Knowledge, Attitude and Practices (KAP) Survey on Behavioural Aspects of the Beneficiaries of the Mother and Child Benefit Programme (MCBP)

June 2024

Ministry of Women and Children Affairs

Government of the People's Republic of Bangladesh

Supported by

Co-funded by the European Union

unicef for every child

Knowledge, Attitude and Practices (KAP) Survey on Behavioural Aspects of the Beneficiaries of the Mother and Child Benefit Programme (MCBP)

Disclaimer
The publication was co-funded by the European Union, UNICEF, and MOWCA. Its contents are the sole responsibility of the authors and do not necessarily reflect the views of the European Union, UNICEF, and MOWCA.

June 2024

Study conducted by
Research and Policy Integration for Development (RAPID)
House: 18 (Flat 504), Road: 101, Gulshan, Dhaka -1212
Phone: +8801711287444 | Website: www.rapidbd.org | Email: info@rapidbd.org

Cover Photo: © UNICEF/Mukut
Design: Simul Chowdhury/Drik

Knowledge, Attitude and Practices (KAP) Survey on Behavioural Aspects of the Beneficiaries of the Mother and Child Benefit Programme (MCBP)

June 2024

ACKNOWLEDGMENT

This report was prepared by Research and Policy Integration for Development (RAPID) with support from the EU, UNICEF, and the Department of Women's Affairs. Their invaluable assistance and collaboration throughout this study are greatly acknowledged.

The study team comprises Mohammad Abdur Razzaque (Team Leader), Abu Eusuf, Khaleda Islam, Deen Islam, Emran Hasan, Mahedi Hassan and Selina Ahmed Ena. The study benefited from the comments and feedback received from expert reviewers from UNICEF including Mahboob E Alam, Data and Statistics Specialist; Hasina Begum Social Policy Specialist; Md Ashiq Iqbal, Economic Analysis Specialist, Stanley Gwavuya, Chief of Social Policy and Emma Brigham, Deputy Representative.

Appreciation is also extended to the EU Delegation, including Margherita Capalbi, Programme Manager; Ishrat Shabnam, Programme Manager; Iole Valentina Lucchese, Attaché - Programme Manager; and Michal Krezja – Minister Counsellor, Head of Development Cooperation, for their valuable inputs and support.

The study team deeply appreciates the invaluable guidance received from the key officials of the Ministry of Women and Children Affairs (MOWCA) including Nazma Mobarek, Secretary of MOWCA; Keya Khan, Director General of the Department of Women Affairs; Muhammad Mahbubur Rahman Bhuiyan, Additional Secretary of MOWCA; and Sufia Nazim, Joint Secretary of MOWCA and Rubina Ghani, Assistant Director, Department of Women Affairs.

Any limitations and/or views expressed in this report are solely those of the authors.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

ANC	Antenatal care
BCC	Behaviour Change Communication
BDHS	Bangladesh Demographic
BGMEA	Bangladesh Garments Manufacturers and Exporters Association
BKMEA	Bangladesh Knitwear Manufacturers and Exporters Association
BNNC	Bangladesh National Nutrition Council
DCI	Data collection instrument
DWA	Department of Women's Affairs
EU	European Union
FGD	Focus Group Discussion
GoB	Government of Bangladesh
IFPRI	International Food Policy Research Institute
IPHN	Institute of Public Health Nutrition
IYCF	Infant and Young Children Feeding
KAP	Knowledge, attitude and practices
KII	key informant interview
LMA	Lactating Mother Allowance
MA	Maternal Allowance
MDD	Minimum Dietary Diversity
MDGs	Millennium Development Goals
MoHFW	Ministry of Health and Family Welfare
MoWCA	Ministry of Women and Children's Affairs
NGOs	Non-Governmental Organisations
NSSS	National Social Security Strategy
PNC	Postnatal care
SDGs	Sustainable Development Goals
SSP	Social Security Programme
UN	United Nations
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation and Hygiene
WDWs	Women Development Workers
WFP	World Food Programme

EXECUTIVE SUMMARY

This study explores the knowledge, attitudes, and practices (KAPs) of the Mother and Child Benefit Programme (MCBP) beneficiaries on maternal nutrition and the factors influencing household food consumption decisions. The study employs a mixed-method approach, combining quantitative and qualitative data, covering various aspects such as nutrition, food habits, cleanliness, and spending patterns. Quantitative and qualitative findings reveal a good level of KAPs about maternal and child health, nutrition, dietary choices, supplement intake, healthcare-seeking behaviour, food preparation, and food preservation among the MCBP beneficiaries. In addition, findings show that the MCBP beneficiaries in Learning Hubs (LH), where Social and Behaviour Change Communication interventions (SBCC) were given, —exhibit better awareness and practices related to infant and child feeding, food preparation, food preservation, and supplement intake. However, barriers related to social norms, cultural practices, and beneficiary selection need to be addressed to optimise the programme's outcome. The study offers policy recommendations to improve the programme's effectiveness, including empowering women, transparent beneficiary selection, and inter-ministerial coordination.

Background

Over the past decades, Bangladesh has achieved remarkable progress in various socio-economic and demographic aspects, including reductions in newborn and child mortality rates, improved life expectancy, and gender parity in primary education. This success can largely be attributed to cost-effective healthcare solutions and social awareness campaigns. The National Social Security Strategy (NSSS), adopted in 2015, provides a framework for a comprehensive social security system to support individuals throughout their lifecycles. As part of this strategy, the erstwhile two separate schemes, namely, Maternity Allowance (MA) in urban areas and Lactating Mother Allowance (LMA) in rural areas, were merged into the Mother and Child Benefit Programme (MCBP) in 2019 to enhance the health and nutritional status of pregnant and lactating mothers and their children. Currently, the MCBP provides a monthly TK. 800 allowance to poor pregnant and lactating mothers in all Upazilas of Bangladesh and some Social and Behaviour Change Communications (SBCC) in selected Upazilas.

Objective

The objective of this study is to explore the knowledge, attitudes, behaviours, and practices of the MCBP beneficiaries regarding infant and young child feeding, food preparation and preservation, lactating and pregnant mothers' diet and supplement intake, and healthcare-seeking actions. This assessment contributes to achieving the broader goal of enhancing the programme's effectiveness in improving pregnant women's and young children's well-being by revealing the barriers that hinder the realisation of the full benefits of the programme and providing potential solutions to overcome these barriers. The study also helps in developing and designing an effective SBCC strategy for the programme.

Methodology

The study employs a comprehensive research approach, blending quantitative and qualitative methods to fulfil its objectives effectively. Quantitative data were collected from 701 households in 20 Upazilas, six of which are learning hubs and 14 non-learning hubs. This survey uses a two-stage cluster random sampling technique, covering demographic and socioeconomic details, nutritional behaviour, and spending patterns of the MCBP assistance. Qualitatively, the research supplements its quantitative findings with a range of techniques. These include key informant interviews (KIIs), focus group discussions (FGD), systematic family interviews, and case studies. These qualitative approaches enrich the study by uncovering social and cultural barriers, identifying knowledge gaps, and gauging beneficiary perceptions regarding the efficacy of the MCBP interventions.

Findings on Knowledge, attitude, and practices (KAPs) assessment

MCBP beneficiaries exhibit high levels of knowledge, attitudes, and practices (KAPs) regarding infant and young child feeding. Nevertheless, the LH cluster shows a higher level of awareness and adherence to these feeding practices, with negligible differences observed between rural and urban regions.

Among beneficiaries with infants six months or younger, about 80.00 per cent were aware that newborns should exclusively receive their mother's milk, with about 75.00 per cent practising this. Notably, over

95.00 per cent of beneficiaries in the LH clusters demonstrated KAPs in this regard. Disparities between rural and urban areas were negligible. The survey also delved into immediate breastfeeding practices, showcasing greater awareness in the LH cluster. Exclusive breastfeeding knowledge revealed significant differences, attributing the gap to SBCC interventions. Again, beneficiaries in the LH cluster demonstrated superior understanding and positive attitudes.

In the case of young child feeding, noteworthy variations are observed across clusters: a higher proportion of beneficiaries in LH and Urban clusters advocating breastfeeding for 24 months or more. In addition, the survey findings reveal that LH beneficiaries incorporate diverse foods for complementary feeding. Furthermore, perceptions regarding food preparation and feeding practices highlight a high level of confidence, belief in diverse diets, recognition of the benefits of frequent meals, and positive views on extended breastfeeding across all clusters.

The study highlighted that the MCBP beneficiaries had a better understanding and adherence to recommended food preparation practices, such as hand hygiene, utensil hygiene, maintaining cooking temperature, and using safe water for cooking.

The survey findings reveal MCBP beneficiaries' KAPs about various aspects of food preparation steps. Regarding hand hygiene, respondents across all clusters demonstrate its importance, with the LH cluster having the highest awareness. Beneficiaries unanimously agree on the necessity of handwashing before cooking. Variability exists in handwashing practices, ranging from 1 to "5 or More" times, with no significant differences across clusters. Concerning utensil hygiene, a considerable proportion across all clusters recognise the importance of washing cooking utensils. LH clusters exhibit a heightened awareness and adherence to recommended utensil hygiene practices.

The survey on maintaining cooking temperature reveals a widespread understanding of its significance across clusters, and a positive attitude towards proper temperature maintenance is consistent across clusters. The significance of using water from safe sources for cooking is also widely recognised. Responses vary across clusters, reflecting contextual differences. For instance, kitchen cleanliness knowledge is prominent in the LH cluster, translating into positive attitudes and daily cleaning practices, contrasting with the NLH clusters.

MCBP beneficiaries are generally aware of food preservation and risky food items.

Three out of four respondents acknowledge the importance of food preservation. Positive attitudes towards food preservation are notably high in the LH and urban areas. Assessing KAPs about risky food items for children and mothers, about 60.00 per cent of respondents reported awareness. Beneficiaries express positive attitudes towards avoiding these items, and a larger fraction confirm not cooking them. Regarding controlling temperature for food preservation, variations in knowledge and positive attitudes exist across clusters. The assessment of preserving raw food before cooking highlights widespread knowledge and positive attitudes across clusters. Practices vary, with the majority preferring immediate cooking. The findings underscore the importance of targeted interventions aligned with specific contexts

to enhance overall well-being and promote healthier food preparation practices among the MCBP beneficiaries.

MCBP beneficiaries displayed satisfactory knowledge, attitudes, and practices regarding food intake during pregnancy and lactation.

MCBP beneficiaries showed satisfactory levels of KAPs about food intake during pregnancy and lactation. Regarding daily meals, the majority across clusters consume three or more meals. Awareness and attitude about dietary diversity and the adequacy of food amounts are also high among the MCBP beneficiaries, with over 80.00 per cent of beneficiaries reporting knowledge and a positive attitude toward dietary diversity and food adequacy. However, a relatively lower fraction of beneficiaries reported practising dietary diversity as several beneficiaries reported a lack of money to afford adequate food regularly and suffered some forms of food insecurity in the past 12 months prior to this study. Knowledge and attitude about special foods to lower anaemia are moderate, with the LH and Urban clusters showing higher levels. Practices vary, with the LH cluster exhibiting the highest practice percentage, significantly higher than other clusters.

The majority of the MCBP beneficiaries are aware of the recommended number of visits to healthcare centres during pregnancy and have a positive attitude towards pregnant mothers' visits to health centres.

The survey reveals that the majority of MCBP beneficiaries are aware of the recommended number of visits to healthcare centres during pregnancy. Additionally, the majority of respondents across all clusters expressed a positive attitude towards pregnant mothers' visits to health centres, with the LH cluster demonstrating a particularly strong alignment, followed by the urban and rural clusters. Some of the key factors contributing to beneficiaries' reluctance to seek medical care include the distance of community health complexes from their residences and the lack of support from in-laws.

Most MCBP beneficiaries know the essential supplements and iodised salt they need to take during pregnancy and lactation.

In terms of supplement-taking behaviour during pregnancy, most MCBP beneficiaries are aware of the essential supplements that need to be taken and are confident in taking these supplements, with the highest knowledge percentage in the LH cluster. A large fraction of beneficiaries consumed important supplements (Vitamin A, Folic Acid, and Calcium), with the highest practices of supplement intake in the LH and Urban clusters. Regarding iodised salt use during pregnancy and lactation, about 85.00 per cent of participants know that consuming iodised salt is essential. Participants across all clusters generally hold positive attitudes toward the use of iodised salt, with the highest positive attitude in the LH cluster. Overall, about 88.00 per cent of beneficiaries reported using iodised salt in pregnant and lactating mothers' food.

Qualitative findings emphasise the effectiveness of tailored SBCC interventions in improving awareness and practices in maternal and child health. However, challenges like a four-day beneficiary approval

timeframe and potential biases in selection practices, including political influence, raise concerns about equitable program benefits distribution.

The qualitative findings from focus group discussions (FGDs) and Key Informant Interviews (KIIs) underscore the critical need for tailored SBCC interventions that consider diverse socio-economic contexts and challenge traditional norms. In areas with active SBCC interventions, mothers exhibit heightened awareness of maternal and child health, leading to improved practices in food preparation, hygiene, and healthcare-seeking behaviour. However, in NLH clusters, mothers heavily rely on interpersonal communication within their families, and traditional customs significantly influence their dietary choices and healthcare practices. The current four-day timeframe for beneficiary approval is deemed inadequate, and concerns arise about biased selection practices based on political influence and other factors, potentially impacting the equitable distribution of program benefits.

MCBP beneficiaries exhibit diverse spending patterns for the Tk. 800, spending primarily on food items with challenges of limited benefit money and food insecurity; some save for infants, impacting current nutrition, while others repay pregnancy-related loans.

MCBP beneficiaries reveal that decision-making authority is dispersed among beneficiaries, their husbands, and influential family members. Approximately 32.00 per cent of beneficiaries can independently decide on the fund's use, while about 21.00 per cent of husbands and 43.00 per cent of couples make joint decisions. Qualitative data indicates that funds often end up in husbands' or in-laws' accounts, influencing expenditure. The study emphasises the need to empower women in financial decision-making, suggesting that improved decision-making autonomy can enhance the effectiveness of the MCBP. Additionally, the study delves into in-depth expenditure patterns, highlighting that most households spend on food items like milk, lentils, and bananas, and some allocate funds for savings. However, some beneficiaries opt to save for their infants' future, impacting current nutritional needs, while others use the funds to repay loans taken during pregnancy.

Barriers to achieving the full potential of MCBP programmes

This study focuses on identifying key barriers to consuming healthy and nutritious foods among pregnant and lactating women in Bangladesh, a critical issue given the importance of optimal nutrition during these phases to support maternal and infant health. The following are the major challenges of the MCBP programme identified through qualitative analysis.

Social Norms and Beliefs: One major barrier identified is the influence of entrenched social norms, beliefs, and values on pregnant and lactating mothers' dietary and behavioural choices. In many rural areas, women are typically responsible for managing household food resources but often prioritise the dietary needs of male family members over their own. Decisions about food intake are frequently influenced by mothers-in-law and other influential family members, leading to unequal food distribution within households. New mothers also face difficulties prioritising their healthcare needs, as caregiving responsibilities for newborns and elderly family members leave little time for seeking professional healthcare services for themselves.

Cultural Dietary Practices: Cultural dietary practices, influenced by specific beliefs, traditions, and norms during pregnancy, can have adverse effects on both mothers and their newborns. These practices often involve the avoidance of certain foods or ingredients based on the belief that they might harm the fetus or impede the delivery process. While cultural practices, such as eating smaller amounts of food during pregnancy to avoid delivery complications, can be deeply rooted and valued within communities, they may not always align with scientific evidence and nutritional requirements during pregnancy and lactation.

Issues with Beneficiary Selection: Problems with beneficiary selection for the MCBP is one of the key barriers to achieving the programme's optimal effectiveness. Local government officials and representatives sometimes prioritise individuals with personal connections, such as relatives or political supporters, over those genuinely in need. This favouritism leads to exclusion errors, where deserving beneficiaries are left out.

Difficulties in Accessing Health and Nutritional Services: Accessing essential health and nutritional services during pregnancy and postpartum is crucial, but the study reveals that many women do not go for regular check-ups due to barriers like distance, financial constraints, and lack of awareness. Inadequate healthcare infrastructure and quality of services further hinder access. The absence of emergency care services in rural areas and char lands poses additional challenges, as does overcrowding and extended waiting times at healthcare facilities.

Lack of Information on Health and Nutrition: Beneficiaries face challenges in accessing information and services related to health and nutrition. This lack of access to information contributes to decreased awareness of health risks postpartum, particularly among rural women.

Policy Recommendations

Health and Nutrition Awareness Enhancement: Implement targeted efforts to advance health and nutrition awareness among MCBP beneficiaries, emphasising the critical first 1,000 days of a child's life. A comprehensive understanding of maternal diet, exclusive breastfeeding, and dietary diversity is vital for achieving the Sustainable Development Goals (SDGs).

Empowerment Programmes for Informed Decision-Making: Launch empowerment initiatives addressing factors hindering women's agency, including limited education and financial dependence. Integrate financial literacy training into SBCC interventions to empower beneficiaries with budgeting and financial planning knowledge.

Transparent Beneficiary Selection: Ensure transparency in beneficiary selection by extending the verification timeframe, allocating sufficient resources, and addressing biases in the selection process to minimise exclusion and inclusion errors.

Expand Coverage and Maintain Real Purchasing Power: Increase budgetary allocation to expand MCBP coverage, especially in vulnerable areas. Adjust the cash benefit for inflation annually to maintain purchasing power and ensure regular disbursement of the benefit money.

Strengthen knowledge sharing on various aspects of food preparation, food preservation, and hygiene. It is imperative to enhance the SBCC sessions within the MCBP by focusing on knowledge sharing regarding food preparation, preservation, and hygiene, identified as areas of weakness among beneficiaries. It emphasises the need to disseminate information on appropriate and risky food items for children and mothers, involving influential household members to support positive health outcomes. A comprehensive assessment of the SBCC component is suggested to identify gaps and develop targeted interventions. Ultimately, expanding SBCC sessions to include vital topics and engaging key household members can effectively address knowledge gaps and promote healthier practices among beneficiaries in the MCBP programme.

Inter-Ministerial Coordination: Ensure effective coordination between the Ministry of Health and Family Welfare, the Ministry of Social Welfare, the Ministry of Women and Children Affairs, and the Department of Women's Affairs. Establish a joint committee to facilitate collaboration, communication, and data sharing for evidence-based policymaking.

Improving Access to Essential Services: Strengthen health infrastructure, particularly in underserved rural areas and char lands, to enhance access to essential health and nutritional services for pregnant and lactating women. Address challenges such as long distances, waiting times, and reluctance from family members to support beneficiaries.

Post-Pregnancy Health and Self-Care: Implement strategies for post-pregnancy health and self-care education, including home visits by healthcare workers and engagement with local women's groups. Prioritize awareness and support for new mothers to promote better health outcomes.

01 INTRODUCTION

Introduction

Over the past decades, Bangladesh has made significant progress in various socio-economic and demographic aspects, including reducing newborn and under-five mortality rates, increasing life expectancy, and achieving gender parity in primary education. In fact, it has outpaced many countries with similar per capita income levels in terms of multiple social and human development measures, including gender equality, demographics, and healthcare. This success can be attributed in part to the widespread adoption of cost-effective healthcare solutions and extensive public awareness campaigns. Building on its achievements in fulfilling most of the Millennium Development Goals (MDGs), Bangladesh is now working towards the Sustainable Development Goals (SDGs).[1]

[1] Amongst a number of targets under the SDG 3 (Ensure healthy lives and promote well-being for all at all ages), two important targets are: (i) by 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births and (ii) by 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births (UN, 2022).

Table 12.1 in Appendix A illustrates the notable progress made in various health-related indicators. For example, there have been significant reductions in stunting, wasting, and underweight cases, while the percentage of children (aged 6-23 months) receiving diverse diets has risen by approximately 14 percentage points over the past decade. Postnatal care (PNC) visits have also increased during this period. However, there are concerns regarding exclusive breastfeeding for children under six months, which has decreased by more than 9 percentage points between 2011 and 2022. Although antenatal care (ANC) 4+ visits have shown an upward trajectory, there has been a 6.5 percentage point decline from 2017-18.

It is important to note that progress in many health and nutrition indicators varies significantly depending on factors such as gender, place of residence, and socioeconomic status. Unfortunately, the underprivileged, marginalised, and vulnerable groups continue to lag behind in these areas. The Government of Bangladesh (GoB) is, therefore, implementing the Mother and Child Benefit Programme (MCBP) in all Upazilas of Bangladesh and with an SBCC component in some selected Upazilas for pregnant and lactating mothers. MCBP is the consolidation of two existing programmes, namely the Maternity Allowance (MA) and the Lactating Mother Allowance (LMA).

Objectives of this study

The study aims to achieve the following objectives: first, to profile the MCBP beneficiaries by examining their demographic and socioeconomic characteristics. Second, it seeks to explore the baseline knowledge and practices related to nutrition among these beneficiaries, encompassing areas such as food habits, food preparation, dietary diversity, supplement consumption, feeding practices, and healthcare-seeking behaviour, distinguishing between rural and urban areas. Specifically, the study explores the effectiveness of existing interventions within the MCBP in enhancing the nutritional knowledge of beneficiaries and enhancing their dietary habits and food consumption. Third, the study intends to document the utilisation of financial assistance provided to pregnant and lactating women under the MCBP for nutrition purposes and understand the reasons behind alternative household choices. Fourth, it aims to identify barriers, knowledge gaps, social and cultural beliefs affecting desired behaviours, and regular access to benefit allowance and nutrition services. Finally, the study assesses the effectiveness of current MCBP interventions in enhancing beneficiaries' nutrition-related knowledge, dietary practices, and food intake, with a specific focus on pregnant and lactating mothers and their children.

02 A BRIEF OVERVIEW OF THE MCBP

A brief overview of the MCBP

For low-income mothers living in rural Bangladesh, the MoWCA launched the Maternity Allowance (MA) scheme in FY 2007–08. The MA initiative for poor rural mothers sought to support their specific food requirements during pregnancy and after birth for proper nutrition and childcare (DWA, 2021a). Since 2010–2011, the Lactating Mother Allowance (LMA) scheme has provided financial assistance to underprivileged working women in metropolitan areas for either their own health or the proper development of their newborn children. Even though these two programmes have almost similar objectives, the MA programme emphasised improved immunisation, reduction of dowry, and increased registration of birth and marriage, while the LMA programme emphasises increased utilisation of ANC and improved standard of living.

As mentioned earlier, the MCBP combined both MA and LMA programmes. However, before launching the MCBP, the government took an iterative approach by first integrating two existing cash-based social safety net programmes – the rural MA and urban LMA programmes – into a single programme, the Improved Maternity and Lactating Mother Allowance (IMALMA) programme. After piloting the IMLMA, the MCBP started its journey. Currently, the DWA implements the programme with the technical assistance of WFP and UNICEF and support from the EU. The MCBP is designed to improve children's nutritional status and cognitive development from 0 to 4 years of age (DWA, 2021b).

Eligibility criteria for the MCBP

Pregnant mothers between the ages of 20 and 35 can self-enroll on a rolling basis by visiting their Union Digital Centres with national ID cards and Antenatal Cards. The selection criteria for enrollment in the MCBP require the determination of eligibility by the decision-makers at the lower-level administrative units. As per the DWA, the eligibility criteria for the MCBP defined by the MoWCA are provided in Box 1.

Box 1: Eligibility criteria for the MCBP benefits

- Should be at least 20 years old and not more than 35 years.
- The woman should be pregnant with her first or second child during the annual enrolment of the programme (third child unless there was a fatal death or child mortality within two years for the first or second pregnancy).
- Must have a national identification card.
- Should have a monthly household income of not more than Tk. 8,000 for rural areas. Working women in urban areas should have a household income between Tk. 8,000 and Tk. 10,000. Total household income should be in the range of Tk. 8,000-12,000 in areas where enrollment is conducted by the Bangladesh Garment Manufacturers and Exporters Association (BGMEA) and Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA).
- Low-income families, especially households who lead their livelihood based on day labourer, rickshaw/auto-rickshaw/van, hammersmith, potter, washerman, coolie, fisherman roles, etc., in rural areas, and garment and domestic workers in urban areas, will get priority.
- Those who are landless or who do not own any land except for the homestead, or if any dwelling and cultivable land is less than 15 decimals, will get priority.
- Autistic and physically or mentally disabled women will get priority.
- Women whose husbands have deserted them or widowed women will get priority.

MCBP benefit package

Women receive benefits under the MCBP programme for both their first and second child. Beneficiaries are now getting a monthly cash allowance of Tk. 800 for a 36-month period to meet their food needs for nutrition and childcare during pregnancy and after delivery. Along with the monthly cash transfer (CT), the MCBP offers Social and Behaviour Change Communication (SBCC) sessions, such as providing information on health, nutrition, early childhood development, etc. The SBCC sessions are open to all pregnant women and mothers of young children, irrespective of whether they are programme beneficiaries or their immediate families/caregivers (e.g., husbands, mothers-in-law, etc.). Tailored messages are delivered over the course of the woman's pregnancy until the child is four years old. The messages are delivered at SBCC courtyard community sessions by government community-resource pool workers and women development workers, antenatal care visits in the health facility, and household visits (Nawaz et al., 2019). As part of the SBCC, several training modules have been developed within a comprehensive training framework to deliver age-specific information on health and nutrition (Nawaz et al., 2019). As a result, both ANC and the diets of mothers and their young children should improve due to the combination of cash transfers and SBCC messaging, with the long-term intention of decreasing stunting rates across the country.

Social and Behaviour Change Communication (SBCC)

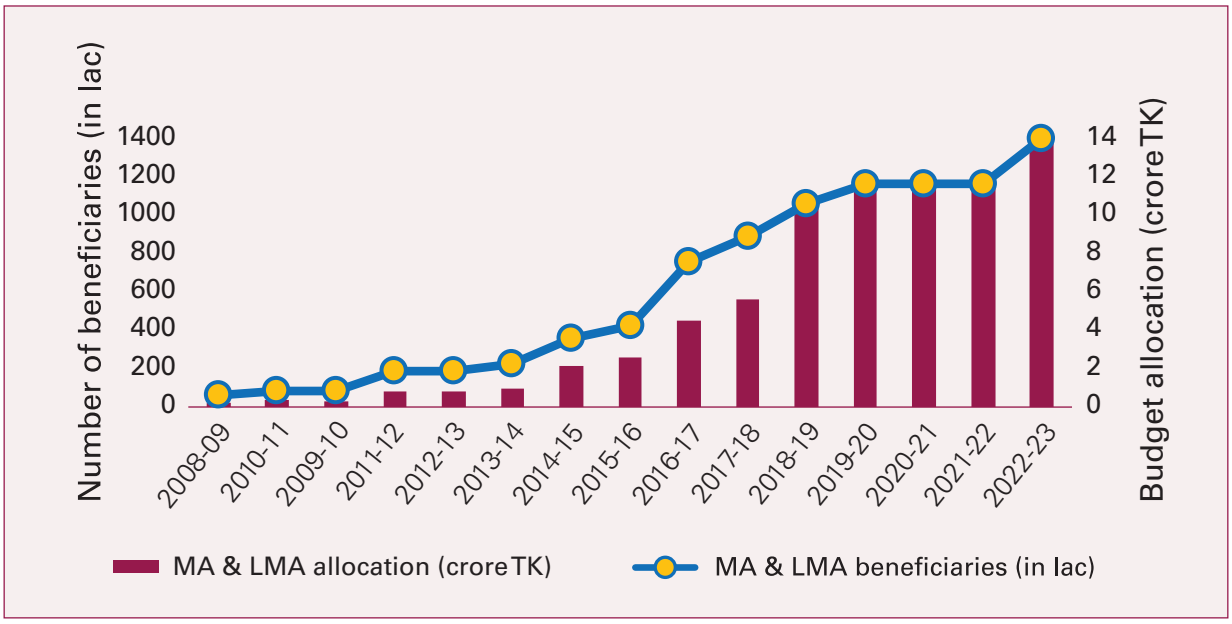
Social and Behaviour Change Communication (BCC) sessions are held in Learning Hubs (LH) to educate pregnant and lactating women about nutrition, hygiene, and prenatal care. The sessions, conducted by the Women Development Workers (WDW) and community healthcare providers, focus on the importance of exclusive breastfeeding, appropriate complementary feeding, immunisations, and comprehensive infant care. They also provide essential information about dietary and supplement intake requirements during pregnancy and breastfeeding. The sessions are conducted in community settings and involve both beneficiaries of the MCBP and women development workers. They use simple, practical definitions and encourage open-ended questions. The training sessions are structured into four thematic areas: maternal nutrition during pregnancy, initiation and duration of breastfeeding, comprehensive maternal and lactating mother nutrition, and essential supplements for maternal and infant health. The sessions are conducted using various effective methodologies, including visual aids, interactive group exercises, dynamic question-answer interactions, facilitated discussions, and engaging group games. They are committed to disseminating evidence-based information and promoting the involvement and endorsement of family members and the broader community (see Box 2 for more details).

Current State of the MCBP Coverage

At the outset, the government introduced the MCBP in seven Upazilas and six garment factories in 2019 with technical assistance from WFP. Since then, the coverage has been following an increasing trend. Currently, the consolidated scheme is being implemented in all Upazilas covering eight divisions of Bangladesh. However, the beneficiaries in 68 Upazilas receive some forms of SBCC services together with cash transfers. The MoWCA seeks to reach 6 million children by 2026, representing 50 per cent of

all children aged 0 to 4 under the NSSS National Action Plan Phase-II (2021-2026) (Cabinet Division, 2022). Both the number of beneficiaries and the budget allocated for the MCBP have increased over the past years. The total budgetary allocation for the MCBP stood at TK 12.43 billion in FY 2022-23 (Figure 2.1). This programme alone comprises 1.09 per cent of the total social security programme (SSP) budget. The total number of beneficiaries of MCBP increased to 12.54 lakhs in FY23, showing an increase of 2.09 lakhs from the previous year (Figure 2.1).

Figure 2.1: Allocation for and number of the beneficiaries of the MCBP



Source: RAPID presentation using data from the MoF.

03 SOUTH ASIAN INITIATIVES: NURTURING MOTHERHOOD AND CHILDHOOD

South Asian Initiatives: Nurturing Motherhood and Childhood

Across the diverse landscapes of South Asia, countries are weaving safety nets to protect the most vulnerable—pregnant and lactating mothers and their young children. These safety net programmes serve as beacons of hope, offering a holistic approach to healthcare, nutrition, and education.

The Integrated Child Development Services (ICDS) Scheme, a cornerstone of child welfare in India, encompasses six vital services available at Anganwadi Centres. These services, including supplementary nutrition, immunisation, health check-ups, referral services, pre-school non-formal education, and nutrition & health education, target children aged 0-6 years. The scheme strives to enhance the overall health and nutritional status of children, minimise mortality and morbidity rates, combat malnutrition, and mitigate school dropout rates. Additionally, it aims to empower mothers to adeptly meet the health and nutritional needs of their children through comprehensive education and support. The Pradhan Mantri Matru Vandana Yojana (PMMVY) complements these

efforts by providing cash incentives, amounting to Rs. 5,000 for first-borns and Rs. 1,000 for subsequent children, distributed in three instalments to financially assist pregnant and lactating women. Furthermore, the National Health Mission (NHM) in India emphasises free antenatal care, institutional delivery, and postnatal care for pregnant women, supplemented by free transportation to health facilities. With a goal of ensuring accessible, affordable, and quality healthcare, NHM focuses particularly on rural populations. Lastly, the Janani Suraksha Yojana (JSY) programme provides financial assistance to pregnant women opting for institutional delivery, contributing to the broader mission of reducing maternal and neonatal mortality through the promotion of institutional births and the provision of cash incentives for deliveries in health facilities.

Pakistan's Lady Health Workers Programme (LHWP) is a community-driven initiative targeting women and children in rural areas, offering essential health services such as antenatal and postnatal care, family planning, and health education. Complementing this, the Pakistan Maternal Nutrition Strategy 2022-27 focuses on preventing undernutrition, anaemia, and micronutrient deficiencies in pregnant and breastfeeding women, along with addressing low birth weight in newborns. Additionally, the Free and Zero Expense Delivery Programme ensures cost-free delivery services, including C-sections, covering antenatal and postnatal complications, drugs, diagnostics, blood, diet during facility stays, and transportation, aiming to enhance maternal and child healthcare accessibility.

The Safe Motherhood Programme in Nepal is designed to diminish maternal and neonatal mortality by delivering fundamental healthcare services to women and children in rural areas, emphasizing maternal and child health through offerings such as antenatal care, postnatal care, family planning, and health education. The Female Community Health Volunteer (FCHV) Programme, as a community-based initiative, shares a similar focus on maternal and child health, providing essential services and health education in rural areas. The National Safe Motherhood and Newborn Health Long-Term Plan (2016-2030) aims to decrease maternal and neonatal mortality by enhancing the quality of maternal and newborn health services, concentrating on accessibility, quality improvement, and health system strengthening. Additionally, the Maternity Incentive Scheme contributes to the reduction of maternal and neonatal mortality by encouraging institutional delivery through financial assistance and cash incentives for women delivering in health facilities.

In Sri Lanka, safety net programmes for pregnant and lactating mothers and children include the World Food Programme (WFP), which extends emergency aid to pregnant women in marginalised districts of Colombo through the distribution of food vouchers. The initiative addresses the urgent needs of three million vulnerable individuals grappling with food shortages amid a severe economic downturn. Complementing the WFP effort, UNICEF advocates for family-friendly policies in Sri Lanka, emphasising the establishment of a safety net encompassing childcare and protection for all families and children. UNICEF's recommendations also focus on enhancing coverage and accessibility to social protection for pregnant and lactating women and families with young children. Furthermore, UNICEF underscores the importance of providing childcare services, regardless of family work status, to ensure the well-being of mothers and children in Sri Lanka.

04 METHODOLOGY OF THE STUDY

Methodology of the study

The study utilises both quantitative and qualitative techniques to achieve the objectives outlined. A detailed discussion of these techniques is provided in this section.

Quantitative methods

The quantitative method involves a primary household survey of the MCBP beneficiaries using a structured questionnaire. This survey is designed to achieve three main objectives: (1) creating a demographic and socioeconomic profile of the MCBP beneficiaries, (2) assessing the knowledge, attitudes, and practices related to healthy and nutritious food consumption behaviour among the beneficiaries, and (3) documenting the broad categories of expenditure on which MCBP financial assistance is being expended.

The survey employs a two-stage cluster random sampling method. A detailed discussion of the sampling technique and the list of Upazilas surveyed are provided in tables 12.3 and 12.4 in Appendix A. Among the surveyed Upazilas, 14 were from rural areas. On the other hand, 6 Upazilas were from the Learning Hubs (LH). Out of the 6 LH Upazilas, 3 Upazilas (Chitolmari, Gangachara, Goainghat) were from rural areas, while the rest of the Upazilas (Mehendiganj, Kallayanpur slum, Godagari) were from urban areas. A questionnaire was designed to collect data on demographic and socio-economic profiles such as gender, age, educational background, occupation, income-generating activities

of household members, savings, household spending, asset holding, access to basic services (health, education, and WASH facilities), access to social protection schemes other than the MCBP, etc. The questionnaire also collected the MCBP beneficiaries' knowledge, attitudes, and practices about infant and young child feeding, pregnant and lactating mothers' food and supplement intake, food preparation, preservation, cleanliness, and the use of TK 800 on various expenditure items (the household survey questionnaire is provided in Appendix C).

The data analysis was conducted by the RAPID team to construct a profile of demographic and socio-economic status, including features such as education and skills, disability, social protection, and empowerment of women at disaggregated levels of residence (rural and urban), gender (male and female), income, wealth, sanitation, and nutrition status, etc. Data analysis was also conducted to explore nutrition-related knowledge, attitudes, and practices in four broad domains: infant and young child feeding, dietary intake, food preparation, and food preservation. The questionnaire included many questions measuring knowledge, attitude, and practices about several relevant indicators. A list of indicators for these domains is provided in Appendix A.

Qualitative methods

Quantitative techniques alone cannot identify the depth and multifaceted nature of constraints in implementing the desired utilisation of nutrition and health services, especially in the case of assessing the gaps in knowledge, attitude, and practices. For this reason, the research team used a variety of qualitative techniques to complement the quantitative household survey. These include systematic family interviews, key informant interviews (KIIs), focus group discussions (FGD), and case studies. A brief discussion of these qualitative tools is provided in Appendix A.

The RAPID team conducted a comprehensive and in-depth desk review. Government acts, policy documents (including documents on the detailed implementation plan of the MCBP and the SBCC component prepared/owned by the MoWCA), development plans, and other secondary studies and reports with implications for women and children are considered the most important sources of information. A summary of available resources for the desk review is presented in Table 12.2 in Appendix A. In addition, various issues pertaining to the MCBP with a special focus on different dimensions of women's and children's health and nutrition, published in secondary literature, including journal articles, books, dissertations, and newspaper editorials/opinion pieces on the MCBP in Bangladesh, have been reviewed.

In addition, an interview questionnaire was designed to conduct 20 systematic family interviews using a semi-structured interview method. The respondents of family interviews included but were not limited to MCBP beneficiary spouses, mothers-in-law, adolescents, young adults, and other influential family members. Given the socio-economic status of mothers in Bangladesh, especially young mothers in rural areas, the decision regarding spending financial assistance is often not taken by the beneficiary herself; instead, the household head makes this decision. So, conducting family interviews with other family members is equally important. The RAPID study team has focused on gender and age-specific aspects while preparing the questionnaires.

Key Informant Interviews (KIIs) are another crucial source of qualitative data that helped to understand the MCBP programme's intricate problems and their potential solutions from the perspectives of government officials, implementing field workers, and other stakeholders. Fifty KIIs were conducted with different types of stakeholders. The KIIs were carried out face-to-face, online, and over the phone. Different stakeholders may have varying levels of influence, interest, and impact on the implementation and utilization of the MCBP programme. Similarly, ten Focus Group Discussions (FGDs) were conducted to gain insights into different aspects of the MCBP intervention. A semi-structured open-ended checklist formed the key basis for these FGDs. These FGDs were conducted among diversified stakeholders, including MCBP beneficiaries in rural and urban areas, beneficiaries from RMG workers, adult family members, and beneficiaries from learning and non-learning hubs.

The MCBP intervention is complex in nature, as it is provided through SBCC sessions with cash transfers, and multiple factors might influence the usage of cash benefits for buying nutritious foods. Given the circumstances, the RAPID team conducted ten case studies, ensuring representation from both rural and urban areas, as well as learning and non-learning hubs. Using the case study approach, MCBP beneficiaries' Knowledge, Attitudes, and Practices (KAPs) on nutrition practices and their nutritious food purchasing behaviour using cash benefits were comprehensively explored.

Following qualitative data collection, meticulous transcription and synthesis processes were undertaken. The objective is to extract meaningful patterns and themes from the raw qualitative data. These synthesised qualitative findings are subjected to rigorous comparative analysis. This comparison is not only within the qualitative sources themselves but also extends to contrasting them against the quantitative findings derived from the household survey data. This triangulation of data sources- both qualitative and quantitative- serves a twofold purpose. Firstly, it acts as a robust means of cross-validation, enhancing the credibility and validity of the findings. Secondly, it provides a holistic view of the research phenomenon. The qualitative insights complement and reinforce the quantitative data, contributing to a comprehensive and nuanced understanding of the subject under investigation.

Ethical consideration

Throughout the design and implementation of the study, ethical considerations were paramount, ensuring the voluntariness, informed consent, and security of participants. The study received ethical approval from the Institutional Review Board of the Institute of Health Economics (IHE-IRB) before initiation. Informed consent, including a clear explanation of the study's objectives and methodology, was obtained from all participants. Anonymity was preserved through unique identification codes, and a separate key maintained confidentiality. A comprehensive pre-survey briefing ensured transparency and field supervisors conducted spot-checks to ensure adherence to protocols. A feedback mechanism allowed participants to report concerns, addressed transparently by the research team. Cultural and gender sensitivity was maintained through enumerator training on community norms, customs, and practices, emphasising a diverse survey team for enhanced comfort and openness during discussions on maternal and child health topics.

05 FINDINGS FROM THE QUANTITATIVE SURVEY: BENEFICIARY PROFILE

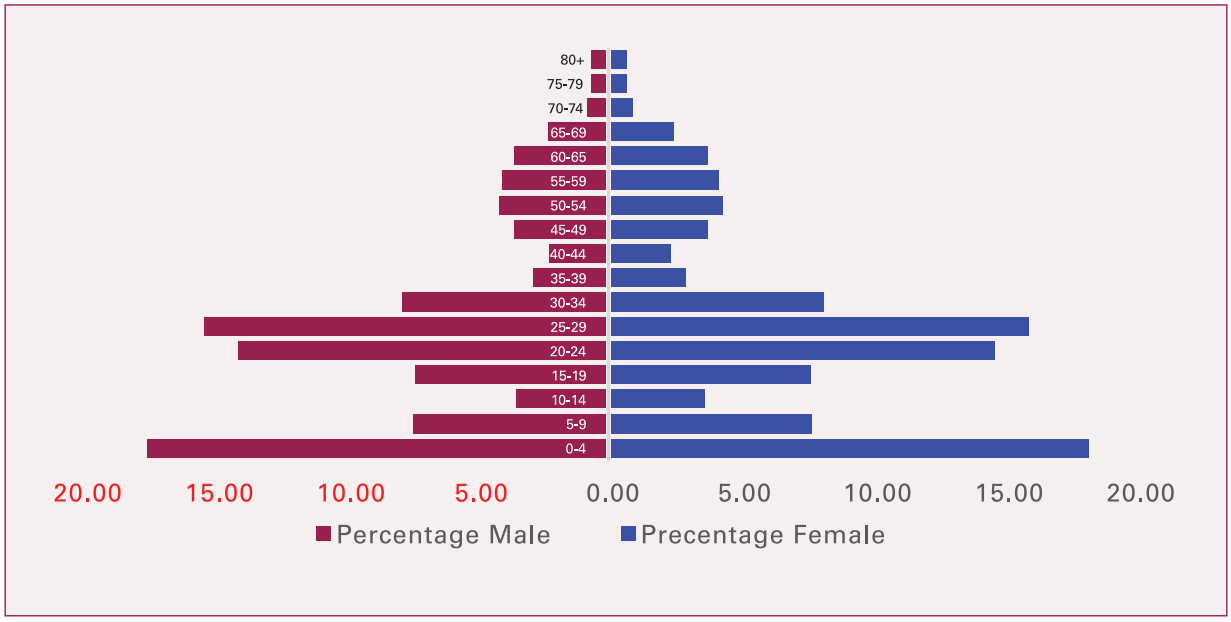
Findings from the quantitative survey: Beneficiary profile

Demographic profile

As mentioned earlier, the study conducted a primary survey covering a total of 701 households. The summary of the beneficiary profiles is given in Appendix B. Slightly above 97.00 per cent of the households are headed by males. On the other hand, the gender-based distribution of household members suggests that around 51.00 per cent of the household members are female. The average age of the male-headed household head is 37 years, while the corresponding figure is 47 for female-headed household heads. The average household size is 4.78. The age structure of household members is presented in Figure 5.1 by gender. Just below two-thirds (65.09 per cent) of the MCBP beneficiary household members are of working age. The proportion of males in this category is 68.80 per cent, and females are 66.20 per cent. The dependency

ratio—the proportion of dependents (usually those within the age bracket of 0-14 plus those above 65+) in a population divided by the number of working-age people—for the MCBP beneficiary households is estimated at about 54 per cent.

Figure 5.1: Proportion of households in the surveyed households by age groups



Source: KAPS household survey undertaken as part of this study.

Income and employment opportunities

The survey found that the employment rate is low in beneficiaries' households, with most employed members being self-employed or day labourers. Additionally, the average monthly household income is below the national average, while the per capita income is even lower. This highlights the need for targeted interventions to improve the well-being of the MCBP beneficiaries.

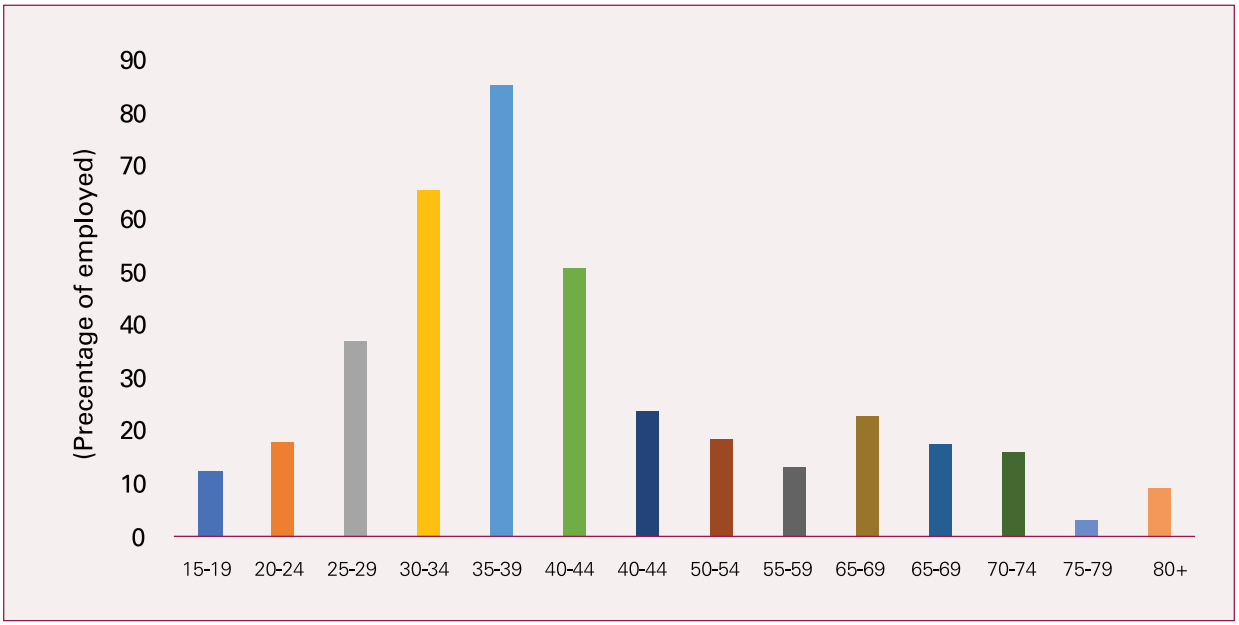
The survey data showed that the employment rate among the MCBP beneficiary household members is 27.68 per cent. The 701 surveyed households included 3349 members, and out of the 3349 members, 927 were employed or earning members. The majority of the employed household members (approximately 43 per cent) were self-employed, followed by day labourers (about 36 per cent). Around 21 per cent of the household members are employed as workers. The survey data also showed that the average monthly household income is TK. 20,413 as against the national figure of Tk. 32,422 (HIES, 2022, BBS). The per capita income of the surveyed household is estimated at TK. 3,746, which is below the national figure of TK. 7,614 (HIES, 2022, BBS). The per capita income of the poorest 50 per cent of households is Tk. 2,233. The monthly per capita consumption expenditure is approximately Tk. 4,874.

Figure 5.2 shows the proportion of the employed population of the MCBP beneficiary households according to different age groups. Most of the employed population belongs to age groups 25-29, 30-34,

35-39, and 40-44. On average, more than half of the population (about 60 per cent) of these age groups are employed. This figure is much higher when compared to the employment status of all the working-age population (about 35 per cent of the population is employed). More specifically, more than 85 per cent of the population belonging to the age group 35-39 are employed, followed by 30-34 (65 per cent), 40-44 (51 per cent), and 25-29 (37 per cent).

Child labour continues to be prevalent despite many awareness-raising initiatives by the Government of Bangladesh (GoB) and NGOs. Often, children (aged under 18 years old) are assigned to work to support their families financially. Survey data seems to suggest that about 1 per cent of the population aged below 15 years are employed. Possible reasons for the presence of child labour are child marriage, affordability, and financial support to families.

Figure 5.2: Employed population by age group



Source: KAPS household survey undertaken as part of this study.

Housing and sanitation facilities

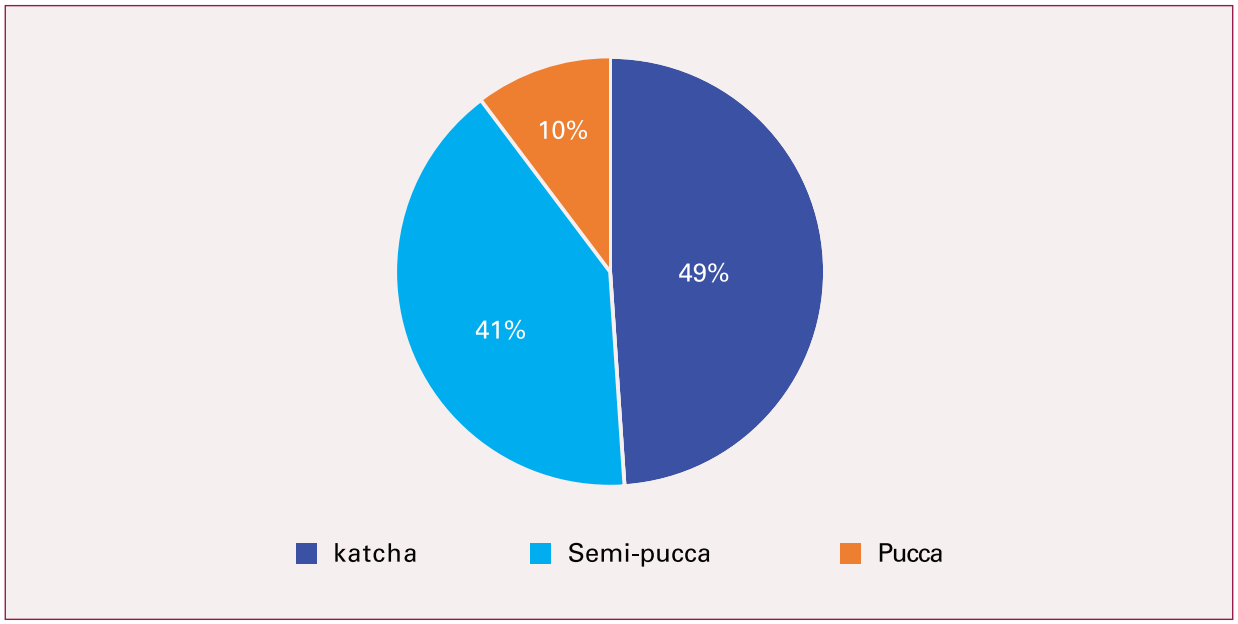
The living conditions of MCBP beneficiary households are generally poor, with many households living in small houses, lacking access to proper sanitation, and using unhealthy cooking methods.

More than 89 per cent of the MCBP beneficiary households live in their own houses. Only 5.4 per cent of all surveyed households reside in rented houses. The remaining households live in rent-free places, places provided by relatives at no cost, and houses provided by the government under its Ashrayan project.[2] It is noted that 42.00 per cent of the households living in rented houses have experienced an increase in rents.

[2] Ashrayan project is one of the social protection programmes aiming to alleviate poverty of the landless and homeless people through providing shelters and human resource development activities. For details, see http://www.ashrayanpmo.gov.bd/

However, there are variations in the living conditions of the dwelling places. Findings suggest that about 49 per cent of the dwellings are 'Kancha' (made of mud or straw), while 40.8 per cent of the surveyed households dwell in 'semi-pucca' houses (floors are made of bricks and cement) (Figure 5.3). About two-thirds of the houses have two or fewer rooms for sleeping, which seems inadequate for five-member households.[3]

Figure 5.3: MCBP beneficiary households' conditions



Source: KAPS household survey undertaken as part of this study.

Most MCBP beneficiary households have access to safe drinking water sources and sanitation facilities. Table 5.4 shows the proportion of households with various sources of water across four clusters. Around 98.00 per cent of the households can source water from safe sources (Table 5.1). Slightly above 66.00 per cent of the households sourced their drinking water from a tubewell – lower than the national figure of about 77.00 per cent (BBS, 2023). Still, 3.28 per cent of the households do not have drinking water sources in the vicinity of their homes. A small fraction of households in the NLH and Rural clusters, 0.20 per cent, collected their drinking water from unprotected sources.

[3] Average household size of the survey for this study is 4.78.

Table 5.1: Main sources of drinking water

Sources of water	NLH	LH	Rural	Urban	All
Tubewell	70.93	55.02	73.09	49.26	66.19
Water Pump	9.76	4.31	10.64	1.97	8.13
Government tap/Permanent pipe	1.83	18.18	3.21	15.27	6.7
Pipes in the house	6.5	2.87	3.82	9.36	5.42
Pipes in the yard	4.27	7.66	2.01	13.3	5.28
Pipes in the neighbour's house	2.44	5.26	2.01	6.4	3.28
Surface water (Rivers, lakes, dams, ponds)	1.63	2.87	1.61	2.96	2
Protected Well/Idara	1.22	0.96	1.41	0.49	1.14
NGO Pukur filter	0.41	1.91	1.2	0	0.86
Collected Rainwater	0.41	0.48	0.2	0.99	0.43
Bottled water	0.2	0.48	0.4	0	0.29
Unprotected wells/Idara	0.2	0	0.2	0	0.14
Water kiosk plant	0.2	0	0.2	0	0.14
Total	100	100	100	100	100
Number of Observations	209	492	498	203	701

Source: KAPS household survey undertaken as part of this study.

Findings from the survey suggest that only about 30.00 per cent of the households have toilet facilities within their habitats, while about 59.00 per cent have such facilities within their yard/plot. However, more than 5 per cent of households practice open defecation (Table 5.2). Notably, around 39.00 per cent of the households share their toilet facilities, partly due to the absence of toilet facilities within their habitats, affordability, and lack of awareness. Sharing latrines is often considered unhygienic. Hence, many households might be susceptible to health hazards.

Table 5.2: Types of toilet facilities.

Form of Toilet	NLH	LH	Rural	Urban	All
Pit latrine with slab	41.46	29.19	40.76	30.54	37.8
Slabless pit latrine / open pit	17.07	22.49	18.47	19.21	18.69
Flashless Toilet	12.2	17.22	17.67	3.94	13.69
Flash and hold in a safe pit (pit latrine	11.79	2.39	6.63	14.78	8.99
Flash and hold in a safe tank	8.13	3.35	5.02	10.84	6.7
Open/hanging latrine	4.67	8.13	6.02	4.93	5.71
Flash removal through the pipe to the sewer system	0	13.88	0	14.29	4.14
Ventilated Improved Pit (VIP) latrine	3.25	1.91	4.02	0	2.85
Others	1.02	0.48	1	0.49	0.86
I don't know where it is removed by flash	0.41	0.96	0.4	0.99	0.57
Total	100	100	100	100	100
Number of Observations	209	492	498	203	701

Source: KAPS household survey undertaken as part of this study.

The MCBP beneficiaries or their household members often have to collect fuelwood for cooking. Approximately 4 out of 5 households (78.17 per cent) use firewood as the primary cooking fuel (Table 5.3). Around 8.00 per cent use leaves/straw/charcoal/husk/dry grass/bichali/wheat/ maize. Dung/animal waste is used as cooking fuel by only 5.42 per cent. The remaining households use either natural gas (1.57 per cent) or liquefied petroleum (LP) gas (6.85 per cent). Access to electricity among the MCBP beneficiary households is lower than the national figure. More than 96.00 per cent of the surveyed households have electricity at their homes vis-à-vis 99.34 per cent at the national level. About 3.00 per cent of households use solar-powered lanterns (lamps) as their primary lighting source.

Table 5.3: Sources of cooking fuel

Mostly used fuel	NLH (%)	LH (%)	Rural (%)	Urban (%)	All (%)
Wood/fire-wood	80.89	71.77	80.52	72.41	78.17
Leave/straw/charcoal/ Husk/ Dry Grass / Bichali /Wheat / Maize High	7.72	8.61	7.43	9.36	7.99
Dung/Animal Waste	4.67	7.18	6.63	2.46	5.42
Natural Gas	0.41	4.31	0.2	4.93	1.57
LP Gas	6.3	8.13	5.22	10.84	6.85
Total	100	100	100	100	100
No of Obs	492	209	498	203	701

Source: KAPS household survey undertaken as part of this study.

Education

Despite literacy rates exceeding two-thirds among the MCBP beneficiary households, school dropout persists, driven primarily by marriage, financial constraints, and the need to contribute to family income.

More than two-thirds of MCBP beneficiary household members are literate; that is, they can read and write. The number of members who attended school earlier is slightly higher among males (male - 62.37 per cent vs. female - 61.09 per cent). On the contrary, this scenario changes among the members currently attending schools (male – 19.6 per cent, female – 20.87 per cent). One out of every four household members did not receive any formal education. However, more than half of the members aged above 25 years have completed up to secondary education (Table 5.4). The average years of schooling of household members (aged >25) is 6.04 years, on average – lower than the national average of 7.4 years (UNDP, 2022). There exists a gender gap in terms of average years of schooling. Male members' average years of schooling is 6.21 years, which is higher than their female counterparts (5.85 years).

Table 5.4: Level of education among the MCBP beneficiary household members (aged >25).

Level of Education	Male	Per cent	Female	Per cent
No Education	200	22.63	224	28.54
Primary Education	250	28.28	175	22.29
Lower Secondary	216	24.43	209	26.62
SSC/HSC	143	16.18	121	15.41
University	67	7.58	55	7.01
Vocational/Others	8	0.9	1	0.13
Total	884	100	785	100

Source: KAPS household survey undertaken as part of this study.

In the survey, 27.77 per cent of the MCBP beneficiary households mentioned marriage as the main reason for school dropout, which is the most significant reason for dropout for females, while 22.76 per cent indicated economic reasons (affordability issues) as the reason for dropping out from school, which applies more for males but to a lesser degree for females. Another 20.36 per cent of the surveyed households identified supporting family income as a reason for school dropout, which is a major reason for dropout for males. Distance of the school from home, the demand for domestic chores, disinterest in study, and parents' unwillingness to make their children educated are also reported as reasons for dropouts.

Table 5.5: Reasons for school dropout.

Reason for dropping out of school	Male (%)	Female (%)	All (%)
Got married	0.44	52.31	27.77
Economic reasons (could not afford)	27.94	18.1	22.76
To support family income	40.88	1.98	20.39
Not interested in the study	15.15	5.15	9.88
Parents did not want	2.94	8.06	5.64
To do domestic chores	2.94	6.21	4.66
Don't know	3.97	1.59	2.71
The educational institution is too far	2.5	2.64	2.57
Failed examination, then did not continue	1.32	1.32	1.32
Others	1.03	0.92	0.97
Disability (physical or mental)	0.44	1.06	0.77
More education is not necessary	0.44	0.4	0.42
For security reason	0	0.26	0.14
Total	100	100	100
Number of obs	680	757	1437

Source: KAPS household survey undertaken as part of this study.

Marital status of adult family members

The survey findings indicate that child marriage remains a prevalent issue among the MCBP beneficiary households, with many female members married before the legal minimum age.

Table 5.6 illustrates the marital status of household members of the MCBP beneficiaries. Among the surveyed beneficiary households, more than half of the members (around 55.00 per cent) are currently married, followed by never married (about 42.00 per cent). The remaining household members are widowed/divorced/separated.

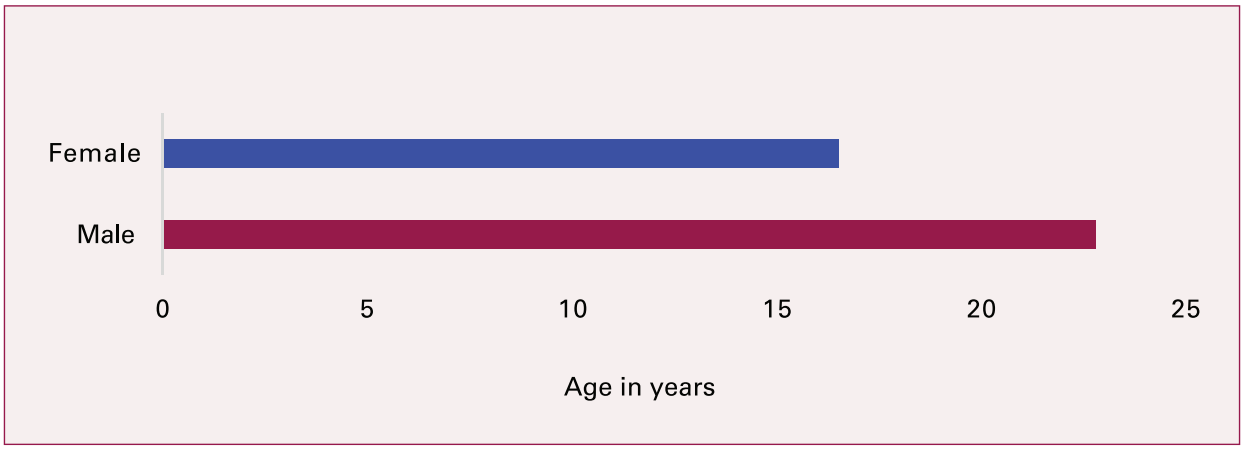
Table 5.6: Marital status of household members.

Marital Status	Male (%)	Female (%)	AA (%)
Currently married	55	53.96	54.46
Never married	44.27	39.76	41.95
Widowed	0.55	5.7	3.19
Divorced	0.12	0.23	0.18
Separated	0.06	0.35	0.21
Total	100	100	100
Number of obs	1655	1694	3349

Source: KAPS household survey undertaken as part of this study.

Findings from the field survey suggest the average age at first marriage of female household members is 17 (Figure 5.4). According to Article 2(1)(4) of the Child Marriage Restraint Act 2017, the legally acceptable minimum age of marriage for a female and a male are 18 and 21 years, respectively (MoWCA, 2017).[4]

Figure 5.4: : Age at first marriage of household members



Source: KAPS household survey undertaken as part of this study.

[4] MoWCA. (2017). The Child Marriage Restraint Act, 2017. Ministry of Women and Child Affairs, Government of the People's Republic of Bangladesh. https://mowca.gov.bd/sites/default/files/files/mowca.portal.gov.bd/page/3ca4856e_153b_49e0_824c_0f18acc272f1/Child%20Marriage%20Restraint%20Act,%202017.pdf

Asset holdings

The survey shows that beneficiary households own various assets, including mobile phones, electric fans, televisions, and refrigerators.

The savings, investments, and asset holdings of households can provide important information on living standards and socio-economic conditions. Information collected through the survey suggests that almost all households own mobile phones (99.43 per cent) and electric fans (98.43 per cent). Television and refrigerator/freezer are owned by approximately 38.00 per cent and 39.00 per cent of the surveyed households, respectively. Around 16 per cent of the households possess electric water pumps. Among different furniture items, 99.00 per cent of the households have beds/cots, followed by tables/chairs (95.00 per cent) and almirah/wardrobe (52.00 per cent). Field survey also suggests that around 22.00 per cent of households have bicycles, while 12.00 per cent of the households own motorcycles. Some other households (About 4.00 per cent) possess income-generating assets such as auto-rickshaws/vans, followed by country boats (2.70 per cent), easy bikes/auto bikes (2 per cent), manual rickshaws/vans (1.3 per cent), and nasiman /kariman /votvati (0.6 per cent).

Social protection benefits (other than the MCBP)

Social protection benefits are provided to those in need to address poverty and vulnerability, and survey found that over half of households receive at least one social protection benefit.

Social protection benefits are provided to people in need to address their poverty and vulnerabilities. Anyone can avail themselves of such benefits, subject to fulfilling certain eligibility criteria. Apart from receiving benefits from the MCBP, other members of the same household can be entitled to avail benefits from different social protection programmes (i.e., various stipends, old age allowance, etc.). The survey found that 53.00 per cent of the households' members receive benefits from at least one social protection scheme, excluding the MCBP. About 82.00 per cent of the households received such benefit payments in cash, while in-kind benefit payments were made to about 18.00 per cent of the households (Table 5.7). Such benefits might also contribute to the consumption of nutritious and healthy foods.

Table 5.7: Mode of social protection benefits payment.

Mode of payment	No of Obs	Per cent
In Cash	412	81.58
In-Kind	90	17.82
Cash and kind	3	0.59
Total	505	100

Source: KAPS household survey undertaken as part of this study.

06 FINDINGS OF KNOWLEDGE, ATTITUDE, AND PRACTICES (KAPS)

Findings of Knowledge, attitude, and practices (KAPs)

This section assesses Knowledge, Attitude, and Practices (KAPs) among the MCBP beneficiaries about various health- and nutrition-related indicators essential to ensure the well-being of pregnant and lactating mothers and their infants and young children. Social and Behaviour Change Communication (SBCC) interventions in the Learning Hub areas provide knowledge, attempt to change attitudes, and encourage practices for most of the indicators included in our household survey. Hence, this section also provides a comparison between the LH and NLH, given the LH has a SBCC component (an overview of the findings is presented in Appendix B).

SBCC sessions in the MCBP framework attempt to influence pregnant and lactating mothers' health and nutritional behaviours. These sessions offer vital nutrition, hygiene, and prenatal care knowledge, aiming to ensure maternal and

infant well-being. They empower mothers to reduce infant mortality risk and promote holistic development by covering exclusive breastfeeding, complementary feeding, immunisations, and infant care. Moreover, SBCC addresses dietary and supplement intake during pregnancy and lactation. Conducted in community settings, these sessions encourage peer interaction, fostering mutual learning and collective problem-solving. Trainers use simple explanations, and participants engage through open-ended questions, enhancing comprehension (Box 2).

Box 2: Social and Behaviour Change Communication (SBCC) interventions in the Learning Hubs

Embedded within the MCBP, SBCC sessions serve as a medium through which beneficiaries are imparted essential knowledge regarding optimal nutrition, hygiene, and prenatal care. The overarching goal is to equip mothers with the requisite information to ensure their and their infants' well-being. The SBCC sessions encompass an array of critical subjects, ranging from the significance of exclusive breastfeeding and appropriate complementary feeding to the essentiality of immunisations and comprehensive infant care. By engaging in these educational interactions, mothers are empowered to mitigate the risk of infant mortality and foster their offspring's holistic growth and development. In addition, SBCC sessions also provide essential information about dietary and supplement intake requirements during the pregnancy and lactating period. These sessions are conducted within community settings, where participants interact with peers and share experiences. This accelerates a sense of community support, where mothers can learn from each other and collectively address challenges. The SBCC trainers use simple, practical definitions to discuss a topic, and participants can share their experiences with the content through open-ended questions.

Session Number	Session Topics	Methodology	Materials
Session 1	Nutrition of the pregnant mother and emotional and stimulating care of the baby	• Picture display • Groupwork • Question and answer • Discussion • Group games	Flipchart
Session 2	Breastfeeding and care of the mother after the birth of the baby		
Session 3	Importance of Nutrition and Various Malnutrition of Maternal and Lactating Mothers		
Session 4	Nutrient-rich foods for nutrition		

The training sessions, conducted by the community healthcare providers with the help of Women Development Workers (WDWs), are systematically structured into four distinct thematic areas, strategically designed to bring about behavioural changes by addressing prevalent misconceptions, cultural norms, and traditional beliefs that may impede the adoption of health-promoting practices. The initial training module focuses on the significance of maternal nutrition during pregnancy and its direct

influence on optimal child development. This includes elucidating the significant role of consuming a diversified range of five essential food types during pregnancy. Subsequently, the second session imparts knowledge on the criticality of initiating breastfeeding within the first-hour post-birth and sustaining exclusive breastfeeding for the initial six months of the infant's life. The session further covers the precise techniques of breastfeeding, encompassing suitable positioning and location.

The third training segment delves into comprehensive maternal and lactating mother nutrition, detailing key sources of vital nutrients such as Vitamin A, Vitamin D, and iodine. It also addresses the potential ramifications of deficiencies in these nutrients. The fourth session rounds off the training regimen by providing insights into the pivotal role of essential minerals like iron, calcium, and zinc, along with the dietary sources that furnish these nutrients. Simultaneously, the discourse emphasises the potential repercussions of deficiencies in these vitamins and minerals. The training sessions are meticulously conducted utilising various known effective methodologies, including visual aids like picture displays, interactive group exercises, dynamic question-answer interactions, facilitated discussions, and engaging group games. By advocating practices that have been scientifically validated to yield positive outcomes, the SBCC sessions endeavour to foster a transformative impact on the targeted audience's health-related behaviours and choices.

Notably, the SBCC sessions extend their scope beyond the individual participants, actively promoting the involvement and endorsement of family members and the broader community. This comprehensive approach is strategically geared towards fostering a supportive environment that empowers pregnant and lactating mothers to seamlessly integrate health-conscious practices into their daily routines. By mobilising collective efforts, these sessions effectively amplify the well-being outcomes not only for the mothers but also for the infants under their care. Moreover, the SBCC trainers incorporate interactive and engaging activities within the session framework, interspersing these tasks strategically to sustain participants' focus and attention. It's worth mentioning that SBCC activities have not yet been implemented in non-learning hubs.

Infant feeding (0-6 months old baby)

Table 6.1 presents knowledge, attitude, and practices (KAPs) about various dimensions of infant feeding, including colostrum, exclusive breastfeeding, length, and frequency of breastfeeding, age of complementary feeding, etc. Knowledge about colostrum and its role as the first food for newborn babies is found to be satisfactory. More than 80 per cent of beneficiaries reported that they are familiar with the term colostrum, and they knew that the first food for a newborn should be the mother's breast milk. Interestingly, a higher proportion of beneficiaries, about 90 per cent, have shown a positive attitude toward using colostrum as the first food for the newborn given within the first hour of birth. However, in the case of practicing colostrum as the first food for the newborn, the beneficiaries' actual behaviour is slightly lower than their levels of knowledge and attitude about it. One noticeable pattern emerges from the table: a larger fraction of beneficiaries in learning hubs (LHs) stated KAPs about colostrum and its use as the first food for newborn babies. However, there is no significant difference in KAPs among the

beneficiaries in terms of their rural-urban location; a similar proportion of beneficiaries in rural and urban areas informed their KAPs about colostrum and its use.

A similar pattern of KAPs can be observed for exclusive breastfeeding and the frequency of breastfeeding. More than 80 per cent of beneficiaries demonstrated knowledge about exclusive breastfeeding, i.e., using breast milk as the only food for babies until they are six months old. Beneficiaries across all clusters have shown an even better attitude toward exclusive breastfeeding, with about 90 per cent of beneficiaries across all clusters expressing positivity about using breast milk as the only food for a baby who is less than six months old. On-demand breastfeeding is the recommended frequency of breastfeeding for babies up to six months. This high level of KAPs across all clusters, especially in the NLH clusters, can be attributed to other sources of information available to the MCBP beneficiaries other than SBCC (Box 3).

Table 6.1: MCBP beneficiaries demonstrated a satisfactory level of KAPs regarding infant and young child feeding.

	Cluster	First food for newborn babies	Breastfeeding with colostrum within one hour after delivery	Familiarity with the meaning of exclusive breastfeeding	Length of using breastmilk as sole food for babies(Birth to six months)	Frequency of breastfeeding (On-demand, whenever the baby wants)	Age of feeding complementary food along with breastmilk
Knowledge	NLH	77.61	77.44	79.55	75.19	85.61	80.37
	LH	98.65	89.19	90.54	90.54	98.65	99.17
	Rural	84.56	83.70	83.58	82.22	92.54	83.04
	Urban	86.11	77.78	83.33	77.78	86.11	92.79
	All	85.10	81.64	83.50	80.68	90.29	85.46
Attitude	NLH	89.39	88.64	89.39	89.39	87.22	
	LH	95.95	95.95	97.30	97.30	97.30	
	Rural	92.54	92.54	91.79	91.79	91.11	
	Urban	90.28	88.89	93.06	93.06	90.28	
	All	91.75	91.26	92.23	92.23	90.82	
Practice	NLH	75.19				11.60	
	LH	95.95				13.70	
	Rural	81.48				12.80	
	Urban	84.72				11.50	
	All	82.61				12.30	

Source: KAPS household survey undertaken as part of this study.

Box 3: Sources of information in Non-Learning Hub (NLH): Unveiling Maternal Wisdom

In homes untouched by SBCC interventions, participating mothers rely on the pillars of interpersonal communication. Female family members, especially the seasoned voices of their own mothers, mothers-in-law, and other female relatives, act as vital sources of information about care and dietary practices during pregnancy and lactation. Through shared personal experiences, timeless customs, and advice steeped in generations, these women guide new mothers on the path of health and pregnancy. Nutritious and iron-rich foods, from familiar milk and green vegetables to exotic Colocasia esculenta, figs, and assorted fruits, become the main ingredients of a diet safeguarding the well-being of both mother and child. Notably, communal wisdom cautions against star fruit, green papaya, and pineapples during pregnancy, echoing the enduring influence of traditional beliefs.

In this untouched terrain, knowledge flows from diverse tributaries. Participating mothers acknowledge a mixture of advice and insights on health and nutrition, drawing from family members, health complexes, television, and the digital space of social media. However, a distinctive observation emerges—they tread this path without the formal guidance of Family Planning program staff. Amidst the daily rhythms, mothers in NLH follow the beats of cultural norms and traditions that echo the importance of cleanliness and hygiene in food processing. The rituals of washing hands, using pristine utensils, and maintaining the purity of the food preparation area are a testament to the enduring resonance of cultural practices. In addition to cultural norms and familial wisdom, beneficiaries in the NLH clusters receive information from various nutrition and healthcare awareness programmes on radio and TV. More importantly, all pregnant and lactating mothers could obtain the ANC and PNC cards, which also provide a number of useful pieces of information about nutrition and healthcare during pregnancy and lactation.

A significantly higher proportion of beneficiaries reported their awareness about on-demand breastfeeding and had a positive attitude about it. On average, beneficiaries breastfed their babies 12 times per day. A similar proportion demonstrated their knowledge about the age of starting complementary food along with breastmilk. More than 85 per cent of beneficiaries knew that it is important to use other solid food for their young child starting after the first six months. The FGD participants mentioned that they feed rice porridge (khichuri), mashed vegetables (such as potato, sweet potato, and pumpkin), lentils, soft-cooked egg yolk, fruits, and fruit juice as complementary foods to their babies (Box 4). However, in NLH, pregnant and lactating mothers still lack accurate knowledge and practices of infant and young child feeding, and many suffer from traditional beliefs and practices (see box 5). Again, a significantly higher proportion of beneficiaries in LHs have reported their KAPs about exclusive breastfeeding, the recommended length and frequency of breastfeeding, and the age at which babies are needed to feed other solid foods along with breastmilk. This could be because of SBCC interventions in the LHs about these issues (Box 2). However, the state of KAPs in NLHs is also satisfactory as beneficiaries might have received knowledge interventions about infant feeding from other sources (Box 3)..

Box 4: Rozina Khatun demonstrates that with the right knowledge and commitment to practice, a mother can make a positive impact on her family's health and nutrition.

Rozina Khatun, a caring mother, lives in a remote village in Godagari, Rajshahi, Bangladesh. Residing in a remote region, she had a lack of access to information regarding food, health, and nutrition. She primarily relied on interpersonal communication with female family members, such as her mother and mother-in-law, to gather advice and insights regarding pregnancy and health-related matters. In that context, Rozina used to hold certain misconceptions, including the belief that restricting food intake during pregnancy can prevent the birth of larger babies. Additionally, she adhered to specific dietary restrictions, avoiding foods such as star fruit, green papaya, and pineapples.

However, after enrolling in the MCBP, she received comprehensive training on food, nutrition, and health-related issues from professional trainers of the SBCC programme. Every month, she attends three courtyard sessions(Uthan Boithok), where she learns about essential nutrients, vitamins, and minerals necessary for the healthy development of her babies. Additionally, the trainers covered topics such as newborn care and introduced lessons on supplementary foods rich in iron, calcium, and zinc. Meanwhile, after receiving the training, she has ensured exclusive breastfeeding of her baby for the first six months.

Moreover, Rozina receives a monthly allowance of TK 800 deposited into her personal bank account. She holds the decision-making power on how to spend the allowance given to her. Also, she is aware of her rights and choices. She spends the given allowance on buying milk, eggs, and seasonal fruits for herself and her babies. Although she belongs to a traditional society where people believe in superstitions, she has started sharing what she learned with her husband and family. She cooks food following the methods she has learned from the training sessions.

With newfound knowledge, Rozina has started incorporating various fruits, vegetables, grains, and proteins into everyday meals. She learned about the benefits of different food groups and their role in providing necessary vitamins, minerals, and energy. Rozina herself feels more energised and confident in her role as a mother. Rozina's story, from being an ordinary mother to becoming an informed, trained, and confident mother, demonstrates the transformative power of knowledge and practice. Through taking training sessions from SBCC, she has developed her knowledge, and her dedication and continuous practice of such knowledge have made a lasting impact on the health and well-being of her family.

Food preparation

Table 6.2 provides insights into the beneficiaries' KAPs about food preparation and cleanliness. The survey reveals that most beneficiaries knew the importance of washing their hands before and during cooking, and they showed a positive attitude about cleaning their hands during cooking; however, only about half of the beneficiaries reported practicing hand cleanliness before and during cooking food. A similar pattern can be observed in the case of using safe water for cooking purposes. The majority of the beneficiaries, i.e., over 90 per cent in most clusters, were aware and had a positive attitude toward using safe water in their food preparation, but slightly above 60 per cent of beneficiaries reported using safe water in

cooking. Most noticeably, in LHs, less than half the beneficiaries reported using safe water. A relatively lower proportion of beneficiaries reporting using safe water in their cooking in LHs could be due to their better knowledge and information about what should be considered safe water that can be used in food preparation. Also, this could be due to a better selection of MCBP beneficiaries in LHs, who are supposed to be poor and might have lower access to safe drinking and cooking water.

Box 5: With the help of medical professionals, a woman in the village started to combine their rich cultural traditions with modern healthcare knowledge, creating a harmonious balance.

A young woman named Amina lived in a small village in Narayangang, Bangladesh, tucked away amid the country's lush fields. Like many women in her community, Amina was expecting her first child and firmly believed in the long-standing customs that have been passed down through the generations regarding pregnancy and postpartum care. Amina had a lot of expectations and enthusiasm throughout her days. She was greatly assisted in her life-changing experience by her mother and the older ladies in the community. Their well-meaning counsel was based on the traditions and knowledge that had supported their community for many years.

Amina had persistent misconceptions regarding her pregnancy diet that lingered for the longest time. She was adamant that consuming spicy or flavoured foods could be detrimental to her unborn child. Consequently, her meals were limited to boiled vegetables, lentils, and plain rice every day. Tradition also influenced Amina's conception of postnatal care. For the first few months, she believed her baby should only have simple rice water and sugar. She had no idea about the importance of nursing, the baby's nutritional needs, or the critical role her own diet played in producing healthy breast milk. Amina was unaware of the significance of routine prenatal exams. She believed that visiting the doctor was only necessary in cases of obvious illness. She thought that giving birth was a natural process that didn't require much medical assistance. As Amina's pregnancy progressed, she started to experience unusual weakness and exhaustion. Her mother became worried when she appeared to have a smaller belly than expected.

Amina visited the clinic later and met Dr. Sabina, a compassionate doctor who was familiar with the village's cultural background. Dr. Sabina took the time to explain the benefits of a balanced diet for the developing baby and its significance during pregnancy. She also educated Amina about the importance of breastfeeding and her child's nutritional needs. Amina was overwhelmed by the amount of information she had access to, but she was also relieved. Dr. Sabina made arrangements for frequent check-ups and pregnancy monitoring, and with her assistance, Amina started incorporating a variety of nutrient-dense foods into her diet, such as fruits, vegetables, and protein sources. Amina's perspective on parenthood began to change when she gave birth to a healthy child. She understood how crucial healthy eating and medical attention were for her unborn child and for herself during pregnancy. After receiving only breast milk, her infant began to thrive.

KAPs about maintaining proper cooking temperature were also found to have a similar pattern, except now beneficiaries in LHs demonstrated better practices of maintaining proper temperature in their cooking. MCBP beneficiaries possessed a high level of KAPs about general kitchen cleanliness and washing utensils before cooking. About 90 per cent of beneficiaries reported KAPs about kitchen cleanliness and washing utensils before cooking, and there is no significant difference in KAPs across the various clusters.

Table 6.2: MCBP beneficiaries have a good level of KAPs about food preparation and cleanliness.

	Cluster	Washing hands before and during cooking	Washing utensils before cooking	Maintaining proper cooking temperature	Using safe water for cooking	Kitchen cleanliness
Knowledge	NLH	86.59	92.48	84.35	87.8	83.94
	LH	96.65	98.56	92.82	98.09	98.09
	Rural	88.55	93.78	86.35	90.56	86.75
	Urban	92.12	95.57	88.18	91.63	91.63
	All	89.59	94.29	86.88	90.87	88.16
Attitude	NLH	84.35	91.87	83.74	93.09	81.71
	LH	98.09	98.09	94.74	98.09	97.61
	Rural	87.15	93.37	86.14	94.18	85.74
	Urban	91.63	94.58	89.16	95.57	88.18
	All	88.45	93.72	87.02	94.58	86.45
Practice	NLH	49.59	85.16	61.79	78.37	84.15
	LH	51.19	96.65	74.16	48.82	98.56
	Rural	52.01	88.15	62.05	80.04	88.96
	Urban	45.32	89.66	73.89	42.93	87.19
		50.07	88.59	65.48	64.48	88.45

Source: KAPS household survey undertaken as part of this study.

Food preservation

Table 3.3 provides the findings of KAPs about food preservation among MCBP beneficiaries. About three out of four MCBP beneficiaries were aware of and had a positive attitude toward food preservation, but only slightly more than half of the beneficiaries actually practiced preserving their cooked food.

Additionally, about 60 per cent of beneficiaries reported maintaining the proper temperature for food preservation. A similar but more stark picture of KAPs is observed in the case of preserving raw foods before cooking. While more than 80 per cent of beneficiaries reported knowing the importance of maintaining raw food properly before cooking, an even larger fraction of beneficiaries showed a positive attitude and practiced various methods for preserving raw food items before cooking.

However, a significant fraction of beneficiaries seemed to lack knowledge and a better outlook in the case of risky food items for children and mothers; only about 60 per cent of beneficiaries reported knowing these risky food items like raw meat and vegetables. Yet, the majority of beneficiaries knowingly or unknowingly avoid serving these food items to children and mothers. There is no knowledge of interventions about food preservation and risky food items in current SBCC sessions. So, adding these components to existing SBCC interventions could increase beneficiaries' knowledge and attitude about this.

Table 6.3: MCBP beneficiaries reported a high level of KAPs about food preservation and risky food items for pregnant mothers and young children.

	Cluster	Food preservation	Risky food items for children and mothers	Maintaining the proper temperature for food preservation.	Preserving raw foods before cooking
Knowledge	NLH	71.95	57.32	63.01	85.37
	LH	87.56	61.24	66.99	86.12
	Rural	74.10	59.24	65.46	85.14
	Urban	82.76	56.65	61.08	86.70
	All	76.60	58.49	64.19	85.59
Attitude	NLH	75.20	53.05	76.83	94.31
	LH	95.69	75.12	83.25	93.27
	Rural	75.50	56.05	78.92	93.78
	Urban	95.57	68.29	78.33	94.55
	All	81.31	59.63	78.74	94.00
Practice	NLH	55.49	91.46	63.21	97.79
	LH	54.54	98.56	66.99	90.72
	Rural	55.62	93.37	63.05	92.72
	Urban	54.18	94.09	67.49	95.86
	All	55.21	93.58	64.34	94.24

Source: KAPS household survey undertaken as part of this study.

Food intake

Pregnant and lactating mothers' KAPs about food and dietary diversity and healthcare-seeking behaviour are reported in Table 6.4. Beneficiaries acknowledged the importance of the optimal number of meals (at east three meals/day) and the food diversity in those meals. About 80 per cent of beneficiaries expressed their knowledge about the accurate number of meals per day for a pregnant or lactating mother and the need for diverse food items in those meals, while an even higher proportion of beneficiaries showed a positive attitude towards consuming the optimal number of meals with proper diversity. However, in the case of practicing food diversity, about half of the beneficiaries reported not being able to consume a variety of food, though most of them, more than 90 per cent, acknowledged having at least three meals per day.

Interestingly, KAPs about the adequacy of food amount show a similar pattern; the majority of the beneficiaries reported that they knew about the accurate food amount in their meals and consumed adequate food when they were pregnant and breastfeeding. However, KAPs about consuming special food items during pregnancy that lower anaemia show a similar pattern to food diversity, where beneficiaries reported having a high level of knowledge and a positive attitude, but a large fraction failed to consume such items. Similarly, most beneficiaries reported knowing the required number of healthcare centre visits during pregnancy, which is at least four times. A higher level of knowledge has also translated into better attitudes about visiting healthcare centres during their pregnancy, with more than 80 per cent of beneficiaries. In the case of visiting the healthcare centre, the survey found that about one out of four beneficiaries reported visiting the healthcare centre at least once in the last week prior to the survey week.

Table 6.4: MCBP beneficiaries have a high level of knowledge and attitude about the dietary requirements for pregnant or lactating mothers, but many have reported failing to practice this because of scarcity.

	Cluster	Pregnant and lactating mothers' meal frequency	Dietary diversity in pregnant and lactating mothers' meals.	Amount of food intake by a pregnant/ lactating mother	Consuming food that lowers anaemia in pregnant mothers.	Pregnant mother's Health centre visits
Knowledge	NLH	76.22	85.98	81.91	75.20	80.89
	LH	82.30	95.22	93.78	80.86	94.74
	Rural	76.71	88.15	84.14	75.90	83.53
	Urban	81.28	90.15	88.67	79.31	88.67
	All	78.03	88.73	85.45	76.89	85.02

	Cluster	Pregnant and lactating mothers' meal frequency	Dietary diversity in pregnant and lactating mothers' meals.	Amount of food intake by a pregnant/ lactating mother	Consuming food that lowers anaemia in pregnant mothers.	Pregnant mother's Health centre visits
Attitude	NLH	84.96	87.80	89.63	73.98	81.10
	LH	97.61	96.17	97.61	82.30	96.65
	Rural	86.95	88.96	90.36	73.29	83.33
	Urban	93.10	93.60	96.06	84.24	91.63
	All	88.73	90.30	92.01	76.46	85.73
Practice	NLH	91.67	48.90	91.67	61.59	25.71
	LH	93.30	54.80	99.52	89.47	22.75
	Rural	90.57	50.81	92.37	62.19	23.99
	Urban	96.05	49.76	98.03	61.76	26.83
		92.15	50.50	94.01	68.75	24.82

Source: KAPS household survey undertaken as part of this study.

Supplements intake

Knowledge, attitudes, and practices related to supplement intake during pregnancy among the MCBP beneficiaries are shown in Table 6.5. Most beneficiaries have knowledge about taking essential supplements like vitamin A, calcium, folic acid, and vitamin D during their pregnancy, and they expressed a positive attitude about taking these supplements.

Table 6.5: MCBP beneficiaries have a high level of KAPs about having supplements during pregnancy and using iodised salt in their food.

	Cluster	Supplement Intake by a Pregnant Women	The safety of supplement intake during pregnancy	Using iodised salt during pregnancy and lactation
Knowledge	NLH	80.69	82.72	81.50
	LH	97.13	95.69	90.43
	Rural	83.13	82.93	82.73
	Urban	91.63	95.57	87.68
	All	85.59	86.59	84.17

	Cluster	Supplement Intake by a Pregnant Women	The safety of supplement intake during pregnancy	Using iodised salt during pregnancy and lactation
Attitude	NLH	87.80	78.86	79.27
	LH	93.78	88.07	94.32
	Rural	86.14	80.12	80.33
	Urban	98.03	84.44	91.11
	All	89.59	81.29	83.23
Practice	NLH	80.89	.	83.47
	LH	83.77	.	97.63
	Rural	79.52	.	87.10
	Urban	87.19	.	89.27
	All	81.74	.	87.73

Source: KAPS household survey undertaken as part of this study.

About 80 per cent of beneficiaries reported taking at least one supplement during their pregnancy. In addition, the majority of the beneficiaries informed that taking these supplements during pregnancy is safe, and they have no hesitation about taking these recommended supplements. KAPs about using iodised salt during pregnancy are found to have a similar pattern. A large proportion of beneficiaries reported using iodised salt during their pregnancy.

Qualitative findings

This section discusses the qualitative findings from the FGDs and KIIs and sheds light on the multifaceted nature of the impact of social and behavioural change communication (SBCC) interventions. In one of the FGDs in NLH, the absence of SBCC interventions is starkly evident as beneficiaries, lacking the structured guidance of formal training, heavily depend on interpersonal communication within their families. Traditional customs play a significant role in shaping their dietary choices.

In contrast, where SBCC interventions are actively implemented, it presents a more optimistic picture. Mothers in this area demonstrate heightened awareness, attributing their knowledge to both family guidance and the guidance provided by SBCC programme trainers. The comprehensive training received covers various facets of pregnancy. Noteworthy improvements in maternal health-seeking behaviour are observed, reflected in the regular attendance at antenatal care visits. Participants in FGDs emphasise the importance of including husbands and other influential family members like the mother-in-law in the SBCC intervention.

A local MCBP official acknowledged its positive impact on mothers and children. Challenges in the selection process are underscored, particularly the stringent four-day timeframe for beneficiary approval.

Officials express a need for an extended three-month selection period to ensure thorough evaluations. Concerns about the inclusion of politically influential individuals and the absence of a robust Management Information System (MIS) verification mechanism are highlighted. Recommendations are made to strengthen the selection process, ensuring fairness and unbiased beneficiary identification.

The MCBP is recognised as a positive initiative, notably increasing deliveries at government health complexes. Healthcare professionals actively advocate for essential health services, including prenatal check-ups, breastfeeding counseling, and vaccinations. Integrating doctors into the beneficiary selection process is proposed to enhance certification accuracy. A healthcare professional in a KII advocated for leveraging community clinics for widespread health information dissemination and emphasised the need for emergency care in high-risk areas. Concerns about misbeliefs during pregnancy and the prevalence of child marriages underscore the importance of targeted interventions and comprehensive needs assessments. She also recommended participatory processes to understand the socio-economic factors affecting the target group.

These insights highlight the imperative of a refined and transparent beneficiary selection process to ensure inclusivity and fairness, stressing the need for strengthened communication strategies through community clinics and media channels. Crucially, addressing systemic challenges, including political influence and biases in beneficiary selection, is deemed pivotal for the programme's success. Collaborative efforts among ministries, stakeholders, and healthcare professionals, alongside targeted interventions based on comprehensive needs assessments, are identified as essential for maximising the positive impact of the MCBP on maternal and child well-being.

07 ANALYSIS OF FINDINGS

Analysis of findings

The previous section discusses the levels of KAPs in various dimensions of dietary behaviour among the MCBP beneficiaries. However, it is also important to investigate the factors influencing the KAPs. To shed light on socio-economic and demographic factors that are crucial in determining the KAPs among the MCBP beneficiaries, an index is constructed for each KAP domain, namely infant feeding, young child feeding, food preparation, food preservation, food diversity and adequacy for pregnant and lactating mothers, and supplement intake by pregnant mothers. Different aspects of KAPs for a domain are captured by questions whose responses would be yes (1) or no (0). 'Yes' responses of KAPs are aggregated for each beneficiary and divided by the sum of the maximum possible 'yes' to construct an index. Thus, three indexes, the knowledge index, attitude index, and practice index, for each KAPs domain are constructed, where each index for a beneficiary varies between 0 and 1. A value of 1 implies perfect KAPs while a value of 0 means the complete absence of KAPs about that domain.

These indexes are then regressed on beneficiaries' characteristics, beneficiaries' household, and household head characteristics. Under each domain, we have three regressions: one for the knowledge index, one for the attitude index, and one for the practice index. In the attitude index regression, the knowledge index is included as a control variable, and in the practice index regression, knowledge and attitude indexes are included as additional control variables (Table 12.5 and 12.6 in Appendix A). The estimated coefficients in Table 12.5 and 12.6 in Appendix A show the partial correlation between a KAPs index and a characteristic. To interpret the results, one should notice two important things: the sign of the coefficient, which shows the direction of correlation between an index and a characteristic, and the stars on the coefficient, which show the degree of statistical significance (more stars indicate a higher level of statistical significance).

In the case of infant feeding, a beneficiary's overall knowledge is positively and significantly correlated with the beneficiary's age at first marriage and household characteristics such as household size, per capita income, whether the beneficiary is located in a learning hub (LH) and urban cluster, while the knowledge is negatively and significantly correlated with the beneficiary's present age and her employment status. Holding all characteristics the same, beneficiaries in the LH have, on average, 1 per cent better knowledge of infant feeding than beneficiaries in the non-learning hub, while employed beneficiaries have about 1 per cent lower knowledge of infant feeding. For the beneficiary's attitude about infant feeding, only the level of knowledge of the beneficiary has a significant positive impact, while a higher level of knowledge and attitude contribute significantly to better practices along with a positive contribution of the beneficiary's present age and negative contribution of her employment status towards the best infant feeding practices.

However, in the case of knowledge of young child feeding, beneficiaries being employed have a robust, significant impact, and the only other factor that has a positive and significant impact on young child feeding is beneficiaries being located in the LH. Nevertheless, beneficiaries in the urban clusters have significantly lower levels of young child feeding knowledge. Interestingly, the attitude about young child feeding only depends on the level of knowledge, and other socio-economic and demographic characteristics are statistically insignificant. This indicates that knowledge dissemination can effectively change individuals' attitudes, especially in the case of young child feeding among MCBP beneficiaries.

For food preparation knowledge, beneficiaries' characteristics are not statistically significant determinants; rather, household head's characteristics like the head's age and household characteristics like household size and household's location in the LH are the statistically significant determinants of knowledge about food preparation. Once we control for food preparation knowledge, the household being in the LH cluster and the beneficiary being employed are positively and significantly correlated with optimal food preparation attitude. The most important factors affecting optimal food preparation practices are knowledge and attitudes, implying that knowledge intervention can result in optimal food preparation practices. Household size and households being located in urban clusters seem to be negatively correlated with optimal food preparation practices.

Food preservation knowledge appears to be positively and significantly correlated with the beneficiary's age at first marriage, her employment status, the household head's level of education, and the location of the beneficiary's household in the LH cluster (Table 12.6). On the other hand, beneficiaries' level of education and beneficiaries' household location in the LH and Urban clusters are positively and significantly correlated with better attitudes about food preservation after controlling for the knowledge index of food preparation. However, for optimal food preservation practices, the LH cluster location is the only significant and positive determinant along with the knowledge and attitude index.

Knowledge, attitude, and practices of food diversity and the adequate amount of food in each meal for pregnant and lactating mothers appeared to be positively and significantly correlated only with the household's location being in the LH cluster. Thus, SBCC interventions in the LH clusters contribute significantly to the optimal KAPs among the MCBP beneficiaries. In the case of knowledge about supplement intake during pregnancy, beneficiary characteristics like age at first marriage and employment status, and household characteristics like household size and location are important determinants. Employed beneficiaries who were not married at an early age appear to have better knowledge of supplement intake. Similarly, beneficiaries living in the LH and urban clusters have better knowledge about supplement intake. However, once we control the knowledge index, only employment status and household size remain significant factors determining the positive attitude towards supplement intake. Interestingly, beneficiaries in the LH clusters have significantly higher practices of supplement intake even after controlling the knowledge and attitude index of supplement intake. Hence, SBCC interventions in the LH clusters about supplement intake appear to be very effective in influencing optimal behaviour in this regard.

08 AN ASSESSMENT OF THE USAGE OF THE MCBP (CASH) BENEFITS

An assessment of the usage of the MCBP (cash) benefits

Benefits from any social protection programme can be effectively realised if the recipients exercise careful planning and informed decision-making. Given that the primary beneficiaries of the MCBP are pregnant and lactating mothers, it is crucial to acknowledge that they often possess limited autonomy in household decisions, especially concerning financial matters, in Bangladesh.

Table 8.1 presents the distribution of key decision-makers of spending TK. 800 MCBP cash benefits. The survey reveals that approximately 32 per cent of the beneficiaries can independently make decisions regarding the utilisation of the monetary assistance, while about 43 per cent have to consult with their husbands. However, there exists a concern that husbands might wield a dominant role in the decision-making process in such cases.

The aforementioned assessment seeks to provide a significant revelation, highlighting the limited control beneficiaries have over the household's financial resources, including the TK. 800 cash benefit. The qualitative data collection instruments shed further light on the fact that the cash benefits are often directed to the mobile/digital financial accounts of some beneficiaries' husbands or in-laws, such as bKash and/or agent banking (Rocket). Furthermore, in most cases, husbands tend to withdraw the money, whether received in the beneficiaries' accounts or their husbands' accounts, suggesting that the husbands' interest primarily influences the utilisation of TK. 800.

Table 8.1: Only about one out of three MCBP beneficiaries can independently decide the spending of the MCBP benefit money.

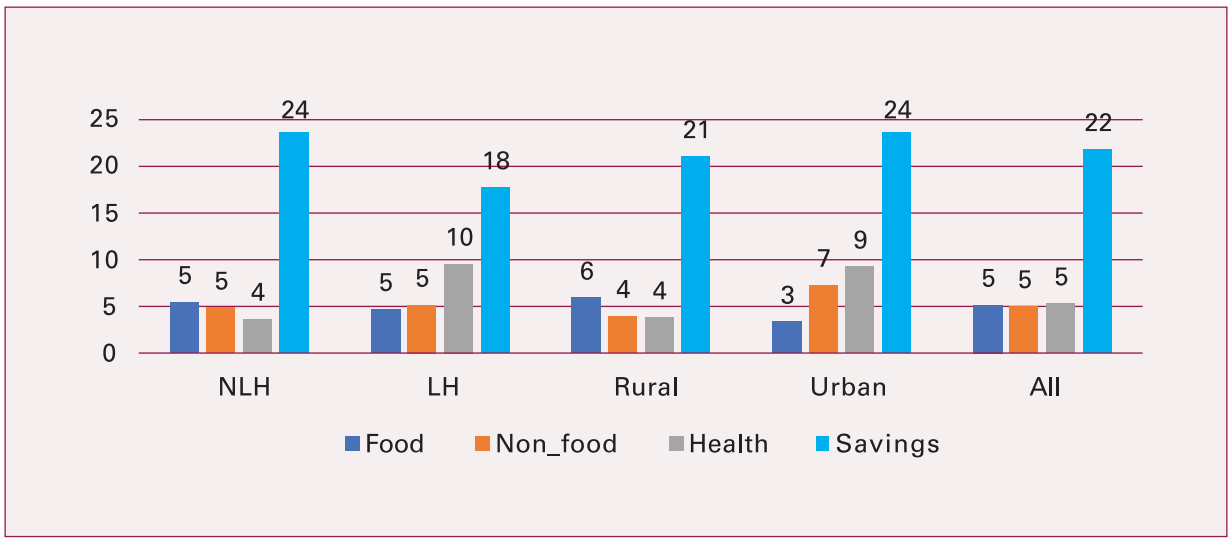
Decision-makers	No. of Obs	Per cent
Beneficiary	221	31.53
Beneficiary's husband	145	20.68
Both the beneficiary and her husband	300	42.8
Someone else within the household	33	4.71
Not applicable	2	0.29

Source: KAPS household survey undertaken as part of this study.

The findings underscore the need for promoting and empowering women's decision-making autonomy within households, particularly concerning financial matters. Encouraging women's participation and agency in decision-making processes could foster a more equitable and inclusive approach to utilising social protection benefits like the MCBP. Further interventions targeted at enhancing women's decision-making power are essential to leveraging the full potential of social protection programmes like the MCBP in advancing the welfare of vulnerable populations.

This study also conducts an assessment of the spending pattern of the Tk. 800 cash benefits on items broadly classified as food, non-food, medical expenses, savings, etc. Figure 8.1 shows the proportion of beneficiaries who exclusively spent the entire Tk. 800 allowance amount on one of these items, while Table 8.2 reports the expenditure items on which beneficiaries fully or partially spend benefit money.

Figure 8.1: A significant fraction of MCBP beneficiaries save the entire benefit money for consumption smoothing or for the future of their children



Source: KAPS household survey undertaken as part of this study.

Table 8.2: Major expenditure items on which benefit money is spent (% of household)

Item	Number of HH that spent money on the item	Percent
Savings	226	32.24
Milk	216	30.81
Medicines	206	29.39
Dal	194	27.67
Banana	168	23.97
Clothing	155	22.11
Others	143	20.40
Vegetable	130	18.54
Khichuri rice	87	12.41
Semolina	76	10.84
Cosmetics	67	9.56
Diapers	61	8.70
Doctor expenses	48	6.85
Toys	48	6.85
Chips	42	5.99
Juice	8	1.14
Barley	2	0.29

Source: KAPS household survey undertaken as part of this study.

From Table 8.2, it is observed that most households used their benefit money to purchase food items, such as milk (30.81%), lentils (27.67%), bananas (23.97%), vegetables (18.54%), etc. Among non-food items, households spent their benefit allowance on items like clothing, cosmetics, toys, etc. A significant fraction of households also reported using their allowance for healthcare, such as medicines (29.39%) and doctors' fees (6.85%). However, the highest proportion of households, about one out of three, used their benefit allowance for saving purposes. The cluster-wise distributions of household spending on these items are shown in Table 13.1 in Appendix C. The pattern of expenditure on these items appears to be very similar across clusters.

Table 13.2 reports the distribution of expenditure on major expenditure items by the decision-makers, i.e., whether the decision to spend allowance money on the items was taken completely by the beneficiary, partially by the beneficiary, or by someone else other than the beneficiary. At first glance, it may seem that the beneficiary's husband has less decision-making power (Table 13.2). However, considering the possibility that husbands may exert strong influence when making joint decisions, it can be inferred that they play a dominant role in the decision-making process. This pattern holds for most food items (such as milk, bananas, khichuri, and vegetables) and medical expenses. On the other hand, when it comes to non-food items like clothing, the beneficiaries and their husbands tend to utilise the benefit amount for multiple instances. From the table, one can see that beneficiaries in LH and Urban clusters have greater

decision-making power than the beneficiaries in NLH and Rural clusters, and beneficiaries in LH and Urban clusters decided to spend more on food items compared to beneficiaries in NLH and Rural clusters.

Box 6: Lack of control over the allowance hinders Nipa from addressing her personal needs.

Nipa Begum, a 23-year-old young mother, enrolled herself as a beneficiary of the MCBP this year. Due to her disadvantaged financial situation, she could not afford to purchase nutritious food for herself and her baby to maintain their health and nutrition. After enrolling in the programme, she began receiving a monthly allowance to buy nutritious food for herself and her baby. However, her anticipation turned into despair when she discovered that her husband, Mamun Mia, had taken away her monthly allowance.

Mamun Mia, a dominant personality, believes he is solely responsible for making financial decisions and controlling the money that enters their household. Consequently, Nipa has no control over the monthly allowance she receives. Although she desires to purchase nutritious food for herself, her husband prefers to save the entire amount of money. Occasionally, her husband permits her to use some of the allowance to buy medicine for their baby. Otherwise, the money is solely deposited into Mamun's account. Even shortly after giving birth, she became heavily involved in household work, including caring for their cows and ducks. Due to a lack of proper care and nutrition, she is facing severe health issues, including infections and other postpartum complications.

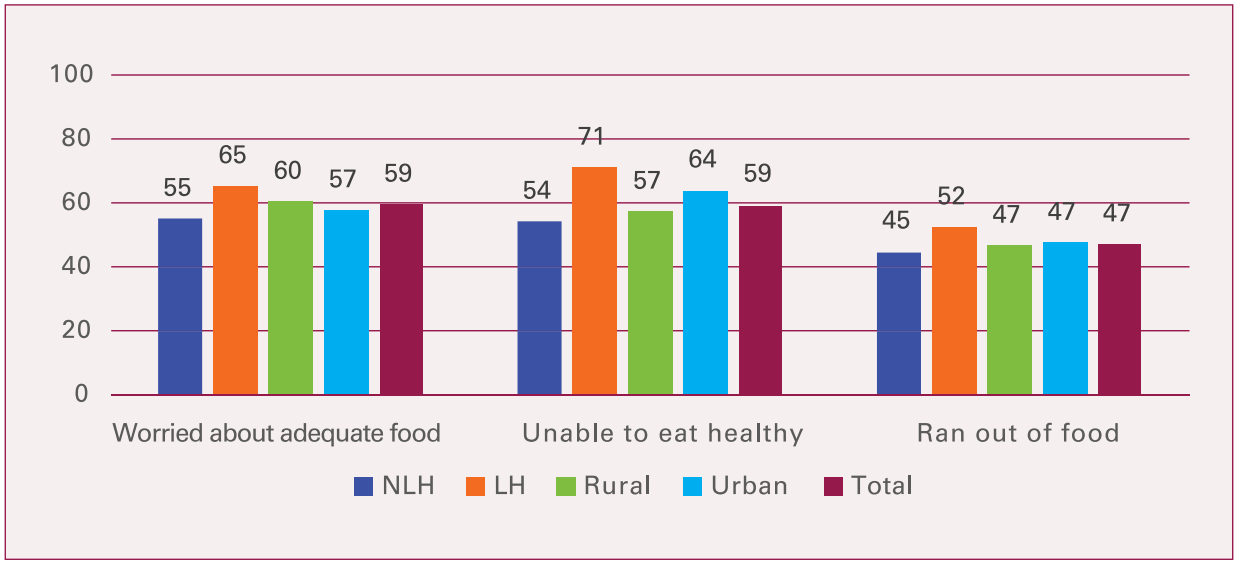
Meanwhile, Nipa has attended Uthan Boithok training sessions with other beneficiary women in her union. Despite knowing the importance of consuming nutrition-rich food, she cannot consume the required food due to a lack of money. Although the given allowance belongs to Nipa, she does not have control over the money to address her personal needs, including health care. She is financially dependent on her husband, leaving her vulnerable to make independent choices. She always seeks permission from her husband for basic expenses. Sadly, Nipa's story is not a unique case in Bangladesh. It is evident that most women lack control over money, leading to a range of challenges that impact well-being and the overall quality of life. It is important to note that these issues need to be addressed by promoting financial literacy and advocating for gender equality within the household.

The estimated cost of a recommended diet (CoRD) at the national level is approximately Tk. 83 per person per day (Islam et al., 2023), resulting in a monthly requirement of at least Tk. 2490 (= Tk. 83 * 30 days) for each beneficiary. From this standpoint, the MCBP cash benefit of Tk. 800 accounts for roughly one-third of the estimated CoRD. However, Tk. 2490 is just for one person only, but the MCBP targets both the mother and child. So, the benefit amount is less than one-third of the requirement of the mother and is significantly lower than one-third of the requirements of both the mother and the infant/young child. Therefore, it becomes challenging for beneficiaries to ensure the recommended dietary intake with such a modest cash benefit.

Furthermore, many beneficiaries reported facing food insecurity. Figure 8.2 shows the different indicators of food insecurity reported by the MCBP beneficiaries. The survey revealed that in the last 12 months prior to the survey, a substantial fraction of households suffered from food insecurity and were unable to eat

healthy and nutritious food. More than 50 per cent of beneficiaries were worried about the availability of adequate amounts of food and were unable to eat healthy food items. Additionally, about 50 per cent of beneficiaries ran out of food at least once in the past 12 months prior to the survey.

Figure 8.2: About half of the MCBP beneficiaries suffered some form of food insecurity at least once in the 12 months prior the survey carried out for this study.



Source: KAPS household survey undertaken as part of this study.

Nevertheless, the beneficiaries express contentment with the current monthly transfer. Insights from the Focus Group Discussions (FGDs) indicate that the beneficiaries recognise that receiving any amount of money is preferable to receiving no support at all. Many beneficiaries report using the benefit amount to provide additional nutritional supplements (commonly known as 'Tola Khabar' in rural areas) for their infants. However, this study reveals that not all beneficiaries exclusively spend the total benefits on healthy and nutritious foods, as indicated in Table 8.1. Some beneficiaries choose to save the entire amount for the betterment of their newborn's future, which may somewhat compromise their and their baby's current food and nutritional needs. In other instances, beneficiaries take loans to support themselves during their pregnancy periods, leading them to utilise the benefit amount to repay those loans. FGDs also reveal that some beneficiaries choose to save the benefits in their personal bank accounts for future use.

09 KEY BARRIERS TO CONSUMING HEALTHY AND NUTRITIOUS FOODS

key barriers to consuming healthy and nutritious foods

Pregnancy and lactation are phases in a woman's life that require proper nutrition. Adequate and diverse dietary intake during these periods is crucial to support the nutritional needs of both the mother and her developing fetus and ensure the health of the newborn. Unfortunately, in Bangladesh and other Asian low- and middle-income countries, there is a common trend of restricting dietary intake during pregnancy. Several barriers, including societal norms, cultural beliefs, and insufficient knowledge about healthy food and nutrition, contribute to this situation. The household survey and different qualitative tools used in this study identified several critical barriers hindering the full realisation of the MCBP's outcome. These constraining factors are briefly discussed below.

Social Norms and Beliefs

Social norms, beliefs, and values often limit pregnant and lactating mothers from consuming a well-balanced diet and seeking proper healthcare. Data from KIIs, FGDs, and household interviews provide evidence of the strong influence of social norms on the diet and behaviour of pregnant and lactating mothers. In rural areas, women are typically responsible for managing and securing household food resources. Despite this responsibility, their adequate and nutritious food intake, particularly during pregnancy and breastfeeding, is often given less priority. The approval of mothers-in-law or other influential household members frequently influences their food consumption. Additionally, the prevailing norm in many households is to prioritise serving food to male family members, which further disadvantages women in intra-household food sharing.

Moreover, new mothers often face challenges in prioritising their healthcare needs, particularly during the postpartum period. Caregiving responsibilities for newborns and elderly family members place additional demands on their time and energy, leaving little opportunity to seek healthcare services from professionals. Furthermore, certain misconceptions and beliefs among pregnant women, such as tightly tying their salwar to prevent the baby from moving up towards their chest, often lead to unhealthy practices.

Cultural dietary practices

Cultural dietary practices, influenced by specific beliefs, traditions, and norms during pregnancy, can have adverse effects on both mothers and their newborns. These practices often involve the avoidance of certain foods or ingredients, such as particular types of fish, meat, fruits, and vegetables. For instance, pregnant women are commonly advised to refrain from consuming green papaya, pineapples, bananas, duck/goose meat, bitter gourd, lady's finger, etc., as these foods are believed to be potentially harmful during pregnancy. Such dietary restrictions are perceived as necessary for fetal development and to ensure a smooth delivery process.

It is important to note that while cultural practices can be deeply rooted and valued within a community, they may not always align with scientific evidence and nutritional requirements during pregnancy and lactation. For instance, a few beneficiaries revealed in an FGD that their in-laws advised them to limit their food intake during pregnancy. The belief underlying this advice is that consuming adequate food could lead to a larger baby size, which is considered undesirable due to concerns about the complexity of delivery.

Issues with beneficiary selection

Adhering to the current policy, the elected local government (Union Parishad Chairman) plays a crucial role in preparing the initial roster of the MCBP beneficiaries. However, this study has uncovered a prevalent inclination among ward/union members and chairmen to prioritise individuals with personal affiliations, such as relatives, political supporters, and acquaintances, over those genuinely deserving and

economically disadvantaged. This practice raises significant concerns about favouritism and the potential exclusion of those in dire need from accessing the programme's vital benefits, leading to an alarmingly high rate of exclusion errors.

KII participants reveal that the compiled list of chosen beneficiaries is forwarded to Women Affairs Officials at the Upazila level following the initial selection process for verification. However, despite meeting the eligibility criteria, some economically disadvantaged mothers seeking enrollment in the programme cannot be added to the beneficiary list due to limited capacity and inefficiency of the bureaucratic system. Consequently, the lack of inclusion of these underprivileged mothers in the programme results in them being deprived of the government's intended support. The current selection procedure allocates a mere four-day period for women affairs officials to evaluate selected candidates and finalise the list of beneficiaries. This limited timeframe poses a burden on officials, hindering thorough evaluations and the compilation of an accurate and comprehensive beneficiary list each month.

Box 7: Role of Women Development Workers (WDWs) in Selecting the MCBP Beneficiaries in Learning Hubs

Ensuring the success of any social protection programme, especially one as vital as the MCBP, hinges on selecting the right beneficiaries. The National Development Programme (NDP), in collaboration with the Ministry of Women and Children's Affairs (MoWCA) and with support from the World Food Programme (WFP), is coordinating a comprehensive effort in Bangladesh. A key component of this initiative involves the crucial role played by trained Women Development Workers (WDWs) at the grassroots level. Before beneficiary selection begins, these dedicated WDWs conduct informative sessions designed to enlighten potential beneficiaries, specifically pregnant and lactating women, about the advantages of enrolling in the MCBP. Furnished with this knowledge, potential beneficiaries take the proactive step of self-enrolling into the programme through Union Digital Centres (UDCs), demonstrating a genuine desire to enhance their and their children's well-being.

Following the enrollment process, local government representatives, including chairmen and ward members, conduct a preliminary assessment of these applicants. This preliminary list is then shared with the WDWs. This is where the true essence of their role comes to the fore. The WDWs embark on a series of door-to-door visits to the homes of applicants, conducting comprehensive assessments of their socio-economic status. During these visits, the WDWs meticulously scrutinise living conditions, employment statuses, financial situations, and household asset holdings. They engage in candid discussions with family members to gain insights into sources of income and expenditure, all in an effort to gauge the applicant's eligibility for the MCBP. Upon completing their assessments, the WDWs make well-informed recommendations to the Upazila Women Affairs Officer. Their tireless efforts play a crucial role in ensuring that those who need it most receive the MCBP support.

Difficulties in accessing health and nutritional services

Accessing essential health and nutritional services during pregnancy and postpartum is crucial for ensuring positive health outcomes for mothers and children. However, a concerning finding from our household

survey is that 3 out of 4 women in remote areas do not go for regular check-ups, especially PNC visits, at nearby hospitals, clinics, or health complexes. Several barriers hinder women's access to healthcare services. One of the primary obstacles is the distance to nearby health centres, which significantly burdens pregnant and lactating women, often discouraging them from seeking medical care. Additionally, financial constraints and a lack of adequate information about the importance of regular check-ups further contribute to the reluctance to access essential services. Support from family members, particularly in-laws, is crucial during this time, but some beneficiaries reported a lack of assistance from their in-laws in accompanying them to health centres. In some instances, the financial burden associated with medical expenses dissuades in-laws from encouraging pregnant and lactating women to visit doctors.

Geographical location can also pose a significant barrier to accessing health and nutritional services. In rural areas and char lands, there is a lack of emergency/obstetric care service centres, with the Upazila Health Complex (UHC) being the primary option. Additionally, the limited availability of community clinics for ANC and PNC services fails to meet the increased demand. Concerns about poor service quality have been expressed by beneficiaries. A shortage of healthcare professionals and overcrowding in healthcare facilities lead to extended waiting times, causing beneficiaries to worry about the current capacity of the health infrastructure to adequately meet their needs. In many places, there are local facility-based services in which the family planning division offers services at the community level, including SBCC, growth monitoring, and nutritional services. However, in remote areas, these community-level services were not enough or non-existent, making it difficult for pregnant and lactating mothers to access essential information about diet, healthcare, and nutrition.

Lack of information on health and nutrition

Pregnant and lactating mothers, especially those who are young, face significant challenges in accessing information and services related to their health, nutritional requirements, and the well-being of their young children. Several factors contribute to these challenges, including limited mobility, prevailing social norms, and gender stereotypes. These factors restrict their decision-making concerning their health, reproductive choices, and child-rearing practices. Furthermore, the lack of access to information and education on post-pregnancy health and self-care exacerbates the issue, as women have limited awareness of potential health risks after childbirth. This contributes to decreased concern among rural women regarding their health post-pregnancy. Additionally, social and cultural norms, along with rural women's lack of education and economic independence, play a significant role in shaping their decision-making process.

10 POLICY RECOMMENDATIONS

Policy Recommendations

The Mother and Child Benefit Programme (MCBP) in Bangladesh could play a vital role in promoting the health and well-being of pregnant and lactating mothers, and their children. However, several constraints, as discussed in the previous section, are impeding the optimal realisation of the benefits of the programme. Based on our findings from FGDs, KIIs, household surveys, and secondary literature reviews, we propose the following recommendations to overcome these constraints and enhance the efficiency of the MCBP programme.

- **Amplify efforts to advance health and nutrition awareness among the beneficiaries of the Mother and Child Benefit Programme (MCBP).** The first 1,000 days, from conception to the end of a child's second year, are a critical period characterised by rapid growth, organ maturation, and cognitive development. Proper nutrition during this time can have lifelong benefits and influence the risk of chronic diseases. Key elements include adequate maternal diet, exclusive breastfeeding for six months, introducing complementary foods after 6 months, and continued breastfeeding up to age 2 years.[5] "Hence, a more comprehensive understanding of health and nutrition for the MCBP beneficiaries is crucial to achieving Sustainable Development Goals (SDGs), especially Goal 2 (Zero Hunger) and Goal 3 (Good Health and Well-being). For the MCBP beneficiaries, accessing reliable and accurate health and nutritional information is paramount for improving health outcomes. Empowering beneficiaries through informed choices can lead to overall enhancements in health, a decreased risk of diseases, and the promotion of healthy growth and development.

[5] Kabaran, S. Maternal and Child Nutrition: Importance of the First 1000 Days. Available from: https://www.researchgate.net/publication/331474667_Maternal_and_Child_Nutrition_Importance_of_the_First_1000_Days [accessed Aug 03 2023].

In the LH, the WDWs disseminate essential information about health and dietary practices for pregnant and lactating mothers through regular Uthan Boithok. In these Uthan Boithoks, mothers and family members of very young children are also provided with the knowledge and activities crucial for the balanced development of a child's physical and mental state (Box 8). In the analysis in section 7, it is found that beneficiaries have higher KAPs in most of the domains even after controlling for various socio-economic and demographic factors. Thus, it is important to implement these interventions in the NLH clusters as beneficiaries in NHL clusters have to depend on informal channels for information regarding dietary and health requirements during pregnancy and lactation (Section 9). However, in the qualitative analysis in Section 6, it is found that there is also a need for training and capacity-building for the WDWs to effectively communicate essential information to beneficiaries. In addition, various other types of interventions related to cleanliness, cooking practices, and food preservation should be included in the SBCC, as these could also significantly affect the health and well-being of pregnant and lactating mothers and their infants.

Box 8: Role of Women Development Workers (WDWs) in Conducting Social and Behaviour Change Communication (SBCC) in Learning Hubs

Farida Parveen plays a crucial role as a Women Development Worker (WDW) and is actively engaged in advancing the well-being of pregnant and lactating women within diverse spheres, encompassing domains such as health, nutrition, and socio-economic advancement. In her capacity, she imparts fundamental health-related insights, encompassing areas of health, hygiene, dietary habits, and nutritional considerations, to the enrolled participants of the Mother and Child Benefit Programme (MCBP). She acts as a liaison, facilitating pregnant and lactating women's access to essential healthcare services, thereby ensuring seamless access to both prenatal and postnatal care provisions.

Farida Parveen effectively organises and coordinates SBCC sessions tailored to address the distinct requirements of pregnant and lactating women. Beyond their educative function, these sessions serve as a platform for women to engage in open dialogues regarding their apprehensions and personal encounters. On a monthly basis, she organises four Uthan Boithok sessions, overseen by the Women Development Workers (WDW) and community healthcare providers. Functioning at the grassroots level, her significant role extends to verifying the eligibility of prospective lactating mothers and pregnant women. She conducts door-to-door visits each month to glean insights into the utilisation of allocated allowances by the beneficiaries. Notably, Farida Parveen serves as a reliable resource for beneficiaries encountering challenges related to disbursements or account-related complexities, offering viable solutions.

Farida has received extensive training that equipped her with invaluable knowledge. With each session she attended, her commitment deepened, driven by the realisation that her efforts could transform the lives of countless women and children in her union. As a "resource mobiliser," she helps the MCBP beneficiaries access different health facilities and services by providing guidance and assistance. She often works with community-level workers to enhance their activities and coordinate the resources for women's development. Overall, she promotes positive behavioural changes within communities, challenging harmful traditional norms restricting women's opportunities.

- **Empower pregnant women and lactating mothers to make informed decisions about their health, dietary choices, and child-rearing practices by implementing comprehensive empowerment programmes.** These initiatives should address underlying factors that often impede women's agency and autonomy, including limited education, financial dependence, and restricted access to information. These impediments can result in less participation of beneficiaries in spending the cash benefits as shown in Table 8.1 in section 8 and in Table 13.1 in Appendix A. Thus, it is essential to provide financial literacy training to beneficiaries, which can be incorporated into SBCC interventions. This will empower women with budgeting, savings, and financial planning knowledge, enabling them to take control of their financial decisions.

- **Ensure transparency in beneficiary selection and reduce exclusion.** In our FGDs and KIIs, one common issue raised several times is the selection of less deserving beneficiaries and the exclusion of less privileged poor pregnant and lactating mothers. This is a serious barrier to achieving the goals of the MCBP, especially in the NLH areas. To ensure a transparent and inclusive beneficiary selection process for MCBP, it is essential to implement measures that prioritise fairness and equitable distribution of programme benefits. To minimise exclusion and inclusion errors in the MCBP programmes, well-defined guidelines for beneficiary selection criteria need to be established and made publicly available. The four-day time window for verifying the self-registered candidates is too stringent and almost impossible for the respective officials to scrutinise the eligibility of the candidates. So, the verification process should be allowed enough time to minimise selection errors. Some officials suggested increasing the verification time window, which should be based on the number of potential beneficiaries to be verified. In addition, it is also essential to provide enough resources to carry out these verifications. Currently, only 3 per cent of the MCBP budget is allocated for implementation purposes, which needs to be increased to ensure better selection outcomes and the effectiveness of WDWs in making field-level verifications in both LH and NLH clusters.

- **Expand the coverage of the MCBP, especially in the most vulnerable areas, and ensure the real purchasing power of the benefit allowance.** An important finding from our qualitative data analysis is that many eligible pregnant women and lactating mothers could not receive the MCBP benefit. In addition to the problems in the beneficiary selection process, the shortage of coverage is also a significant barrier. Moreover, our quantitative findings indicate that urban areas might need special attention; pregnant women and lactating mothers in poor households in urban areas are particularly vulnerable. To address this situation and ensure the programme's effectiveness in reaching those in need, the budgetary allocation for the MCBP needs to be increased to reach and accommodate more eligible beneficiaries. The current benefit amount of TK. 800, which was last revised in 2018-19, is less than one-third of the need of the mother and is significantly lower considering both the mother and her young child as shown in section 8. Thus, it is extremely important to adjust the cash benefit money for inflation every year to ensure the same level of purchasing power. Moreover, in many areas, the benefit money is not disbursed on a monthly basis. Beneficiaries receive money for several months in one installment, which promotes saving behaviour among these beneficiaries. So, ensuring regular monthly payments of the benefit money is extremely important.

- **To enhance the effectiveness of the SBCC sessions within the MCBP, it is essential to strengthen knowledge sharing on various aspects of food preparation, food preservation, and hygiene.** These topics have been identified as areas of weakness among beneficiaries' knowledge, attitudes, and practices. Moreover, it is crucial to disseminate information on appropriate and risky food items for both children and mothers to ensure their well-being. In addition to targeting MCBP beneficiaries, it is also important to involve influential members within their households in SBCC sessions. This broader approach ensures that key decision-makers and caregivers are equipped with essential knowledge and skills to support positive health outcomes for mothers and children. To identify other pertinent knowledge training interventions and devise effective dissemination strategies, a comprehensive assessment of the current SBCC component of the MCBP programme is necessary. This assessment will help identify gaps, strengths, and areas for improvement, thereby enabling the development of targeted and impactful interventions. Overall, by expanding the scope of SBCC sessions to include vital topics such as food preparation, preservation, and hygiene, and by engaging key household members, the MCBP programme can effectively address knowledge gaps and promote healthier practices among beneficiaries.

- **Ensure proper coordination between the Ministry of Health and Family Welfare, the Ministry of Social Welfare, the Ministry of Women and Children Affairs, and the Department of Women's Affairs for proper implementation of the MCBP.** The Department of Women's Affairs under the Ministry of Women and Children Affairs is currently leading the extensive implementation of the programme, with support from local government and non-government organisations. However, insights from KIIs (Sections 6 and 9) have shed light on the need for better integration between the Ministry of Health and Family Welfare and the Ministry of Social Welfare to maximise the programme's impact and effectiveness.

  To ensure the MCBP's successful implementation and continuous improvement of the MCBP, a collaborative effort among the Ministry of Health and Family Welfare, the Ministry of Social Welfare the Ministry of Women and Children Affairs, Local Government Divisions like Ward commissioner offices or Union Parishad offices with birth and death registration services, and the Department of Women Affairs should be pursued. By forging strong partnerships, these governmental entities can collectively address the complex challenges pregnant women and mothers face, ensuring the programme's responsiveness to their evolving needs. To achieve these objectives, open and regular communication channels between the Ministry of Health and Family Welfare, the Ministry of Social Welfare, the Ministry of Women and Children Affairs, and the Department of Women Affairs are paramount. Establish a joint committee comprising representatives from each ministry to facilitate coordination or reactivate the already established thematic clusters to foster a shared vision, and align efforts to achieve common goals. In addition, the MCBP-related data need to be shared among the involved ministries and relevant stakeholders to ensure a holistic understanding of the programme's performance. Utilise modern data analytics tools and technologies to gain meaningful insights from the collected data is essential to formulate evidence-based policy and programme effectiveness.

- **Improve access to essential health and nutritional services for pregnant women and lactating mothers.** Many beneficiaries have reported that they faced severe challenges in accessing essential health services during pregnancy and postnatal care. The long distance between healthcare facilities and beneficiaries' residences and long waiting times at the facility makes it difficult for them to access the necessary care. For these reasons, husbands or other family members often show their reluctance to assist the beneficiaries at healthcare centres. To improve access to essential health and nutritional services, a comprehensive effort is required to strengthen the health infrastructure, particularly in underserved rural areas and char lands. Investing in upgrading healthcare facilities, addressing the shortage of qualified healthcare professionals, establishing emergency units in hard-to-reach areas, and improving transportation options can significantly enhance accessibility to quality healthcare services for pregnant and lactating women, similar to the National Health Mission (NHM) programme in India (Section 3).

- **Ensure post-pregnancy health and self-care for the MCBP beneficiaries.** Ensuring post-pregnancy health and self-care education is vital to address the lack of awareness in this critical area. By providing comprehensive information and support to new mothers, we can promote better health outcomes for both the mothers and their infants. Implementing targeted strategies that integrate postpartum care education, conducting home visits by healthcare workers, and engaging local women's groups will facilitate effective post-pregnancy health and self-care.

Table 10.1 provides a summary matrix of the policy recommendations of this section with policy actions for specific government bodies.

Table 10.1: Policy recommendations matrix to achieve the maximum outcome of the MCBP in Bangladesh

Policy Objectives	Implementing Agencies	Key Activities	Performance Indicators
1. Advance Health and Nutrition Awareness	Ministry of Health and Family Welfare (MOHFW)	a. Conduct regular Uthan Boithok in both LH and NLH clusters for pregnant and lactating mothers.	- Number of Uthan Boithok sessions conducted.
		b. Provide training for WDWs to enhance communication skills for effective knowledge dissemination.	- Percentage increase in knowledge levels post-training.
		c. Expand SBCC interventions to cover cleanliness, cooking practices, and food preservation.	- Inclusion of new topics in SBCC sessions.
		d. Develop and implement a comprehensive needs assessment for SBCC under the MCBP.	- Completion and findings of the needs assessment.
2. Empower Pregnant Women and Lactating Mothers	Ministry of Women and Children Affairs (MOWCA)	a. Incorporate financial literacy training into SBCC interventions.	- Number of beneficiaries participating in training.
		b. Address underlying factors impeding women's agency, including education and information access.	- Percentage increase in beneficiaries' decision-making ability.
3. Ensure Transparency in Beneficiary Selection	Department of Women's Affairs (DWA)	a. Establish well-defined guidelines for beneficiary selection criteria.	- Publication and availability of selection criteria.
		b. Increase the verification time window for self-registered candidates.	- Flexibilities in the verification period, which should depend on the number of potential beneficiaries to be verified.

Policy Objectives	Implementing Agencies	Key Activities	Performance Indicators
		c. Allocate sufficient resources for effective verifications.	- Increase in budget allocation for verification.
4. Expand MCBP Coverage and Adjust Cash Benefits	Ministry of Finance (MOF)	a. Increase budgetary allocation for MCBP to accommodate more eligible beneficiaries.	- Percentage increase in beneficiaries covered.
		b. Adjust cash benefit annually for inflation to maintain purchasing power.	- Completion of annual adjustment.
5. Strengthen knowledge sharing on various aspects of food preparation, food preservation, and hygiene	MOWCA	a. Include knowledge intervention on food preparation, food preservation, and hygiene with the current SBCC components.	-Comprehensiknowledge intervention within the SBCC.
		b. Incorporate additional knowledge training interventions based on assessment findings.	- Inclusion of new topics in SBCC sessions.
6. Ensure Proper Coordination Among Ministries	MOHFW, MOWCA, Ministry of Social Welfare	a. Establish a joint committee or reactivate the Social Allowance cluster for coordination among involved ministries.	- Formation/reactivation and regular functioning of the joint committee/social allowance cluster.
		b. Share MCBP-related data among ministries for a holistic understanding.	- Implementation of data-sharing mechanisms.
		c. Utilize data analytics tools for evidence-based policy formulation.	- Integration of data analytics in decision-making.
7. Improve Access to Health and Nutritional Services	MOHFW	a. Strengthen health infrastructure in rural areas and char lands.	- Number of upgraded healthcare facilities.

Policy Objectives	Implementing Agencies	Key Activities	Performance Indicators
		b. Address the shortage of qualified healthcare professionals.	- Percentage increase in qualified healthcare professionals.
		c. Improve transportation options for better access to healthcare.	- Enhanced transportation facilities.
8. Ensure Post-Pregnancy Health and Self-Care	MOHFW	a. Implement strategies for postpartum care education, including home visits and engagement with women's groups.	- Number of post-pregnancy care strategies implemented.
		b. Monitor and evaluate the effectiveness of post-pregnancy health initiatives.	- Evaluation reports and outcomes.

11 CONCLUSION

Conclusion

The Mother and Child Benefit Programme (MCBP) in Bangladesh is a crucial initiative aimed at improving the health and well-being of pregnant women and mothers. The survey findings on KAPs highlight the pressing need to prioritise and enhance knowledge related to health and nutrition among the programme beneficiaries. By doing so, the programme can effectively align itself with the Sustainable Development Goals (SDGs), particularly Goal 2 (Zero Hunger) and Goal 3 (Good Health and Well-being). Empowering beneficiaries with accurate information can lead to better health outcomes, reduced disease risks, and the promotion of healthy growth and development.

However, the programme faces significant constraints that must be addressed to maximise its impact. Social norms, beliefs, and values can limit pregnant and lactating mothers from accessing proper healthcare and consuming a well-balanced diet, underscoring the need for awareness campaigns and community-based initiatives. Additionally, cultural dietary practices further contribute to maternal and child health challenges, highlighting the necessity to balance preserving cultural heritage and promoting evidence-based dietary practices during pregnancy and lactation. Moreover, difficulties in accessing health and nutritional services, particularly in rural areas and char lands, necessitate investments in strengthening the health infrastructure and improving service availability and quality.

To address these issues comprehensively, a set of policy recommendations has been formulated. Transparent and inclusive beneficiary selection processes, combined with coordinated efforts between relevant ministries, can enhance the programme's effectiveness and reach. Moreover, empowering women through education and financial literacy, economic opportunities, and access to information can significantly impact their decision-making power concerning health, reproductive choices, and child-rearing practices.

The integration of WDWs and local volunteers, including Social workers (under the Ministry of Social Welfare), health and family planning workers, Tothyo apa, emerges as a key strategy in disseminating essential health and nutrition knowledge. By providing comprehensive training, structured communication, and recognition for these frontline workers, their presence can lead to more personalised support for beneficiaries, addressing their unique needs effectively. In addition, the MCBP can leverage support from NGO intervention and health and family planning ministry's interventions. To further strengthen the programme, comprehensive monitoring and evaluation frameworks must be established to continually assess its progress and outcomes. Collaboration with local institutions, NGOs, and women's groups can help leverage additional resources and expertise, ensuring a more comprehensive and sustainable approach.

In conclusion, by incorporating the knowledge, attitude, and practice findings, addressing constraints, and implementing the policy recommendations, Bangladesh can significantly improve maternal and child health outcomes through the MCBP. A multifaceted approach that prioritises education, empowers women, strengthens health infrastructure, and leverages community involvement will contribute to healthier and more resilient communities, fostering sustainable development and progress for the nation as a whole.

APPENDIX A:

Additional tables

Table12.1: Trends in nutritional status of children and women in Bangladesh (2011 to 2022)

Nutrition Profile of Bangladesh	BDHS 2022	BDHS 2011	MICS 2019	MICS 2012-13
Children				
Prevalence of stunting among children under 5 years (0–59 months)	23.60%	41.30%	28%	42%
Prevalence of underweight among children under 5 years (0–59 months)	22.30%	36.40%	22.6	32%
Prevalence of wasting among children under 5 years (0–59 months)	11.00%	15.60%	9.80%	9.60%
Prevalence of low birth weight (< 2.5 kg) (among births with a reported birth weight)	16.30%	12.4%*		26.0%
Exclusively breastfeeding under age 6 months	54.80%	64.10%	62.60%	56.40%
Prevalence of children 4–5 months exclusively breastfed	40.10%	36.30%		
Prevalence of early initiation of breastfeeding (i.e., put to the breast within one hour of birth)	59.80%	47.10%	46.60	56.47
Proportion of children (6-23 months) having minimum dietary diversity	39.10%	25.20%	28.00%	
Women				
ANC Visits (any ANC): Visit number wise (age 15-49)				
None	7.40%	32.10%		33.60%
1	14.60%	15.30%	45.90%	12.50%
2	19.30%	14.40%		15.60%
3	18.20%	12.50%		12.90%
4+	40.50%	25.50%	41.80%	24.7%
PNC Visits				
Percentage of women with a postnatal check during the first 2 days after birth from a medically trained provider	55.20%	27.10%	65.30%	40.30%
Percentage of newborns with a postnatal check during the first 2 days after birth from a medically trained provider	56.20%	29.60%	66.70%	41.00%

Source and note: Authors' presentation based on BDHS (2011), BDHS (2022), MICS (2012-13), MICS (2019). *Based on the mother's estimate of the baby's size at birth.

Table12.2: Secondary sources used in the desk reviewed.

Type of sources	Name of documents/reports/act/policy	Information to be collected
Strategic documents/reports	• National Social Security Strategy (NSSS) 2015 • Midterm Progress Review on Implementation of the NSSS 2020 • NSSS National Action Plan Phase-I (2016-2021) • NSSS National Action Plan Phase-II (2021-2026) • The 8th Five-Year Plan (2020-2025) • The Perspective Plan of Bangladesh (2021-2041) • The 4th Health, Population and Nutrition Sector Programme (HPNSP) (2017-2022) • Bangladesh National Strategy for Maternal Health (2019-2030) • National Strategy for Infant and Young Child Feeding in Bangladesh 2007 • Country Report on Early Childhood Care & Education in Bangladesh 2013 • Bangladesh Health System Review 2015 • National Food and Nutrition Security Policy Plan of Action (2020-2030) and it Plan of Action (PoA, 2021) • National Plan of Action for Nutrition (NPAN 2, 2016-2025) • National Macronutrient Survey, 2019-2020 • Assessment of the Key Bottlenecks for the Coverage of Nutrition-Sensitive Interventions and the Underlying Causes 2021	• Provisions for MCBP in the NSSS and its accompanying Action Plan (2021-2026) • Provisions for child and maternal health and nutrition in the national strategic policy documents
Relevant health policies	• National Health Policy 2011 • National Nutrition Policy 2015	Provisions for child and maternal health in the legal framework
Other relevant sources	• Journal articles on the MCBP • Analytical volumes dealing with Bangladesh, particularly the MCBP • Newspaper editorial/ opinion pieces • Relevant other government documents	Any additional information on the MCBP, child and maternal health

Source: RAPID presentation.

Table 12.3: Two-stage sampling design for this study

Sampling stage	Description
Stage 1	As mentioned in the ToR, 20 Upazilas were selected from 68 Upazilas in consultation with UNICEF and DWA, where the MCBP is being implemented. While selecting the Upazilas, two issues were taken into account: (i) Upazilas from rural and urban areas and (ii) Upazilas from learning hubs (LH) and non-learning hubs (NLH).[6] A list of selected Upazilas is provided in Table 3.
Stage 2	In this stage, 35 beneficiary households were selected using a simple random sampling method from the list of the MCBP beneficiaries of each selected Upazila. Accordingly, the respondent's household was selected based on a selection criterion that states that the beneficiaries who have been enrolled in MCBP at least one year before the data collection for this KAP survey begins can be the respondent. A total of 701 MCBP beneficiary households were surveyed.[7] While selecting the beneficiary households for the survey, the proper representation of learning hubs vs. non-learning hubs and rural vs. urban areas was ensured.

Table 12.4: List of the surveyed upazilas and number of selected beneficiaries

Cluster	Learning hub	Non-learning hub	Total Upazilas	Total Beneficiaries
Rural	Chitolmari	Araihazar		
	Gangachara	Bagharpara	14	498
	Goainghat	Bilaichari		
		Char Rajibpur		
		Dumuria		
		Jaintapur		
		Khagrachari		
		Poba		
		Puthia		
		Taraganj		
		Ukhiya		
Urban	Mehendiganj	Gazipur Sadar	6	203
	Kallayanpur slum	Kanaighat		
	Godagari	Muladi		
Total Upazilas	6	14	20	
Total Beneficiaries	209	492		701

[6] Learning hubs are called those Upazilas where the complete package of Behaviour Change Communication (BCC) interventions is provided together with cash benefits to the MCBP beneficiaries.

[7] The following formula is used to estimate the minimum sample size (n) of this KAPs survey: n=z2×p×(1-p)r2×(diff.), where for a 95 per cent confidence level z=1.96, for a two-stage survey, deff. is 1.5, the level of precision (r) is set to 5%, the proportion (p) that maximises the sample size is 46 per cent (per cent of women aged 15-49 years with a live birth in the last two years), and the assumed non-response rate of 10 per cent give us a sample size of 701. Here the deff. stands for design effect.

Table 12.5: Higher level of knowledge and attitude about infant and young child feeding has been translated into a satisfactory level of practices

	Infant feeding			Young child feeding		Food preparation		
VARIABLES	Knowledge index	Attitude index	Practice index	Knowledge index	Attitude index	Knowledge index	Attitude index	Practice index
Age at 1st marriage	0.009*	0.001	-0.002	-0.005	-0.003	0.001	-0.001	0.001
Beneficiary's age (years)	-0.011***	-0.001	0.002**	0.004	0.005	0.002	-0.001	0.002
Beneficiary's education (years)	0.004	0.001	0.001	-0.007	-0.004	0.002	-0.001	-0.001
Beneficiaries' employment status (1=employed, 0=unemployed)	-0.097**	-0.013	-0.029**	0.140**	0.049	0.007	0.014*	-0.021
Household head's employment status (1=employed, 0=unemployed)	0.145	0.009	-0.006	-0.023	0.034	0.012	0.021	-0.022
Household head's gender (1=male; 0=female)	0.054	-0.007	0.019	-0.115	0.128	-0.034	-0.006	-0.008
Household head's education (years)	0.004	0.002	0.001	0.001	-0.003	0.001	-0.001	-0.001
Household head's age (years)	-0.001	-0.001	0.001	-0.001	-0.001	0.002**	0.001	0.001
Household size	0.045***	0.001	0.005	0.001	0.001	0.009*	-0.001	-0.009**
Per capita income	0.001***	0	0	0	0	0	0	0

	Infant feeding			Young child feeding		Food preparation		
LH (1=Learning Hub, 0=Non-learning hub)	0.099**	-0.00863	-0.005	0.071*	-0.0185	0.104***	0.017***	-0.016
Urban (1=Urban, 0=Rural)	0.065*	0.0241	-0.004	-0.126***	-0.031	0	-0.003	-0.026*
Knowledge index		0.802***	0.428***		0.836***		0.881***	0.171
Attitude index			0.301***					0.360***
Constant	-0.129	-0.003	-0.058	0.744***	-0.037	0.682***	0.113***	0.377***
Observations	701	701	701	701	701	701	701	701
R-squared	0.078	0.786	0.873	0.028	0.643	0.043	0.913	0.463

Source: Authors' estimation using the survey data of this study

Table 12.6: SBCC interventions were very effective in enhancing MCBP beneficiaries' KAPs food preservations, dietary and supplement taking behaviour of pregnant and lactating mothers

	Food preservation			Food diversity and adequacy			Supplement intake		
VARIABLES	Knowledge index	Attitude index	Practice index	Knowledge index	Attitude index	Practice index	Knowledge index	Attitude index	Practice index
Age at 1st marriage	0.008**	-0.002	-0.001	-0.002	0.002	-0.004	0.011**	-0.001	0.006
Beneficiary's age (years)	-0.005	0.001	0.001	-0.002	0.001	0.003	-0.003	-0.004*	0.005*
Beneficiary's education (years)	0.005	0.005***	-0.002	0.003	0	0.005**	0.001	0.004	-0.007**
Beneficiaries' employment status (1=employed, 0=unemployed)	0.108***	0.002	-0.016	0.053*	-0.018	0.006	0.130***	0.051***	0.044
Household head's employment status (1=employed, 0=unemployed)	0.073	-0.004	0.051	0.006	-0.037	-0.013	0.032	0.053	-0.016

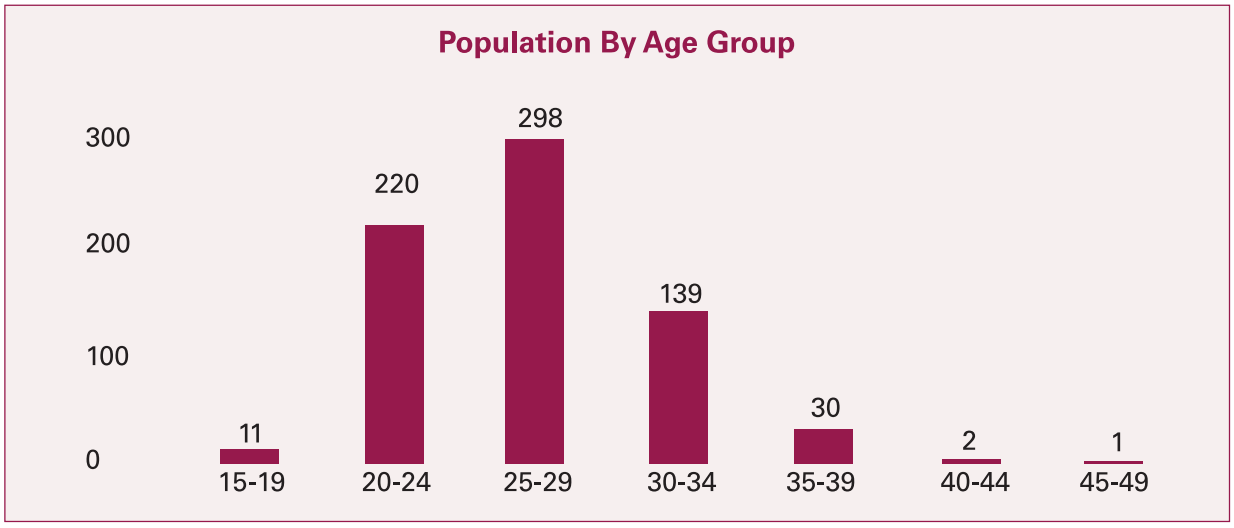
	Food preservation			Food diversity and adequacy			Supplement intake		
Household head's gender (1=male; 0=female)	-0.055	-0.003	-0.03	-0.031	-0.008	-0.024	-0.043	-0.027	-0.029
Household head's education (years)	0.008***	0.001	0.002	0.002	0.003**	-0.002	0.001	0.002	0
Household head's age (years)	0.001	-0.001	0.001	0.001	0.001	-0.001	-0.001	-0.001	0.001
Household size	0.005	0.002	0.008	0.009	0.004	-0.001	0.017**	0.009*	0.009
Per capita income	0	0	0	0	0	0	0	0	0
LH (1=Learning Hub, 0=Non-learning hub)	0.055**	0.054***	-0.037**	0.065***	0.025**	0.095***	0.106***	-0.023	-0.064***
Urban (1=Urban, 0=Rural)	-0.002	0.051***	0.025	0.021	0.035***	0.011	0.072***	0.028	-0.011
Knowledge index		0.661***	0.209***		0.781***	0.056		0.594***	0.482***
Attitude index			0.099*			-0.068			0.151**
Constant	0.544***	0.287***	0.220**	0.733***	0.108*	0.613***	0.633***	0.352***	-0.025
Observations	701	701	701	701	701	701	701	701	701
R-squared	0.06	0.724	0.147	0.041	0.71	0.07	0.063	0.452	0.358

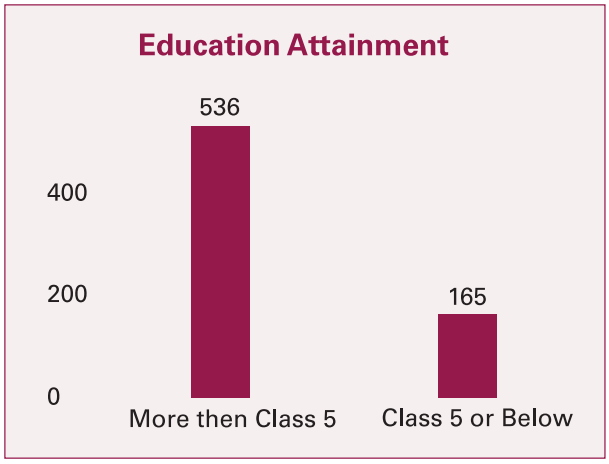
Source: Authors' estimation using the survey data of this study

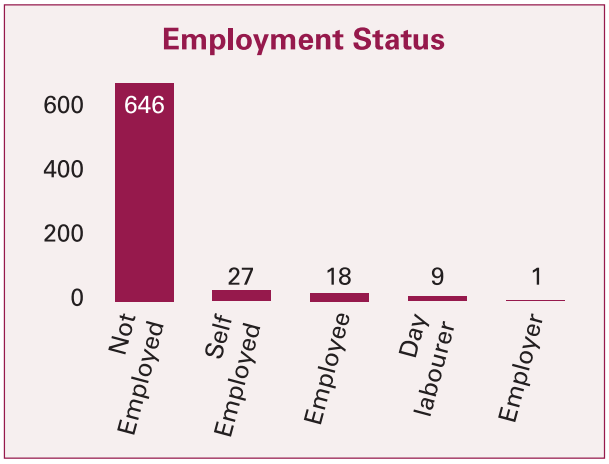
APPENDIX B:

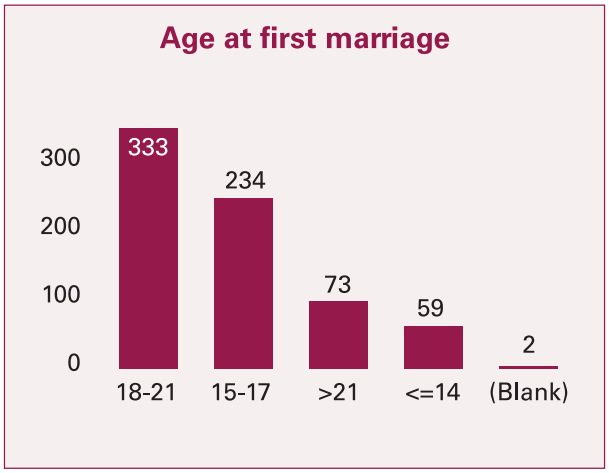
Overview Beneficiary profiles and KAPs Findings

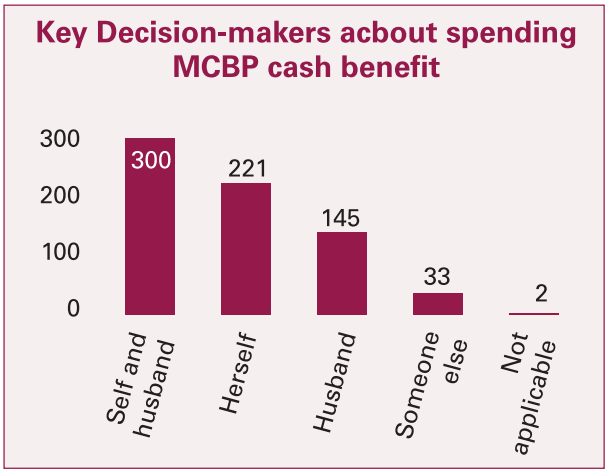
Demographic Profile: Beneficiary





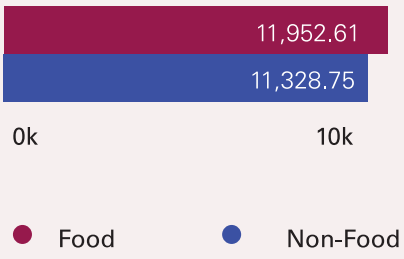




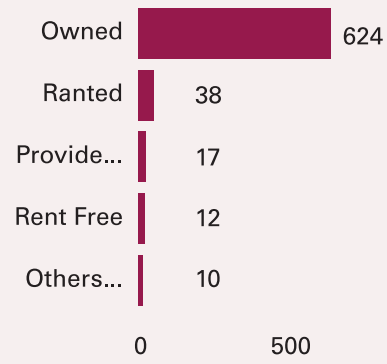


Demographic Profile: Beneficiary

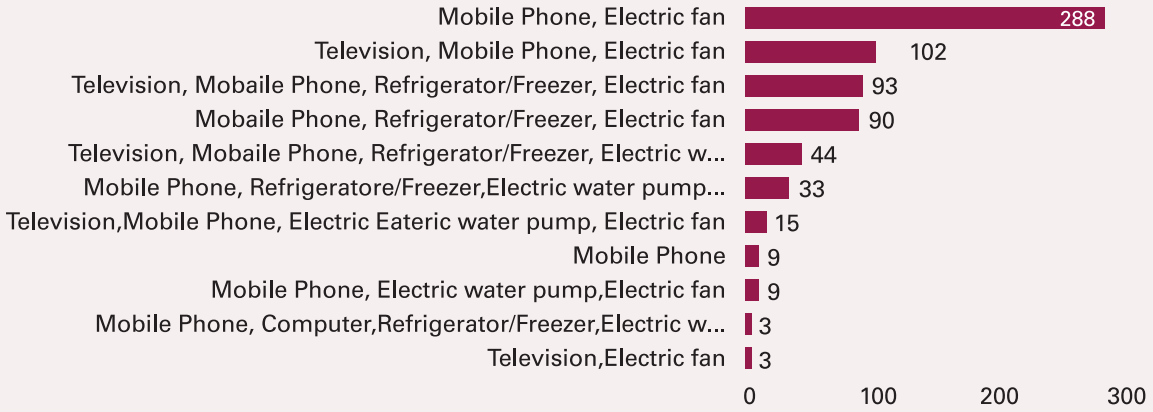
Average Monthly and Nonfood Consumption



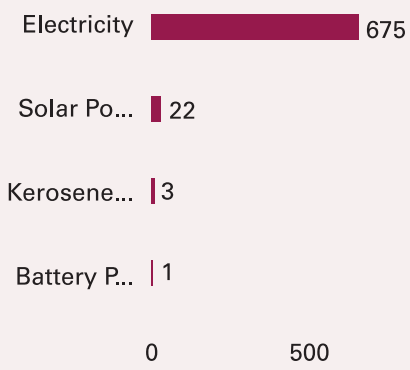
Occupancy Status



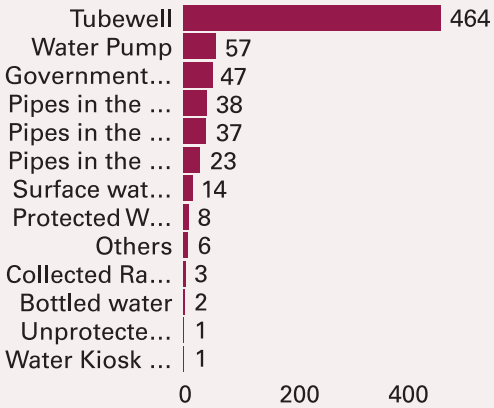
Asset Distribution

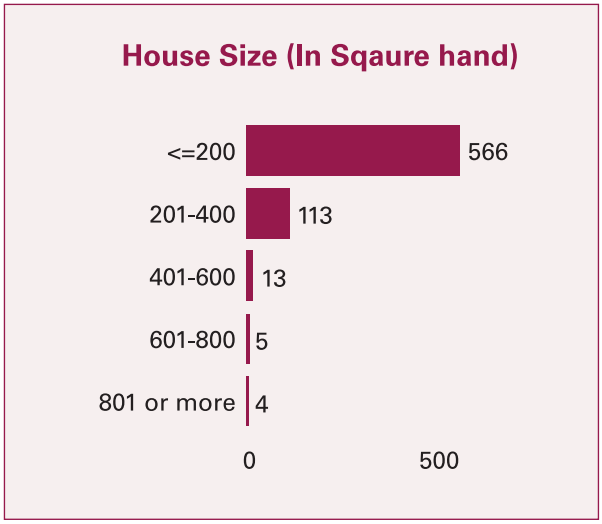


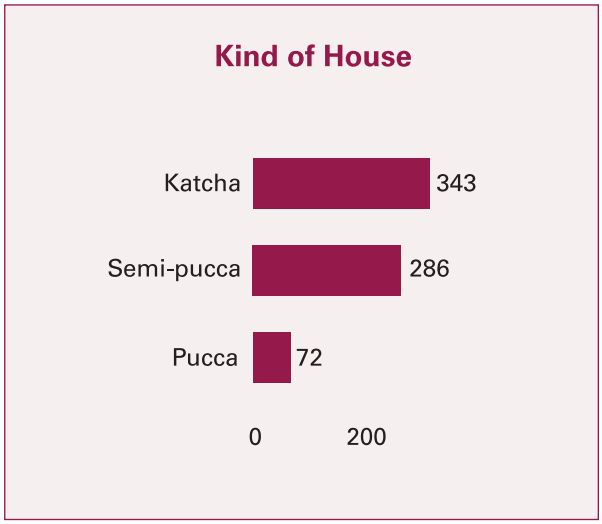
Main Source of Light



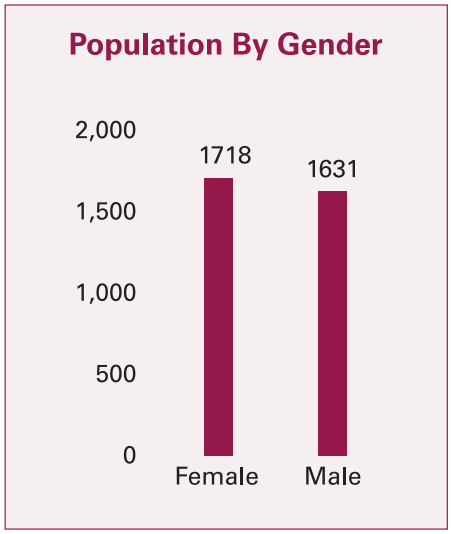
Main Source of Drinking Water

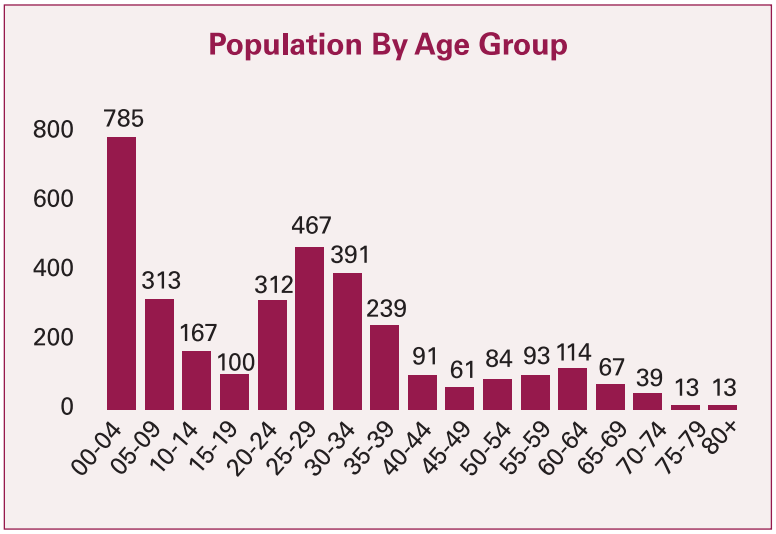


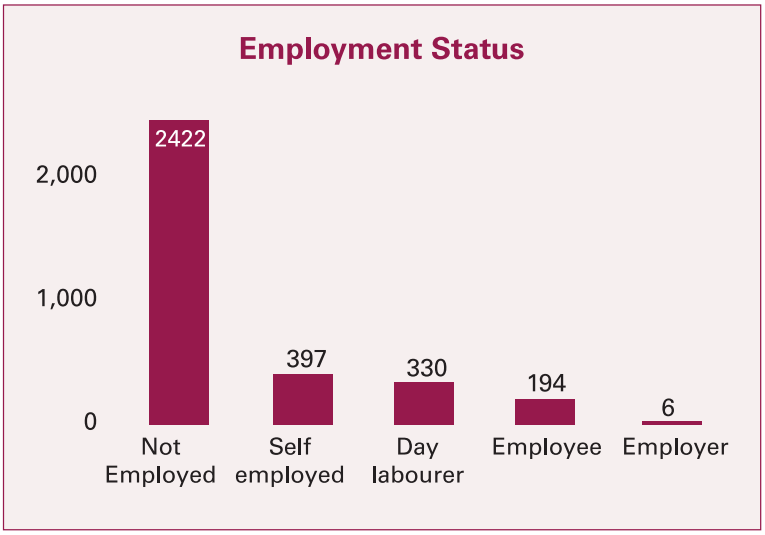


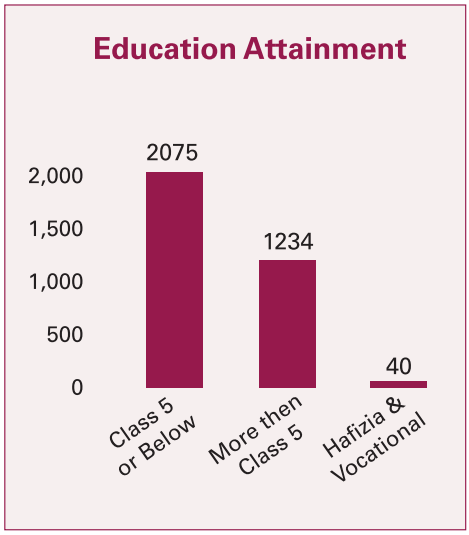


Demographic Profile: Household





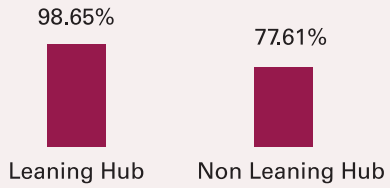




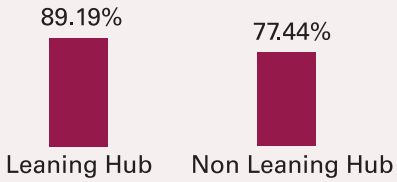
Domain 1
Infant Feeding (0-6 months)

Knowledge

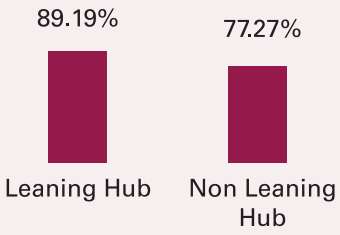
What is the first food a new born baby should receive?**– Only Breast milk**



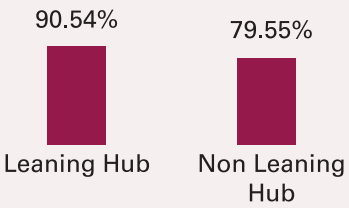
Do you know that it is very important to breastfeed your baby with the first breast mill (colostrum) immediately after delivery (Within one hour)? **– Yes**



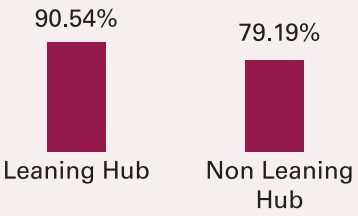
Have you heard about exclusive breastfeeding? **– Yes**



What does exclusive breastfeeding mean? **– Know the meaning**

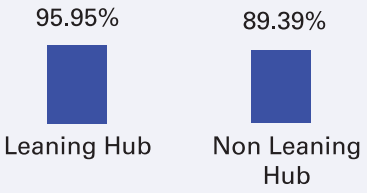


How long should a baby receive nothing more than breast milk?
– Birth to six months

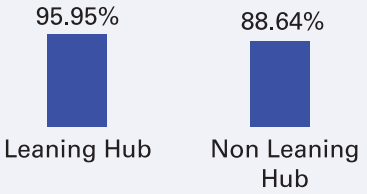


Attitude

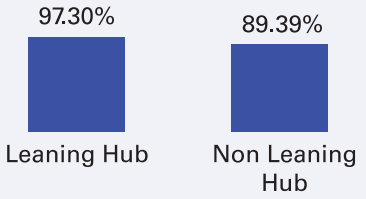
How good do you think it is to give the first milk to child (colostrum)? **– Good**



To what extent do yo agree that a newborn child should be fed the first milk within an hour from birth? **– Agree**



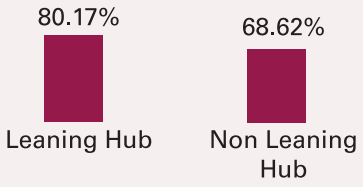
To what extent do you agree children should be breastfed exclusively for six months (one dose not need to give even water)? **– Agree**



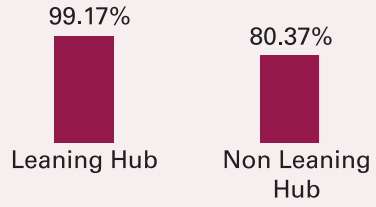
Domain 2
Young Children Feeding (7-23 months)

Knowledge

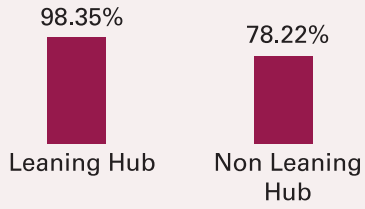
How long is it recommended that a woman breastfeeds her child?
>= 24 Months



At what age should babies start eating foods in addition to breastmilk?
– at 6 months

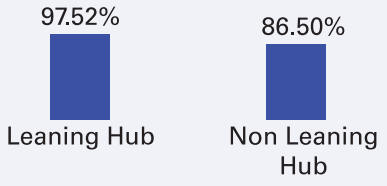


Why is it important to give foods in addition to breastmilk to babies from the age of six months?
Breastmilk Alone is not sufficient

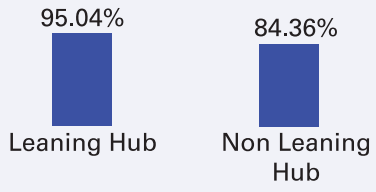


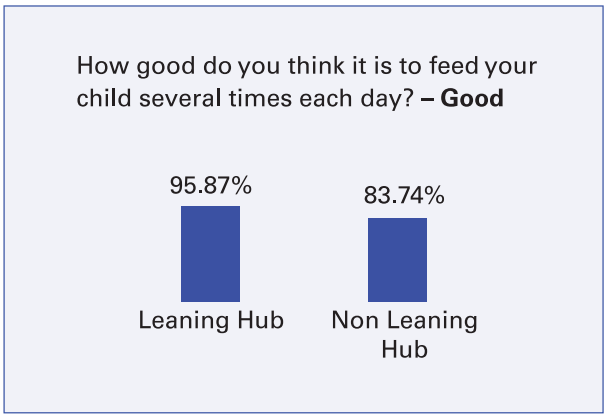
Attitude

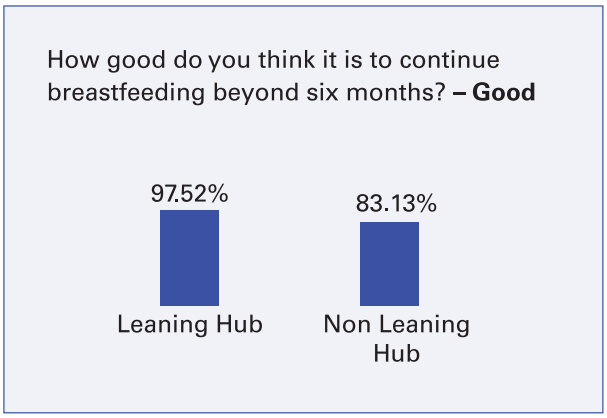
How confident do you feel in preparing food for your child? **– Confident**



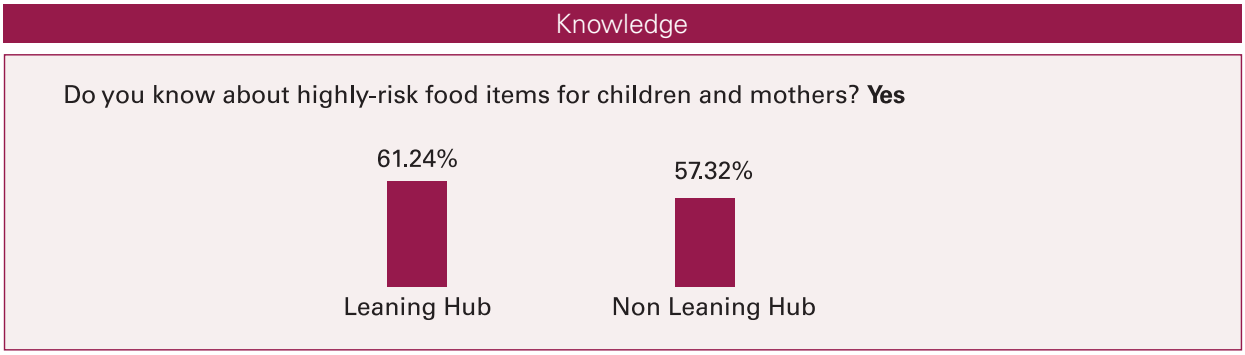
How good do you think it is to give different types of food to your child each day? **– Good**

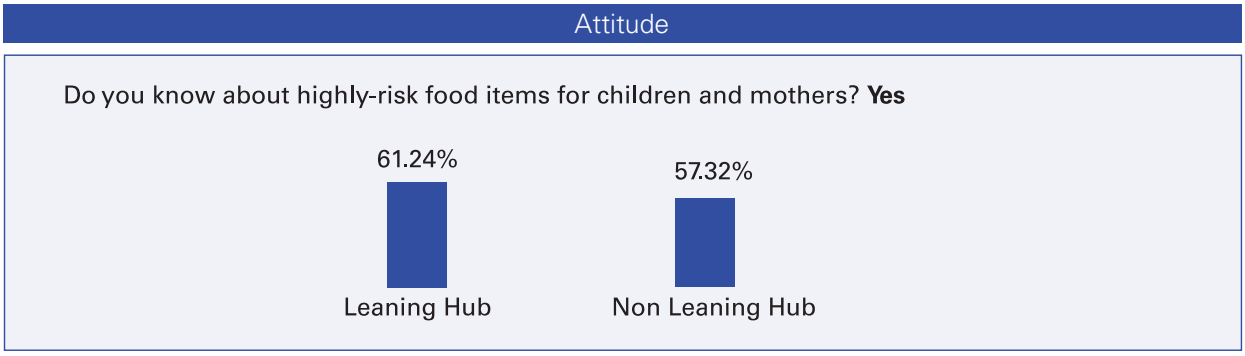


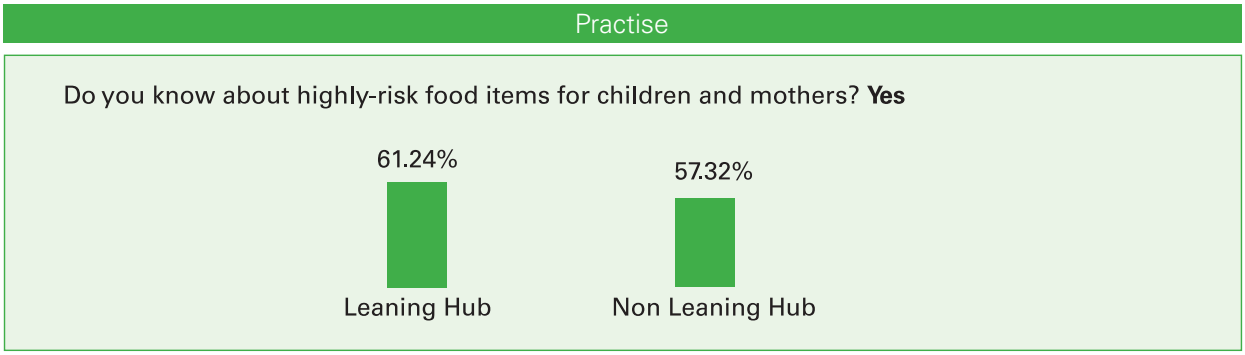




Domain 4
Food Preservation



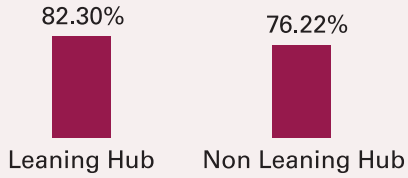




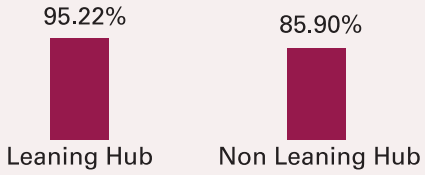
Domain 5
Food Intake

Knowledge

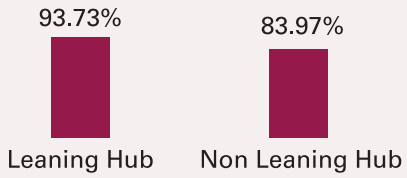
Do you know the frequency of meals pregnant/lactating mothers consume? **Yes**



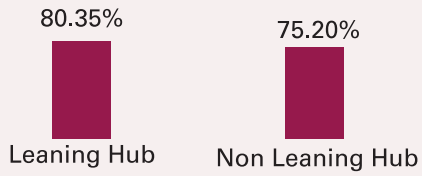
Do you know it is important to maintain the delivery diversity of pregnant and lactating mothers' meals? **Yes**



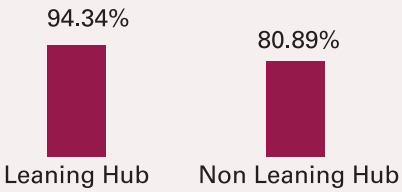
Do you know the appropriate amount of food a pregnant or lactating mother should eat? **Yes**



Do you know consuming some special foods can reduce anaemia? **Yes**



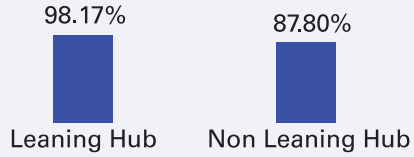
Do you know women need to go to healthcare centres at least four times during pregnancy? **Yes**



Attitude

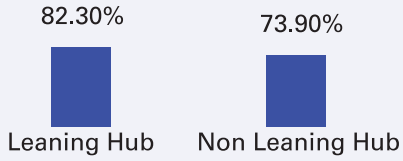
Do you think pregnant lactating women should consume adequate meals in a day? **Yes**

Do you think dietary delivery should be maintained in the meals of pregnant/lactating mothers? **Yes**

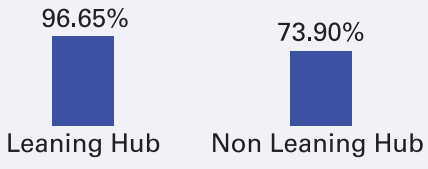


Do you think pregnant/lactating mothers should consume adequate food per meal? **Yes**

Do you think pregnant women should consume some special food to reduce anaemia? **Yes**

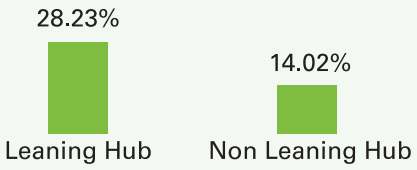


Do you think women must visit healthcare centres at least four times during pregnancy? **Yes**

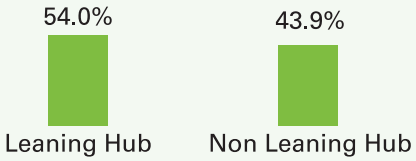


Practise

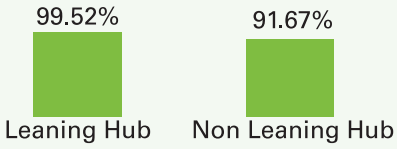
How many meals do you consume in a day? **4**



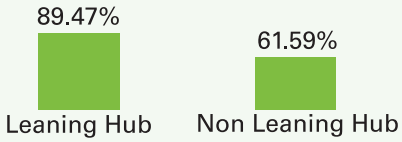
In the last 24 hours, how many different food items do you consume? **5 or more**



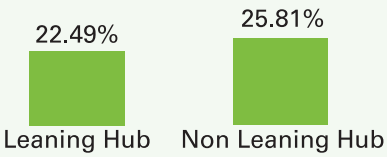
How much food did you consume in your last meal? **Adequate**



Did you consume any of the anaemia loading food in last week? **Yes**



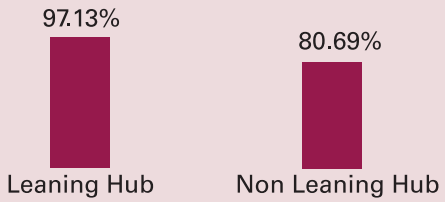
How many times did you go to healthcare centres in the last week? **At least Once**



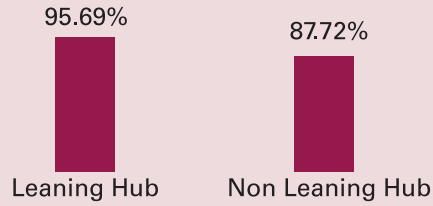
Domain 6
Supplements Intake

Knowledge

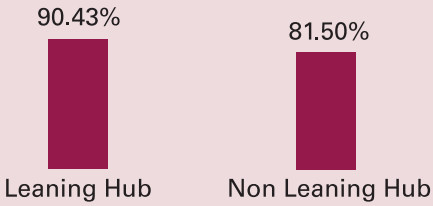
Do you know about supplement intake during pregnancy? **Yes**



Do you know supplement intake is safe? **Yes**

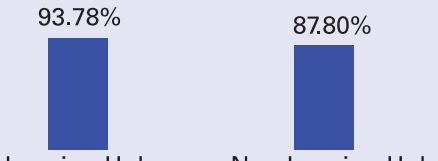


Do you know iodised salt is important for a baby's brain development? **Yes**

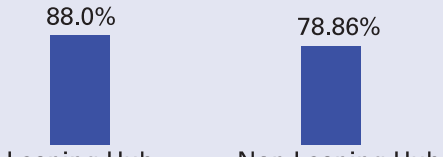


Attitude

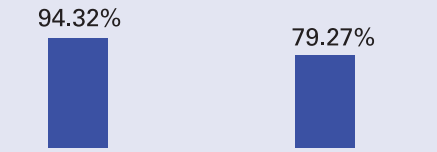
Do you think pregnant women should intake supplements? **Yes**



Supplement intake is safe, and how confident are you to intake supplements? **Confident**



Do you think pregnant and lactating mothers use iodised salt while cooking every meal? **Yes**



APPENDIX C:

Table 13.1: Major expenditure items on which benefit money is spent (% of household)

	Frequency distribution of HH				Per centage of HH			
Item	**NLH**	**LH**	**Rural**	**Urban**	**NLH**	**LH**	**Rural**	**Urban**
Dal	145	49	167	27	29.47	23.44	33.53	3.85
Milk	146	70	148	68	29.67	33.49	29.72	33.50
Semolina	51	25	54	22	10.37	11.96	10.84	10.84
Banana	116	52	115	53	23.58	24.88	23.09	26.11
Khichuri rice	62	25	71	16	12.60	11.96	14.26	7.88
Barley	0	2	2	0	0.00	0.96	0.40	0.00
Vegetable	104	26	109	21	21.14	12.44	21.89	10.34
Clothing	128	27	126	29	26.02	12.92	25.30	14.29
Cosmetics	45	22	55	12	9.15	10.53	11.04	5.91
Diapers	47	14	53	8	9.55	6.70	10.64	3.94
Medicines	125	81	133	73	25.41	38.76	26.71	35.96
Doctor expenses	37	11	36	12	7.52	5.26	7.23	5.91
Toys	38	10	39	9	7.72	4.78	7.83	4.43
Chips	33	9	36	6	6.71	4.31	7.23	2.96
Juice	3	5	4	4	0.61	2.39	0.80	1.97
Savings	165	61	161	65	33.54	29.19	32.33	32.02
Others	85	58	99	44	17.28	27.75	19.88	21.67

Source: Based on Household survey, 2023.

Table 13.2: Decisions of spending benefit allowance on major expenditure (% of household)

	Completely by Beneficiary				Partially by beneficiary				Others			
Item	**NLH**	**LH**	**Rural**	**Urban**	**NLH**	**LH**	**Rural**	**Urban**	**NLH**	**LH**	**Rural**	**Urban**
Dal	12.20	14.35	15.66	5.91	9.15	8.13	10.24	5.42	8.13	0.96	7.63	1.97
Milk	11.99	22.01	12.65	20.69	10.98	9.09	10.44	10.34	6.71	2.39	6.63	2.46
	Completely by Beneficiary				**Partially by beneficiary**				**Others**			
Item	**NLH**	**LH**	**Rural**	**Urban**	**NLH**	**LH**	**Rural**	**Urban**	**NLH**	**LH**	**Rural**	**Urban**
Semolina	3.66	6.70	3.61	6.90	3.25	4.31	3.61	3.45	3.46	0.96	3.61	0.49
Banana	8.74	13.40	8.43	14.29	8.94	8.13	8.43	9.36	5.89	3.35	6.22	2.46
Khichuri rice	5.28	5.74	5.62	4.93	3.25	4.31	4.02	2.46	4.07	1.91	4.62	0.49
Barley	0.00	0.96	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vegetable	6.91	5.74	7.03	5.42	6.30	5.26	6.83	3.94	7.93	1.44	8.03	0.99
Clothing	8.94	5.74	9.04	5.42	11.79	6.22	11.45	6.90	5.28	0.96	4.82	1.97
Cosmetics	3.25	3.83	3.41	3.45	4.67	5.74	6.43	1.48	1.22	0.96	1.20	0.99
Diapers	2.64	4.31	2.81	3.94	2.44	2.39	3.41	0.00	4.47	0.00	4.42	0.00
Medicines	6.30	19.62	6.83	18.72	13.62	14.83	14.46	12.81	5.49	4.31	5.42	4.43
Doctor expenses	0.81	1.91	0.60	2.46	5.28	1.91	5.42	1.48	1.42	1.44	1.20	1.97
Toys	4.47	1.91	4.62	1.48	1.22	1.44	1.20	1.48	2.03	1.44	2.01	1.48
Chips	4.07	2.39	4.62	0.99	0.41	0.48	0.40	0.49	2.24	1.44	2.21	1.48
Juice	0.20	0.96	0.40	0.49	0.20	1.44	0.40	0.99	0.20	0.00	0.00	0.49
Savings	13.01	17.22	11.85	20.20	18.29	9.09	17.87	9.85	2.24	2.87	2.61	1.97
Others	5.08	19.62	7.03	15.27	8.94	5.74	9.24	4.93	3.25	2.39	3.61	1.48

APPENDIX D:

Household Survey Questionnaire

Knowledge, Attitude and Practices (KAP) survey on behavioral aspects of the beneficiaries of Mother and Child Benefit Programme (M&CBP)

Administrative

PSU code			Beneficiary number			Beneficiary ID
						Please check the ID

Living Area:

	Name	Code
District		
Upazila/Thana		
Ward		
Para/Mohalla name		

Hello. My name is _____. I am here to conduct a survey on existing condition of M&CBF programmes. You have been selected for the survey. I would like to ask you some questions about you and your family. It will likely take about 30 minutes. Your answers will be treated as confidential and will not be shared with anyone. Your responses are important, and we thank you for your kind participation in this survey. If you don't want to answer to any question, just let me know.

GIVE CARD WITH CONTACT INFORMATION

Team no.	
Supervisor Name	
Enumerator no.	
Date	

Section 01: Household information (all members to be listed in the roster)

Now, I would like to ask you some questions about your family.

Individual ID Code	1. Name	2. Sex 1 Male 2 Female	3. Relationship of members with the head of the household		4. Age Write age in full years and full months.		5. Marital status 1 Currently Married 2 Never Married 3 Widowed 4 Divorced 5 Separated	6. If Q5 is not 2 Age at 1st marriage	7. Do you have any of the following disabilities? (Multiple answer) 1 Deaf 2 Mentally impaired 3 Physically disabled 4 Paralyzed 5 Others (specify) 6 None of the above 88 Don't know
			1 Head 2 Husband/ wife 3 Son/Daughter 4 Spouse of Son/Daughter 5 Grandchild 6 Father/Mother 7 Brother/ Sister 8 Niece/Nephew	9 Father/ Mother-in-law 10 Brother/ Sister in-law 11 Other relative (specify) 12 Household help 13 Employee 14 Grandparents 88 Others (specify)	Year	Months [Write 0 if less than one month]			
1									
2									
3									

Section 02: Education (all persons 5 years and older)

Individual ID Code (as in HH roster)	1. Can you read and write? 1 Only read 2 Read and write 3 No	2. Have you ever attended school? 1 Yes, has attended earlier 2 Yes, currently attending 3 No>>Q4	3. What was the highest class that you passed? 1. No class passed 1 Pre-primary education (play group, nursery, kindergarten (KG)) 2 Class 1 3 Class 2 4 Class 3 5 Class 4 6 Class 5 7 Class 6 8 Class 7 9 Class 8 10 Class 9	11 SSC/ equivalent 12 HSC/ equivalent 13 Vocational 14 Nursing 15 Hafizia 16 Graduate/ Bachelor/ equivalent 17 Post graduate/ Masters/ equivalent 18 Medical 19 Engineering 20 PhD 88 Others (specify)	4. If Q2 not equal to 3 then skip to Q5 Why did s/he never attend school? ***(Select all that apply)*** 1 Educational institution is too far 2 Not interested in study 3 To support family income 4 More education is not necessary 5 To do domestic chores 6 Parents did not want 7 Economic reasons (could not afford) 8 For security reason 9 Got married 10 Disability (physical or mental)	5. If Q2 = 1 & Q3 is not equal to 13, 14, 15, 16, 17, 18, 19, 20 What is the main reason for not continuing education? ***(Select all that apply)*** 1 Educational institution is too far 2 Not interested in study 3 To support family income 4 More education is not necessary 5 To do domestic chores 6 Parents did not want 7 Economic reasons (could not afford) 8 For security reason 9 Got married	6. How much did your household spend for his/ her education in the last 12 months? [Expenditure on education incorporates tuition fees, transportation cost, hostel cost (if any), books, stationaries etc.]

Individual ID Code (as in HH roster)				11 Failed examination then did not continue studying 88. Others (specify) 98. Don't know	10 Disability (physical or mental) 11 Failed examination then did not continue studying 88. Others (specify)	
1						
2						
3						

Section 03: Information about other social safety net programmes

Now I am going to ask about any other social security programmes from which you or your family members get benefit.

ID CODE OF RESPONDENT (as in HH Roster)	Is (name) currently enroll / has received any assistance from any safety net program in last 12 months? Yes No	If yes, from which program s/he (name) received benefit in the last 12 months? Code 1	How did s/he receive the benefit? 1 Cash>> Q4 2 In kind>> Q5 3 Both in cash and in kind	How much did s/he receive cash in the last 12 months? (Total in taka)	If s/he received in-kind goods, what was the total value of the goods s/he received in last twelve month?
1					
2					
3					

Code 1: Safety Net Programme code					
1	Ananda School (ROSC) [Cash/kind]	14	Allowances for Distressed Cultural Personalities/Activists	27	Housing Support
2	Stipend for Primary Students	15	Allowances for the Financially Insolvent Disabled	28	Agriculture Rehabilitation
3	School Feeding Program	16	Vulnerable Group Development (VGD)	29	One Household One Farm
4	Stipend for Secondary and higher students (boys/girls)	17	Vulnerable Group Feeding (VGF)	30	Targeted Ultra Poor (TUP) (BRAC)
5	Stipend for Dropout Students	18	General Relief Activities	31	Char Livelihood Project
6	Stipend for Disabled Students	19	Gratuitous Relief (GR)- Food/ Cash	32	Economic Empowerment for the Poor/Shiree
7	Old Age Allowance	20	Allowance for Beneficiaries in CTG-Hill Tracts Area	33	Urban Partnership for Poverty Reduction (UPPR)
8	Widow/Deserted/Destitute Women Allowances	21	Food Assistance in CTG-Hill Tracts Area	34	Shouhardo Program
9	Maternity Allowance Programme for the Poor Lactating Mothers	22	Employment Generation Programme for the Ultra Poor	35	Nabojibon Program (Save the Children)
10	Maternal Health Voucher Scheme	23	Food/ Cash for Work (FFW/CFW)	36	Proshar Program (ACDI VOCA)
11	Honorarium for Insolvent Freedom Fighters	24	Test Relief (TR) Food (cash)	37	Incentive for COVID-19
12	Honorarium & Medical Allowances for Injured Freedom Fighters	25	Rural Employment Opportunity for Public Asset (REOPA)	38	Improving livelihood standard for tea workers'
13	Ration for Shaheed Family and Injured Freedom Fighters	26	Rural Employment and Road Maintenance Programme (RERMP)	39	Support from TCB Card
				40	Others

(Applicable for the household's members aged 5 years and above) (If there is more than one job, use the next row)

Individual ID Code (as in HH roster)	1. Is s/he [name] involved in any work for wage, salary, in-kind benefits, or other economic activities? 1 Yes 2 No>> Next person	2. What economic activities did s/he (name) do in the past 12 months? Activities: Service/Wage employment/All activities conducted under self or joint ownerships Description of activity	3. What was his/ her employment status? 1 Day laborer 2 Self-employed 3 Employer 4 Paid employees	4. What is his/ her weekly income? TK/Week	5. What is his/her gross income per month (including in-kind benefit)? TK/Month
1					
2					
3					

Section 05: Housing information

Serial	Question
1.	What is your present occupancy status? 1. Owned 2. Rented 3. Rent-free 4. Provided free by relatives 5.Others (specify)
2.	Do you live in slum area? 1. Yes 2. No
3.	What kind of dwelling house do you live? 1. Katcha 2. Semi-pucca 3. Pucca

Serial	Question
4.	What is the construction material used for the floor? 1. Bamboo/Wood 2. Mud 3. Brick/Cement 4. Other (specify)
5.	How many rooms do members of this household usually use for sleeping?..... Rooms
6.	What is your total usable living space/area of covered rooms? …… (SQ Hand)
7.	Is your house rent increased in the last month? [if rented in Q 1] 1. Yes 2. No
8.	If yes, how much is increased? ….. taka
9.	Does your household have the following items? Please check all that apply. 1. Television 2. Mobile phone 3. Computer 4. Refrigerator/Freezer 5. Air conditioner 6. Washing machines 7. Electric water pump 8. Electric fan
10.	Does your household have the following furniture? Please check all that apply 1. Cot/Bed 2. Table/Chair 3. Almirah/wardrobe 4. Sofa set 5. Water Filter/Dispenser
11.	Does any member of your household own the following items? Please check all that apply 1. Bicycle 2. Motorcycle 3. Boat with a motor 4. Manual rickshaw/Van 5. Auto rickshaw/van 6. Nasiman/Kariman/Votvoti 7. Easy bike/Auto bike 8. Country boat 9. Others (specify)

Serial	Question
12.	What is the main source of drinking water? **Pipe water** 1. Pipes in the house 2. Pipes in the yard 3. Pipes in the neighbor's house 4. Government tap / permanent pipe 5. Tubewell **Well/ Indara** 6. Protected Well / Idara 7. Unprotected wells / Idara **Shower water** 8. Safe shower 9. Unprotected shower 10. Collected rainwater 11. Tanker-truck 12. Small tank or drum car 13. Water Kiosk Plant 14. Surface water (rivers, lakes, dams, ponds, canals, irrigation canals) **Packaged or bottled water** 15. Bottled water 16. Small packaged water 17. Other (specify)
13.	What is the main source of light in your household? 1. Electricity 2. Solar Powered Lantern (lamp) 3. Battery powered flashlight, torch or lantern 4. Kerosene or paraffin lamp 5. Candle 6. Other (specify)
14.	What kind of toilet is used by your household? 1. Flash removal through the pipe to the sewer system 2. Flash and hold in safe tank 3. Flash and hold in safe pit (pit latrine) 4. Flash removal in open drain 5. I don't know where it is removed by flash 6. Ventilated Improved Pit (VIP) latrine 7. Pit latrine with slab 8. Slab less pit latrine / open pit 9. Open / hanging latrine 10. Other (specify)

Serial	Question
15.	Where is this toilet facility located? 1. In own dwelling 2. In own yard / plot 3. Else where
16.	Do you share toilet with other households? 1. Yes 2. No
17.	Which is the most used fuel for cooking in your household? 1. Wood/fire-wood 2. Garbage/Plastic 3. Dung/Animal Waste 4. leave/straw/charcoal/ Husk/ Dry Grass / Bichali / Wheat / Maize High 5. Solar Cooker 6. Natural Gas 7. LP Gas 8. Bio-Gas/Processed Bio-mass 9.Others (specify)

Section 06: Household Expenditures

Part A: Food expenditure

Part A1. Food Expenditure (Last seven days):

Item	1. Did your household consume it in the last 7 days Yes No	2. Total quantity Consumed in the last 2 days		3. Major Source 1. Purchased 2. OMS 3. received as wage 4. own production 5. received from govt. 6. received/gift	4. What is total expenditure after this item if purchased?	5. Approximate value of non-purchased food. (TK)
		Quantity	Unit			
Rice and rice products			KG/ Gram/ Litre/number			
Wheat/Maze & its prod.			KG/ Gram/ Litre/number			
Bread & Bakery prod.			KG/ Gram/ Litre/number			

Pasta type commodities			KG/ Gram/ Litre/number			
Raw meat of cattle			KG/ Gram/ Litre/number			
Meat of poultry & birds			KG/ Gram/ Litre/number			
Fresh frozen fish			KG/ Gram/ Litre/number			
Fresh/ frozen sea food			KG/ Gram/ Litre/number			
Dry fish/salted dry fish			KG/ Gram/ Litre/number			
Raw/pasteurized/UHT milk			KG/ Gram/ Litre/number			
Condensed/powder milk			KG/ Gram/ Litre/number			
Yogurt and milk products			KG/ Gram/ Litre/number			
Cheese and curd			KG/ Gram/ Litre/number			
Egg and egg products			KG/ Gram/ Litre/number			
Edible oil			KG/ Gram/ Litre/number			
Butter and butter products			KG/ Gram/ Litre/number			
Dried fruits,Nuts & Edible seeds			KG/ Gram/ Litre/number			
Preserved Fruits and products			KG/ Gram/ Litre/number			
Shak & stem type vegetables			KG/ Gram/ Litre/number			
Dried vegetables (Pulses)			KG/ Gram/ Litre/number			
Sugar			KG/ Gram/ Litre/number			
Chocolate, Chewing gum & Confectionary			KG/ Gram/ Litre/number			

Part A2: Food Expenditure (per week):

Item	1. Did your household consume it in the last 7 days Yes No	2. Total quantity Consumed in the last 7 days		3. Major Source Purchased OMS received as wage own production received from govt. received/gift	4. What is total expenditure after this item if purchased?	5. Approximate value of non-purchased food. (TK)
		Quantity	Unit			
Salt, spices & ingredients used in cooking			KG/ Gram/ Litre/number			
Baby Food			KG/ Gram/ Litre/number			
Coffee, Tea & Coco			KG/ Gram/ Litre/number			
Mineral water, soft drink & Fruit Juice			KG/ Gram/ Litre/number			
Cigarette & Bidi			KG/ Gram/ Litre/number			
Other Tobacco Products			KG/ Gram/ Litre/number			
Betel, Nut & related products			KG/ Gram/ Litre/number			

Part B: Non-food expenditure:

Part B1. Non-food expenditure (per month)

Item	1. Did your household spend money on this item? 1. yes 2. No	2. How much did your household spend after this item per month?	3. If not purchased, what is the total value of this item?
Water			
Sewerage / Garbage collection			
Housing and housing related Services			
Electricity Charges			
Gas			
Liquid Fuel			
Other commodities used in households			
Medicine			
Other Medical Accessories			
Transport Services			
Telephone Services			
Saloon and Parlor			
Other commodities for personal use			

Part B2. Non-food expenditure (Annual)

Item	1. Did your household spend money on this item? 1. yes 2. No	2. How much did your household spend after per year?	3. If not purchased, what is the total value of this item?
Clothing for Men and Boys			
Clothing for Women and Girls			
Clothing for Babies (0-2 & 3-13yrs)			
Footwear for Men/Boys			
Footwear for Women/Girls			
Footwear for Children (0-2 and 3-13 yrs.)			
Actual housing rent paid by tenant (ex. Utility bill)			
Imputed rent for the owner-occupied household (ex. Utility bill)			
Repair and Maintenance of house			
Furniture and fixtures for the household			

Small equipment/accessories used by household			
Repair of equipment used by household			
Cutleries, flatware and silverware			
Health services			
Hospital Services			
Transport services			
Telephone and related services			
Entertainment & cultural instruments			
Gardening, plantation and flowers			
Educational expenses			
Accommodation services			
Commodities related to smoking			
Social Protection			
Insurance			
Income tax			

Section 07: Usage of M&CBP allowance

<table>
<tr><th>Serial</th><th colspan="4">Questions</th></tr>
<tr><td>1</td><td colspan="4">Who usually decides how to spend money on any items?
1 Yourself
2 Your husband
3 Self and husband
4 Someone else (specify)
5 Not applicable</td></tr>
<tr><td rowspan="9">2</td><td colspan="4">In the last month, please the items on which you spend M&CBP allowance and who decides how to spend money on the items?</td></tr>
<tr><td>Serial
(Code 2)</td><td>Expenditure
items</td><td>Amount
expended</td><td>Who decided?
1 Yourself
2 Your husband
3 Self and husband
4 Someone else (specify)
5 Not applicable</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
</table>

Serial	Questions			
3	In the month before the last, please the items on which you spend M&CBP allowance and who decides how to spend money on the items?			

Section 08: Food Security

Now I would like to ask you some questions about food. During the last 12 MONTHS, was there a time when?

1.	You were worried you would not have enough food to eat because of a lack of money or other resources	1-Yes	2-No	8- Don't Know	9-No response
2.	Still thinking about the last 12 MONTHS, was there a time when you were unable to eat healthy and nutritious food because of a lack of money or other resources	1-Yes	2-No	8- Don't Know	9-No response
3.	You ate only a few kinds of foods because of a lack of money or other resources	1-Yes	2-No	8- Don't Know	9-No response
4.	You had to skip a meal because there was not enough money or other resources to get food	1-Yes	2-No	8- Don't Know	9-No response
5.	Still thinking about the last 12 MONTHS, was there a time when you ate less than you thought you should because of a lack of money or other resources	1-Yes	2-No	8- Don't Know	9-No response
6.	Your household ran out of food because of a lack of money or other resources	1-Yes	2-No	8- Don't Know	9-No response
7.	You were hungry but did not eat because there was not enough money or other resources for food	1-Yes	2-No	8- Don't Know	9-No response
8.	During the last 12 MONTHS, was there a time when you went without eating for a whole day because of a lack of money or other resources	1-Yes	2-No	8- Don't Know	9-No response

Section 09A: Feeding Infants (0-6 months)

Knowledge	
1.	What is the first food a newborn baby should receive? 1 Only Breastmilk 2 Others (specify) 98 Don't know
2.	Do you know that it is very important to breastfeed your baby with the first breast milk (colostrum) immediately after delivery (Within one hour)? 1 Yes 2 No
3.	Have you heard about exclusive breastfeeding? 1 Yes 2 No
4.	What does exclusive breastfeeding mean? 1 Exclusive breastfeeding means that the infant gets only breastmilk and no other liquids or foods 2 Other 98 Don't know
5.	How long should a baby receive nothing more than breastmilk? 1 Birth to six months 2 Other 98 Don't know
6.	Do you think that breastmilk is sufficient for babies from birth to six months old? Yes No 98 Don't know
7.	How often should a baby younger than six months be breastfed or fed with breastmilk? 1 On demand, whenever the baby wants 2 Other 98 Don't Know

8.	What are the benefits for a baby if he or she receives only breastmilk during the first six months of life? (Select all that apply) 1 He/she grows healthily 2 Protection from diarrhea and other infections 3 Protection against obesity and chronic diseases in adulthood 4 Protection against other diseases. Specify 5 Other (specify) 98 Don't know
9.	What are the physical or health benefits for a mother if she exclusively breastfeeds her baby? (Select all that apply) 1 Delays fertility 2 Helps her lose the weight she gained during pregnancy 3 Lowers risk of cancer (breast and ovarian) 4 Lowers risk of losing blood after giving birth (less risk of post-partum hemorrhage) 5 Improves the relationship between the mother and baby 6 Other (specify) 98 Don't know
10.	If a mother has difficulties feeding breastmilk, what should she do to overcome them? 1 Seek professional help from health-care services: doctors, nurses, midwives or other health professionals 2 Other (specify) 98 Don't know
Attitude	
11.	How good do you think it is to give the first milk to your child (colostrum)? 1 Not good 2 Not Sure 3 Good
12.	To what extent do you agree that a newborn child should be fed the first milk within an hour from birth? 1 Disagree 2 Neither agree nor disagree 3 Agree

13.	To what extent do you agree children should be breastfed exclusively for six months (one does not need to give even water). 1 Disagree 2 Neither agree nor disagree 3 Agree
14.	To what extent do you agree that giving only breast milk to a baby who is less than 6 months is sufficient? 1 Disagree 2 Neither agree nor disagree 3 Agree
15.	How good do you think it is to breastfeed your baby on demand, that is when the baby wants to feed? 1 Not good 2 Not Sure 3 Good
16.	How confident do you feel in breastfeeding your child? 1 Not confident 2 So-so 3 Confident
17.	Do you agree that the baby needs additional food? (examples: water, tea, juice, infant formula) 1 Disagree 2 Neither agree nor disagree 3 Agree
Practices	
18.	Did you give the first milk to your child (colostrum)? 1 Yes 2 No 3 Don't know
19.	Was your child breastfed yesterday during the day or at night? 1 Yes 2 No 98 Don't know

20.	Did your baby have any of the following liquids yesterday during the day or night? a. Plain water b. Infant formula c. Milk, such as tinned, powdered or fresh animal milk d. Juice or juice drinks e. Clear broth f. Yogurt g. Any other liquids
21.	How many times did you breastfeed to your child in last 24 hours? ……. Times
22.	What keeps you from breastfeeding? 1. Too much work 2. Too busy 3. Tired 4. Disease 5. Others (specify)
23.	Do you wash your hand before breastfeeding? 1. Yes 2. No
24.	Have you ever added breastfeeding with other food or liquids? 1. Yes 2. No 3. Don't know

Section 09B: Feeding young children (7–23 months)

Knowledge	
1.	How long is it recommended that a woman breastfeeds her child? 1. Six months or less 2. 6-11 months 3. 12-23 months 4. 24 months and more 5. Other 98. Don't now
2.	At what age should babies start eating foods in addition to breastmilk? 1. At six months 2. Other (specify) 98. Don't know
3.	Why is it important to give foods in addition to breastmilk to babies from the age of six months? 1. Breastmilk alone is not sufficient (enough)/cannot supply all the nutrients needed for growth/from six months, baby needs more food in addition to breastmilk 2. Other 98. Don't know
4.	Do you know any ways to encourage young children to eat? 1. Giving them attention during meals, talk to them, make meal times happy times 2. Clap hands 3. Make funny faces/play/laugh 4. Demonstrate opening your own mouth very wide/modelling how to eat 5. Say encouraging words 6. Draw the child's attention 7. Other 98. Don't know
Attitudes	
5.	How confident do you feel in preparing food for your child? 1. Not confident 2. So-so 3. Confident

6.	How good do you think it is to give different types of food to your child each day? 1. Not good 2. Not Sure 3. Good	
7.	How good do you think it is to feed your child several times each day? 1. Not good 2. Not Sure 3. Good	
8.	How good do you think it is to continue breastfeeding beyond six months? 1. Not good 2. Not Sure 3. Good	
Practices		
9.	Now I would like to ask you about liquids or foods that your child had yesterday during the day or at night. I am interested in whether your child had the item I mention even if it was combined with other foods. For each item, please select an option from the threes below- 1. Yes 2. No 3. Don't know **Food items:**	
	a) Plain water	
	b) Juice or juice drinks	
	c) Clear broth	
	d) Milk such as tinned, powedered, or fresh animal milk	9(a). If yes, how many times?.....
	e) Infant formula	9(b). If yes, how many times?.....
	f) Any other liquids	
	g) Yogurt	9(c). If yes, how many times?.....
	h) Any fortified baby food like CERELAK, HORLICs etc.	
	i) Bread, rice, noodles, porridge, khichuri, or other foosa made from grains	

	j) Pumpkin, carrots, squash, or sweet potatoes that are yellow or orange inside	
	k) White potatoes, white yams, manioc, cassava or any other foods made from roots	
	l) Any dark green, leafy vegetables	
	m) Ripe mangoes, papayas or ripe jackfruits	
	n) Any other fruits or vegetables, such as Banana, Grapes, Apple, Guava or other vegetable like cabbage, patal, cauliflower etc.	
	o) Liver, kidney, heart or other organ meats	
	p) Any meat, such as beef, pork, lamb, goat	
	q) Chicken, or duck	
	r) Eggs	
	s) Fresh or dried fish or shellfish	
	t) Any foods made from beans, peas, lentils, or nuts	
	u) Cheese or other food made from milk	
	v) Any other solid, semi-solid or soft food	
10.	How many times did your child eat any solid, semi-solid or soft foods yesterday during the day or night? 1. ……Number of times 98. Don't know	

Section 10: Dietary diversity assessment of children and women

Now I would like to ask you about foods or drinks that the members of your household consume yesterday during the day and at night				
Food item		example	Did you eat this in the last 24 hours? Yes ….1 No…... 2	
			< 2 years old children	Pregnant/ lactating women
1	Cereal	Rice, wheat, sorghum, millet or any other foods made from these (breads, puffed rice, noodles etc.)		
2	White roots and tubers	White potatoes, white yam, white cassava or foods made from roots		
3	Vitamin A rich vegetables and tubers	Pumpkin, carrot, squash + locally available foods		
4	Dark green leafy vegetables	Pat shaks, Data shakh, beet shakh, pui shakh etc.		
5	Other vegetables	Onion, tomato, brinjal, beans, ladies finger etc.		
6	Vitamin A rich fruits	Ripe mango, ripe papaya, etc.		
7	Other fruits	Guava, jackfruit, lichi etc.		
8	Organ meats	Liver, kidney, heart or other organs		
9	Flesh meats	Beef, chicken goat, lamb, duck etc.		
10	Eggs	Eggs from chicken, duck, koel		
11	Fish and sea foods	Any kind of dried or fresh fish		
12	Legume, nuts and seeds	Dried beans, lentil, peanut butter etc.		
13	Milk and milk products	Milk, cheese, curd or any kind of dairy products		
14	Fats and oils	Soyabean or any kind of oils, butter, added to food		
15	Sweets	Sugar, honey or any kind of sweets		
16	Spices, condiments and beverage	Spices (black pepper, salt) condiments (soya sauce) coffee, tea, or soft drinks		

Section 11: Knowledge, Attitude and Practices of food preparation

Knowledge	
1.	Do you know it is important to wash hand before and during cooking food? 1. Yes 2. No 98. Don't know
2.	Do you know washing cooking utensils is important for preparing food in a healthy way? 1. Yes 2. No 99. Don't know
3.	Do you know maintaining temperature is important for cooking foods in a healthy way? 1. Yes 2. No 99. Don't know
4.	Do you know using water collected from safe sources is important for cooking foods in a healthy way? 1. Yes 2. No 99. Don't know
5.	Do you know it is important to maintain kitchen cleanliness while cooking? 1. Yes 2. No 99. Don't know
Attitudes	
6.	Do you think hands should be cleaned before cooking? 1. Yes 2. No 99. Don't know
7.	Do you think cooking utensils should be washed before cooking? 1. Yes 2. No 99. Don't know
8.	Do think temperature should be maintained properly while cooking? 1. Yes 2. No 99. Don't know

9.	Do you think cooking water should be collected from a safe source? 1. Yes 2. No 99. Don't know
10.	Do you think kitchen should be kept clean while cooking? 1. Yes 2. No 99. Don't know
Practice	
11.	How many times do you wash your hands before and during cooking? …… times
12.	What do you use for washing hand before cooking? (Select all that apply) 1. Water 2. Soap 3. Handwash 4. Detergent 5. Other (specify)
13.	How often do you wash your cooking utensils before cooking? 1. Before cooking every time 2. Sometimes 3. Once in a day
14.	Usually, you cook at what temperature level? 1. Low 2. Medium 3. High
15.	From where did you collected water for cooking? 1. Pond 2. River 3. Tube well 4. Rainwater 5. Pipe/supply water 6. Other (specify)
16.	How often do you clean your kitchen? 1. Everyday 2. Once in a week 3. Once in a month 4. Sometimes

Section 12: Knowledge, attitude and practices on food preservation

Knowledge	
1.	Do you know about food preservation? 1. Yes 2. No 99.Don't know
2.	Do you know about highly risky food items for children and mother? 1. Yes 2. No 99.Don't know
3.	Do you know about controlling temperature for food preservation? 1. Yes 2. No 99.Don't know
4.	Do you know the process of preserving raw food before cooking? 1. Yes 2. No 99. Don't know
5.	Do you think that preserving raw food in an improper way can cause contamination? 1. Yes 2. No 99. Don't know
Attitudes	
6.	Do you think food should be preserved in a proper and healthy way? 1. Yes 2. No 99. Don't know
7.	Do you think high risk foods for both children and mother should be avoided? 1. Yes 2. No 99. Don't know
8.	Do you think temperature should be controlled for food preservation? 1. Yes 2. No 99. Don't know

9.	Do you think raw foods should be preserved in a proper and healthy way before cooking? 1. Yes 2. No 99. Don't know
10.	Do you think preserving food in a proper and healthy way can prevent contamination/ rotten? 1. Yes 2. No 99. Don't know
Practices	
11.	Which of the following techniques do you follow to preserve food? (Select all that apply) 1. Do not store 2. Drying 3. Freezing 4. Pickling 5. Fermentation 6. Others (specify)
12.	Do you cook risky foods for children and mother? 1. Yes 2. No 99. Don't know
13.	Do you control temperature during persevering food? 1. Yes 2. No 99. Don't know
14.	Which of the following techniques do you follow to preserve raw food? 1. Cook immediately 2. Preserve in fridge for some time 3. Preserve in open space for some days 4. Depends on food items 5. Do not preserve

Section 13: Knowledge, attitude and practices on food and nutrition knowledge among pregnant and lactating mother

Knowledge	
1.	Do you know about frequency of meals consumed by pregnant/lactating mother? 1. Yes 2. No 99.Don't know
2.	Do you know it is important to maintain dietary diversity of pregnant/lactating mother's meals? 1. Yes 2. No 99.Don't know
3.	Do you know about the amount of food consumed by pregnant/lactating mother? 1. Yes 2. No 99.Don't know
4.	Do you know consuming some special foods can reduce anemia? 1. Yes 2. No 99.Don't know
5.	Do you know women need to go to healthcare centers for at least 4 times during pregnancy? 1. Yes 2. No 99.Don't know
6.	Do you know pregnant women are given special services during pregnancy from the healthcare centers? 1. Yes 2. No 99.Don't know
7.	Do you know pregnant women need not to consume/ consume a lesser amount of tea/ coffee? 1. Yes 2. No 99.Don't know

Attitudes	
8.	Do you think pregnant/lactating women should consume adequate meals in a day? 1. Yes 2. No 99. Don't know
9.	Do you think dietary diversity should be maintained in the meals of pregnant/lactating mother? 1. Yes 2. No 99. Don't know
10.	Do you think pregnant/lactating mother should consume adequate food per meal? 1. Yes 2. No 99. Don't know
11.	Do you think pregnant women should consume some special foods to reduce anemia? 1. Yes 2. No 99. Don't know
12.	Do you think women must go to healthcare centers for at least 4 times during pregnancy? 1. Yes 2. No 99. Don't know
13.	Do you think healthcare centers should provide customized services to pregnant women? 1. Yes 2. No 99. Don't know
14.	Do you think pregnant women should not consume/ consume less amount of tea/coffee? 1. Yes 2. No 99. Don't know
Practices	
15.	How many meals do you consume in a day? …. Times
16.	In the last 24 hours, how many different items do you consume? …….. items

17.	How much food did you consume in your last meal? 1. Inadequate 2. Adequate 3. More than adequate
18.	In the last week, which of the foods did you consume? 1. Taro/Taro leaf/Taro root 2. Liver 3. Beetroot 4. Nuts 5. Other (specify) 6. None
19.	In the last week How many times did you go to healthcare centers? 1. None 2. 1 3. 2 4. 3 5. 4 or more
20.	Which of the following services did you receive from healthcare centers during pregnancy? Health check-ups Diagnosis Receive medicine Health education Other (specify?
21.	How many times do you take tea/coffee in a day? None 1-2 times 3-4 times 5 or more

Section 14: Knowledge, attitude and practices on supplementary intake

Knowledge	
1.	Do you know about supplement intake during pregnancy? 1. Yes 2. No 99.Don't know
2.	Which of the following supplements are important to intake during pregnancy? (Select all that apply) 1. Vitamin A 2. Folic Acid (Folate) 3. Calcium 4. Vitamin D 5. Other (Specify) 99.None/ Don't know
3.	Do you know supplement intake is safe? 1. Yes 2. No 99.Don't know
Attitudes	
4.	You know iodized salt is important for baby's brain development? 1. Yes 2. No 99. Don't know
5.	Do you think pregnant women should intake supplements? 1. Yes 2. No 99.Don't know
6.	Which of the following supplements you think pregnant women should intake? 1. Vitamin A 2. Folic Acid (Folate) 3. Calcium 4. Vitamin D 5. Other (Specify)

7.	Supplement intake is safe and how confident you are to intake supplements? 1. Not confident 2. Somehow confident 3. Confident
	Practices
8.	Do you think both pregnant and lactating mother should use iodized salt while cooking every meal? 1. Yes 2. No 3. Don't know
9	Which of the following supplements do/did you consume/consumed? (Select all that apply) 1. Vitamin A 2. Folic Acid (Folate) 3. Calcium 4. Vitamin D 5. Other (Specify)
10.	In How many times do you consume the following supplements? 1. Vitamin A …… times 2. Folic Acid (Folate) …… times 3. Calcium …… times 4. Vitamin D …… times 5. Other (Specify) …… times
11.	Have health complications (i.e., vomiting or gas problems, headaches etc.) occurred after taking any of the following supplements? 1. Vitamin A 2. Folic Acid (Folate) 3. Calcium 4. Vitamin D 5. Other (Specify)
12.	In how many meals do you use iodized salt 1. None 2. One meal 3. Two meal 4. Three meal

REFERENCES

1. Asadullah, M. N., Savoia, A., & Mahmud, W. (2014). Paths to development: Is there a Bangladesh surprise? *World Development,* 62, 138-154.

2. Asim et al. (2021). What stops us from eating: a qualitative investigation of dietary barriers during pregnancy in Punjab, Pakistan. Public Health Nutrition, 25(3), 760-769.

3. BNNC. (2021). Assessment of the Key Bottlenecks for the Coverage of Nutrition-Sensitive Interventions and the Underlying Causes. Bangladesh National Nutrition Council (BNNC), Health Services Division, Ministry of Health and Family Welfare.

4. Cabinet Division. (2019). Fill the Nutrient Gap: Bangladesh Concise Report. Cabinet Division of the Planning Commission. Government of the People's Republic of Bangladesh.

5. Cabinet Division. (2022). Action Plan for Implementation of National Social Security Strategy (NSSS) of Bangladesh Phase-II (2021-2026). Cabinet Division, Government of the People's Republic of Bangladesh. Available at https://socialprotection.gov.bd/en/2022/10/10/action-plan-for-implementation-of-national-social-security-strategy-of-bangladesh-phase-2-2021-26/

6. Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. BMC medical research methodology, 11(1), 1-9.

7. DWA. (2021a). Maternity Allowance. Retrieved from http://www.dwa.gov.bd/sites/default/files/files/dwa.portal.gov.bd/miscellaneous_info/7d66cf0a_1c46_42e4_b0f0_8af13d984d7d/2021-08-30-13-19-081840185dbf0b569657ae5ad2552eed.pdf

8. DWA. (2021b). Mother and Child Benefit Programme. Retrieved from http://www.dwa.gov.bd/sites/default/files/files/dwa.portal.gov.bd/miscellaneous_info/18cdb06c_d984_4fdd_bfa8_11bdf14436be/2021-08-30-13-19-8dc318ada63075dd514d12ecfd329761.pdf

9. Nawaz, M. D., Newar, M., & O'Connor, C. (2019). Improving social protection programmes to support mothers and young children's diets in Bangladesh: Combining cash transfers with behaviour change. Retrieved from https://www.ennonline.net/nex/southasia/2/bangladesh

10. United Nations (UN). (2022). The Sustainable Development Goals in Bangladesh. Retrieved from https://bangladesh.un.org/en/sdgs/3

11. Mulatu S, Dinku H, Yenew C. (2021). Dietary diversity (DD) and associated factors among lactating women (LW) in Pawie district, northwest, Ethiopia, 2019: a community-based cross-sectional study. Heliyon. 2021;7:e08495.

12. Guled, R. A., Mamat, N. M., Bakar, W. A. M. A., Assefa, N., & Balachew, T. (2016). Knowledge, attitude and practice of mothers/caregivers on infant and young child feeding in shabelle Zone, somali region, eastern Ethiopia: A cross sectional study. Revelation and Science, 6 (2).

13. Better Health Channel. (n.d.). Food safety and storage. Accessed 2023. https://www.betterhealth.vic.gov.au/health/healthyliving/food-safety-and-storage.

14. Driessen, S. (2021). Canning quick reference chart. University of Minnesota Extension. https://extension.umn.edu/preserving-and-preparing/canning-quick-reference-chart .

15. Faizan, U., and Rouster, A. S. (2022). Nutrition and Hydration Requirements in Children and Adults. National Library of Medicine. https://www.ncbi.nlm.nih.gov/books/NBK562207/#:~:text=Another per cent20way%20to%20generalize%20caloric,directing%20nutritional%20counseling%20in%20children.

16. NHS. (n.d.) B vitamins and folic acid. https://www.nhs.uk/conditions/vitamins-and-minerals/vitamin-b/.

17. NHS Health Scotland. (n.d.) Preparing and cooking food safely. https://www.nhsinform.scot/healthy-living/food-and-nutrition/food-safety-and-hygiene/preparing-and-cooking-food-safely#:~:text=Avoiding%20cross%2Dcontamination,-Cross%2Dcontamination%20is&text=using%20different%20chopping%20boards%2C%20plates,the%20bottom.

18. WHO. (2006). Five keys to safer food manual. WHO.

19. WHO. (2019). Breaking Barriers: Towards More Gender-Responsive and Equitable Health Systems. Retrieved from https://cdn.who.int/media/docs/default-source/documents/gender/gender-gmr-2019.pdf?sfvrsn=905f494f_5&download=true

20. Food and Nutrition Technical Assistance (FANTA). (2016). Minimum Dietary Diversity for Women A Guide to Measurement. Food and Agriculture Organization of the United Nations and USAID's Food and Nutrition Technical Assistance III Project (FANTA).

21. Unicef Programme Guidance. (2022). Maternal nutrition: Prevention of malnutrition in women before and during pregnancy and while breastfeeding.