dependence on the programme and envisage to parents their primary responsibility for feeding the children.

The target group children with faltering growth will receive a special food supplement, yielding approximately 150 calories per ration, six days a week for a period of two months. During the off days (Fridays), mothers will prepare a similar supplementary food for their children at home with available ingredients. Children with a severe degree of malnutrition ($<60\%$ Gomez) will receive twice the daily ration (300 calories) for a period of three months. Despite the additional portion fed to them, the objective of feeding for severely malnourished children is to restore a satisfactory growth trajectory rather than to achieve 'normal' nutritional status.

The supplement for children will be fed at the site, at a supervised CNC so that, they receive the full benefit of supplementation. On-the-spot feeding minimizes sharing with other family members and facilitates the use of the food as a 'supplement' rather than a substitute for home food.

THE PROCESS OF SUPPLEMENTATION

The ideal protocol for food supplementation of NNP is described here, so that it is easy to understand the errors or defects of the specific process or management system of this programme.

In selecting the recipients for food supplementation intervention, the children and mothers are weighed in growth monitoring (GM) session at a community nutrition center (CNC). According to weight for age, the CNP categorize children's nutritional status and selects them for supplementation. If the BMI of mothers is less than 18.5 in the first trimester or in fourth month of pregnancy, she is included for supplementation. Mothers are fed the supplement from the second trimester of pregnancy and continue for two months after delivery. Supplements are distributed to them by the CNP up to the 7th month in the CNC and then send to their homes up to 42 days after delivery. Then the mothers have to come to the CNC for feeding up to 2 months. In the case of children, second degree or moderate malnutrition was the main criterion of selection according to Gomez classification. When the child is in 7-11 months of age he/she would continue to be fed until the body weight increases by $>600\text{gm}$ in 3 consecutive GM sessions. Children aged from 12-24 months would continue up to $>300\text{ gm}$ increase in 3 consecutive GM. All feeding would be ensured by the CNP and the child has to be present at the CNC. The CNP organizes GM sessions regularly once a month and she maintains a GM card for both mother and children.

Women volunteers prepare the food supplement and make packets for 3 days twice weekly under the supervision of the CNP. Two types of packets were prepared for mothers and children (details are mentioned in the methodology section). Women volunteers buy specified ingredients from the programme management. Ingredients (roasted rice, lentil, molasses) in packets are measured individually by using a standard pot prior to sealing the packet. They then store the packets in a clean dry place in a plastic container. For oil measurement, BRAC provides a measuring pot in every CNC. Women volunteers as well as CNPs have to maintain cleanliness during food preparation such as washing their hands, restraining their hair, washing utensils, etc.

CNC's distribute the supplement for 6 days a week and do not distribute on the days of government holidays. Generally the CNP submits food bill twice in a month.

PROGRAMME IMPLEMENTATION

In order to mobilize and build a good working foundation, various meeting were held with different stakeholders in the community. BRAC staff also collaborated with the existing women's groups in the community that were created earlier by development NGOs. These groups are responsible for food supplementation management and are composed of 9-11 members. In *upazila* where groups did not exist, women were recruited. Selection was open to resident women willing to spend several hours of the week involved in the programme. CNC's were established in all the upazilas. All CNC's were provided with appropriate equipment and supplies. To date all CNC's are operational.

STUDY OBJECTIVES

General

- Exploration of the food supplementation process within BRAC NNP programme.

Specific

- To explore the selection process of programme recipients
- To explore the quality and quantity of food in packets for supplementation
- To explore the supplement preparation and storage
- To explore the acceptability of food supplementation among the target groups
- To explore the supplement production and distribution system

METHODOLOGY

STUDY AREA AND SAMPLING

Two *upazilas* out of 53 *upazila* where BRAC is working were purposively selected due to logistic convenience and duration of programme length. One was Monohordi from Narsingdi district and another was Lakshmipur Sadar of Lakshmipur district. Monohordi *upazila* was selected as an old thana where BRAC started the programme in 2001 and Lakshmipur was included as a new *upazila* (compared to Monohordi) as it was handed over to BRAC in 2003 from Proshika (an NGO). Ten CNCs were randomly selected from each *upazila*.

STUDY POPULATION AND SAMPLE SIZE

Household survey

All PW & LM (66) as under-two well as children (54) in the register of the study CNCs were included in the study. In the case of children their mothers were interviewed.

Observation

Activities related to food supplementation process were observed in 20 CNCs by the interviewers through checklists.

In-depth interview

For in-depth interviews seven CNPs, eight enrolled and non-enrolled mothers, and the same number of mothers of under-two children were interviewed. The purpose of the in-depth interview was to explore selection bias and acceptability of the programme by mothers and children.

DATA COLLECTION TOOLS AND TECHNIQUES

Both qualitative and quantitative methods were used for data collection. A structured questionnaire was used for the household survey. Checklists were used for in-depth interviews and observation.

Household survey

Study interviewers worked in teams. Each team was comprised of two interviewers, one male and one female. Nine teams worked in the study areas. Each team was responsible for two CNCs. They interviewed all enrolled mothers and mothers of under-two children. They used structured questionnaires containing closed and open-ended questions (Annexure). Two supervisors were appointed for field coordination during study the period.

Variables of household survey:

1. Socio economical information
2. Acceptability
3. Feeding history

OBSERVATION

The food preparation and storage processes as well as the distribution system were observed and crosschecked on the basis of the programme proposal and design. Each team was responsible for one CNC from each *upazila*. The total observation period was 6 working days. Food distribution at the CNCs was observed daily from 9:00am to 1:00 pm. To observe the food preparation and storage system the interviewers were present twice a week in preparation spot usually from 3:00-4:00 p.m. They also attended GM (growth monitoring) session to observe height, weight measurement, and rechecked height and weight measurement by wooden height scale and Uniscale respectively.

Checklists were developed for:

1. Growth monitoring,
2. Recheck birth records,
3. BMI calculation,
4. Food storage system, and
5. Food distribution system.

IN-DEPTH INTERVIEW

Researchers conducted the interviews with four selected and four non-selected mothers and seven CNPs. Every interview took a maximum of 30 minutes. Interviews were recorded on tapes and written notes were taken. The purpose of using tape record was to recheck the paper notes with the tape. Later the information was compiled under different themes.

DATA COLLECTION

Selection process of the recipients

In the process of selection of children for supplementation correct date of birth was essential for the weight for age calculation. Some rural mothers recorded the date of birth of their children on the wall of their houses or in books. This helped identify the accuracy of date of birth record. Birth weight records were kept in the register of the CNPs. Late birth weight records were also reported with reasons for delays. When children were enrolled in the food supplementation programme, their weights were categorized by study interviewers to crosscheck with the categorization of the CNPs in the GM card, whether weights are being taken regularly during GM session or not. During GM session, GM card should be used regularly. This was also checked. The main criterion of selection of children is 2nd degree malnutrition, which is under 76% of weight for age according to Gomez classification. The selected children would be under supplementation until body weight for those in 7-11 months of age increased by >600g in 3 consecutive GM sessions. Children who are 12-24 months of age would continue with supplementation up to >300 g increase in 3 consecutive GM sessions. In case of PM & L.W, 18.5 are the cut-off point for BMI. The proficiency of CNP in calculating BMI was checked both at selection and at the last GM session. During selection of mothers for food supplementation, weight and height were taken and BMI was calculated by the CNPs. The interviewers re-calculated the BMI and weight and height to crosscheck the accuracy of the calculation as well as selection. In the same process, BMI was checked by calculating with the

last weight and height measurements. Weight was measured by the programme using a Uniscale that shows a single digit after decimal point. A different standard Uniscale was used in parallel during GM session by the interviewers. Interviewers took weight and height measurements immediately following the CNP's measurement. For height measurement the interviewers used a standard wooden scale to check the accuracy of the measurement taken by the CNPs during the GM session.

Study interviewers assessed the proficiency of CNP in calculating BMI by asking whether they calculate it alone or with the help of community nutrition organizer (CNO) or the field-supervisor (FS). It may be mentioned here that training of CNPs in BMI calculation started in December 2005.

Selection bias was assessed by the in-depth interview with non-enrolled PW & LM and children. The major issues covered were, selection bias during GM and influence of institutions or local leaders for selection.

Quality and quantity of the food packets

To assess the quality and quantity of the food packets the study interviewers observed food preparation two times in each centre during the study period. They collected food packets and checked the weight of ingredients in the packets. Raw food ingredients such as rice, lentil, molasses and oil were collected and compared with i) local market price, ii) availability in the market, and iii) whether commonly consumed by the local people. Apparently quality of the ingredients was determined by examining the presence of i) stones or other foreign bodies or rust, etc., or ii) odd flavor and color of ingredients. With these considerations the food ingredients were categorized as good, medium, or poor in quality.

The quantity of rice, lentil, molasses and oil were weighed by kitchen scale to crosscheck with the ideal weight. It should be mentioned here that the required weight of the packets are as follows:

Composition of mother's packet

Rice- 80g
Lentil- 40g
Molasses- 20g
Oil- 12mL (6g)
Total- 146 g (Supplies 608 kcal)

Composition of Children's packet

Rice- 20g
Lentil- 10g
Molasses- 5g
Oil- 5mL (2.5g)
Total- 37.5 g (Supplies 150 kcal)

The precision of the kitchen scale was used 1 g. Weight of food components in the packets were taken but not being expressed how much weight was more or less compared to required weights. It is reported as correct, less or more weight. Quantity of oil was specially checked by a standard pot supplied from BRAC to determine if CNCs were using the standard pot for measurement. Color and flavor were taken into consideration to check the oil quality. Nineteen CNCs were included for this observation process.

Preparation and storage process

Areas of food preparation, distribution and storage system as well as utensils were observed. The quality of food packets (especially packaging) was observed at random from preparation site. The presence of the CNPs during food preparation, packaging and distribution in 20 CNC were observed. Before food preparation the formalities of women's groups for food preparation were observed. These were a) use of soap for hand washing before food handling, b) restraining the hair before grinding the rice and lentil and c) cleaning the utensils before distribution of food.

Acceptability of supplementation

Enrolled and non-enrolled PW & LM as well as mothers of children were interviewed to understand the acceptability of the food supplementation programme. The broad issues were knowledge of supplementation, reasons for feeding, and knowledge about CNC and perception about benefits of the programme.

Distribution system

To find the distribution errors, total enrolled PW & LM and children were compared with total number of packets prepared, which were again compared with number of packets distributed. Interviewers observed and counted the total packets distributed during the study period. These numbers were again compared with the total bills submitted for that period. Bills were followed according to files maintained by the programme and also according to CNC bill reports. Both accounts of bills were compared with the actual distribution.

Consent

A written consent was obtained from all study participants after explaining the purpose of the study.

RESULTS

SOCIOECONOMIC AND DEMOGRAPHIC CHARACTERISTICS

Mean age of enrolled PW & LM was about 25 years. Majority of them were housewife. Annual income/expenditure during the last year was 49% in break-even condition (Table 1).

Table 1. Socioeconomic profiles of the enrolled pregnant women and lactating mothers' family

Profiles	n	
Age in years (mean±SD)	66	24.6±4.9
Housewife (%)	62	93.9
Family size (number)	66	4.5±1.8
Parity (number)	66	1.4±1.1
Can sign (%)	51	77.3
Mean years of schooling (mean±SD)	48	6.3±2.24
Monthly income-expenditure status		
Income in Tk (mean±SD)	66	2884.0±1.9
Expenditure in Tk (mean±SD)	66	2570.4±2.1
Self-rated poverty status (%)		
Surplus	28	42.4
Break even	32	48.5
Deficit	6	9.1

Among all enrolled mothers, 74.6% were pregnant and 25.4% were lactating (Table 2). They varied in their length of gestation as well as lactation.

Table 2. Maternal status of enrolled population

Maternal status	n	
Pregnant (%)	51	74.6
Lactating (%)	15	25.4
Mean length of gestational period in days±SD (range)	51	197.29±51.1 (120-270)
Mean length of lactation in days±SD (range)	15	41.56±21.5 (4-79)

Table 3 shows the socioeconomic profiles of enrolled children's family. It should be mentioned here that the economic profile of mean income-expenditures strongly correlated with their self-rated poverty status, which indicates the authenticity of collected data, regarding income-expenditure.

Table 3. Socioeconomic profile of the enrolled children's family

Profiles	n	
Age (month)	54	14.5±1.7 (6.18-24.23)
Mothers' occupation (%)		
House-wife	54	94.7
Family members (mean±SD)	54	5.56±2.0
No. of children in family (mean±SD)	54	2.56±1.2
Mean years of schooling (mean±SD)	42	5.24±2.95
Economy		
Income in Tk. (mean±SD)	54	3150.65±1.9
Expenditure in Tk. (mean±SD)	54	2698.98±2.1
Self-rated poverty status (%)		
Surplus	21	38.8
Break even	30	55.5
Deficit	3	5.5

Selection process

In the selection process, 77.5% of the measurements (weight) taken by the CNPs were incorrect. It can be highlighted that 91.3% of the height records were also incorrect. When the CNPs calculated BMI with this weight and height, 88.9% of BMI calculations were wrong. Table 4 shows the selection errors of mothers.

Table 4. Selection of mother

Records	% (n)
Weight records differences between CNP and interviewer	
Same (≤200gm)	21.9 (9)
Not same (>200gm)	78.1 (33)
Height records differences between CNP and interviewer	
Same (≤1cm)	48.9% (23)
Not same (>1cm)	51.1% (24)
Correct BMI calculated	11.1 (5)
Calculation of BMI	
CNP independently	8.1 (5)
CNP with the help of FS	61.3 (28)
CNP with the help of CNO	30.6 (19)

When children's were selected for supplementation, 41% of the weights taken by the CNPs were incorrect. Date of birth of children's records agreed in 64.3% of cases between the CNPs' and mothers' records. In 62.1% of the cases, GM cards were used. Table 5 describes the selection process of children in detail.

Table 5. Selection of children

Records	% (n)
Weight record differences between CNP and interviewer	
Same (≤200gm)	28.9(13)
Different (>200gm)	71.1(32)
Same date of birth recorded by mother and CNP	64.3(36)
GM card used	62.1 (36)

Selection bias

Non-enrolled mothers were asked about the rules of enrollment in supplementation programme, and which they were able to describe clearly. The majority of the mothers knew that if women were underweight during pregnancy they needed supplementation. Though they did not know about BMI, they knew that weight and height were the main factors to detect malnourished mother. Almost everyone relied on the CNPs for this selection process. Everybody reported that the CNPs went to their house to inform them about GM. After measurement of weight and height, the CNPs explained why they were enrolled or not. A few mothers reported that the CNPs did not take their weight and height regularly. One of them reported that the CNP did not enroll her though she was underweight. One of the mothers from Monohordi described, "I want to eat *pushiti*, but the CNP did not give". She said that I was not eligible for this food. But mothers who are heavier than me go to CNC regularly for feeding. Similarly a mother from Lakshampur stated, "In my area there were one or two mother interested in feeding, but did not get the chance to be included in the supplementation."

Many mothers of the non-enrolled children complained about the selection bias. But all mothers (100%) knew about the enrollment process. Many of them explained that the CNPs distributed the food after knowing their weight status at the time of enrollment. Some of them complained that the CNPs stopped giving food to their children by not measuring their weight in GM sessions. After two or three months, the CNP gave her a new card at home, but did not ask to go for feeding.

Some mothers of non-enrolled children stated that the date of birth that was not same according to the CNP's register. One of the mothers explained, "According to my calculation my child is 2 years old, but according to the CNP's register my child is one and half years old. It happened because, she did not take the birth weight timely. After almost one month, she took the birth weight of my baby. So she did not note the correct date. After my confirmation, she changed the old one and gave me a new card."

Quality and quantity of food packets

In the majority of food packets examined, the ingredients were found to be of medium quality when compared with market price, availability in local market, and physical appearance. Nineteen CNCs were observed to check the quality and quantity of the food packets. Table 5 shows the quality according to the ingredients.

Table 5. Quality of food ingredients in food packets

Ingredients (%)	Good (n)	Medium (n)	Poor (n)
Rice	22.2 (4)	72.2 (13)	5.6 (1)
Lentil	33.3 (6)	50.0 (9)	16.7 (3)
Molasses	5.3 (1)	78.9 (15)	15.8 (3)
Oil	5.6 (1)	72.2 (13)	22.2 (4)

The quantity of food ingredients was measured to check the accuracy of composition of supplementation. This is categorized as less, correct or more in weight compared to required weight (mentioned in methodology section) of ingredients in food packets.

Table 6. Quantity of food ingredients in food packets

Ingredients (%)	Less (n)	Correct (n)	More (n)
Rice	15.8 (3)	21.1 (4)	63.2 (12)
Lentil	52.6 (10)	5.3 (1)	42.1 (8)
Molasses	26.3 (5)	21.1 (4)	52.6 (10)
Oil	31.6 (6)	68.4 (13)	0 (0)

Preparation and storage

Table 7 presents different aspects of storage of food packets and food preparation processes. Nineteen CNC's were observed here.

Table 7. Preparation and storage of food supplementation

Steps	% (n)
Use of ideal pot for oil measurement	73.7 (14)
Pot full in oil	63.2 (9)
Cleanliness	
Storage area	31.6 (6)
Preparation area	68.4 (13)
Hands of CNP	36.8 (7)
Utensils	57.9 (11)
Presence of CNP	
Preparation site	78.9 (15)
Distribution site	89.5 (17)
Packets defective (tear or leak)	73.7 (14)
Handled ingredients separately	100.0 (18)

Acceptability of the supplementation

The acceptability of supplementation among the recipients is presented in Table 8. Sixty percent of the mothers did not feed regularly, whereas 63.6% of them could not consume at a time in the center. About 90.9% of the mothers reported no complication after having food. About 63.6% percent of the mothers did not consume at a time, and 90.9% of the mothers mentioned nothing happened after feeding.

Table 8. Acceptability of supplementation to the pregnant and lactating women

Criteria	n (N)*	%
Regular CNC visit	26 (65)	40.0
Taste of food		
Good	47 (66)	71.2
Average	14 (66)	21.2
Bad	5 (65)	7.6
Consumed at a time	24 (66)	36.4
How to consumed		
Without water	14 (66)	21.2
No problem after feeding	60 (66)	90.9
Reason for regular visit at CNC		
Good for health	17 (26)	65.4
Good in taste	5 (26)	19.2
CNP does not distribute at home	4 (26)	15.4
Reason for irregular visit at CNC		
Pregnancy	14 (39)	35.9
Workload at home	11 (39)	28.2
Food send to home	5 (39)	12.8
Family barrier	4 (39)	10.3
Visit to other place	1 (39)	2.6

*The numbers in parenthesis are n of total N

Among all the enrolled children, 35% did not feed regularly. They took food to their houses. Twenty percent of the children shared the food with others members of the household and 37.5% could not the finish food at the center. Fifty-seven percent of the mothers mentioned that the CNPs did not ensure the consumption at the CNC. Almost 88% mentioned that no problem arose after consumption. Table 9 indicates other factors related to acceptability of children. When children's acceptability of the food supplementation programme was assessed, it was found that 60% of the mothers did not feed their children regularly (Table 9).

Table 9. Acceptability of supplementation to children

Criteria's	n	%
Regular consumption	37	64.9
Reason for regular visit		
Baby likes	19	51.4
Forceful consumption	18	48.6
Reason for irregular visit		
Irregular collection	14	73.6
CNP doesn't give	3	15.8
Refuse to eat	2	10.6
Collection from CNC	37	66.1
Did not share the food with anybody	16	80.0
Finish the food at CNC	35	62.5
CNP ensured consumption	24	42.9
No problem after consumption	49	87.5
Type of problem		
Diarrhoea	7	100.0

Perception regarding the supplementation programme

The enrolled PW & LM were more familiar with the programme compared to non-enrolled PW & LM. Most of them described the programme properly. The majority of the PW& LM were interested to go to the CNCs regularly for feeding. But after delivery the lactating mothers

showed less interest in going to the CNCs for feeding even after 42 days of home delivery of supplementation. Female were burdened with household work for which they could not go for feeding regularly. When PW & LM were asked about the food supplementation programme the majority expressed that it was very good for them. When mothers were asked about the taste and quality of food almost everyone (80%) perceived that the food was of good quality and tasty. Many PW & LM (30%) sometimes complained regarding impossibility of finishing the food in a sitting at the CNC. So they took it at home. The CNPs did not give any objection to this. Many PW & LM reported of using bad oil. Two of them took the supplement without mixing water.

When mothers of the children were asked to prepare food at home, many of them said that they did not know how to prepare it. A few said that they did not have any time to prepare the food, or that it was hazardous for them to prepare it at home. When they were asked about the nutritive value of the food, most of them reported that according to CNP it is good for health and is also good for the growth of babies. A mother from Lakshmipur mentioned that it was replacement of breakfast for her, and whether it will work for health she did not know.

Distribution system of supplementation

Different stages were compared in terms of number of packets to explore the distribution system. In Monohordi upazila, only three out of 10 CNCs submitted the amount of bills for the number of packets they prepared and distributed. In rest of the CNCs, there were no similarities between preparation, distribution and amount of bills submitted. Table 10 gives a detailed picture.

Table 10. Dissimilarities between different processes of the programme (Monohordi)

CNC	No. of mother & child enrolled (required no. of packets)	No. of packets prepared in a week	No. of packets distributed in a week	No. of packets bill submitted in a week	No. of packets bill paid in a week
1	7 (42)	39	33	45	32
2	3 (18)	17	17	17	18
3	10 (60)	53	49	64	49
4	15 (90)	46	36	45	36
5	5 (30)	30	30	30	29
6	11 (66)	40	40	65	48
7	8 (48)	46	46	50	46
8	6 (36)	19	14	25	18
9	10 (60)	54	43	60	43
10	4 (24)	24	24	24	24

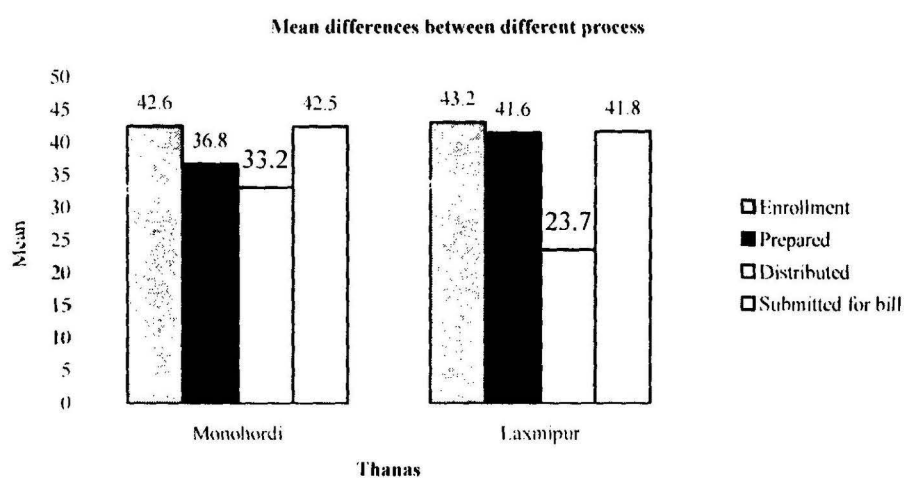
In Lakshmipur upazila, out of 10 CNCs no single CNC showed similarities between enrolled populations, number of packets prepared and distributed, and bills submitted. Table 11 presents the detailed distribution system of Lakshmipur.

Table 11. Dissimilarities between different processes of programme (Lakshmipur)

C'NC'	No. of mother and child enrolled (required no. of packets)	No. of packets prepared in a week	No. of packets distributed in a week	No. of packets bill submitted in a week	No. of packets paid in a week
11	10 (60)	20	23	41	41
12	15 (90)	41	41	54	50
13	9 (54)	48	63*	72	72
14	6 (36)	30	13	26	22
15	5 (30)	20	15	27	24
16	7 (35)	17	21	27	18
17	12 (72)	54	40	43	43
18	3 (18)	18	9	18	18
19	5 (30)	8	12	36	36
20	10 (60)	160*	-	74	74

*According to CNP

Figure 1. Describes differences of different processes in terms of their mean value



DISCUSSION

This exploratory study was conducted in 20 CNCs in Monohordi and Lakshmipur upazilas. As the study was carried out in only two upazilas, the results may not be generalizable to the rest of the BRAC NNP areas, although it gives a fair indication of what may be happening in the rest of the areas. Also, the one-week study period for each CNC may not be typical for that particular CNC. We have to keep these limitations in perspective while interpreting the results.

Findings revealed that targeting of the children was better than for the PW & LM. While the procedure for recording the weight of mothers is simpler than that of the children, CNPs performance was better with respect to recording children's weight. The possible reasons may be instrumental error, less proficiency of the CNPs, or intentional selection bias. We tried to explore whether instrumental error was responsible for CNP performance in taking weight. In selecting pregnant women and lactating mothers, there were two possibilities of mistake: firstly, during recording the weight and height, and secondly during BMI calculation. It should be mentioned here that after calculating BMI of mothers by CNPs, it was rechecked and finalized by CNO during final selection of PW & LM. Almost 64% of the children's birth record kept with the CNP agreed with the mothers' record. This indicated that the age was wrong in many cases of selection (35.7%). With this wrong recording of date of birth it is difficult to calculate the actual numbers of malnourished children in a population. As such fewer children will be enrolled in the supplementation programme compared to the targeted number of children. According to the quarterly report of NNP of BRAC, it was mentioned that total targeted children in December 2005 was 49% in old upazilas and 61% in new upazilas, but unfortunately only 8% and 9% were included in supplementation programme respectively.

When the quality of food packets was assessed, the majority of ingredients were of medium quality in terms of local market price, availability in local market, and appearance. But it could not be assessed whether the quality of ingredients was the same according to the specification provided by the programme.

In case of quantity, lentil was given less in most packets, while extra rice was given in majority of the packets. It should be noted that there were no systematic errors in terms of quantity of ingredient in food packets. Preparation and storage procedures were reviewed in almost every step. Absence of the CNP during distribution or lack of CNP at the centre leads to inaccuracy of measurement as revealed by the use of measuring pot for oil. Cleanliness at different stages of preparation did not meet the satisfaction level. The presence of CNP had an impact on the distribution of food. A large proportion of defective packaging indicates that woman group members were not sufficiently skilled or careful in making food packets. More demonstration may help to fill this gap.

When considering the acceptability of the programme in case of children, it was observed that the mothers of the children were more motivated compared to the pregnant and lactating mother. Regular presence at the centre to have food is one of the indicators of acceptance. On the other hand, almost 49% of the mothers of children reported that they had to feed their children by force. The main cause of the irregular feeding was irregular collection of the supplement from the CNCs. In the case of children who came to the centres for feeding regularly could not finish the supplement at a time or finish at the CNC. Many of them reported (children's mother in their in-depth interview) that the quantity of the food was quite a lot, which their children could not finish at a time and the CNP did not ensure the complete

consumption in the case of partial feeding. It should be taken into consideration whether it is possible to consume the supplement at a time for children with different ages. A very few of them reported that children was suffering with diarrhoea after feeding. Five mothers expressed that they would prepare food for their children at home if the 'CNC' stop distribution. But majority of the mothers were not confident to prepare it by themselves. In this issue it could be reviewed more whether the programme is being successful to fulfill its objective. Because, the main purpose of the supplementation is to demonstrate to the whole population about how to prepare the supplementation and change the food habit to some extent.

Two upazilas represented two different findings. Monohordi is comparatively in a better position with respect to management than Lakshmipur. But in both upazilas we found huge differences in number of enrollment, preparation and distribution of packets, and finally in the amount of packets billed for. It was mentioned earlier that Lakshmipur is a comparatively new upazila for the programme, which was handed over to BRAC in December 2003 from PROSHIKA. Monohordi was considered as old upazila for BRAC. BRAC started nutrition programme as Bangladesh Integrated Nutrition Programme (BINP) in Monohardi earlier. Majority of the CNCs prepared a greater number of packets than the enrolled numbers of recipients. However, all CNCs except a few failed to distribute all the packets prepared. In Lakshmipur upazila some of the CNCs distributed more packets than they prepared. The CNC of those CNCs explained that she distributed old packets in addition to what they prepared last week. If we observe the whole process it is clear that the submitted bills were always below than the total enrollment (Fig-1) most of the time. This makes difficult for the BRAC management to find the leakage or extra bill. This could be an important issue for the management to improve this billing system, and will help minimize the financial malpractices. Finally, it can be concluded that better management, training, motivation and commitment among the workers at grassroots level are needed to achieve better outcome.

RECOMMENDATIONS

- CNPs should be better trained in taking weight and height measurements.
- Increase the efficiency of CNOs and CNPs in calculating BMI.
- Ensure taking birth weight within 72 hours after birth.
- Women volunteers should be more careful about weighing of food ingredients as well as correct packaging.
- Create a unique policy in choosing food ingredients to ensure the quality.
- Ensure regular presence of enrolled mothers and children at the CNCs for feeding.
- Check the number of enrolled mothers and children with the numbers of packets prepared, distributed as well as submission of bills.

REFERENCES

1. Bangladesh case study integrated nutrition programme 2001.
2. National nutrition programme. Quarterly report. October to December 2005.

ANNEXES

Questionnaires

1. Food preparation and storage observation checklist and Quality and Quantity Observation checklist
2. Checklist for selection of child in Food Supplementation
3. Checklist for selection of pregnant/lactating mother in Food Supplementation
4. Checklist for record keeping system (Child)
5. Checklist for record keeping system (Mother)
6. Form M: For Mother
7. Form B: For Baby
8. Form C: For CNP

Research and Evaluation Division, BRAC
Exploration of Food Supplementation Process in BRAC NNP

উপজেলা/পানা.....কোড গ্রাম/ওয়ার্ড..... 'CNC' নম্বর

'CNP'-এর নাম..... 'CNP' নম্বর

আইডি নম্বর

তথ্য সংগ্রহকারী নাম..... সুপারভাইজারের নাম.....

সাক্ষর..... সাক্ষর.....

তারিখ :.....

Food preparation and storage observation checklist

OBS1	এ সপ্তাহে তৈরী প্যাকেটের সংখ্যা (সপ্তাহে ২দিন খাবার তৈরী পর্যবেক্ষণ করুন)	No.
OBS2	খাদ্য প্রস্তুতের জায়গাটি কি পরিচ্ছন্ন ছিল?	 হ্যাঁ = 1, না = 2
OBS3	খাদ্য প্রস্তুতের পাত্রগুলি কি পরিচ্ছন্ন ছিল?	 হ্যাঁ = 1, না = 2
OBS4	প্রস্তুতকারীর হাতটি কি পরিচ্ছন্ন ছিল?	 হ্যাঁ = 1, না = 2
OBS5	পাত্রগুলি কি খাদ্য প্রস্তুতের জায়গায় আনার পর পরিষ্কার করা হয়েছিল?	 হ্যাঁ = 1, না = 2
OBS6	খাদ্য মজুতের জায়গাটি কি পরিষ্কার ছিল?	 হ্যাঁ = 1, না = 2
OBS7	খাদ্যের উপাদানগুলি কি আলাদা আলাদা ভাবে প্রস্তুত করা হয়েছিল?	 হ্যাঁ = 1, না = 2
OBS8	খাবারের প্যাকেটে কি ছেড়া ফাটা ছিল? (কমপক্ষে যে কোন ৩টি প্যাকেট পরীক্ষা করে দেখুন)	 হ্যাঁ = 1, না = 2
OBS9	প্রতি সপ্তাহে কতগুলি প্যাকেট বিতরণ করা হয়েছিল? (পর পর ৬ দিন কতজন মা ও শিশুকে খাবার বিবতরণ করা হচ্ছে লক্ষ্য করুন)	No.
OBS10	'CNP' কি খাদ্য প্রস্তুতের সময় উপস্থিত ছিল?	 হ্যাঁ = 1, না = 2
OBS11	খাদ্য বিতরণের সময় 'CNP' উপস্থিত ছিল?	 হ্যাঁ = 1, না = 2
OBS12	না হলে কে বিতরণ করেছিল?	মহিলা দল = 1 অন্যান্য = 2 N/A = 3
OBS13	খাদ্য বিতরণের জায়গাটি বর্ণনা করুন	
OBS14	খাবারের পাত্রগুলি কি পরিচ্ছন্ন ছিল?	 হ্যাঁ = 1, না = 2

Quality and Quantity Observation checklist

OBS12	ডালের গুণগতমান কেমন ছিল? (বাজারে মূল্য যাচাই করে মান ঠিক করুন)	☐ খারাপ ☐ মাঝারী ☐ ভাল
OBS13	ডালের গুণগতমান কেমন ছিল? (বাজারে মূল্য যাচাই করে মান ঠিক করুন)	☐ খারাপ ☐ মাঝারী ☐ ভাল
OBS14	গুড়ের গুণগতমান কেমন ছিল? (বাজারে মূল্য যাচাই করে মান ঠিক করুন)	☐ খারাপ ☐ মাঝারী ☐ ভাল
OBS15	তেলের গুণগতমান কেমন ছিল? (গন্ধ শূন্যে ও রং দেখে যাচাই করুন)	☐ খারাপ ☐ মাঝারী ☐ ভাল
OBS16	প্যাকেটে ডালের পরিমাণ। (‘NC’-তে বিতরণের সময় কমপক্ষে ৩ টির ওজন যাচাই করুন)	☐ কম ☐ সঠিক ☐ বেশি
OBS17	প্যাকেটে ডালের পরিমাণ। (‘NC’-তে বিতরণের সময় কমপক্ষে ৩ টির ওজন যাচাই করুন)	☐ কম ☐ সঠিক ☐ বেশি
OBS18	প্যাকেটে গুড়ের পরিমাণ। (‘NC’-তে বিতরণের সময় কমপক্ষে ৩ টির ওজন যাচাই করুন)	☐ কম ☐ সঠিক ☐ বেশি
OBS19	প্যাকেটে তেলের পরিমাণ। (‘NC’-তে বিতরণের সময় কমপক্ষে ৩ টির ওজন যাচাই করুন)	☐ কম ☐ সঠিক ☐ বেশি
OBS20	ওজন করবার সময় ওজন পাএ ব্যবহার করা হয়েছিল।	☐ হ্যাঁ = 1, না = 2
OBS21	পাএটি পূর্ণ অবস্থায় ছিল? (তেলের ক্ষেত্রে)	☐ হ্যাঁ = 1, না = 2
OBS22	ওজন পাএগুলি কি পরিষ্কার ছিল?	☐ হ্যাঁ = 1, না = 2

Checklist for selection of child in Food Supplementation

উপজেলা/থানা বোড থাম/ওয়ার্ড.....
 CNC নম্বর শিশুর নাম শিশুর নম্বর
 শিশুর আইডি নম্বর

1	শিশুর জন্ম তারিখ?	মায়ের হিসাব CNP এর পাতা	দিন	মাস	বৎসর
2	মাসিক ওজন (FS-এ enrolled হওয়ার সময়)				
	Weight (kg) চার্টের সাথে সম্পর্ক ষাভাবিক=1 নীচে=2	CNP	Interviewer	GM	GM-এর পরের দিন
	অন্তর্ভুক্ত হয়েছে?	হ্যাঁ = 1 না = 2			
3	নিয়মিত ওজন নেওয়া হয়েছিল?	হ্যাঁ = 1 না = 2			
4	GM card ব্যবহৃত হয়েছিল?	হ্যাঁ = 1 না = 2			

Checklist for record keeping system (Child)

থানা/উপজেলা থাম/ওয়ার্ড.....
 CNC নম্বর সাক্ষাতকার গ্রহনকারীর নাম :
 শিশুর নাম শিশুর নম্বর
 শিশুর আইডি নম্বর
 ...-এর তারিখ :

1	শিশুর ওজন	CNP kg	Interviewer kg
2	চার্টের সাথে তুলনা	CNP_ Normal = 1 Below = 2 ☐ Above = 3 ☐	Interviewer Normal = 1 Below = 2 ☐ Above = 3 ☐

Checklist for selection of pregnant/lactating mother in Food Supplementation

উপজেলা/থানা পোড় গ্রাম/ওয়ার্ড

CNC নম্বর মায়ের নাম মায়ের নম্বর

গর্ভবতী (মাস) = 1
 প্রসূতি (মাস) = 2
 মায়ের আইডি নম্বর

1	BMI Weight Height	CNP	Interviewer (Only BMI)	GM	GM-এর পরের দিন
2	BMI নির্ণয় করে মতামত লিখুন				
3	অন্তর্ভুক্ত হয়েছে?		হ্যাঁ = 1 না = 2		

Checklist for record keeping system (Mother)

থানা/উপজেলা গ্রাম/ওয়ার্ড

CNC নম্বর সাক্ষাতকার গ্রহণকারীর নাম :

মায়ের নাম মায়ের নম্বর
 গর্ভবতী (মাস) = 1
 প্রসূতি (মাস) = 2
 মায়ের আইডি নম্বর

GM-এর তারিখ :

1	মায়ের উচ্চতা	CNPcm	Interviewercm
2	মায়ের ওজন	CNP kg	Interviewer kg
3	মায়ের BMI	CNP	Interviewer

Research and Evaluation Division, BRAC
Exploration of Food Supplementation Process in BRAC NNP
Form M: For Mother

উপজেলা/থানা কোড গ্রাম/ওয়ার্ড

CNC নম্বর Group 1

মায়ের নাম নম্বর স্বামী/পিতার নাম গর্ভবতী (মাস) = 1

গ্রাইডি নম্বর প্রসূতি (মাস)=2

তথ্য সংগ্রহকারী নাম সুপারভাইজারের নাম তারিখ :

সাক্ষর..... সাক্ষর.....

অবগতি ক্রমে সম্মতি

আমার নাম আমি ব্র্যাকের গবেষণা বিভাগ থেকে এসেছি। আমরা অত্র এলাকায় একটি জরিপ কাজ করছি। আপনারা জানেন যে ব্র্যাক এই এলাকায় অনেক দিন ধরে বিভিন্ন কার্যক্রম চালিয়ে আসছে। আপনারা এই কেন্দ্র থেকে সম্পূর্ণক খাবার খাচ্ছেন। আমরা সম্পূর্ণক খাবার বিষয়ক একটি গবেষণার জন্য তথ্য সংগ্রহ করছি। এ ব্যাপারে আমরা আপনার কাছে কিছু বিষয় জানতে চাইব। আপনাকে আশ্বাস দিচ্ছি যে আপনি যা বলবেন তা গোপন রাখা হবে এবং এই সব তথ্য শুধু মাত্র গবেষণার কাজে ব্যবহার করা হবে। আপনার অংশগ্রহণ সম্পূর্ণ আপনার ইচ্ছাধীন, আপনি ইচ্ছা করলে যে কোন প্রশ্নের উত্তর নাও দিতে পারেন। আমি আশা করবো আপনি এই জরিপ কাজে অংশগ্রহণ করবেন, কারণ আপনার এই মতামত অত্যন্ত গুরুত্বপূর্ণ। আপনি অনুমতি দিলে আমি সাক্ষাৎ গ্রহণ শুরু করতে পারি।

হ্যাঁ=1, না=2

আর্থ-সামাজিক বিষয়ক তথ্য

বয়স : বছর

ধর্ম : কোড: ইসলাম=1, হিন্দু=2, অন্যান্য=3

সাক্ষরতা : হ্যাঁ=1, না=2

শিক্ষা (Completed year):

বৈবাহিক অবস্থা: কোড: অবিবাহিত=1, বিবাহিত=2, বিচ্ছিন্ন=3, বিধবা=4, তালাকপ্রাপ্ত=5, অন্যান্য=6

নিজের পেশা :

স্বামীর পেশা :

প্রধান পেশাঃ

1= কৃষি (শুধুমাত্র নিজের জমি)

2= কৃষক (শুধুমাত্র বর্গাচাষী)

3= কৃষক (নিজ ও বর্গাচাষী)

4= কৃষি মজুর/দিনমজুর/ অদক্ষ শ্রমিক

5= গার্মেন্টস কর্মী

6= কাজের বুয়া

7= অ্যান্ট্রিক পরিবহণ চালক

8= যান্ত্রিক পরিবহণ চালক

9= কুমার/কামার/মুচি/দর্জি/

রাজমিস্ত্রি/জেলে ইত্যাদি

10= ক্ষুদ্র/মাঝারী ব্যবসায়ী

11= বড় ব্যবসায়ী (পাইকারী)

12= সরকারী/বেসরকারী কর্মচারী

13= সরকারী/বেসরকারী কর্মকর্তা

14= পেশাজীবী (শিক্ষক/ ডাক্তার/ডাক্তার/নার্স)

15= ভিক্ষুক

16= বেকার

17= ছাত্র/ছাত্রী

18= গৃহস্থালী/গৃহিণী

19= অক্ষম/বৃদ্ধ

20= অবসরপ্রাপ্ত

21= অন্যান্য

88= প্রযোজ্য নয়

পরিবারের মোট মাসিক আয়

টাকা

পরিবারের মোট মাসিক খরচ

টাকা

পরিবারের সদস্য সংখ্যা

জন

পরিবারে সন্তান সংখ্যা

জন (মার জীবিত সন্তান সংখ্যা)

পরিবারের খানা প্রধান

কোড: 1 স্বামী, 2 ভাই, 3 বাবা, 4 নিজে, 5 অন্যান্য

বাড়ীর অবস্থা ছাদ : ☐ কোড: 1=মাটি, 2=খড়/ছন, 3=পলিথিন, 4=ইট, 5=টিন, 6=গাঁশ, 7=অন্যান্য

বাড়ীর দেয়াল : ☐

বাড়ীর মেঝে : ☐

পাত এক বৎসরে আপনাদের খানায় বাৎসরিক আয়-ব্যয়ের অবস্থা কেমন ছিল?

কোড: 1= উত্তম; 2= সমান সমান; 3= মাঝে মাঝে ঘাটতি; 4= সব সময় ঘাটতি

☐

সম্পূর্ণক বাধ্য বিষয়ক তথ্য :

1	আপনি কি খাবার বেতে নিয়মিত কেন্দ্র যান?	হ্যাঁ = 1 , না = 2	☐
2	সদি হ্যাঁ হয়, তবে কেন? উল্লেখ করুন :	N/A=88	☐
3	সদি না হয়, তবে কেন? উল্লেখ করুন :		
4	কে প্রথমে আপনাকে খাবার কেন্দ্র-এর কথা বলেছে?	পাশের বাড়ী মহিলা=1, CNP=2, মহিলা দল=3	☐
5	কিভাবে তারা জানলো আপনার খাবার খাওয়া দরকার? উল্লেখ করুন :		
6	খাবারটি বেতে আপনার কেমন লাগে?	ভাল = 1 মোটামুটি = 2 খারাপ = 3 অন্যান্য = 4	☐
7	খাবারটি কি আপনি একবারে খান?	হ্যাঁ = 1 , না = 2	☐
8	সদি না হয় তবে কতবারে খান?	বার :	☐
9	খাবারটি আপনি কিভাবে খান?	পানি দিয়ে ভিজিয়ে = 1 ওকনা, পানি না দিয়ে = 2	☐
10	খাবারটি আপনার মতে? উপকারী পরিমাণে যথেষ্ট	হ্যাঁ = 1 , না = 2 হ্যাঁ = 1 , না = 2	☐ ☐
11	খাবারটি আপনি কতদিন ধরে খাচ্ছেন? (CNP-এর খাতা থেকে recheck করুন)	দিন.....মাস	
12	খাবারটি আপনাকে কতদিন ধরে খেতে বলা হয়েছে?	দিন কিছু বলা হয় নাই=1 মনে নাই=2	☐
13	এলাকার পুলিশী আপা খাবার সম্পর্কে আপনাকে কি ধারণা দিয়েছে? উল্লেখ করুন :		
14	খাবারটি খেলে আপনার কি কোন শারীরিক অসুবিধা হয়?	হ্যাঁ = 1 , না = 2	☐

Research and Evaluation Division, BRAC
Exploration of Food Supplementation Process in BRAC NNP
Form B: For Baby

উপজেলা/পানা কোড গ্রাম/ওয়ার্ড

CNC নম্বর Group 2

শিশুর নাম নম্বর মায়ের নাম

মাইডি নম্বর

তথ্য সংগ্রহকারী নাম সুপারভাইজারের নাম তারিখ :

সাক্ষর সাক্ষর

অবগতি ক্রমে সম্মতি

আমার নাম আমি ব্র্যাকের গবেষণা বিভাগ থেকে এসেছি। আমরা অত্র এলাকায় একটি জরিপ কাজ করছি। আপনারা জানেন যে ব্র্যাক এই এলাকায় অনেক দিন ধরে বিভিন্ন কার্যক্রম চালিয়ে আসছে। আপনারা এই কেন্দ্র থেকে সম্পূর্ণরূপে খাবার খাচ্ছেন। আমরা সম্পূর্ণরূপে খাবার বিষয়ক একটি গবেষণার জন্য তথ্য সংগ্রহ করছি। এ ব্যাপারে আমরা আপনার কাছে কিছু বিষয় জানতে চাইব। আপনাকে আশ্বাস দিচ্ছি যে আপনি যা বলবেন তা গোপন রাখা হবে এবং এই সব তথ্য শুধু মাত্র গবেষণার কাজে ব্যবহার করা হবে। আপনার অংশগ্রহণ সম্পূর্ণ আপনার ইচ্ছাধীন, আপনি ইচ্ছা করলে যে কোন প্রশ্নের উত্তর নাও দিতে পারেন। আমি আশা করবো আপনি এই জরিপ কাজে অংশগ্রহণ করবেন, কারণ আপনার এই মতামত অত্যন্ত গুরুত্বপূর্ণ। আপনি অনুমতি দিলে আমি সাক্ষাৎ গ্রহণ শুরু করতে পারি।

হ্যাঁ=1, না=2 ☐

আর্থ-সামাজিক বিষয়ক তথ্য

মায়ের বয়স : বছর

ধর্ম : কোড: ইসলাম=1, হিন্দু=2, অন্যান্য=3

শিক্ষা (Completed year):

বৈবাহিক অবস্থা:

কোড: অবিবাহিত=1, বিবাহিত=2, নিচ্ছিন্ন=3, বিধবা=4, তালাকপ্রাপ্ত=5, অন্যান্য=6

নিজের পেশা :

স্বামীর পেশা :

প্রধান পেশা ৪

১= কৃষি (শুধুমাত্র নিজের জমি)

২= কৃষক (শুধুমাত্র বর্গাচাষী)

৩= কৃষক (নিজ ও বর্গাচাষী)

৪= কৃষি মজুর/দিনমজুর/ অদক্ষ শ্রমিক

৫= গার্মেন্টস কর্মী

৬= কাজের বুয়া

৭= অস্বাভাবিক পরিবহণ চালক

৪= যান্ত্রিক পরিবহণ চালক

৯= কুমার/কামার/মুচি/দর্জি/

রাজমিস্ত্রি/জেলে ইত্যাদি

১০= ক্ষুদ্র/মাঝারী ব্যবসায়ী

১১= বড় ব্যবসায়ী (পাইকারী)

১২= সরকারী/বেসরকারী কর্মচারী

১৩= সরকারী/বেসরকারী কর্মকর্তা

১৪= পেশাজীবী (শিক্ষক/ উকিল/ডাক্তার/নার্স)

১৫= ভিক্ষুক

১৬= বেকার

১৭= ছাত্র/ছাত্রী

১৮= গৃহস্থালী/গৃহিণী

১৯= অক্ষম/বৃদ্ধ

২০= অবসরপ্রাপ্ত

২১= অন্যান্য

৪৪= প্রযোজ্য নয়

পরিবারের মোট মাসিক আয়

টাকা

পরিবারের মোট মাসিক খরচ

টাকা

পরিবারের সদস্য সংখ্যা

জন

পরিবারে সন্তান সংখ্যা

জন (মার জীবিত সন্তান সংখ্যা)

পরিবারের স্থানীয় প্রধান

কোড: ১= স্বামী, ২= ভাই, ৩= বাবা, ৪= নিজে, ৫= অন্যান্য

বাড়ীর অবস্থা ছাদ :

কোড: ১= মাটি, ২= খড়/ছন, ৩= পলিথিন, ৪= ইট, ৫= টিন, ৬= বাঁশ, ৭= অন্যান্য

বাড়ীর দেয়াল :

বাড়ীর মেঝে :

গত এক বৎসরে আপনারদের খানায় বাৎসরিক আয়-ব্যয়ের অবস্থা কেমন ছিল?

কোডঃ ১= উত্তম; ২= সমান সমান; ৩= মাঝে মাঝে ঘাটতি; ৪= সব সময় ঘাটতি

সম্পূর্ণক খাদ্য বিষয়ক তথ্য :

1	আপনার শিশুটি খাবারটি কতদিন ধরে খাচ্ছে?	দিন	দিন
		CNP	মা
2	আপনার শিশু খাবারটি কি প্রতিদিন খায়?	হ্যাঁ = 1 , না = 2	
3	যদি না হয়, তবে কেন?	খেতে চায় না = 1 CNP দেয় না = 2 আপনি নিয়মিত সংগ্রহ করেন না = 3 বেলে শরীরে অসুবিধা হয় = 4	
4	যদি হ্যাঁ হয়, তবে কেন?	বাচ্চা পছন্দ করে = 1 জোর করে খাওয়াই = 2 বাড়িতে খাবার না থাকায় খাওয়াই = 3 অন্যান্য = 4	
5	খাবারটি কোথায় বসে খাওয়ান?	CNC তে = 1 বাড়ীতে = 2	
6	উত্তর 2 হলে খাবারটি কি করে সাথে ভাগ করে খাওয়ান?	হ্যাঁ = 1 , না = 2	
7	আপনার শিশুটি কি এই খাবারটি পুরোপুরি খায়?	হ্যাঁ = 1 , না = 2	
8	যদি না হয় তবে কেন?	খেতে চায় না = 1 আমি দেই না = 2 অন্যান্য = 3	
9	যদি উত্তর 2 হয়, তবে কেন? উল্লেখ করুন :	N/A=88	
10	শিশু খাবারটি পুরোপুরি খায় কিনা তা কি CNC নিশ্চিত করেন?	হ্যাঁ = 1 , না = 2	
11	আপনার শিশু খাবারটি বেলে কি কোন অসুবিধা হয়?	হ্যাঁ = 1 , না = 2	
12	অসুবিধা হলে কি হয় উল্লেখ করুন.....		
13	শিশুর খাবারটি আপনি কোথায় পান?	CNC তে=1, পরিবারের কেউ সংগ্রহ করে=2, CNP আপা বাড়ীতে দিয়ে যায়=3, অন্যান্য=4	
14	আপনার শিশুকে কেন এই খাবারটি খাওয়ানো হয়? উল্লেখ করুন :		
15	খাবারটি আপনার মতে শিশুর জন্য?	উপকারী পরিমাণে যথেষ্ট	হ্যাঁ = 1 না = 2 হ্যাঁ = 1 না = 2

Research and Evaluation Division, BRAC
Exploration of Food Supplementation Process in BRAC NNP
Form C: For CNP

উপজেলা/থানা কোড গ্রাম/ওয়ার্ড
 CNP নম্বর CNP-এর নাম CNP নম্বর Group 3
 CNP-এর আইডি নম্বর
 স্থা সংগ্রহকারী নাম দুপারডাইজারের নাম তারিখ :
 সাক্ষর..... সাক্ষর.....

অবগতি ক্রমে সম্মতি

আমার নাম। আমি ব্র্যাকের গবেষণা বিভাগ থেকে এসেছি। আমরা অত্র এলাকায় একটি জরিপ কাজ করছি। আপনারা জানেন যে ব্র্যাক এই এলাকায় অনেক দিন ধরে বিভিন্ন কার্যক্রম চালিয়ে আসছে। আপনারা এই কেন্দ্র থেকে সম্পূরক খাবার খাচ্ছেন। আমরা সম্পূরক খাবার বিষয়ক একটি গবেষণার জন্য তথ্য সংগ্রহ করছি। এ ব্যাপারে আমরা আপনার কাছে কিছু বিষয় জানতে চাইব। আপনাকে আশ্বাস দিচ্ছি যে আপনি যা বলবেন তা গোপন রাখা হবে এবং এই সব তথ্য শুধু মাত্র গবেষণার কাজে ব্যবহার করা হবে। আপনার অংশগ্রহণ সম্পূর্ণ আপনার ইচ্ছাধীন, আপনি ইচ্ছা করলে যে কোন প্রশ্নের উত্তর নাও দিতে পারেন। আমি আশা করবো আপনি এই জরিপ কাজে অংশগ্রহণ করবেন, কারণ আপনার এই মতামত অত্যন্ত গুরুত্বপূর্ণ। আপনি অনুমতি দিলে আমি সাক্ষাৎ গ্রহণ শুরু করতে পারি।

হ্যাঁ=1, না=2

CNP-এর শিক্ষাগত যোগ্যতা (completed year)

প্রশ্নক বাধ্য বিষয়ক তথ্য :

1	আপনার কেন্দ্রে খাবার খেতে কারা বেশী আসে?	মা = 1. শিশু = 2
2	এ মাসে কতজন মা ও শিশু খাবারের এর আওতাভুক্ত আছে? (পর্যবেক্ষণ করে লিখুন)	খাতার মা খাতার শিশু ৮ মাসের মা উপস্থিত মা উপস্থিত শিশু মারাত্মক অপুষ্টি শিশু
3	খাবারটি খেতে মাকে কিভাবে উৎসাহিত করেন? উল্লেখ করুন.....	
4	মায়েরা কি সহজেই খেতে রাজী হন?	না = 1 কেউ কেউ = 2 বেশীর ভাগ = 3
5	শিশুবা কি সহজেই খেতে রাজী হয়?	না = 1 কেউ কেউ = 2 বেশীর ভাগ = 3
6	আওতাধীন সকল মা ও শিশু কি খাবারটি সম্পূর্ণ খেয়েছে? (পর্যবেক্ষণ করে লিখুন)	হ্যাঁ = 1 না = 2 তথ্য রাখা হয় না= 3

7	আপনি মা ও শিশুকে কিভাবে নির্বাচিত করেন? মায়ের ক্ষেত্রে শিশুর ক্ষেত্রে	BMI দেখে= 1 হাস্তা দেখে= 2 গরীর দেখে= 3 আমার ইচ্ছামত= 4 অন্যান্য=5 (একাধিক উত্তর আসতে পারে) W/H দেখে= 1 হাস্তা দেখে= 2 গরীর দেখে= 3 আমার ইচ্ছামত= 4 অন্যান্য=5 (একাধিক উত্তর আসতে পারে)	☐
8	প্রয়োজনের বাইরে কাউকে কি তালিকাভুক্ত করতে হয়?	হ্যাঁ = 1 কখনো কখনো=2 না = 3 (একাধিক উত্তর আসতে পারে)	☐
9	যদি হ্যাঁ হয় তবে কাদের নির্দেশে?	রাজনৈতিক ব্যক্তি = 1 সামাজিক ব্যক্তি = 2 ব্র্যাকের কর্মকর্তা = 3 জানিনা = 4 N/A = 5 (একাধিক উত্তর আসতে পারে)	☐
10	এলাকায় মা ও শিশু নির্বাচনের ক্ষেত্রে কে আপনাকে সহযোগীতা করে?	এলাকার নেতা = 1 মহিলা দল = 2 ব্র্যাক কর্মকর্তা = 3 সবাই = 4 অন্যান্য=5	☐
11	আপনি কি মনে করেন আপনার এলাকার মা ও শিশু খাবারটি পছন্দ করে? মায়ের ক্ষেত্রে শিশুর ক্ষেত্রে	বেশীর ভাগই = 1 কেউ কেউ = 2 কেউ না = 3 বেশীর ভাগই = 1 কেউ কেউ = 2 কেউ না = 3	☐ ☐
12	আপনার মতে খাবারটি শিশুর জন্য কেমন? উল্লেখ করুন....		
13	খাবারটি আপনার মতে মায়ের জন্য কেমন? উল্লেখ করুন....		
14	BMI কিভাবে নির্ণয় করেন? সঠিক=1, সঠিক না=2 ☐		
15	কতদিন ধরে প্যাকেটগুলি মজুত রাখা হয়েছিল? (C'NP ও মহিলা দলের মতামত এক হলে, সেটি লিখুন, নতুবা আলাদা লিখুন)	☐ C'NP	☐ মহিলা দল
16	প্যাকেট গুলি কোথায় মজুত করা হয়েছিল?	C'NP-তে=1 ☐	বাড়ীতে= 2
17	কিভাবে মজুত করা হয়েছিল? উল্লেখ করুন....		
18	খাবারটি কিভাবে খেতে হয়?	ওকলা =1 পানি দিয়ে= 2 দুই ভানেই খাওয়া যায়=3	☐
19	এ সংগ্রহে কতগুলি প্যাকেট তৈরী করা হয়েছিল?	☐ No.	