



**Integrating Nutrition into the  
Smiling Sun Franchise Program:  
Assessment and Strategy**

Draft, February 2012

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We sincerely hope that the assessment and strategy will lead to improved nutrition services that better meet the needs of clients as well as improved support to the providers so that they might better serve the nutrition and health needs of Bangladesh's communities and the country as a whole.

## Abbreviations and Acronyms

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ANC	antenatal care
BBS	Bangladesh Bureau of Statistics
BCC	behavior change communication
BMI	body mass index
BRAC	Bangladesh Rural Advancement Committee
C-IMCI	Community-Integrated Management of Childhood Illness
CHG	community health group
CM	clinic manager
CMAM	Community-Based Management of Acute Malnutrition
CSP	community service provider
DHS	Demographic and Health Surveys
DOTS	directly observed treatment, short course
ENA	Essential Nutrition Actions
EPI	expanded program of immunization
ESP	Essential Services Package
FANTA-2	Food and Nutrition Technical Assistance II Project (FHI 360)
FSNSP	Food Security and Nutrition Surveillance Project
FY	fiscal year
g	gram(s)
GAM	global acute malnutrition
GMP	growth and monitoring promotion
GOB	Government of Bangladesh
HAZ	height-for-age z-score
HKI	Helen Keller International
IEC	information, education, and communication
IFA	iron and folic acid
IMCI	Integrated Management of Childhood Illness
IMNCI	Integrated Management of Neonatal and Childhood Illness
IPHN	Institute of Public Health Nutrition
IYCF	infant and young child feeding
kg	kilogram(s)
KMC	kangaroo mother care
LAM	lactational amenorrhea method
LBW	low birth weight
M&E	monitoring and evaluation
MAM	moderate acute malnutrition
MDG	Millennium Development Goal
MIS	management information system
MO	medical officer
MOHFW	Ministry of Health and Family Welfare
MUAC	mid-upper arm circumference
n.d.	no date
NGO	nongovernmental organization
NID	National Immunization Day
NNP	National Nutrition Program
NNS	National Nutrition Services
ORS	oral rehydration solution
PD	NGO program director
PLW	pregnant and lactating women
PNC	postnatal care
QI	quality improvement
QMS	Quality Management System
RUTF	ready-to-use therapeutic food

SAM	severe acute malnutrition
SBCC	social and behavior change communication
SP	service promoter
SPRING	Strengthening Partnerships Results and Innovations in Nutrition Globally
SSFP	Smiling Sun Franchise Program
SUN	Scaling Up Nutrition
TB	tuberculosis
TBA	traditional birth attendant
USAID	United State Agency for International Development
WAZ	weight-for-age z-score
WHO	World Health Organization
WHZ	weight-for-height z-score

## Executive Summary

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The Smiling Sun Franchise Program (SSFP) is a network of privately run clinics located throughout Bangladesh. SSFP clinics are run by 26 partner NGOs that provide health care services through 323 static and 8,702 satellite clinics located in all 64 districts of Bangladesh. The SSFP provides health services that complement and augment the Government of Bangladesh (GOB) public sector health service delivery system. The SSFP offers an Essential Services Package (ESP) that includes four major components: reproductive health, child health, communicable disease prevention and control, and limited curative care.

- Reproductive health includes maternal health and family planning services.
- Child health includes treatment of common illnesses, such as chronic diarrheal disease and acute respiratory infection, as well as immunization.
- Communicable disease prevention and control covers diseases, such as malaria and kala fever.
- Limited curative care is analogous to general practice services for the common cold, fever, and the like.

The SSFP does not formally provide nutrition services as part of its ESP.

Nutrition has received increased attention globally in recent years as evidence has accumulated that nutritional status plays a significant role in many aspects of health and development. The 2010 Bangladesh Food Security and Nutrition Surveillance Project (FSNSP) indicated an elevated level of stunting (44.7 percent) and wasting (7.6 percent) among children under 5 years of age and low body mass index (BMI) among women (26.0 percent),<sup>1</sup> indicating that malnutrition remains a serious problem in Bangladesh. The GOB has signed on to the Scaling Up Nutrition (SUN) movement and has begun planning to mainstream nutrition through the National Nutrition Services (NNS).

The FHI 360/Food and Nutrition Technical Assistance II Project (FANTA-2) and Helen Keller International (HKI)/Bangladesh conducted an assessment in 2011 to identify how an Essential Nutrition Actions (ENA) package could be integrated in United States Agency for International Development (USAID)-funded health service delivery projects, such as the SSFP. Specifically, this included describing the current situation, identifying gaps and opportunities, and developing concrete recommendations. Based on this assessment, the team developed a strategy that provides recommendations for integrating nutrition into the SSFP's services.

The recommendations in the strategy are broken into three components:

### 1. Whom to target:

- For maternal and child nutrition services, all PLW, children under 2 years, and adolescent girls
- For SBCC, those most affected by undernutrition (women/mothers, newlyweds seeking family planning, adolescent girls and boys) and those directly and indirectly influencing them (men/fathers, mothers-in-law/grandmothers, caregivers, elected and religious community leaders, media)
- TB patients that attend SSFP TB clinics

### 2. What should be integrated:

- ENA, including the management of moderate and severe acute malnutrition
- Key hygiene practices
- Nutrition services for TB patients, according to WHO recommendations

### 3. How to integrate:

- Follow a phased implementation
- Promote nutrition social and behavior change at the community level
- Strengthen nutrition service delivery in SSFP clinics and communities
- Build multisectoral linkages

## What Is the Smiling Sun Franchise Program?

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The Smiling Sun Franchise Program (SSFP) is a network of privately run clinics located throughout Bangladesh that operate in the context of a large government health system; several nongovernmental organization (NGO) providers; and other private providers, such as village doctors and traditional birth attendants (TBAs). The SSFP provides health services that complement and augment the Government of Bangladesh (GOB) public sector health service delivery system. The SSFP offers an Essential Services Package (ESP) that includes four major components: reproductive health, child health, communicable disease prevention and control, and limited curative care.

- Reproductive health includes maternal health and family planning services.
- Child health includes treatment of common illnesses, such as chronic diarrheal disease and acute respiratory infection, as well as immunization.
- Communicable disease prevention and control covers diseases, such as malaria and kala fever.
- Limited curative care is analogous to general practice services for the common cold, fever, and the like.

The most commonly used services are family planning, which accounted for 40 percent of ESP utilization for FY 2009, followed by child health (34 percent) and maternal health (10 percent). The SSFP does not formally provide nutrition services as part of its ESP, though some providers give ad hoc nutrition information or services in the context of the ESP. However, because nutritional status is linked closely with reproductive health outcomes and the ability to resist and recover from illness,<sup>2</sup> improved nutrition would help improve outcomes in each of the ESP components. The SSFP's heavy emphasis on quality improvement (QI), social and behavior change communication (SBCC), and community mobilization activities provides a solid platform into which nutrition can be integrated. Integrating nutrition into SSFP services is an essential step to improving health and nutrition outcomes and supporting the GOB plan to mainstream and scale up nutrition.

### SSFP Clinics

SSFP clinics are run by partner NGOs, which are the franchisees. Currently, 26 NGOs are providing health care services through 323 static and 8,702 satellite clinics located in all 64 districts of Bangladesh. The static clinics are further divided into two types: vital and ultra (see **Table 1**). There are 276 vital clinics and 47 ultra clinics. Vital clinics are open from 9:30 a.m. to 4:30 p.m. and offer the standard ESP. Ultra clinics are open 24 hours a day and have a broader range of services, including additional laboratory testing and diagnostic services, ultrasound, and delivery services. Of the 47 ultra clinics, 33 offer emergency obstetric services, including cesarean sections. SSFP clinics are located in both rural (130 clinics) and urban (193 clinics) areas across Bangladesh, serving more than 20 million clients each year from all demographic groups, including the poorest of the poor. Fifty-six urban clinics also provide tuberculosis (TB) services, including case identification; laboratory services; directly observed therapy, short course (DOTS); and referral for drug-resistant cases, but, importantly, no nutrition services to TB patients. These clinics operate in Dhaka, Chittagong, Rajshahi, and Khulna.

Because the SSFP operates throughout Bangladesh, integrating nutrition into their health services provides a great opportunity to improve nutrition and health outcomes in the entire country.

**Table 1. Types of SSFP Clinics by Service Provider and Services Provided**

Types of Clinic	Description	Providers	Services
Satellite	Held once per month at the community level  No formal structure: held in whatever space the community provides	<ul style="list-style-type: none"> <li>• Clinic aid</li> <li>• Paramedic</li> <li>• Service promoter (SP)</li> <li>• Community Service Provider (CSP)</li> </ul>	<ul style="list-style-type: none"> <li>• Reproductive health care</li> <li>• Limited curative care</li> <li>• Antenatal care (ANC) and postnatal care (PNC)</li> <li>• Immunization (some centers)</li> </ul>
Static Clinic: Vital	Open daily for a set number of hours	<ul style="list-style-type: none"> <li>• Average of 12 staff members</li> <li>• Clinic manager</li> <li>• Medical officers/doctors</li> <li>• Paramedics</li> <li>• Counselor</li> <li>• Lab technician</li> <li>• SP*</li> <li>• Community service provider*</li> </ul>	<ul style="list-style-type: none"> <li>• All ESP services, including basic laboratory services</li> </ul>
Static Clinic: Ultra	Provide 24-hour care	<ul style="list-style-type: none"> <li>• Average of 30 staff members</li> <li>• Clinic manager</li> <li>• Specialists, e.g., gynecologist, obstetrician, anesthesiologist, radiologist</li> <li>• Medical officers/doctors</li> <li>• Paramedics</li> <li>• Counselor</li> <li>• Lab technician</li> <li>• Service provider*</li> <li>• Community service provider*</li> </ul>	<ul style="list-style-type: none"> <li>• All ESP services</li> <li>• Delivery and cesarean section services</li> <li>• Newborn care</li> <li>• Comprehensive lab services, including ultra sonogram</li> </ul>

\* Note: All clinics have SPs, but only 55 percent of clinics (most commonly those in rural areas) have CSPs. Clinics that have CSPs may have as few as 4 or 5 or as many as 100.

## The SSFP Model

An important part of the SSFP model is its focus on a “double bottom line”: delivering and expanding health services to maintain financial sustainability while simultaneously serving those that are not able to pay for the program’s services. One of the aims of the program is to expand access to health services to the most remote and/or vulnerable. The SSFP has a target of providing 30 percent of its services free of charge to the poor while maintaining sustainability by collecting fees from paying customers and subsidizing services through collaboration with the GOB and the private sector. The double bottom line approach has an equal emphasis on both expanding service and maintaining quality.

## The SSFP Organizational Structure

Key positions in the organizational structure of the SSFP include the NGO program director (PD), clinic manager (CM), medical officer (MO), paramedic, counselor, service promoter (SP), and community service provider (CSP). Their primary job responsibilities are described in **Table 2**.

**Table 2. Key Positions and Job Responsibilities within the SSFP**

<b>Position</b>	<b>Job Responsibilities</b>
PD	<ul style="list-style-type: none"> <li>Oversees the functioning of an NGO's clinics, which can range in number from 1 to more than 50, and interacts with both the clinic managers and SSFP headquarters</li> </ul>
CM	<ul style="list-style-type: none"> <li>Oversees the daily operations of an individual SSFP clinic</li> <li>Supervises the clinic staff and provides support as needed</li> <li>Collates reporting information from the staff, shares the information with NGO and GOB offices, and uses it for work planning</li> <li>Responsible for preparation of annual budgets and oversight of salaries, revenues, and accounts</li> <li>May lead group meetings with community members as part of community mobilization and outreach activities</li> </ul>
MO/Doctor	<ul style="list-style-type: none"> <li>Provides clinical medical services, generally for those clients who present with more technically challenging or complex cases (while paramedics generally handle more routine cases)</li> <li>Focuses services mostly on maternal and child health, including ANC, PNC, and sick child care</li> </ul>
Paramedic	<ul style="list-style-type: none"> <li>Provides services at the facility, the satellite, and sometimes the household level, often working closely with the SP/CSP</li> <li>Focuses services primarily on ANC, family planning, and vaccinations</li> <li>May focus on a single service (like delivery) in larger clinics with multiple paramedics</li> <li>Reports on the number of vaccinations and vitamin A capsules being given</li> <li>If working at satellite clinics, is responsible for management of receipts and revenues</li> </ul>
Counselor	<ul style="list-style-type: none"> <li>Functions as a receptionist, greeting customers, registering them, and asking questions to determine the type of service needed</li> <li>Depending on the service being requested, provides some initial information and describes the services available, for example, by reviewing a brochure on family planning methods offered by the SSFP for a client who has expressed an interest in family planning; may offer more in-depth information and messages as time allows</li> <li>Keeps tally of daily visits, money receipts, and registration cards</li> </ul>
SP and CSP	<ul style="list-style-type: none"> <li>Primarily responsible for community mobilization and publicity</li> <li>Goes door-to-door to promote the SSFP and recruit new clients</li> <li>May organize activities with schools, clubs, and offices</li> <li>Arranges Surjer Hashi Health Groups for the clinic, which consist of a variety of community members (e.g., imams, school teachers, community leaders, NGO workers, pregnant women, mothers-in-law) whose function is to assist the SP/CSP in their work; more than 8,000 of these groups have been formed within the SSFP system</li> <li>Present at satellite clinics; may arrange group discussions with the clients at the satellite clinics</li> </ul>
CSP only	<ul style="list-style-type: none"> <li>Sells birth control pills, condoms, oral rehydration solution (ORS), safe delivery kits, and micronutrient powders</li> <li>Responsible for making an initial home visit to post-partum women within 24 hours of a home delivery</li> </ul>

### **The Role of Quality Improvement in the SSFP**

The SSFP has a relatively sophisticated health management information system (MIS), through which reporting information is regularly and systematically collected. Information flows from the providers to the CM to the implementing NGO's MIS officer and PD to SSFP headquarters in Dhaka. Certain pieces of information, such as information on family planning, expanded program on immunization (EPI), and Integrated Management of Neonatal and Childhood Illness (IMNCI) services, also go to various GOB

departments, including the Thana Family Planning Office, the Upazila Health Complex, the local municipal office, and the civil surgeon office of the Ministry of Health and Family Welfare (MOHFW). Information is processed at both the NGO and headquarters level and is then fed back through the same channels.

At each level of the MIS, information is used for program planning and QI. At the clinic level, the CM analyzes the information and uses it for making decisions, setting targets, and developing an action plan based on the performance indicators and revenue. The CM also uses the information to determine capacity strengthening and supervision needs among the clinic staff. Similarly, at the NGO level, the MIS officer produces monthly performance reports and quarterly and annual reports that the PD uses to monitor the performance of that NGO's clinics. PDs work with CMs to identify gaps and potential focus areas based on the data, with the goal of making improvements in the indicators wherever possible. At the headquarters level, a similar process takes place, but with a broader scope, focusing both on individual clinics where necessary and on wider system-level issues. Information is then shared again with the clinics to maintain the cycle of program improvement.

In addition to the MIS, the SSFP has other systems that contribute to QI. The Quality Management System (QMS) involves staff at the headquarters, NGO, and clinic levels. Each NGO has a monitoring officer who visits every clinic at least once per quarter. He or she completes a clinic visit checklist, client exit interviews, and an extensive QMS checklist. The NGO monitoring officers are members of a clinical quality council that meets every quarter to share information from the reporting system and to make decisions on program improvement and service delivery. The information collected by the monitoring officers is also sent to SSFP headquarters twice a year for review and program planning. At the clinic level, a clinic quality circle led by the CM meets regularly to discuss problem solving and QI.

## Assessment of SSFP Nutrition Services

### Background

Nutrition has received increased attention around the world in recent years as evidence has accumulated that nutritional status plays a significant role in many aspects of health and development. It has been calculated that undernutrition is a direct or underlying cause in approximately 35 percent of deaths of children under 5 and 11 percent of the total global disease burden.<sup>3</sup> Long-term consequences of child undernutrition include reduced cognitive ability and economic productivity, as well as compromised physical and social development, with potential population-level impact in societies where the prevalence of undernutrition is high. Maternal undernutrition has also been determined to have an intergenerational effect, as it can lead to intrauterine growth restriction, as well as potential long-term consequences for the fetus, such as increased risk of heart disease and diabetes later in life.<sup>4</sup> Maternal undernutrition, as measured through maternal short stature and iron deficiency anemia, also accounts for at least 20 percent of maternal mortality.

The most recent national estimates for nutrition in Bangladesh come from the Food Security and Nutrition Surveillance Project (FSNSP), which is jointly administered by Helen Keller International (HKI), the Bangladesh Rural Advancement Committee (BRAC), and the Bangladesh Bureau of Statistics (BBS), with funding from the European Union. According to FSNSP data from 2010, among children under 5, the prevalence of stunting (height-for-age z-score [HAZ] < -2) was 44.7 percent and the prevalence of wasting, or global acute malnutrition (GAM) (weight-for-height z-score [WHZ] < -2), was 7.6 percent. Prevalence of chronic energy deficiency, a measure of malnutrition in women (body mass index [BMI] < 18.5 kg/m<sup>2</sup>), was 26.0 percent.<sup>5</sup> These figures indicate that malnutrition, particularly chronic malnutrition, remains a serious problem in Bangladesh (**Table 3**). Of the three Millennium Development Goals (MDGs) that are related to health and nutrition, Bangladesh has met MDG 5 to reduce the maternal mortality ratio by three-quarters and is on track to meet MDG 4 to reduce the under-5 mortality rate by two-thirds. However, the country is not on track to achieve MDG 1 to halve the proportion of children under 5 who are underweight by 2015. Additional attention to and action on nutrition is needed to achieve MDG 1.

**Table 3. Nutrition Indicators in Bangladesh**

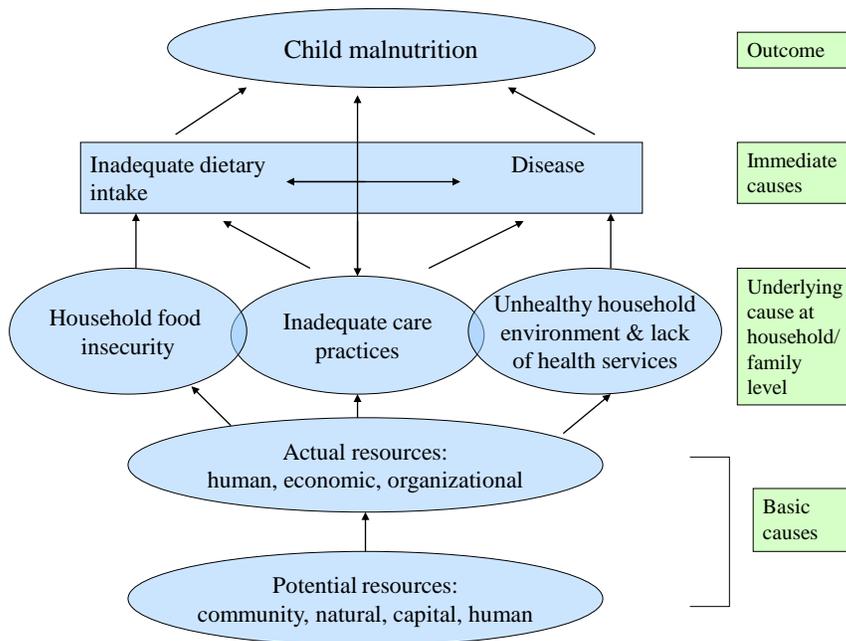
Indicator	Percent
Proportion of malnourished children 0–59 months by HAZ, weight-for-age z-score (WAZ), and WHZ	
Moderate and severe stunting (HAZ < -2 z-score)	44.7%
Moderate and severe underweight (WAZ < -2 z-score)	30.6%
Global acute malnutrition (WHZ < -2 z-score)	7.6%
Early breastfeeding behavior for infants 0–5 months of age	
Early initiation of breastfeeding	39.6%
Exclusive breastfeeding under 6 months	52.4%
Predominant breastfeeding under 6 months	62.8%
Prelacteal feeding	52.9%
Continuing breastfeeding behavior for older children 0–23 months of age	
Continued breastfeeding at 2 years	91.7%
Complementary feeding for older children 6–23 months of age	
Introduction of solid, semi-solid, or soft foods (6–8 months)	89.0%
Minimum dietary diversity (6–23 months)	38.0%
Consumption of iron-rich or iron-fortified foods (6–23 months)	41.5%

Source: FSNSP 2010.

## Operational Context

The general causes of child undernutrition can be conceptualized according to a framework developed by UNICEF (Figure 1).<sup>6</sup> The causes range from the availability of basic resources to specific care practices and individual dietary intake. Health services play an important role because high-quality health services can prevent and treat diseases and can influence care practices. However, Save the Children’s Health Workers Reach Index recently ranked Bangladesh as the 19th worst country for a child to fall sick in (out of 161 countries with reliable health data). The report states that Bangladesh falls “below the [World Health Organization (WHO)] minimum threshold of just over two health workers for every thousand people” and that children in Bangladesh are “five times more likely to die than those further up the index.”<sup>7</sup> The quality of health services in Bangladesh therefore represents an important challenge to the prevention and reduction of undernutrition.

**Figure 1. Conceptual Framework of Causes of Undernutrition**



Historically, nutrition has not been integrated in the GOB health service delivery system. Until 2011, nutrition was largely programmed through an independent National Nutrition Program (NNP) that operated in approximately one-third of the country and was not integrated into health services. The NNP produced mixed results and is being replaced by a plan to mainstream nutrition into health services through the new Health Population and Nutrition Sector Program’s (2011-2016) National Nutrition Services (NNS). The NNS will mainstream nutrition into all points in the health service delivery system. However, the functional operation, specific nutrition services to be provided, and delivery channels of the NNS remain unclear, and there are few models of successful integrated health and nutrition services in Bangladesh.

Further impetus for integration and scale-up comes from the Scaling Up Nutrition (SUN) movement, a global effort to generate support for countries to address undernutrition through a range of sectors and interventions. The GOB has expressed its intention to scale up nutrition as an “early riser” of the SUN movement. The SUN Road Map, which is designed for governments and their development partners, promotes a multisectoral, coordinated response on the part of governments and better alignment of assistance on the part of development partners. It particularly emphasizes the need for a long-term commitment by national governments and functioning health care systems at all levels for sustainable improvement in nutrition.<sup>8</sup>

In support of GOB efforts to integrate nutrition, the United States Agency for International Development (USAID) expressed interest in integrating nutrition into USAID-funded health projects in Bangladesh, including the SSFP.

## Objectives of the Assessment

In June and July 2011, HKI and the FHI 360/Food and Nutrition Technical Assistance II Project (FANTA-2) conducted an assessment of SSFP services to identify how an Essential Nutrition Actions (ENA) package could be integrated into the SSFP. This overall objective was broken down into several components:

- Describe the current situation in terms of which maternal and child health and nutrition services are being provided, to which target population(s), and through which service delivery mechanisms.
- Identify gaps, capacity needs, and opportunities for integrating the ENA into health service delivery, focusing on:
  - **Health service delivery systems.** Identifying nutrition services that can be integrated in the current health service delivery structure and SSFP's mandates.
  - **Capacity and needs.** Assessing health providers' level of knowledge, skills, and training in the area of nutrition, and identifying areas in which human resources and capacity can be strengthened to deliver quality nutrition services.
  - **QI.** Describing current QI programs/efforts and identifying opportunities to strengthen QI programs within the context of defined quality standards.
  - **Monitoring and evaluation (M&E).** Describing the current data management systems and identifying opportunities to strengthen reporting on nutrition indicators.
- Recommend concrete steps to effectively integrate nutrition into health services, within the context of the SSFP.

Note that although the SSFP has TB clinics, this assessment focused on the ENA for maternal and child nutrition, not TB clinical care. The SSFP does not currently offer nutrition services in TB clinics. At the request of the SSFP, broad recommendations for incorporating nutrition into TB services have been included in the strategy.

### Essential Nutrition Actions

The ENA approach is an evidence-based set of seven cost-effective, integrated nutrition actions focused on improving maternal and child health.

- Promotion of **optimal breastfeeding** during the first 6 months of life (e.g., initiation of breastfeeding within 1 hour of birth, EBF for 6 months)
- Promotion of **optimal complementary feeding** starting at 6 months, with continued breastfeeding to 2 years of age and beyond
- Promotion of optimal nutritional care for sick and severely malnourished children
- Prevention of vitamin A deficiency for women and children
- Prevention and control of anemia for women and children
- Prevention of iodine deficiency for women and children
- Promotion of optimal nutrition for women

## Sampling Method

The SSFP covers all 64 districts of Bangladesh, with 323 static clinics and 8,702 satellite clinics around the country. For the assessment, a sample was drawn from a sampling frame of all SSFP locations using stratified purposive sampling. As previously discussed, within the SSFP structure, clinics are divided into static and satellite clinics. Static clinics are further subdivided into vital and ultra clinics, which may be either rural or urban. These three types of clinics (satellite, vital, ultra) comprised the initial sampling strata. Within each of the three strata, the clinics were further divided into those that are run by large NGOs (operated more than 15 SSFP clinics), those run by medium-sized NGOs (operated 7 to 15

clinics), and those run by small NGOs (operated 6 or fewer clinics). From each of the initial three strata, two clinics were chosen: one run by a large NGO and one run by a small NGO, for a total sample size of six clinics. Clinics run by medium-sized NGOs were not included in the assessment, which sought information from higher and lower capacity clinics. The clinics were chosen purposively based on various factors related to their locations.

## Data Collection Methods

A mixed method approach was used for the assessment. Semi-structured interviews comprised the core of the assessment. These interviews were supplemented by provider-client observations, including using facility-level checklists, and a document review. Details on the data collection methods are below.

- Semi-structured interviews with:
  - Front-line workers and health care providers (facility and community levels)
  - Supervisors and managers
  - Program staff
  - Beneficiaries
- Observations at field sites of:
  - Service delivery with beneficiaries at the facility level
  - Record-keeping practices, including review of patient charts, registers, and data collection tools at the facility level
  - The availability of supplies and materials (including pharmaceuticals; job aids; information, education, and communication [IEC] materials; weighing scales; monitoring forms)
- Document review:
  - General program documents describing the SSFP's goals, objectives, target populations, activities, M&E plans, supervision, and/or QI plans
  - Documents from the GOB relevant to nutrition policy, service delivery, and QI
  - Monitoring documents, such as quarterly reports and evaluation documents (e.g., baseline reports and other special survey reports)
  - Training materials, such as curricula and manuals
  - Job aids and IEC materials currently being used in the SSFP, such as brochures, posters, leaflets, and flip charts

The tools were developed by HKI, in collaboration with FANTA-2 with feedback from the SSFP. All interview guides were translated into Bangla and field tested in SSFP sites at facilities that were not included in the assessment sample. The guides were then revised and completed based on the results of the field testing.

Document review began in March 2011, while observations and in-depth interviews were conducted over a period of 7 weeks, from mid-June to early August 2011. The data collection team consisted of five master's-level nutritionists, all with previous research experience. All were native Bangla speakers. They received training in qualitative research methods over a period of 2 weeks immediately preceding data collection. The training included an overview of the assessment objectives, the ENA, and the SSFP; key concepts in qualitative methods; guidance on how to conduct effective in-depth interviews and observations, how to formulate open-ended questions, and how to develop active listening and probing skills; research ethics; bias in research; how to write up raw field notes and expanded field notes; a review of a sample day in the field; and extensive practice in the training venue, field-level training, and final preparations for field work. A complete training agenda can be found in **Annex 1**.

All interviews were conducted in Bangla by the data collection team, with the exceptions of meetings with high-level GOB officials and program staff, which were conducted in English. The data generated included raw field notes, expanded field notes, and audio recordings. A complete field schedule can be found in **Annex 2**.

The assessment methods and procedures were approved by the Institutional Review Board of AED, which managed FANTA-2 before it was acquired by FHI 360. Written informed consent was obtained from all participants.

## Data Processing and Analysis

The mixed method approach produced primarily qualitative data, with a limited amount of quantitative data being collected through facility-level checklists. Data management activities, including formats, file naming, data organization, and physical archiving, followed a standard protocol.

Audio files were transliterated (i.e., transcribed and simultaneously translated into English) by the assessment team, typically by the same individual who conducted the interview being transcribed. The first two transcripts produced by each team member underwent careful review by program supervisors. Following this, a random selection of transcripts were proofread by a member of the assessment team who was not the original author. The transcriptions were supplemented with expanded field notes from the interviews.

Coding took place concurrently with transcription. Completed transcripts were imported into ATLAS.ti 6.2 for coding and analysis. A code guide with operational definitions was developed by the lead researchers. The code guide went through a process of revision and refinement following informal testing by the lead researchers, who independently coded transcripts and discussed any issues or problems that arose. After reaching agreement on the final code guide, one lead researcher was tasked with coding all transcripts independently. Given that all coding was being done by the same person, there was no testing for intercoder reliability.

For analysis, the transcripts were grouped in ATLAS.ti into related “families.” These were:

- **Community level.** Community members that participate in the health service delivery system, but that are not service providers, including beneficiaries and community leaders.
- **Front-line workers.** Individuals within the SSFP system that have the most direct interaction with community members, including CSPs, paramedics, and counselors. The CSPs and paramedics both work at the household, community, and facility levels. The counselors work only at the facility level, but, as the first point of contact in the facility, they speak with each and every client who comes to the clinic.
- **MOs.** The MOs stand slightly apart from all other service providers, in terms of education level, hierarchy, and interaction with clients, and therefore make up a separate category for the purposes of data analysis.
- **Supervisors/managers.** Individuals within SSFP that do not provide health services but that play a supervisory/managerial role. The CMs and PDs are responsible for supervision, oversight, reporting, program planning, and sometimes training.

## Results of the Assessment

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### Context

In general, the interviews revealed that many health service providers are conversant in nutrition topics, especially those topics that relate directly to the pregnancy and postpartum periods, including infant feeding. They regularly referenced standard recommendations around infant and young child feeding (IYCF), especially the recommendations to exclusively breastfeed infants for 6 months and to start complementary feeding with continued breastfeeding thereafter. They also demonstrated general knowledge of maternal nutrition during pregnancy, such as the need for increased food intake and consumption of iron tablets. Some providers discussed maternal diet during lactation and feeding recommendations for sick or low birth weight (LBW) children, though this was usually done in very general terms. However, beyond this, a great deal of variability existed in the amount and accuracy of providers' nutrition knowledge and the ways in which it was shared. In particular, a wide variety of foods were recommended for their nutrition benefits, with varying accuracy. There was also notable variability in the recommendations made for feeding of sick children and LBW babies.

Providers expressed broad interest in nutrition topics and services. They recognized that nutrition issues were a problem in their communities that needed to be addressed and expressed a willingness to add nutrition services. However, providers did not seem to have a clear sense of what this might entail. When asked about what specifically their role could be, their responses indicated that they perceived nutrition services as delivering targeted messages to patients, for example, through information sharing or the distribution of SBCC materials. As such, they felt unable to accurately judge the amount of time and effort involved in the provision of more interactive services, and their readiness to add nutrition services to their current workload may be based on an underestimate of the amount extra time required. .

When asked about the level of nutrition knowledge of their patients, providers seemed to perceive that people in their communities lacked knowledge about nutrition and that some of the knowledge they did have might be inaccurate. For example, several providers commented that people have misconceptions around nutrition, such as pregnant women being afraid to eat more or to consume iron tablets for fear of having their babies grow too large. They also said that many people in their communities thought of nutritious foods as being expensive or imported, such as apples; instead, the providers said that they counsel patients to eat leafy greens, such as arum and kangkong, which are inexpensive and easy to grow or purchase locally. When asked whether patients brought up nutrition concerns, providers gave varying answers. Some said that mothers expressed concerns around child feeding, such as their children's lack of appetite, but many providers said that patients did not know enough to ask about nutrition. Rather, the providers identified nutrition issues and raised them with patients. However, there is not a large gap between provider knowledge and patient knowledge, and information that providers share varies in accuracy. SSFP providers have the time and motivation to provide accurate and appropriate information to patients if they improve their knowledge and skills and have tools to support their work.

From the perspective of community members, when asked about the quality of services received from their local SSFP clinic, the responses were generally positive. Most informants reported that the quality of services was good, medicines were generally available, and the cost was reasonable. Community leaders brought up broader issues, such as insufficient coverage of services and the lack of certain services (e.g., ultrasound and delivery services) and specialties (e.g., pediatrics). They also expressed a need for more free services for the poor and better publicity and community mobilization on the part of the SSFP. On the whole, community members had little feedback specific to nutrition services. This was likely due to a combination of a lack of nutrition services being provided and lack of knowledge on the part of community members about nutrition. Individuals at the community level did not seem to be aware of potential nutrition services and did not know what they needed in terms of nutrition services or what they should receive—or expect and demand—so they could not make an accurate judgment as to the quality of nutrition services.

## Nutrition Services Being Provided

Within this context, providers often recognize a need for nutrition education and nutrition services, and they conduct some nutrition activities within the structure of their jobs. The most systematic and formalized of these activities is the provision of supplements: vitamin A capsules for infants and young children (6–59 months of age) and for postpartum women, and iron and calcium tablets for pregnant and lactating women (PLW). The vitamin A capsules for infants and young children are provided through the GOB EPI, which also provides antihelminths on National Immunization Days (NIDs). (Although provision of antihelminths is not always included in the ENA, it falls under the category of control of anemia, as soil-transmitted helminths can lead to anemia due to intestinal blood loss.) Iron and calcium tablets are sold through static and satellite clinics.

Some other services are also provided on a more ad hoc basis. For example, providers conduct varying amounts of counseling on breastfeeding, complementary feeding, nutritional care of sick children, and women's nutrition, especially for pregnant and lactating mothers. The counseling is done at the static clinics and the satellite clinics and at the household level by various service providers. Some SSFP clinics also conduct growth monitoring and promotion (GMP): The SSFP produces a leaflet with a child growth chart on one side and information about feeding, vaccination, illness prevention, and care of the sick child on the other side, which can be used for GMP. However, this activity appears to be taking place inconsistently, with providers using the growth chart in various ways (if at all) and not necessarily as recommended for optimal impact and results. Finally, few providers mentioned anything about the lactational amenorrhea method (LAM) for family planning, kangaroo mother care (KMC), or consumption of iodized salt—all actions that could be recommended under the ENA approach.

Specifically in terms of anemia, some SSFP clinics have laboratory testing equipment to measure hemoglobin. In cases of anemia, providers said that they provide iron tablets or, for severe cases, refer clients for blood transfusions. However, providers were not well versed in the appropriate foods to recommend for either treatment or prevention of anemia, nor did they mention prescribing antihelminths for control of anemia among either young children or pregnant women. Iron tablets, whether prescribed as treatment or as standard practice for PLW, are not distributed at the household level. Rather, they are distributed by paramedics at static and satellite clinics. Unlike the GOB health service delivery system, iron tablets are not free through SSFP clinics, and some providers described this as a barrier to uptake of iron tablets. One CSP said that she advises clients that the GOB health facility has free iron tablets, but she does so with the caution that the free tablets come wrapped in paper as opposed to the blister packets used by SSFP. MoniMix, a micronutrient powder that contains iron to prevent and control anemia in young children, is also sold through both satellite and static clinics. However, some SSFP locations provide MoniMix and others do not, mostly due to logistical challenges. In addition, CSPs, who operate in about 55 percent of SSFP areas, are the main providers of MoniMix, although other service providers promote it as well, CSPs market MoniMix at satellite clinics and at the household level. Areas without CSPs may have less access to MoniMix.

Providers also use a range of materials and job aids in service delivery. The SSFP produces posters, flipcharts, leaflets, and brochures on a variety of health topics, some of which include nutrition information. These materials are used in one-on-one interactions at the facility level, as well as in the house-to-house visits and group meetings organized by CSPs and SPs. Many of the materials are given to clients to keep, which provides them with an opportunity to study the information in more detail (either on their own or with assistance in the case of less literate clients) and to reference it in the future. It also provides an opportunity to reach family members that are not present at the clinic with relevant information. The SSFP has effectively integrated these materials into the work of providers at all levels of the system, such that the providers seem to find great value in the materials and generally seemed eager for more materials that would be helpful in their work.

The SSFP model includes a substantial community mobilization component, and SSFP provides some nutrition services through its behavior change communication (BCC) and community mobilization activities. For example, CSPs conduct group sessions with women that gather at satellite clinics and separately with men at tea stalls, where they discuss nutrition and other health topics. They also sell oral

rehydration solution (ORS) and zinc for diarrhea and MoniMix for home fortification of complementary foods. However, supplies seem to be inconsistent, as CSPs gave varying information about the stock and availability of both zinc and MoniMix, as well as of other supplies, such as condoms. At the facility level, one BCC strategy employed by SSFP is the use of health-focused DVDs in the waiting room. Some of the DVDs include information related to nutrition. However, of the six clinics visited for the assessment, three had either TVs or DVD players that were not functioning.

Providers who work at the community level, such as CSPs and SPs, recognize the importance of working with community members to build trust and support to improve their job success. For example, one SP, when asked whether she sells iron tablets, said that she does not normally sell them, but that she will sometimes bring iron tablets to clients' homes at their request. She said, "I need to help them, otherwise they will not help me." Similarly, when a CSP was asked about her potential role in providing nutrition services, she said, "I think it is necessary to provide service door to door." She explained by saying, "It will be a good process because I think when I go to a family ... I have a good chance to draw their attention and convince them that their baby needs more care regarding the diet for good health and in this way I can get more acceptability to the family and become familiar with them." This CSP seems to understand that this increased acceptability and familiarity will benefit her and the SSFP in the long run.

As part of their presence in the community, SSFP clinic staff are aware of and, in some cases, influenced by the nutrition activities being carried out by other NGOs and the GOB. They regularly referenced NGOs such as BRAC and Save the Children that are working and providing health and nutrition services in SSFP catchment areas. These references were generally positive, indicating that the services provided were complementary, but they occasionally suggested a degree of conflict due to overlapping activities or competition over clients. In some cases, the SSFP and other organizations actively work together, such as in the Tongi SSFP clinic, where BRAC clients receive discounted services, or in the case of the NNP. As described above, the NNP was the primary GOB vehicle for nutrition programming until its closure in July 2011. The NNP operated in 173 sub-districts of Bangladesh, and one of the six SSFP clinics visited for the assessment was in an NNP sub-district. There, SSFP staff reported that they referred clients to the NNP for nutrition services, and the NNP staff referred pregnant women to the SSFP clinic for antenatal care (ANC) services; the SSFP clinic also hosted NNP activities, such as a monthly meeting. Due to these types of interactions, perceptions vary widely among SSFP staff in different locations about the level of awareness of nutrition issues and the need for nutrition services within their communities.

Overall, while providers acknowledge the need for nutrition services and attempt to meet this need within their capacities, the services being provided fall broadly into the categories of:

- Transmission of nutrition messages
- Distribution of supplements

The transmission of nutrition messages is often very ad hoc, unsystematic, informal, and non-specific, with messages varying widely in accuracy and detail. The message delivery typically targets women and does not extend to include other household decision makers. For example, providers often tell pregnant women to eat more or to eat more iron-rich foods, without (accurately) specifying which foods fall into that category and without actively reaching out to the pregnant woman's husband or mother-in-law, who likely make decisions about food in the household. Services are rarely more in-depth or hands-on than these and do not involve negotiation of behavior change or demonstration of nutrition actions.

## **Gaps in Service Provision**

It is important to state at the outset that many of the gaps in service provision are likely due in large part to several system-level factors. First, it seems that many providers lack the time to counsel patients in depth due to their patient load, though this varies from one SSFP clinic location to another. Second, nutrition services are for the most part neither a stated job responsibility nor a part of the formal reporting system, so they can easily become marginalized. Third, providers lack clear protocols or guidelines about the nutrition services that can and should be provided at each key contact point. The SSFP follows the GOB for clinical standards and protocols, and, given that nutrition has not been integrated into the GOB health service delivery systems, the absence of protocols and guidelines is not surprising. These are

underlying factors in the gaps in service provision that will need to be addressed for any nutrition interventions to be effective.

At the provider level, gaps can be broadly categorized as gaps in knowledge and gaps in skills. Although providers seem to have a basic foundation of knowledge of nutrition, it is not clear whether this knowledge goes in-depth beyond an ability to recount standard recommendations and guidelines around IYCF and maternal diet. In particular, knowledge is lacking about details of guidelines or their scientific rationale. Providers at all levels acknowledge this gap, stating that they would like to tell patients more about nutrition but that they lack information and need additional training. However, to promote improved practices around nutrition, providers should not only be able to explain the details of their recommended behaviors, but should be able to demonstrate or provide interactive instruction for behaviors as well. This requires skills in communication and counseling, including problem solving and negotiating behavior change, which are generally lacking.

One critical gap in providers' knowledge is around complementary feeding. Specifically, it seems that many providers advise mothers to exclusively breastfeed for 6 months and then to begin complementary feeding with such foods as *khichuri* or *suji*. However, none of the providers mentioned advising caregivers or other family members on other components of complementary feeding, such as dietary diversity, quantity of food, frequency of feeding throughout the day, or techniques for responsive feeding. These are essential components of complementary feeding, but it is not clear that providers' knowledge or service delivery extends to include them. It seems that providers have obtained some basic knowledge from various sources (such as academic or professional training, other NGOs, or the media) about breastfeeding, but they have not had the same opportunity to learn about complementary feeding, which has resulted in uneven knowledge of optimal IYCF practices.

Another clear gap in knowledge exists around nutritional care of sick children. This includes assessing the current feeding practices of sick children and counseling caregivers on appropriate nutritional care as an integral part of treatment of illnesses. Some providers did mention feeding recommendations for sick children, which they may have learned through training on Integrated Management of Childhood Illness (IMCI). The IMCI strategy, which has been introduced by the GOB in some districts of Bangladesh, includes a module on nutrition. SSFP policy states that every clinic is required to have at least one provider (typically a MO or paramedic) who has received the full 11-day facility IMCI training through the GOB. Some SPs and CSPs are also trained in Community-Integrated Management of Childhood Illness (C-IMCI), including about 70 percent of CSPs that have been trained (in cascade trainings) by a paramedic or an SP. However, although some informants were conversant in the IMCI guidelines, none reported following the steps to conduct a full assessment of feeding practices followed by counseling, per IMCI protocol.

Similarly, there is also a gap in knowledge and skills around the measurement, classification, and treatment of undernutrition, including micronutrient deficiencies, such as anemia. Providers on the whole do not have a good sense of the nutritional status of their clients; when asked how often they see malnourished patients, some providers had difficulty answering the question, while others gave a wide range of answers, many of which were not in line with the reality found in existing data for their region. Some SSFP clinics lack equipment, such as stadiometers/length boards and hemoglobin testing equipment, which leads providers to visually assess (and often grossly mis-classify) nutritional status. Given the actual prevalence of undernutrition throughout Bangladesh, especially in terms of child undernutrition, in a context where more than 40 percent of children age 0–59 months are stunted,<sup>9</sup> it is quite possible that providers see malnourished children so frequently that their ability to visually assess undernutrition is seriously impaired. In this sense, a sort of contradiction seems to exist in that providers recognize that nutrition problems exist in their communities, yet they may be overlooking them in their facilities. Even when the problem is identified, providers lack accurate knowledge and a systematic approach to address the problem, severely limiting their ability to appropriately treat malnutrition.

At the system level, a broader gap relates to reporting. The SSFP reporting system includes reports on all services, but there are very few specific nutrition indicators. Beyond tallying the distribution of vitamin A supplements, SPs report to the CM on how many group meetings they have conducted, including the

number of clients present at the meeting and the topics discussed. The counselor also reports daily on the stock of medicines. One PD mentioned this gap, saying, “We provide services but have no system to document them. When we arrange NIDs, vitamin A distribution, or other special programs, then we have a system to document those. There is no daily record sheet to record height and weight of mother and child; only the ESP has some record. So I cannot say how many underweight children and how many malnourished mothers are receiving treatment.” This near-complete absence of nutrition in the reporting system implies that nutrition is not a priority, making it very easy to be overlooked at all levels.

## Challenges

Informants mentioned several barriers to the provision of nutrition services. A frequently cited challenge is family members of clients, especially husbands and mothers-in-law, who present barriers to effective service delivery through their decision-making power in the household. Providers said that they have to work to overcome misconceptions, especially among mothers-in-law, often related to specific foods that are to be given or avoided for pregnant women, infants, and young children. As one MO said, “Nowadays, mothers are aware, but can’t get sufficient family support. Mothers-in-law and others are not aware; they only advise to eat dry food (fried rice, mashed potatoes, etc.). Moreover, they do not allow mothers to eat more.” Providers also encounter resistance from both husbands and mothers-in-law, who sometimes feel that health services are too expensive and/or unnecessary. Finally, most deliveries continue to take place at home, and many mothers face restrictions on their movement within the first 40 days of delivery, presenting another barrier to effective service delivery.

These challenges seem to be especially common in rural areas, where extended families living together are the norm and the culture is often more conservative. In these areas, the level of involvement and participation of extended family members in health services is much higher than in urban areas. Women’s mobility and decision-making power are also generally more restricted in rural areas. In contrast, SSFP clients in urban areas are more likely to have migrated to the city from a rural area and to be living away from their extended families, giving them greater mobility and decision-making power in their households, but also potentially less support. The level of involvement from family members also varies between different regions of Bangladesh, which may be comparatively more or less conservative. Therefore, the influence of family members, positive or negative, varies depending on the clinic’s location.

Whether in rural or urban areas, those women that do come with an attendant are typically accompanied by adult family members, such as a mother, mother-in-law, or sister-in-law or, less frequently, a neighbor. Providers often said that, when possible, they speak with and counsel family members as needed to ensure compliance with their instructions. For example, one MO said:

“We perform the counseling along with husband or mother-in-law or the attendant of the client. The patient we counsel will have to take more nutritious food, more rest and not do any heavy work; in that case, we should inform the mother-in-law or husband, who can help the pregnant mother for this purpose, as they have to perform the family work to give her more rest. The purpose is not only to help [with the] physical workload, but the mother needs mental support also. For this reason, we include the husband and mother-in-law in the counseling session.”

Some providers make a particular point of reaching out to husbands because they feel that their advice is more likely to be implemented if it is transmitted to the husband in addition to the wife. To this end, they may ask clients to bring their husbands to a subsequent appointment, or they may write out advice on prescription pads or even call husbands on their mobile phones. However, this results from the providers’ own motivation and initiative, and is not a standard practice.

Several providers, mostly the frontline workers and especially the SPs and CSPs, mentioned that they specially target mothers-in-law for counseling, using a variety of strategies to persuade them to support their daughters-in-law. For example, they may appeal to the mother-in-law’s desire for a healthy grandchild, as in the case of the CSP who said, “We counsel them and say, ‘Your daughter-in-law is like your own daughter; your descendant’s health depends on her health. If the mother is healthy and gets food properly, then the baby will be healthy, wise and develop perfectly. So, help her to get check-ups and to take medicine regularly, and you will get a sweet, healthy descendant for your family.’” They also

use social pressure—either real or imagined—to convince mothers-in-law. For example, several providers said that they invite satisfied customers, including some that were initially resistant to receiving services, to attend group meetings or to speak with potential clients one-on-one. One SP described this strategy this way:

“Nowadays, I need to talk much with mother and mother-in-law. Few mothers-in-law resented when they had seen me and some of them accused me of giving wrong service and medicines that will help to enlarge the baby and result in cesarean will be needed for the daughter-in-law. Then I gave an example of other pregnant woman who got treatment and medicines during pregnancy and benefitted. ... I also brought the mother-in-law who opposed to that mother’s house and this mother shared her experience to the mother-in-law. Then mother-in-law requested me to make a card for her daughter-in-law.”

Another example of this strategy is the use of imagined social pressure or condemnation. For example, one SP said, “A mother-in-law said to me, ‘We gave birth to our children [without health services], didn’t we?’ After that, I counseled her that now we are standing in present era and everyone will blame you if your daughter-in-law remains sick for long period. Then, she was thinking properly and brought her daughter-in-law.” Still, these strategies, while creative, remain informal and unsystematic and depend on the providers’ own motivation. Finally, some frontline workers said that they build trust among clients’ family members or other attendants by bringing them into the SSFP system, for example, by asking a sister-in-law whether she has had her tetanus toxoid vaccination and then recommending services accordingly.

At the system level, challenges include human resource issues and a dependence on the GOB for some supplies. In most cases, the workload is not overly burdensome, but turnover and vacancies are a problem in some clinics partly due to insufficient remuneration. Supervisors in particular explained that attrition and staff morale are major challenges for them due to the fact that the SSFP’s pay scale has not kept pace with the increased salaries offered by the GOB health service delivery system or even by NGOs providing similar services, such as Marie Stopes. They stated repeatedly that staff salaries would need to increase to recruit and retain staff and to maintain quality. Among some SSFP clinics, staff shortages are a major challenge, especially in rural areas where it may be more difficult to recruit and retain qualified providers. Also, opportunities for training among providers are rare; none of the providers said that they had received any training on nutrition in the past 3 years. Finally, although stock outages seem to be infrequent in general, vitamin A capsules and antihelminths are provided through the GOB, which leads to some inconsistencies and gaps in stock.

## **Opportunities for the Integration of Nutrition into SSFP Health Services**

Understanding the current situation, including the nutrition services being provided and the gaps in service provision, allows for an analysis of opportunities for the integration of nutrition services. Based on assessment findings, it seems clear that although some nutrition services are being provided, they are largely incomplete and in need of expansion and standardization. The existing base of general knowledge, along with providers’ interest in nutrition services, provides a foundation to build on. An opportunity exists now to take nutrition services beyond transmission of basic messages and distribution of supplements, to address attitudes and practices in a way that can more effectively promote behavior change. Changes are needed at multiple levels—system, facility, and provider—to accomplish the integration of nutrition into the SSFP’s existing health services.

Any decision to expand nutrition services should take into consideration the scientific evidence of the interventions’ effectiveness. The 2008 *Lancet* series on maternal and child undernutrition included a review of nutrition interventions and their potential effectiveness. Based on the review, counseling on breastfeeding and complementary feeding were among the interventions described as having “the greatest potential to reduce the burden of child morbidity and mortality.”<sup>10</sup> Among providers in the SSFP system, there is a clear knowledge gap in this area that should be addressed, with an emphasis on the full continuum of feeding recommendations from 0–24 months. Providers’ knowledge, counseling skills, and practices must all be strengthened, with the aim of building their capacity to provide hands-on interactive support to mothers and families. A comprehensive, balanced approach will promote both

exclusive breastfeeding and complementary feeding (the latter of which sometimes receives less emphasis in nutrition programs, despite the heightened risk of growth faltering during the 6–24 month age range).<sup>11,12</sup> Research has shown that this is possible, as several interventions in developing countries, including in India and Pakistan, have resulted in improved service delivery as well as improved complementary feeding practices and nutritional status by working within the existing health service delivery system.<sup>13,14,15</sup>

Although counseling skills are crucial for services along the full spectrum from prevention to treatment, additional skills are necessary for the accurate classification and treatment of undernutrition and micronutrient deficiencies, especially anemia, in young children. In a 2000 study that measured quality of care for under-5s in GOB health facilities, researchers found that “almost none of the children whose weights were very low were correctly classified” and “none of the children presenting with anemia was treated correctly.”<sup>16</sup> Although this study was done in GOB health facilities and not in SSFP clinics, it is illustrative of the level of capacity of providers in the broad health service delivery system in Bangladesh. It is also in line with the results of this assessment, which found that very few services were being provided to children that were suffering from nutritional disorders or deficiencies. Providers’ capacity therefore needs to be strengthened with improved techniques to assess children’s nutritional status—by looking for symptoms systematically and identifying them accurately—and to counsel and treat for undernutrition and anemia.

Closely related to the need for treatment of undernutrition is the need for services around nutritional care for sick children. As discussed above, the IMCI strategy includes a module called “Counsel the Mother,” in which providers assess feeding practices and counsel mothers and caregivers on nutritional care for sick children. Even training providers in only this module, without the rest of the IMCI modules, has been shown to result in behavioral changes among providers and caregivers, as well as significantly improved anthropometric status in children aged 12–24 months.<sup>17</sup> Although all SSFP clinics have at least one provider trained in IMCI, the training could be expanded to include more providers. The training could also be adapted to target additional family members and could be further complemented by SBCC approaches targeting those family members, who would need to support the mother or caregiver by taking on extra household tasks to ensure that she has time to tend to the sick child.

A final area where additional training may be necessary is the care of LBW babies, focusing on feeding and care practices, such as KMC. It has been estimated that 22 percent of infants born in Bangladesh are LBW.<sup>18</sup> LBW can be caused by poor maternal nutritional status both before and during pregnancy, among other factors, and it in turn can be an important risk factor for infant morbidity and mortality, as well as malnutrition in childhood. Some cultural practices within Bangladesh may contribute to the high prevalence of LBW, such as the common misconception, often perpetuated by mothers-in-law, that pregnant women should limit their food intake to prevent their baby from growing too large and creating difficulties during labor and delivery. Providers often address this misconception by encouraging pregnant women to eat more, but they do not seem to explicitly discuss the risks of eating too little. Although SSFP clinics have weight scales and providers are generally knowledgeable about the definition of LBW, it was not clear that birth weights are being measured and tracked for service delivery purposes, nor did there seem to be a great deal of knowledge about special recommendations for feeding and care of these babies.

To achieve improved nutrition outcomes, nutrition services should particularly focus on working interactively with patients to negotiate behavior change through problem solving and, where applicable, demonstration, practice, and peer support. Families are unlikely to follow providers’ advice on nutrition if the advice requires behavior changes that are challenging—whether due to resource constraints, household dynamics, or personal beliefs—or culturally unfamiliar. In these situations, a skilled counselor may be able to work with patients and families to identify strategies through which they would be more likely to adopt the recommended behaviors. They can also assist families that have attempted to adopt behaviors but have encountered obstacles. For example, many challenges can arise for a newly breastfeeding mother, from lack of time to breastfeed (especially to breastfeed frequently and on demand, as required for exclusive breastfeeding) to perceptions of insufficient milk flow to painful infections, any of which can lead the mother to discontinue breastfeeding. Providers would therefore need to be trained in

intensive, interactive counseling and problem-solving skills to address nutrition issues along the whole spectrum from prevention to treatment. Peer support would then reinforce the providers' efforts and increase the likelihood that new behaviors are adopted and maintained.

This type of interactive counseling requires strong critical thinking skills, which can also be applied to other services. Just as SSFP supervisors and managers use information from the MIS to enhance the impact of the program, the same should be done by individual providers with information gathered through their clinical skills. Providers must be able to take the data and information that is in front of them (e.g., the signs and symptoms of a nutritional disorder) and adapt, modify, and customize the services that they are providing to the individual patient, selecting from the full range of nutrition services, to maximize the potential impact of that contact. Supervisors should expect this and should make their expectations clear and consistent. This culture of using information to maximize impact requires going beyond the status quo, doing more than the basics of what is written in a job description, and having the critical thinking skills and initiative to make the most of limited interactions with patients.

Providers' interactions with family members should also be more formalized and systematic. Although providers do often speak with the individuals who accompany a patient, this is entirely informal. However, family members and particularly husbands hold a great deal of decision-making power over women's health care: According to one report, 48 percent of women in Bangladesh state that their husbands alone made decisions regarding their (the women's) health care.<sup>19</sup> Despite this, husbands typically do not come to the clinic with their wives (an exception being when couples come together for family planning services) nor are they usually at home when the CSPs and SPs visit households. This limits the effectiveness of the health service providers, who offer advice to women that may lack decision-making power in their households. Providers should therefore engage family members and community members in a systematic way to mobilize them for nutrition actions.

An important consideration in planning how to engage families relates to the timing of information and services. Timing is important because of the need to reach people at key points throughout the life cycle when nutrition services can have the greatest impact, such as at delivery and regular well-baby checks. Although some SSFP clinics offer facility- and/or home-based delivery services, many women still deliver at home with untrained attendants or with only family members present. Additionally, most babies are not seen by a trained provider soon after birth, many not until they begin receiving immunizations. (At the 55 percent of SSFP clinics that have CSPs, the CSPs are responsible for making an initial home visit to postpartum women within 24 hours of a home delivery, but this requires that they be notified of the delivery.) The majority of child deaths in Bangladesh occur in the neonatal period<sup>20</sup>; more specifically, up to 75 percent of newborn deaths occur in the first week of life and more than 50 percent of newborn deaths occur at home.<sup>21</sup> It is therefore clear that the first days of life represent a critical period and a tremendous missed opportunity for life-saving interventions throughout the health service delivery system in Bangladesh. The limited contact between the SSFP and families in this critical period should be addressed through an increased emphasis on delivery services and, in the case of home deliveries, outreach at the household level.

For the SSFP to expand services to include more nutrition actions, additional support will be needed. When asked whether they could add nutrition activities to their current workload, providers typically said that they could, although they seemed to be conceptualizing nutrition activities as sharing advice or distributing materials on nutrition topics, conducting community mobilization activities, or occasionally as distributing food or conducting growth monitoring. When they were asked what type of support they would need to carry out nutrition activities, providers at all levels consistently said that they would need training, materials, and additional staff support (either specialized nutrition staff or more staff in general). Several providers expressed a need for materials showing inexpensive but nutritious foods and guidelines or feeding recommendations for complementary feeding, with specific foods for different ages. They reasoned that these would help them explain things more easily and would also increase clients' trust in the information. Supervisors reiterated these responses, particularly the need for training. Again, however, because providers did not seem to have a good sense of the full range of possible nutrition services, it may have been difficult for them to accurately gauge the amount of support that would be necessary to fully integrate nutrition in their daily work.

Beyond these needs, another system-level consideration relates to the MIS. As described above, the SSFP has a strong MIS that lends itself to the integration of nutrition. Given that information is collected and analyzed consistently and fairly rigorously, an opportunity exists to establish a model of how nutrition services can achieve maximum impact by using information for program improvement. Additionally, despite the strengths of the current system, it is worth noting that providers collect information but are not required or expected to use the reporting information in their own work, for example, as part of a self-assessment process to improve their services. It is also not clear that providers are receiving supportive supervision to improve their service provision. Reporting could therefore be used even more effectively to commend and empower providers and to improve quality services, particularly in the area of nutrition.

Empowerment of providers could go hand in hand with empowerment of communities. The current lack of participation by the community in nutrition services means that there is less impetus to provide these services. When providers were asked whether patients ever brought up nutrition concerns, they generally said that patients did not. Therefore, without any official requirements within their job responsibilities to provide nutrition services or report on nutrition indicators, and without any demand from the community for nutrition information or services, nutrition is unlikely to be prioritized by providers that have many other demands on their time. However, if nutrition services were integrated and publicized, perhaps through a launching ceremony coupled with brand expansion or even rebranding, and with targeted community mobilization activities, demand for nutrition services could be expected to increase. Indeed, several providers expressed an interest in working with community leaders or other respected individuals to raise awareness of nutrition issues, which would take nutrition messages out of the health facility and into the community to reach even more people.

In a sense, one of the biggest challenges to achieving improved nutrition outcomes may simply be the capacity to reach people with nutrition services. Bangladesh faces a serious health worker shortage, which results partly in low overall health service consumption and partly in some patients seeking health care from providers in the informal sector. Indeed, the number of unqualified providers in the informal sector is much larger than the number of qualified providers or even semi-qualified paraprofessionals and community health workers. While the number of both qualified and unqualified providers is increasing, the number of unqualified providers is increasing much more rapidly.<sup>22</sup> Additionally, even qualified providers may move into the informal sector if they find it to be more profitable, as could be the case if the salaries offered by the SSFP are not competitive. The implication of this is that the proportion of the population being reached by the formal health service delivery system is likely declining as the informal sector grows. Community mobilization will therefore be even more important in the future, to ensure that nutrition services reach their intended target populations.

## The Strategy for Integrating Nutrition into the SSFP

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Based on the results of the assessment, we developed a strategy for integrating nutrition into the SSFP's health services in Bangladesh. The recommendations in the strategy are broken into three components.

### 1. Whom to target:

- For maternal and child nutrition services, all PLW, children under 2 years, and adolescent girls
- For SBCC, those most affected by undernutrition (women/mothers, newlyweds seeking family planning, adolescent girls and boys) and those directly and indirectly influencing them (men/fathers, mothers-in-law/grandmothers, caregivers, elected and religious community leaders, media)
- TB patients that attend SSFP TB clinics

### 2. What should be integrated:

- ENA, including the management of moderate and severe acute malnutrition
- Key hygiene practices
- Nutrition services for TB patients, according to WHO recommendations

### 3. How to integrate:

- Follow a phased implementation
  - Phase 1: Adaptations to current SSFP system: January–September 2012
  - Phase 2: Recommendations for a new SSFP/Bangladesh Health Service Delivery Program
- Promote nutrition social and behavior change at the community level
  - Conduct formative research
  - Engage and mobilize the community
  - Conduct social and behavior change activities
- Strengthen nutrition service delivery in SSFP clinics and communities
  - Provide nutrition services at the community level
  - Train staff
  - Revise job descriptions
  - Update service protocols to include nutrition
  - Develop job aids
  - Improve supply management
  - Integrate nutrition into QI and MISs
- Build multisectoral linkages

We recommend that the nutrition program target all PLW, children under 2 years of age, and adolescent girls with ENA and hygiene practices at key contacts. In addition, the SSFP's TB clinics should incorporate nutrition services based on the WHO nutrition and TB guidelines when they are released in 2012. Finally, the program should provide social support and behavior change programming, reaching those most affected by undernutrition (women/mothers, adolescent girls and boys, caregivers) and those influencing them (men, mothers-in-law, leaders, the media). To be effective, the program must go beyond delivering basic nutrition information and messages and seek to understand and address other factors underlying nutrition and care-seeking behaviors, including household- and community-level norms and traditions; roles of men, women, and other household members; perceived barriers and benefits to key nutrition behaviors; decision-making power; quality and dependability of services; and the often-limited resources of households. The SSFP operates in both urban and rural settings, and adapting programming to the circumstances of each setting is important, understanding that barriers, influencers, and opportunities will be unique in each setting.

The strategy includes two phases. Because the SSFP funding cycle ends in September 2012, the first phase focuses on nutrition actions that can be implemented between March and September 2012 and works within the current structure of SSFP clinics. The second phase focuses on the long term, beginning in September 2012. It includes recommendations that may change the scope of this program in the new funding cycle. In both phases, we recommend testing recommendations at a small scale and modifying them before scaling them up.

## Strategy Part 1. Target Groups

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### 1.1 For Maternal and Child Nutrition Services: All PLW, Children under 2, and Adolescent Girls

During the period from conception through 2 years of age, also known as the first 1,000 days, a child is at greatest risk for undernutrition. Because this is the stage of most rapid growth and development, PLW and children under 2 have relatively high nutritional needs. A mother's nutritional status before and during pregnancy affects her child's health and development; undernourished mothers have a higher risk of having LBW babies and neonatal complications. Meanwhile, suboptimal feeding practices and high risk of illness and infection make children from birth to 2 years more vulnerable to growth faltering and undernutrition than at any other time in the life cycle, the consequences of which are long term and sometimes irreversible after age 2.

This age range, however, also presents the greatest opportunity to promote healthy growth and development. Because children are growing so rapidly, they are also more responsive to nutrition interventions than at any other time. Targeting nutrition programs to PLW and children under 2 is the most cost-effective approach to preventing undernutrition and its long-term consequences.

The international community has reached consensus on the need to target the first 1,000 days of life, and the SUN movement, of which Bangladesh is a member, focuses specifically on this target group. Therefore, in light of the GOB commitment to SUN and the clear benefits of targeting this age group for nutrition services, it makes sense for the SSFP to target this entire group for maternal and child nutrition services.

In addition to the first 1,000 days, adolescence is another period of rapid growth during which nutritional needs increase, including for energy and iron. If these increased needs are not met, adolescent girls are at risk of malnutrition. In Bangladesh, 35 percent of girls 15–19 years of age are malnourished, and the median age of a mother when she delivers her first child is about 19 years. Their young age increases the risk of pregnancy complications, and poor pre-pregnancy nutritional status puts them at further risk. Ensuring that adolescent girls are well nourished is also essential to reducing maternal malnutrition, maternal mortality, LBW, and pre-term birth.

### 1.2 For SBCC: Women/Mothers, Newlyweds, Adolescent Girls and Boys, and Influencers

Social and behavior change programming recognizes that individual behavior change depends on a person understanding the key behavior; having the resources, motivation, and ability to practice that behavior; and having a supportive environment. Because care and feeding require tradeoffs in terms of how a woman spends her time, caregivers require support from their communities and families to practice optimal behaviors. Therefore, we recommend that the SSFP expand its current social and behavior change activities to include nutrition. These activities should target those who practice key nutrition care behaviors (women/mothers, newlyweds, adolescents) and those who influence them (fathers, mothers-in-law, caregivers, family members, influential community members). This SBCC will create an enabling environment to improve nutrition practices. Fostering this enabling environment is a challenging but essential objective of social and behavior change to improve nutrition.

### 1.3 TB Patients That Attend SSFP TB Clinics

Malnutrition and TB are closely linked. Malnourished individuals are more susceptible to TB infection, and malnutrition can trigger the onset of active TB. In addition, people with TB are at greater risk of malnutrition because the illness increases the body's energy needs while simultaneously causing anorexia in patients.<sup>23</sup> Integrating nutrition counseling and support into TB services is an important step to improving patient outcomes.

## Strategy Part 2. What Should Be Integrated

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### 2.1 Essential Nutrition Actions

The SUN framework highlights internationally agreed upon, evidence-based interventions that it recommends SUN countries, including Bangladesh, implement to prevent and treat undernutrition. The focus is on prevention of all forms of undernutrition, but treatment will also be necessary for those children that become acutely malnourished. The nutrition interventions are captured in the ENA, a framework based on a set of seven affordable actions that can be promoted at the facility, community, and household levels to improve maternal and child nutrition.<sup>24</sup> Within the SSFP, the ENA can be integrated into maternal and child health contact points, including family planning, ANC, delivery, postpartum care, immunization, well-baby visits, and sick child visits. These are a package; all of them are needed together to support the health of women and children. (Figure 2 on page 24 depicts an illustrative process for integrating the ENA. Annex 3 provides more detail on the ENA).

#### 2.1.1 Optimal Breastfeeding during the First 6 Months of Life

Optimal breastfeeding provides the ideal nutrition for an infant under 6 months of age and reduces the risks of infant illness and death. This intervention was identified as essential by the *Lancet Series on Maternal and Child Undernutrition*.<sup>25</sup> This intervention relies on the mother to initiate breastfeeding within 1 hour of birth; breastfeed exclusively, providing only breast milk and no other foods or liquids for the first 6 months; and breastfeed on demand, up to 12 times per day. To successfully breastfeed, a woman needs support to learn correct positioning and attachment and to shift many of her household responsibilities to other family members so that she has adequate time and rest to breastfeed. Health service providers can counsel mothers, fathers, and mothers-in-law about optimal breastfeeding during ANC, postpartum care, and well-baby visits, and on the need for family support.

#### 2.1.2 Optimal Complementary Feeding Starting at 6 Months with Continued Breastfeeding to 24 Months and Beyond

Beginning at 6 months of age, breast milk is no longer sufficient to satisfy an infant's nutritional requirements to support growth and development.<sup>26</sup> At this age, caregivers should begin to provide semi-solid and solid foods, in addition to continued breastfeeding. Complementary feeding is often a challenging intervention as there are several key practices necessary to achieve optimal practices, including timely introduction of foods at 6 months of age; continued breastfeeding; age-appropriate food consistency; age-appropriate food frequency; a varied diet that includes animal-source food; proper hygiene during food preparation, storage, and feeding; and responsive feeding, paying attention to an infant's hunger cues. Health service providers can provide counseling and demonstrations to mothers, fathers, caregivers, and mothers-in-law to promote optimal complementary feeding beyond introduction of food at 6 months. The assessment indicated that SSFP providers are generally aware of the need to begin complementary feeding at 6 months, but do not provide counseling or information that addresses the other essential aspects of complementary feeding.

#### 2.1.3 Optimal Nutrition Care of Sick and Severely Malnourished Children

Providing optimal care to sick and severely malnourished children includes accurate assessment and diagnosis of a child's health and nutritional status and appropriate treatment and care, including providing ORS and zinc for diarrhea, providing vitamin A for measles, and counseling caregivers to continue to feed and increase fluids during illness and increase feeding after illness. Children with LBW (< 2,500 g) or moderate acute malnutrition (MAM) require special feeding support, and children with severe acute malnutrition (SAM) require referral for medical management and therapeutic feeding. Appropriate care provided to sick children helps reduce the severity of the illness and prevent the malnutrition and death that may result from severe, repeated, or long-term illness and malnutrition.

The assessment identified that provider knowledge of nutrition assessment and nutritional care of sick and malnourished children are clear gaps in the current program. Because Bangladesh has relatively high prevalences of diarrhea (13.8 percent), fever (45.5 percent), acute respiratory infection (7.3 percent),

GAM (7.6 percent), and SAM (0.7 percent),<sup>27</sup> which are even higher in some districts, integrating care of sick and severely malnourished children into sick child visits is a high priority.

#### **2.1.4 Prevention of Vitamin A Deficiency**

Vitamin A deficiency compromises the immune system, increasing a child's risk of illness and death. Prevention of vitamin A deficiency is essential to promoting child health. At the health service level, providers can counsel caregivers on a healthy diet for mother and child. For children under 6 months, this means exclusive breastfeeding. For children over 6 months, this includes foods rich in vitamin A, breast milk, and twice-yearly high-dose vitamin A supplementation. Postpartum women receive one high dose supplement within 6 weeks of delivery.

The assessment found that vitamin A supplementation of children and postpartum women, provided through the GOB EPI and NIDs, was among the most systematic of nutrition activities provided to SSFP clients. The Bangladesh 2007 Demographic and Health Survey (DHS) reports that 88 percent of children 9–59 months had received a vitamin A capsule in the previous 6 months. This is an apparently successful program that the SSFP should continue to support.

#### **2.1.5 Promotion of Adequate Iron Intake and Prevention and Control of Anemia**

Anemia, which occurs when there is insufficient hemoglobin in the blood, has severe consequences. About half of anemia cases worldwide are caused by iron deficiency, the most common nutrition deficiency in the world. Anemia increases the risk of maternal and perinatal mortality, premature birth, and LBW, and reduces cognitive development and productivity. Actions to prevent and control anemia should be directed toward children and all women of reproductive age. Nutrition interventions to prevent and control anemia include iron and folic acid (IFA) supplementation of pregnant women, provision/promotion of micronutrient powders (e.g., MoniMix) for children,<sup>28</sup> and dietary counseling. Deworming and malaria prevention and treatment also help prevent anemia from non-nutritional causes.

IFA supplementation of pregnant women is a national policy in Bangladesh, and the SSFP assessment indicated iron supplements, sold by paramedics at static and satellite clinics, are among the more systematic nutrition services supplied by the SSFP. However, the SSFP charging for iron, which is free at GOB clinics, was reported as a barrier to uptake. SSFP also sells MoniMix, but supplies are reportedly inconsistent. In addition, providers were generally not aware of foods for anemia prevention, nor were they likely to prescribe antihelminths to their clients. Therefore, it will be important to take steps to improve knowledge on anemia prevention and control; improve the counseling skills of service providers; and ensure adequate supplies of supplements, deworming medications, and MoniMix.

#### **2.1.6 Promotion of Adequate Iodine Intake**

Iodine deficiency is the leading cause of preventable brain damage; causes nervous system disorders; and is associated with neonatal deaths, stillbirths, and miscarriages.<sup>29</sup> A very effective method of preventing iodine deficiency is consumption of iodized salt, which is available in Bangladesh. Dietary counseling to promote iodized salt consumption should be provided at all appropriate contact points.

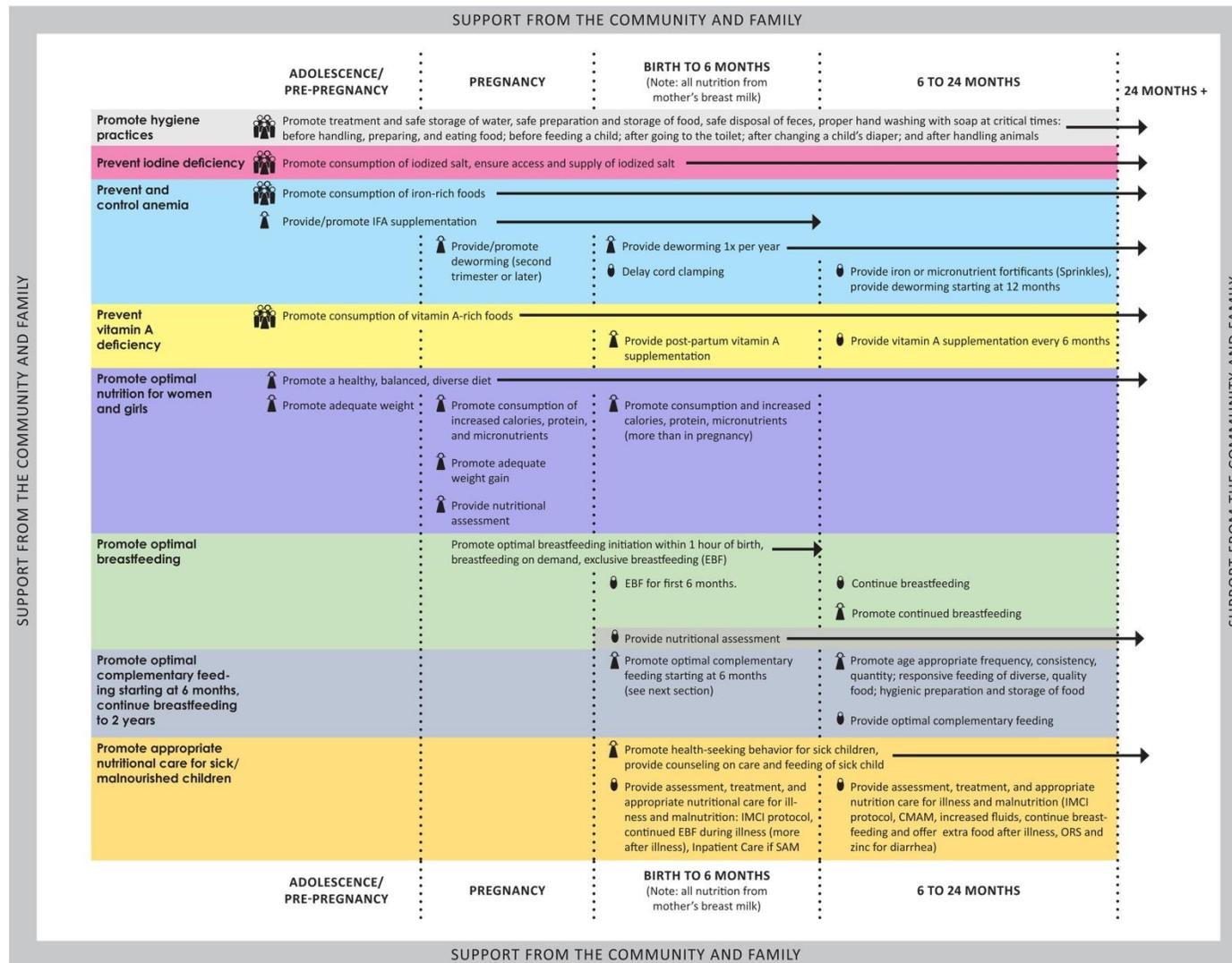
#### **2.1.7 Optimal Nutrition for Women and Adolescent Girls**

In addition to the micronutrient and anemia prevention activities already summarized, optimal nutrition for women and adolescent girls focuses on a balanced, diverse diet that meets their energy needs.

Nutritional needs increase during adolescence, which is a time of rapid growth. Proper nutrition during this time period, focused on achieving a healthy weight and preventing anemia, will ensure that women and girls are well nourished before becoming pregnant and will reduce the risk of LBW in future pregnancies. Women also have greater nutritional needs during pregnancy and lactation, which require extra energy, protein, and micronutrients, such as iron and calcium. Tracking weight; counseling for adequate weight gain; and nutritional counseling as part of family planning, ANC, postpartum care, provision of IFA and deworming, and SBCC at the community level to achieve commitment from family members to support maternal nutrition are key to ensuring women and adolescent girls get the nutrition they need for their and their children's health.

Figure 2. Ways to Integrate the ENA at Different Life Stages

## Essential Nutrition Actions and Key Hygiene Practices



Targeted Beneficiary: Community Woman Baby

## **2.2 Key Hygiene Practices**

Efforts to improve hygiene practices to prevent diarrhea, which has a strong correlation with nutrition, are needed. Children that experience frequent bouts of diarrhea are at greater risk for growth faltering. In addition, unsanitary feeding practices and malnutrition, including micronutrient deficiencies, increase the risk of diarrhea and diarrhea-related mortality. Yet hygiene interventions are often neglected in nutrition programs. At the health service provider level, counseling on safe storage and treatment of water at the point of use, safe preparation and storage of food, handwashing with soap at critical times, and sanitary disposal of feces is essential. In addition, it is imperative that health providers adopt these same practices themselves to prevent infection and serve as community role models. (See the key hygiene practices for nutrition in **Annex 2**.)

## **2.3 Nutrition Services in TB Clinics**

Although there is a clear link between nutrition and TB, there is limited international guidance on appropriate nutrition services to provide to TB patients, and Bangladesh does not have national guidelines for nutrition and TB care. WHO is currently developing a set of key principles and recommendations for nutrition and TB (which is scheduled to be completed in 2012). Recommendations will address the need for adequate diet; adequate care of mild, moderate, and severe malnutrition; guidance on managing patients with TB and mild, moderate, and severe malnutrition; and guidance on treating PLW with TB. Recommendations may include the provision of nutrition assessment and counseling, supplementary and therapeutic foods, and multiple micronutrient supplements. Providing full TB services free of cost will likely require the continuation of the strong linkages with the Bangladesh MOHFW. It may also be useful to collaborate with the NNS program of the Health Population and Nutrition Sector Development Program under MOHFW or the Ministry of Local Government and Rural Development, which may be able to provide food supplements for poor TB patients that qualify according to WHO guidance.

## Strategy Part 3. How to Integrate Nutrition into the SSFP

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The current SSFP funding cycle ends in September 2012. We anticipate that a new contract under a new name will be awarded to continue operation of this system of NGO health providers. Although the new program description is not yet completed, it is clear that the Bangladesh Health Services Delivery Project will include nutrition as part of its ESP, whereas it is not a formal part of the current program, the SSFP. Therefore, this strategy includes two phases of implementation. The first phase focuses on nutrition activities that the SSFP should implement between now and September 2012 based on the current SSFP system and materials currently available in Bangladesh. This would be implemented on a pilot basis in 10 ultra clinics, 20 static clinics, and their associated satellite clinics. The second phase would take place after September 2012 and over the long term, implementing approaches tailored to the new Bangladesh Health Services Delivery Project. This is not progressive phasing; Phase 2 does not necessarily build on Phase 1 because the managing organization may be different.

The description in this section of how to integrate nutrition is based on the overall long-term strategy. Elements that the SSFP could complete in the short-term are highlighted here and then listed separately in Section 3.4.

### 3.1 Follow a Phased Implementation

#### 3.1.1 Phase 1 – Adaptations to Current SSFP System

In the short term, the SSFP can make some basic changes to current services by including nutrition. Although not comprehensive or ideal, even small changes can improve current services and provide a testing ground for what will and will not work at the system level. In Phase 1, the SSFP should begin with 10 ultra clinics, 20 static clinics, and their associated satellite clinics, and focus on IYCF, vitamin A supplementation, iodine, and handwashing practices. This first phase can use the IYCF materials recently approved by the GOB's Institute of Public Health Nutrition (IPHN). Additionally, the SSFP can continue to support the GOB's successful vitamin A program through the EPI, NIDs, and the measles campaign, as the program is currently a key partner of the GOB for these activities, especially in urban areas. Moreover, the SSFP can work to increase its coverage of adequate intake of IFA through routine ANC and postnatal care (PNC) and proper counseling. The complete ENA package, especially treatment for acute malnutrition, along with nutrition for TB patients, is necessary. However, it would be difficult to make reasonable progress in integrating these activities before September 2012. Short-term recommendations, for which the SSFP has requested external technical support from FANTA III or a similar nutrition support mechanism, are discussed below.

#### For the Entire SSFP Service Area

**Review of this strategy and development of an action plan.** This strategy outlines broad areas of system changes. The next step is to develop an action plan, including selecting initial intervention areas. The SSFP should hold a workshop in the first quarter of 2012 with key stakeholders and develop an action plan for the near term. This strategy provides recommendations about what can be achieved, but there needs to be a detailed action plan to achieve it.

**Staff feedback on a long-term plan.** The next several months are an opportunity to hold discussions with clinic-level staff and solicit their feedback on what will and will not work and incorporate that feedback into long-term planning.

#### For 10 Ultra Clinics and 20 Static Clinics and Their Associated Satellite Clinics (Half in Urban and Half in Rural Areas)

**Community mobilization.** Community mobilization is a long-term activity. However, the SSFP can start discussions with communities on the importance of nutrition, particularly IYCF, using the community meeting guidelines on IYCF, which are part of the new GOB training materials, for religious leaders, village doctors, local leaders, and teachers.

**Staff capacity building.** Using the newly approved GOB IYCF training materials, which are in Bangla, the SSFP can train health service providers on IYCF and key hygiene practices. Once trained, SSFP staff can use the GOB-approved job aids for IYCF as well. The SSFP has indicated that this is possible only with external technical support

**IYCF counseling at clinics.** Once trained and provided with job aids, clinic health service providers can begin to incorporate IYCF counseling into their work in a systematic way.

**Dissemination of accurate nutrition information to clients.** As a long-term strategy, SSFP should update its own information, education, and communication (IEC) materials to integrate nutrition. However, in the interim, providers can use standalone nutrition materials that are available from the GOB and other NGOs. The GOB IYCF materials include educational materials for families and IYCF TV spots that can be displayed/aired in waiting rooms.

**Integration of indicators into the QI system and MIS.** For each action that is integrated into the SSFP system in Phase 1, the SSFP should identify and incorporate appropriate indicators into the MIS. The SSFP has indicated a willingness to do this in the short term, with support from FANTA III or similar technical support mechanism.

**Development of supervision tools.** Supervisors will need to be able to provide supportive supervision to health service providers. Key IYCF counseling techniques and information should be incorporated into the regular supervision tools that the SSFP currently employs.

**Update of current maternal and child service protocols to include nutrition.** There are clear nutrition actions that can be included in ANC, delivery, postpartum care, and sick child visits. In the near term, the SSFP can work with the MOs and frontline providers to update protocols and provide basic training to providers that can begin to systematically incorporate these nutrition actions. This will not be finished in Phase 1, but it will be a good start.

**National-level dissemination workshop.** To share lessons learned, successes, and failures from the initiation and sharing of the future scale-up plan, the SSFP should hold a national-level workshop at the end of Phase 1 or beginning of Phase 2. External support will be required to achieve this.

### **3.1.2 Phase 2 – Recommendations for a New Program: Focus on the Entire ENA Package and the Integration of TB**

The overall strategy, as described below, is focused on a long-term change to the system so that nutrition is truly integrated as part of the ESP and becomes a clinic, community, and family priority. We recommend that integration of nutrition be piloted in a few selected urban and rural areas and occur in phases, with modifications being made progressively. After piloting and modifications, nutrition can be integrated on a larger scale, also in phases, based on lessons learned in the pilot. We also would strongly recommend that the SSFP coordinate with the NNS Line Director from the MOHFW in all stages.

The long-term action plan will need to be established after the new Bangladesh Health Services Delivery Project is awarded and will likely be part of program start-up. We recommend that the new program thoroughly integrate all of the ENA, additional key hygiene practices, and nutrition for TB patients. The details of how this would be implemented will need to be determined in collaboration with the group awarded the program.

## **3.2 ENA and Hygiene: Promote Nutrition Social and Behavior Change at the Community Level**

Data from the FSNSP from 2010, the 2007 Bangladesh DHS, and formative and behavior change research conducted in Bangladesh in 2004 and 2011 indicate that care and feeding practices are factors in maternal and child nutritional status in Bangladesh.<sup>30</sup> In addition to insufficient knowledge of optimal breastfeeding and complementary feeding practices, caregivers were faced with such challenges as insufficient time to tend to their own and their child's health and nutritional needs while also managing

other household responsibilities and insufficient support within the household and community. The FANTA-2/HKI assessment reported that family members of clients, specifically husbands and mothers-in-law, are a barrier to effective service delivery because they have decision-making power but are often misinformed. Optimal child care and feeding require tradeoffs in terms of how a woman spends her time. Exclusive breastfeeding can require 8 hours a day of a mother's time, responsive feeding requires focused attention on a child, and proper hygiene to prevent contamination of food and drinking water requires the entire family's commitment.

A mother needs support from her family and community to practice these and other optimal behaviors to ensure the long-term health of the child. Support may include help doing chores, housework, child care, or food preparation. Importantly, this requires that the whole family participates and should ensure that older siblings do not miss school to help out at home. Preventing undernutrition in mothers and children is a shared responsibility among communities and families. Nutrition needs to be addressed holistically. Allocating time so that a mother can breastfeed her infant on demand or concentrate on preparing and feeding complementary food to a toddler requires a shift in the division of labor in a household. This behavior change goes far beyond giving information on diverse nutritious foods. Creating an enabling environment to promote shared responsibility for nutrition is best achieved through community-based approaches that provide opportunities to share views, obtain peer support, and cultivate a common understanding of nutrition needs and benefits.

Due to social changes in Bangladesh, 47 percent of young women are involved in agriculture-related work in rural areas, and most mothers in urban areas work outside the home. This separates a mother from her child, prevents exclusive breastfeeding, and can compromise the quality of complementary feeding because it is being handled by a caregiver other than the mother. Global data also suggest that, even when a mother is the primary caregiver, children may become malnourished during the complementary feeding phase due to time adjustment for new food, more exposure to unhygienic environments as they start movement, and the mother not having adequate time because of her household job allocation. Therefore, family members' and other caregivers' roles are critical to ensure that a mother gets adequate time to exclusively breastfeed, provide responsive complementary feeding, and transfer feeding responsibility to a trained person for complementary feeding when she needs to be outside the home.

It is clear that nutrition social and behavior change, including the promotion of optimal feeding and healthcare-seeking practices and support for mothers to overcome barriers to practicing these behaviors, is a necessary part of any strategy to improve nutrition in Bangladesh. Specific behavior-focused activities should be developed for PLW, adolescents, and newly married girls and those who influence them, including husbands/fathers, mothers-in-law, and religious and community leaders. This strategy recommends that SBCC incorporate activities to target each of these groups based on their roles in ensuring good maternal and child nutrition.

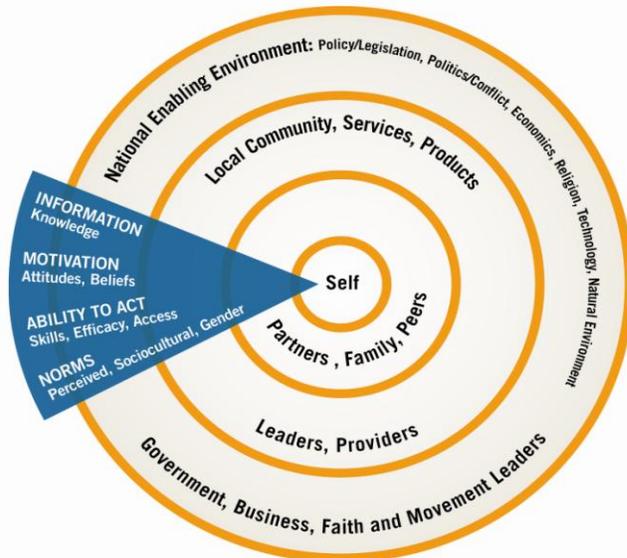
The SSFP currently conducts SBCC and community mobilization as part of its ESP. The assessment noted that providers use a range of communication materials for one-on-one interactions at clinics and for household visits and group meetings, including materials that clients can keep. SPs and CSPs are also active in the community. These existing services provide a platform on which to build SBCC activities for nutrition. Before new tools or materials are developed, the SSFP should develop an inventory of what tools exist within the SSFP and other programs and adapt, modify, or build on existing materials.

SBCC uses a socio-ecological model (**Figure 3**) to examine several levels of influence to ignite change. At the center of the model are those individuals that are most affected by undernutrition. Those in the next two layers, including partners, family, peers, service providers, and community and religious leaders, can directly influence those most affected by undernutrition by helping shape community and gender norms and access to and demand for community resources and existing services. Those in the outer ring are indirect influencers that make up the enabling environment, which can facilitate or hinder positive nutrition practices.

In addition, each level is influenced by several cross-cutting factors, including social and gender norms. These factors also recognize that people’s actions are influenced by:

- Information that is timely, accessible, and relevant
- Motivation (often represented by attitudes and beliefs)
- The ability to act (which includes skills, self-efficacy, and access to services; empowerment to make and act on decisions; and adequate food)

**Figure 3. Socio-Ecological Model for Social and Behavior Change**



SOURCE: Adapted from McKee, Manoncourt, Chin and Carnegie (2000)

The SSFP should conduct formative research to understand the barriers, constraints, and opportunities for practicing optimal nutrition behaviors; engage and mobilize the community for the social change that is essential to achieve behavior change; and conduct behavior change activities.

### 3.2.1 Conduct Formative Research

To design an effective SBCC approach, it is important to identify and outline the target audience, the desired change, key barriers, communication objectives, and specific activities and materials. A key first step in this is to conduct formative research to understand the points of view of the target audiences, identify which behaviors are feasible to promote, understand the determinants of those behaviors, and determine which approaches and communication channels will be most effective.<sup>31</sup>

Because the SSFP works throughout Bangladesh in both urban and rural areas, formative research should be conducted in multiple locations to understand the unique factors underlying malnutrition, health, and care and feeding practices in each area. For example, crowding and poor water and sanitation conditions in slums may make the urban poor more susceptible to diarrheal disease. Couples living in urban slums often live away from their families and may have a smaller social support network and different people influencing their decisions than rural couples. Meanwhile, rural families are more likely to be surrounded by extended families that influence their actions but also provide additional care and support. Rural women are more likely to work in and around the home, whereas urban women are often employed as garment workers, housekeepers, or other work that requires them to be away from the household. Formative research conducted in a selected number of locations will help the program identify the determinants of nutrition in various locations and the barriers and enablers to practicing optimal behaviors in each location.

Formative research for developing a customized social and behavior change plan and tailoring materials to the program areas is recommended for Phase 2, as there is not sufficient time to adequately implement formative research, design a plan, and implement the plan in Phase 1. This research will build on the vast body of research available in Bangladesh and will focus specifically on delivering nutrition services in the specific environments in which the SSFP operates.

### **3.2.2 Engage and Mobilize the Community**

Acute and chronic malnutrition are both serious problems in Bangladesh, but community and provider awareness of the scope of the malnutrition problem and its consequences are low. The SSFP assessment indicates that SSFP clients are not well informed about nutrition and are not aware of the nutrition services that could be available to them. Therefore, it will be important to raise the profile of nutrition as important to the health and success of communities in which the SSFP operates and to help communities and families to increase their commitment to finding and owning solutions to reduce maternal and child malnutrition. The preliminary USAID documents describing the to-be-awarded Bangladesh Health Services Delivery Project stress that linkages with communities and existing providers within the communities, such as village doctors, TBAs, and drug sellers, will help reach the poor and build ownership and community involvement in the clinic services and programs. Community engagement will help motivate sustainable individual-, household-, and community-level behavior change and increase demand for quality nutrition services over the long term.

The formative research will help identify the most effective and feasible approaches to engage and mobilize the community. However, there are opportunities within the current program, including more outreach during the satellite clinics, activating CSPs to reach a wider audience, and doing broader community-level advocacy to increase demand for nutrition services at SSFP clinics.

Community engagement and mobilization can begin in Phase 1, as generic IYCF materials for orientation of key religious leaders, village doctors, local leaders, and teachers are soon to be approved by IPHN. In Phase 2, community mobilization strategies and materials can be expanded to encompass the entire set of recommended nutrition actions and adapted/tailored to particular SSFP communities based on formative research.

#### **Satellite Clinic Outreach**

The SSFP currently operates satellite clinics once a month in each community. A paramedic runs the satellite clinic while a SP markets the services to the community and conducts community health groups (CHGs) with family planning clients. During this monthly visit and the community interaction that takes place, SPs and paramedics can hold community dialogue and raise awareness of community nutrition issues.

#### **Community Service Providers**

Approximately 55 percent of SSFP clinics have CSPs in their catchment areas. The majority of CSPs (70 percent) are trained in C-IMCI and essential newborn care and therefore can identify danger signs and refer cases for specialized care, as necessary. They also sell treatment products like ORS and zinc for diarrhea and iodized salt. These staff are a key link to the communities in which they work and receive a small stipend in addition to earning a percentage of the profits from selling health-related goods. The assessment found that CSPs value the community they work with and recognize the need to build trust among community members. These active and trusted community members provide another opportunity to raise community awareness around nutrition and to promote social change.

#### **Community-Level Advocacy**

The SSFP, working through the existing Surjer Hashi Health Group, as well as other key local contacts, should conduct advocacy to help stakeholders recognize the nutrition problems affecting their community; understand nutrition as essential for healthy mothers, newborns, and children; and seek services that promote optimal nutrition. In addition to targeting the specific groups mentioned in the paragraphs below, the SSFP should collaborate with community- and national-level media to raise the profile of nutrition. The SSFP may also consider using the TV nutrition spots developed by the Gates Foundation-funded

FHI 360/Alive & Thrive Project with the social marketing company's mobile van that travels the country to increase knowledge and awareness on important social issues.

The SSFP and partners should reach out to influential community members and leaders, especially those with whom the SSFP has collaborated in other services, such as NIDs and vaccination campaigns. Potential community members and leaders include imams, union leaders, village doctors, and TBAs. The SSFP could facilitate discussions about the consequences of malnutrition in the community and the roles that different people play in ensuring that mothers and children are healthy, including providing emotional support and helping mothers and other caregivers. The SSFP and influential community members should work together to develop a toolkit of vocation-specific tools, such as khutbas for imams; curricula for schoolteachers; counseling training and job aids for TBAs, village doctors, and other untrained providers; key messages for union leaders; and factsheets for community media. These tools will help them communicate with community members and encourage community action to improve nutritional status and seek support from health services. Advocacy will be a long term, ongoing, and iterative process. The SSFP should begin by working with those that have the most influence and contact with community members and household decision makers and gradually reach out to others.

The SSFP should also conduct outreach to household decision makers and caregivers, including fathers, mothers, and mothers-in-law, with information about the importance of nutrition to promote promising nutrition practices and increase demand for high-quality services for their communities. This includes providing information in locations where people commonly gather, such as reaching men at tea stalls and during Jumma prayer on Fridays; reaching caregivers at EPI sessions; and working through market committees and vendors and appropriate community media segments to raise people's interest in nutrition as an important issue for the health of women, children, and the community. Outreach at the household level may require increased staffing to have regular and consistent contact.

### **3.2.3 Conduct Social and Behavior Change Activities**

Based on the results of formative research, the SSFP should focus on high-priority, achievable actions to promote specific behaviors, employing the most appropriate messages and methods to achieve behavior change. Relevant, age-specific messages are an essential part of SBCC, but messaging is not enough. Interpersonal communication, counseling, negotiation for adoption of behaviors, and involvement of a support team will all be essential elements of achieving changes in behavior. **Table 4** contains an illustrative list of desired practices associated with each target group. The SBCC program should not promote all of these behaviors, but should instead prioritize messages and behavior change approaches appropriate to each target group.

In Phase 1, the SSFP should conduct SBCC activities at the clinic level only, specifically counseling. In Phase 2, the SSFP should focus on the comprehensive social and behavior change approach outlined in this subsection.

**Table 4. Examples of Desired Practices for Specific Target Groups (Illustrative)**

Target Group	Desired Practices
Adolescent girls/pre-pregnant women	<ul style="list-style-type: none"> <li>• Delay marriage.</li> <li>• Ensure healthy timing and spacing of pregnancy, including delayed first pregnancy.</li> <li>• Eat a balanced, varied, and sufficient diet.</li> <li>• Practice good hygiene, including handwashing with soap at key times, safe disposal of feces, and safe preparation and storage of food.</li> <li>• Get dewormed.</li> <li>• Take IFA supplementation.</li> </ul>
Pregnant women	<ul style="list-style-type: none"> <li>• Eat a healthy diet, including more protein and one extra meal per day.</li> <li>• Gain adequate weight.</li> <li>• Take IFA supplementation.</li> <li>• Plan for immediate breastfeeding.</li> <li>• Plan for exclusive breastfeeding.</li> </ul>
Husbands/fathers	<ul style="list-style-type: none"> <li>• Support the health and nutritional needs of children and mothers.</li> <li>• Help mothers have time and support for exclusive breastfeeding.</li> <li>• Help mothers have extra food during pregnancy and lactation to support the growth of the child.</li> <li>• Help mothers receive ANC and have safe delivery.</li> <li>• Ensure mothers and children have early treatment for illness or emergency.</li> <li>• Support mothers to access peer support.</li> <li>• Support/provide a healthy diet for the whole family.</li> </ul>
Mothers-in-law/grandmothers	<ul style="list-style-type: none"> <li>• Support the health and nutritional needs of children and mothers.</li> <li>• Help mothers have time and support for exclusive breastfeeding.</li> <li>• Help mothers have extra food during pregnancy and lactation to support the growth of the child.</li> <li>• Help mothers receive ANC and have safe delivery.</li> <li>• Support mothers to access peer support.</li> <li>• Help mother have adequate rest and a reduced workload.</li> <li>• Support a healthy diet for the whole family.</li> </ul>
Mothers/caregivers of children under 6 months of age	<ul style="list-style-type: none"> <li>• Get postpartum vitamin A supplementation.</li> <li>• Exclusively breastfeed, on demand.</li> <li>• Use correct positioning and attachment.</li> <li>• Maintain milk supply by feeding on demand.</li> <li>• Identify and address common breastfeeding challenges.</li> <li>• Eat a healthy diet, including two additional meals per day.</li> <li>• Recognize danger signs of child illness and seek care early.</li> <li>• Continue breastfeeding when the child is ill and increase when the child is better.</li> </ul>
Mothers/caregivers of children 6–24 months of age	<ul style="list-style-type: none"> <li>• Introduce complementary foods, in addition to breast milk, at 6 months: <ul style="list-style-type: none"> <li>○ Give a diet that is age-appropriate in quantity, consistency, and frequency.</li> <li>○ Family foods can be given to the child if mashed and lightly seasoned (children do not need a special meal if it is balanced).</li> <li>○ Safely prepare and store food.</li> <li>○ Wash hands before preparing food and feeding the child.</li> <li>○ Give responsive feeding.</li> <li>○ Provide a variety of foods.</li> </ul> </li> <li>• Practice optimal feeding for a sick child: continue feeding, increase liquids, and increase feeding when better.</li> <li>• Take the child for twice-yearly vitamin A supplementation.</li> <li>• Provide your child with iron/micronutrient supplementation (sprinkles).</li> <li>• Recognize danger signs and seeking appropriate health care.</li> </ul>

The formative research will identify appropriate social and behavior change approaches that are most likely to be effective at improving practices that promote nutrition. However, the SSFP currently conducts counseling at the facility level, CSPs conduct household visits, and SPs run CHGs. The SSFP has also developed job aids and other communication materials to support these interactions. Integrating nutrition

into these current social and behavior change activities and materials, including providing nutrition counseling at the facility and household levels and incorporating nutrition into CHGs, will be an effective use of existing skills and resources.

Consider the social and behavior change approaches discussed below.

### **Counseling and Information Dissemination at the Static Clinics**

SSFP static clinics offer the ESP, and clients can visit these clinics for family planning; ANC; delivery; postpartum care; immunization services; and sick child visits for diarrhea, malaria, and pneumonia. The SSFP also operates specialized TB clinics. Health service personnel in these clinics should provide appropriate nutrition services, such as IFA or vitamin A supplementation, and age- and condition-appropriate nutrition counseling based on the client's unique needs. Providers will need to be skilled in two-way dialogue and counseling and understand when to include nutrition counseling in other services. These are skills that improve over the long term, requiring additional training and ongoing supervision. The SSFP should develop or revise technical reference materials and job aids to assist the health care providers in counseling clients on nutrition. For example, brochures, pamphlets, and reminder cards could be available for caregivers to bring home with them.

SSFP clinics currently display information that reinforces their health messages. Incorporating nutrition information into these materials will reinforce nutrition information shared during individual counseling and collective learning sessions. In this way "saturation" of consistent, coherent information and action is reached. All displayed materials should be targeted to a low-literacy audience.

In Phase 1, SSFP providers should focus on IYCF counseling and the three handwashing practices that are part of the newly approved GOB IYCF materials (wash hands before preparing food and when feeding a child and wash child's hands if s/he is feeding her/himself). In addition, clinics can run recently developed and GOB-approved TV spots on IYCF in the waiting rooms and disseminate information pamphlets and other materials. In Phase 2, counseling can be expanded beyond IYCF and hygiene, and the materials can be tailored to SSFP clients based on the formative research. For example, urban clinics may focus on different barriers to optimal IYCF than rural clinics.

### **Clinics as Wellness Centers**

As a long-term strategy (Phase 2), the SSFP may consider shifting the role of clinics within communities. Focusing on clinics as an important regular "point of call" would strengthen an integrated approach to health and nutrition. Rather than being seen as places that are visited by sick people and associated with morbidity, clinics could become health centers where mothers take their babies to a "well clinic," adolescents go for counseling on menstruation, mothers-in-law consult on breastfeeding practices, and fathers learn about options of where to give birth to babies. With regard to integrated nutrition action, health centers and clinics are the focal points of learning how to eat well.

For this to happen, clinics should become hubs of activity on a regular basis. In addition to providing such services as ANC, immunization, supplements, and individual diagnosis of particular health problems, clinics should also be the site of nutrition education on a broad scale. Clinics should add to their role as service points to become vital meeting points for all community members and develop into learning centers where people can find information on common diseases and conditions and on how to manage these through nutrition practices.

To help accomplish this, the SSFP should hold regular clinic events where inoculations, ANC checkups, and supplements are only part of the services provided. Such events should become occasions where health and nutrition are integrated with education, training, and socializing that results in the formation of support groups and peer counseling sessions.

Events would be facilitated by SPs and CSPs and prepared by a community health committee, elected on a rotational basis, that includes community volunteers and leaders and material support from local businesses and community members. Community health committees, in conjunction with clinic staff,

could develop a calendar of clinic days detailing specific services offered on that day and outlining the additional event activities in a way that suggests both the fun and usefulness of the events.

### **Household Visits**

The SSFP conducts household visits, but not in a systematic way. CSPs or paramedics conduct postnatal visits at the household level (when they are aware of a birth), and CSPs are trained to identify illness, provide such supplies as ORS and zinc, and refer patients for treatment as necessary. However, comprehensive, regular, preventive household contacts are not part of the SSFP system.

Household-level visits, provided by SSFP-affiliated and trained volunteers or CSPs who would each be responsible for a reasonable number of PLW and children under 2, would be an effective way to reinforce nutrition messages. They could provide a basic nutrition assessment and relevant age- and condition-appropriate counseling, talking with the caregiver and household members, negotiating for behavior change, and providing encouragement. CSPs would receive training and community volunteers would be recruited as necessary. To support their work, job aids and simple, focused communication materials that address barriers to the desired change should be developed for households. This may include brochures, pamphlets, and posters (depending on the results of the formative research). Household visits should be coordinated with the GOB community services provided by family welfare assistants and health assistants.

In the Bangladesh context, there are several other important decision makers whose support is needed for a mother to be able to care properly for her child, while also ensuring that other household work is completed. Counseling is needed that targets fathers, mothers-in-law, and other caregivers to discuss the family's role in raising healthy children. While specific care and feeding advice focuses on children under 2 years of age, nutrition should be placed in the context of achieving health for the whole family (e.g., having an older daughter miss school to help with household chores is not a recommended strategy for helping a mother also care for her younger child).

Some elements of IYCF counseling may be incorporated into household visits in Phase 1. However, as increasing the regularity and scope of household visits is necessary and will require increased human resources and support, most of this should take place in Phase 2.

### **Community Health Groups**

SPs currently conduct CHGs, known as Surjer Hashi Health Groups, with family planning clients. This existing platform presents a wonderful opportunity to introduce community dialogue on nutrition. The CHGs should be expanded to reach a broader target audience, including fathers, mothers, adolescents, and older women, and multiple CHGs should be held each month during the satellite clinics. The CHGs would combine learning and action, meaning actively discussing important nutrition-related topics and commitments to test and implement solutions to nutrition-related problems. The group concept involves peer support between sessions to help each other improve behaviors. SPs and CSPs could work together to facilitate these groups and call on health specialists, such as TBAs, paramedics, and nurses, who could provide technical support to the process; this would also help form a stronger link between the community and its health providers.

In Phase 1, SPs may choose to introduce IYCF, vitamin A, hygiene, or iodine discussions into the CHGs. The wider expansion of CHGs to include a broader audience and to be more active and comprehensive is recommended as part of Phase 2.

### **Peer Support Networks**

Mothers often rely on family members and local connections to address health problems. Therefore, it is useful to consciously build social relations among mothers that can function as support systems and offer peer counseling opportunities. This can be especially useful in urban areas, where family-based social networks often do not exist. In addition to evidence from other countries, a 2000 study found that peer support networks in Dhaka increase the initiation and duration of exclusive breastfeeding, which is currently practiced by only about half of mothers in Bangladesh.<sup>32</sup> Exclusive breastfeeding, which requires

providing nothing but breast milk to a child and on demand 8–12 times per day for the first 6 months of life, can be challenging for women that have other responsibilities to juggle. Individual peer support from other mothers that have successfully exclusively breastfed can help a woman overcome the challenges of exclusive breastfeeding. A peer support network for key practices that need reinforcement would complement the larger community-wide effort of CHGs, and household visits can be scheduled in a way that is more flexible for the new mother than a weekly group meeting.

We recommend that women that have successfully breastfed be recruited and trained to provide peer support. They would begin providing household visits with mothers and other key family members in the last trimester of pregnancy and continue visits throughout the first 6 months of the child's life. The minimum schedule of visits should be determined through program planning, and peers should have flexibility to visit more as needed or wanted. As a point of reference, the 2000 Dhaka study included two visits at the end of the first trimester, one visit within 48 hours of birth, and fortnightly visits thereafter until 6 months. Peer volunteers would require a brief training to help them effectively support and encourage other mothers and provide consistent, accurate information. Peer support networks should be done in collaboration with the government health services to ensure that messages and information are harmonized. Whether this method could also be used to support complementary feeding should be considered. Alternative options, such as peer support groups, could also be explored as an option.

One or two urban clinics should initiate a peer support network in Phase 1 and document lessons learned. Peer support networks should be more broadly implemented in Phase 2.

### **3.3 ENA and TB: Strengthen Nutrition Service Delivery in SSFP Clinics and Communities**

The SSFP should incorporate the ENA into existing maternal and child health services, implement WHO-recommended nutrition guidelines on TB services, and establish nutrition services for MAM and SAM. These actions will help the SSFP achieve greater success in improving the health of its clients and help support GOB efforts to mainstream nutrition and participate in the SUN framework.

To strengthen nutrition service delivery, the SSFP should establish community-level nutrition services, include nutrition in staff training, update job descriptions to include the ENA and TB recommendations, update existing service protocols and develop new ones as necessary, develop and revise job aids to include key nutrition practices, improve management of supplies to prevent stock outages, and integrate nutrition indicators into the QI and reporting systems. All of this would be bolstered by supportive supervision that helps providers continually improve their service provision.

The SSFP has several levels of clinics, from the community-based satellite clinic to the higher-level ultra clinic. Most patients are seen by paramedics and at satellite and vital clinics. **Table 3** (page 3) illustrates the SSFP clinics and the services provided there.

#### **3.3.1 Provide Nutrition Services at the Facility and Community Levels**

The ENA should be integrated into maternal and child health services that are already provided by the SSFP, and the WHO TB recommendations should be included in the DOTS program at the SSFP's urban TB clinics. This will improve the overall health of the population receiving those services. The details of nutrition actions to integrate are in **Annex 3**. In addition, the SSFP should provide nutrition assessment/screening, counseling, and referral, as well as management of SAM, MAM, and LBW.

#### **Nutrition Assessment/Screening, Counseling, and Referral**

One key aspect to improving the nutritional status of women and children is early detection of health problems and appropriate action whenever a problem is detected, whether it is slowed growth, a child's lack of appetite, feeding during illness, or early signs that a child is suffering from acute malnutrition. Based in the community, CSPs are well placed to conduct basic screening/assessment during household visits and provide support to caregivers and family members through counseling and referral. Paramedics and clinic aids can include nutrition assessment and screening as a community-wide preventive strategy held during monthly satellite clinic sessions. The strategy recommends that providers assess the dietary

habits of the mother and child through conversation, assess the child's growth using the SSFP growth chart, and measure the nutritional status of the mother and child using a mid-upper arm circumference (MUAC) tape. Based on the results of the dietary and nutrition assessment, paramedics can counsel the mother and others present on ways to promote the child's growth. If MUAC identifies the child as acutely malnourished, CSPs and paramedics should refer the child for care when possible and necessary. Bangladesh has recently finalized guidelines on both facility and Community-Based Management of Acute Malnutrition guidelines, which provide detailed instructions on how to assess and manage acute malnutrition. MUAC assessment and referral for care should take place when the guidelines are rolled out and treatment becomes readily available. Assessment equipment, such as scales, height boards, and hemoglobin testing equipment, will need to be purchased and maintained as part of upgrading assessment services.

### **Management of SAM, MAM, and LBW**

Children with SAM require specialized care, which currently is provided in inpatient care and is not widely available in Bangladesh. As providers are trained to assess nutritional status and refer cases, it is important that there be an adequate place for children with SAM to be referred to for treatment. A recent study initiating community-based case management of SAM in Bangladesh was very successful,<sup>33</sup> and, as mentioned above, the GOB is developing Community-Based Management of Acute Malnutrition (CMAM) guidelines. Once these guidelines are completed and a consistent supply of ready-to-use therapeutic food (RUTF) is ensured, the SSFP should incorporate CMAM into its health services, providing necessary and effective treatment for SAM. This will likely require technical assistance.

Bangladesh does not yet have guidelines for managing MAM in children. At the international level in emergency situations, MAM has traditionally been treated with supplementary feeding, most often with fortified-blended food. International recommendations on managing MAM do not currently exist. However, because Bangladesh has high rates of acute malnutrition and no large-scale programs in place to treat SAM or MAM, the SSFP should focus on preventing MAM through the ENA and initiate pilot programs that test ways to manage MAM to reduce the number of children that develop SAM.

LBW babies, born weighing less than 2,500 g, have an increased risk of compromised growth and cognitive development and of disease and death during infancy and childhood. Improved care of these vulnerable newborns can significantly reduce mortality. Proper nutrition care for LBW babies should be included in delivery services provided by the SSFP and provided by birth attendants trained by the SSFP.

While urgently needed, MAM and LBW protocols do not currently exist in Bangladesh, and there is not yet a steady, regular supply of RUTF for the treatment of SAM. Therefore, activities to address SAM, MAM, and LBW should commence in Phase 2.

#### **3.3.2 Train Staff**

Health service providers should participate in cadre-specific training focused on effectively integrating nutrition into the ESP. Participatory training that avoids the traditional cascade-style method is recommended. Some nutrition technical skills may already be covered in other SSFP trainings. Informal service providers, such as TBAs and village doctors, should also receive an orientation on nutrition and the services available. As these are commonly sought providers, this orientation will help ensure that they provide accurate information and know when to refer children and mothers for more skilled care, even though they are not part of the SSFP.

In Phase 1, health service providers can receive the IYCF training based on the newly approved GOB materials. Phase 2 training should focus on broader ENA training and use the participatory training strategy outlined below. The following proposed training strategy seeks to integrate nutrition action into existing services building on the positive attitude and interest of health providers and making nutrition an explicit part of their responsibilities. It suggests a similar approach to training in both urban slum areas and rural communities.

Details of the training strategy will be completed when the specific approaches to social and behavior change have been identified. However, the SSFP could focus separate training approaches on two main groups:

- SPs and CSPs
- Paramedics and MOs

While the trainings are targeted to these specific groups, others could also participate. Both sets of trainings should be tested in four urban and four rural settings and then adjusted before being rolled out in additional SSFP clinics.

### **Approach 1: SPs and CSPs (with TBAs and Village Doctors)**

It is assumed that SPs and CSPs will be on the front lines of community mobilization and behavior change. Whether they are conducting household visits, running CHGs, facilitating events at the clinics, or supporting peer networks, they will need a combination of knowledge of the ENA, facilitation skills, and interpersonal communication skills. The training will instill an understanding of the role of nutrition in health and the role of gender, household, and intergenerational dynamics in the health and nutrition of mothers, children, and families.

Training SPs and CSPs should be a practical and participatory exercise based on the CORE Group ENA training materials for community volunteers<sup>34</sup> and the 2008 “Nutrition, Family, Community” training materials used by HKI and Save the Children in Barisal District in Bangladesh.<sup>35</sup>

### **Approach 2: Paramedics and MOs (with TBAs)**

Paramedics are the clinicians with the most frequent patient contact at both satellite and static clinics. MOs are a higher-level provider than paramedics, but they also see patients and supervise paramedics. Therefore, this approach aims to increase the nutrition knowledge and skills of both cadres so that they can effectively deliver nutrition services while focusing on sensitivity and interpersonal communication to create a more client-centered approach to nutrition and health services.

Illustrative training topics include:

- Nutrition and health as pieces of one puzzle
- What nutrition services entail
- Gender and intra-household relations
- Counseling and communication skills
- Nutrition assessment, measurement, and classification
- IMCI nutrition module/“Counsel the Mother” module
- Maternal and adolescent girl health and nutrition
- Breastfeeding
- Complementary feeding and diverse diets
- Taking care of sick children (essential messages)
- Case management skills

### **3.3.3 Revise Job Descriptions and Update Service Protocols**

A key first step in ensuring the quality of services is to clarify expectations with service providers and patients. We recommend that the SSFP revise the job descriptions of MOs, paramedics, SPs, and CSPs to include descriptions of nutrition services that each would provide for maternal and child and TB care. Beyond this, protocols for routine service visits need to be updated to include nutrition actions appropriate to that contact point and stage in the life cycle of the patient. However, in adjusting job descriptions and service protocols, the SSFP will need to ensure that the practitioners are equipped to perform the additional functions, have the necessary technical skills, and have the time and resources to carry out their jobs. Suggested additions to protocols are included in **Annex 3**. The job descriptions and service protocols should be updated in consultation with the health service providers.

Updating job descriptions will require discussion among staff and supervisors, and adaptations to service protocols will require technical review. This can begin in Phase 1, but may not be completed until Phase 2. External technical assistance would be necessary to help the SSFP make these revisions.

### **3.3.4 Develop or Modify Job Aids and Other Communication Materials**

The SSFP has developed various job aids that are regularly used by clinical staff and communication materials that are available to SSFP clients. The job aids reinforce the information that providers learn in training and help them provide situation-specific counseling and treatment. The communication materials serve as a reference for clients. Though there are many materials, they do not generally deal with nutrition. The SSFP should therefore review its materials as well as those used by the GOB and NGOs and modify them to include nutrition guidance. For reviewing and adapting existing materials, the SSFP should collaborate closely with the Nutrition Technical Advisor seconded to the IPHN by USAID, whose mandate includes compiling and harmonizing existing communications materials.

In Phase 1, health service providers can use the IYCF job aids already developed and recently approved by the IPHN. In Phase 2, the SSFP should review the job aids for different services it provides and make sure they are updated with the latest nutrition information and develop job aids for the remaining ENA, hygiene practices, and TB and nutrition.

### **3.3.5 Improve Supply Management**

While the SSFP does provide IFA supplements, calcium, zinc, ORS, and micronutrient powders, supplies varied at both satellite and static clinics, according to the HKI/FANTA-2 assessment. For nutrition services to be effective, there must be a regular, consistent supply of these inputs. The SSFP should therefore assess the supply chain to determine challenges in providing a consistent supply for all service delivery points, including CSPs, and take measures to improve reliability.

### **3.3.6 Integrate Nutrition into QI and Reporting Systems**

The SSFP's QI system uses a three-tier process:

- A Clinical Level Quality Circle, in which all clinic staff together focus on processes and systems to promote quality, cost-effectiveness, and capacity development
- Quality monitoring and supervision, which assesses service providers, the process and infrastructure of service provision, and customer views to improve clinical quality
- A clinic quality council, which meets quarterly to review the first two tiers and make appropriate adjustments to services

The system tests staff knowledge; conducts self-assessments, exit interviews, and process observations; and monitors output indicators.

Related to this is the SSFP's relatively sophisticated MIS, which regularly and systematically collects data and reports it up the chain from the NGO to SSFP management and is also shared with the GOB. Once nutrition has been integrated into the SSFP, the program should update all of these aspects of the QI system and MIS to include nutrition practices and indicators. The GOB is also updating the indicators it collects in the national health information systems, and the SSFP should stay abreast of any indicators the government adds. This is an essential step to ensuring that high-quality nutrition services are consistently provided throughout the SSFP.

In Phase 1, nutrition indicators related to IYCF, iodine, vitamin A, IFA for PLW and adolescent girls, and hygiene can be integrated into the QI system. When the rest of ENA, hygiene, and TB and nutrition are integrated, those indicators can be added to the QI system.

## **3.4 Build Multisectoral, Government, and Community Linkages**

Nutrition is a multisectoral problem with multisectoral solutions. For many years, the NNP operated alone to deal with nutrition issues. Meanwhile, many different organizations throughout Bangladesh have pursued nutrition activities with limited collaboration. The SSFP is a series of privately run clinics

throughout Bangladesh, operating in the context of a large government health system, several NGO providers, and other private providers, such as village doctors and TBAs. The FANTA-2/HKI assessment indicated that SSFP clinics are frequently operating in the same areas as NGOs, such as BRAC and Save the Children, at times working closely together and at times competing. And some international NGOs are providing community- and facility-based management of SAM in slum areas of Dhaka. To streamline nutrition services, the SSFP should actively reach out to other organizations and providers that provide nutrition-related services and share resources and coordinate activities as much as possible.

With the GOB spearheading an initiative to mainstream nutrition, there is also an opportunity to engage all of the stakeholders that can influence nutrition within the health system, government ministries, and NGOs to ensure that nutrition is addressed in a comprehensive way. Key stakeholders include the MOHFW, including the directorates of Family Planning and Health, as well as the IPHN and the IMCI Program; the ministries of Local Government and Rural Development, Disaster Management and Risk Reduction, Agriculture, and Education; the International Centre for Diarrhoeal Disease Research, Bangladesh; BRAC; MEASURE Evaluation; and local NGOs. Collaboration with Feed the Future and the USAID-funded Strengthening Partnerships Results and Innovations in Nutrition Globally (SPRING) Project will also be essential. Before program design, it will be imperative to take a full inventory of nutrition work already under way and of materials and tools that already exist to develop a state-of-the-art program. This task is likely outside the scope of any one SSFP staff member or department and will probably require outside assistance.

The SSFP should build these linkages in Phase 1 and continue building and maintaining relationships in Phase 2.

### 3.5 Summary of Implementation

This overall strategy is very ambitious and comprehensive, requiring changes to a system in addition to increasing skills of staff. The SSFP will end in September 2012, and a new Bangladesh Health Services Delivery Project will be awarded. Therefore, this strategy recommends implementing changes in two phases: a short-term phase for changes that the SSFP can achieve between March and September 2012 to increase clients' access to nutrition services and a longer-term phase with system shifts for the new project. This phasing is not progressive. Instead, Phase 1 focuses on actions that can be achieved before the SSFP ends, and Phase 2 is about looking at the whole system and making comprehensive changes.

#### 3.5.1 The Team

To implement this strategy, ideally there would be a key contact person at the SSFP who would coordinate the integration of nutrition and a team to help that person develop and implement the operational plan, maintaining very close liaison with the NNS Line Director of MOHFW. Because there is a great deal of work to develop an implementation plan, training materials, job descriptions, job aids, information materials, and other necessary documents, USAID should provide technical assistance to the SSFP through a nutrition support mechanism. This will ensure consistency with GOB programming and the wider contribution of USAID in terms of scale-up of the NNS package in collaboration with the NNS Line Director, the IPHN, and the Directorate General of Health Services under the MOHFW.

#### 3.5.2 Financial Resources

Over the long term, implementation of the recommendations contained in this strategy will require an increase in services in SSFP's static and satellite clinics and increased outreach conducted in communities. Short-term technical assistance to help implement technical updates to protocols and to develop SBCC tools and training will be necessary. In addition, the new implementer of the Bangladesh Health Services Delivery Project will need to dedicate a significant amount of resources to nutrition over the life of the project.

This strategy is meant to provide general guidance as to how to improve nutrition, and detailed cost estimates are not available at this time. **Table 5** provides a summary of three different packages, the relative amount of financial resources that would be needed to implement them, and the expected level of impact.

We recommend that USAID and other donors provide technical assistance through FANTA III or similar mechanism to support the development of technical tools, materials, and trainings.

**Table 5. Summary of Nutrition Integration Packages Requiring Different Levels of Funding**

Description of Package	Additional Short-Term Activities	Additional Long-Term Activities	Advantages/Disadvantages	Expected Nutrition Impact
Minimum Funding: Include Nutrition in Existing Static and Satellite Clinic Maternal and Child Nutrition Services				
<p>Focus on: adolescents, PLW, children under 2</p> <p>Include nutrition assessment, counseling and services at SSFP static and satellite clinic contact points (adolescent counseling, ANC, delivery, PNC, well-child/immunization/growth promotion visits, sick child visits). Conduct community mobilization: satellite clinic outreach, CSP outreach, community-level advocacy through Surjer Hashi Health Groups; continued QI; updated MIS</p>	<p>Update clinical protocols Update job descriptions Modify job aids for clinic counseling and services Train staff (clinic staff, SPs) Train community leaders Develop advocacy toolkits for community leaders Train supervisors Develop QI tools Purchase assessment equipment (scales, MUAC tapes) Technical assistance from FANTA III or other nutrition support mechanism</p>	<p>Ongoing supervision of staff Ongoing capacity building of staff Ongoing support to community-level advocacy Ongoing QI Maintenance of equipment Collection, reporting, and management of additional indicators</p>	<p><b>Advantages:</b> No major changes to the SSFP system Minimal ongoing cost Targets entire 1,000 days plus adolescence Provides services at community level</p> <p><b>Disadvantages:</b> Focuses on clinical services only</p> <p>No additional household-level services by community members.</p> <p>Community, household, and individual knowledge, attitudes, and behaviors unlikely to improve</p> <p>No treatment for acute malnutrition</p>	<p>Minimal</p> <p>Nutritional problems would be detected and immediate counseling and referral/basic treatment available</p> <p>However, it does not address underlying issues or resolve nutrition issues</p>
Moderate Funding: Include Nutrition in Maternal and Child Nutrition and TB Services, with Community-Level SBC				
<p>Focus on: adolescents, PLW, children under 2, TB patients</p> <p>Include nutrition assessment, counseling, and services at SSFP static and satellite clinic contact points (adolescent counseling, ANC, delivery, PNC, well-child/immunization/growth promotion visits, sick child visits). Conduct community mobilization: satellite clinic outreach, CSP outreach, community-level advocacy through Surjer Hashi Health Groups; continued QI; SBC activities at community and household levels; integrate nutrition into TB services</p>	<p>(In addition to above)</p> <p>Conduct formative research Develop SBC messages and materials Develop job aids, assessment tools, counseling tools for household services Train SPs, CSPs in running health groups and household visits for nutrition Train and organize peer support networks Equip TB clinics with nutrition assessment equipment Update protocols and job descriptions in TB clinics Train staff in nutrition assessment, counseling, and support for TB</p>	<p>(In addition to above)</p> <p>Ongoing supervision of TB clinics, SBC, and peer support networks Ongoing SBC campaigns Continued support and capacity building for SPs, CSPs, and community leaders for behavior change Transport costs to reach community level</p>	<p><b>Advantages:</b> Reaches a wider vulnerable population (TB patients, too)</p> <p>Increases access to households and communities</p> <p>Provides community- and household-level behavior change to address issues underlying malnutrition</p> <p><b>Disadvantages:</b> No services for acute malnutrition</p> <p>No services for LBW</p>	<p>Moderate-high improvement in stunting</p> <p>Minimal improvement in SAM outcomes</p> <p>There is likely to be community- and household-level behavior change along with improved clinic services</p> <p>However, children with acute malnutrition will still not receive adequate treatment, resulting in elevated mortality rates</p>

Description of Package	Additional Short-Term Activities	Additional Long-Term Activities	Advantages/Disadvantages	Expected Nutrition Impact
Higher Financial Resources: Strengthen and Expand SSFP Services to Include Interventions for SAM, MAM, and LBW				
<p>Focus on: adolescents, PLW, children under 2, TB patients</p> <p>Include nutrition assessment, counseling and services at SSFP static and satellite clinic contact points (adolescent counseling, ANC, delivery, PNC, well-child/immunization/growth promotion visits, sick child visits). Conduct community mobilization: satellite clinic outreach, CSP outreach, community-level advocacy through Surjer Hashi Health Groups; continued QI; SBC activities at community and household levels; integrate nutrition into TB services; treatment of SAM, MAM, and LBW</p>	<p>(In addition to above)</p> <p>Training in SAM and MAM case identification, referral, and treatment</p> <p>Establish referral system for SAM and MAM</p> <p>Develop and pilot MAM and LBW management programs</p> <p>Establish outpatient care sites for SAM</p> <p>Develop protocols and job aids</p> <p>Incorporate indicators into QI and MIS</p> <p>Recruit more staff to run SAM, MAM, and LBW treatment</p>	<p>(In addition to above)</p> <p>Steady, predictable supply of RUTF</p> <p>Ongoing costs of operating additional systems</p> <p>Ongoing data collection and reporting</p> <p>Reporting on pilot test for MAM and LBW</p> <p>Ongoing staff salaries</p>	<p><b>Advantages:</b></p> <p>Reaches all of the most vulnerable groups</p> <p>Addresses continuum from prevention to treatment</p> <p>Comprehensive</p> <p><b>Disadvantages:</b></p> <p>Long-term funding commitment</p>	<p>Significant</p> <p>Because this involves a system shift that engages stakeholders at all levels and improves access to nutrition services to address both prevention and treatment, this set of recommendations is more likely to have a significant and sustained impact</p>

## Annex 1. Training Schedule for Data Collection Team

	Sunday, 05 June	Monday, 06 June	Tuesday, 07 June	Wednesday, 08 June	Thursday, 09 June
9:00 – 9:30	Welcome and overview of training objectives	Reflections on day one	Review of interview guides	Translation of interview guides	Reflection, question and answer on the week thus far
9:30 – 10:00	Overview of ENA approach	Interview skills: active listening			Research ethics
10:00 – 10:30	Overview of the projects: MaMoni and SSFP	Qualitative field note process			Tea
10:30 – 11:00		Tea	Tea		
11:00 – 11:15	Tea	Tea	Tea		Tea
11:15 – 12:00	Understanding qualitative research : key concepts	Summary of interview basics and a sample day	Review of interview guides		Round robin interview practice using interview guides
12:00 – 12:30		Review of interview guides			
12:30 – 13:00		Lunch			
13:00 – 13:30	Lunch	Lunch	Lunch		Lunch
13:30 – 14:00		Lunch	Lunch		
14:00 – 14:30	Introduction to semi-structured interviewing	Review of interview guides	Review of interview guides	More interview practice: probing using interview guides	
14:30 – 15:00	What's wrong with the question: types of interview questions				
15:00 – 15:30					
15:30 – 15:45					
15:45 – 16:00	Tea	Tea	Tea	Tea	
16:00 – 16:30	Interview skills: probing	Review of interview guides	Review of interview guides	Preparation for field work	
16:30 – 17:00					

	Sunday, 12 June	Monday, 13 June	Tuesday, 14 June	Wed., 15 June	Thursday, 16 June
9:00 – 9:30	Translation of interview guides	Translation of interview guides	Field Testing Assessment Tools	Reflections on field work	Finalization of interview guides; final field preparations and logistics
9:30 – 10:00				Review and modification of interview guides based on field work	
10:00 – 10:30					
10:30 – 11:00					
11:00 – 11:15				Tea	
11:15 – 12:00				Review and modification of interview guides based on field work	
12:00 – 12:30					
12:30 – 13:00					
13:00 – 13:30				Lunch	
13:00 – 14:00					
14:00 – 14:30				Participant observation	
14:30 – 15:00					
15:00 – 15:30				Tea	
15:30 – 15:45					
15:45 – 16:00					
16:00 – 16:30					
16:30 – 17:00					
				Plan and logistics for data collection	

## Annex 2. Field Work Schedule and Level of Field Staff Interviewed

As described, the data collection team traveled to six SSFP clinics in six districts of Bangladesh. The specific clinics visited and the dates of the visits are listed in the table below.

### Clinics Visited by Location, NGO Franchisee, Type, and Date

Clinic	District	NGO franchisee	Type (rural static, urban static, or ultra)	Date(s) visited
Patuakhali	Patuakhali	KAJUS	Urban static	June 26–27
Tongi	Gazipur	SWANIRVAR	Ultra	July 5
Pallabi	Dhaka	CWFD	Urban static	July 13
Kashiani	Gopalganj	SGS	Rural static	July 24–25
Jhenaidah	Jhenaidah	PSKS	Ultra	July 27
Karimpur	Habiganj	SSKS	Rural static	August 2

At each clinic, the data collection team interviewed one person from each staff designation (CM, MO, paramedic, counselor, and SP or CSP). In clinics where one or more of these staff persons were not available, the data collection team traveled (on the same day or the next day) to another SSFP clinic run by the same NGO to obtain the necessary interview. In addition, they interviewed one community leader who had been identified by the Cm, and one beneficiary who was identified either by the community leader, the SP/CSP, or the CM. Finally, they interviewed the PD from each NGO. In some cases, such as the Patuakhali clinic, the PD's office is co-located with the SSFP clinic. In others, such as the Jhenaidah and Karimpur clinics, the PD's office is in the NGO office in another district entirely. The data collection team travelled as needed to meet PDs for the interviews.

## Annex 3. Essential Nutrition Actions<sup>36</sup>

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### About the ENA

The ENA approach is an evidence-based set of cost-effective, integrated nutrition actions focused on improving maternal and child health. ENA projects have been successfully implemented in developing countries around the world, including India, Ethiopia, Madagascar, and Peru. The approach consists of seven technical interventions, which are listed below, along with recommended behaviors.

#### ***Promotion of optimal breastfeeding during the first 6 months***

- Initiate breastfeeding early (within 1 hour of birth).
- Do not give prelacteal feeds (any food or liquid other than breast milk given in the first 3 days of life).
- Breastfeed exclusively (no other liquids or foods, except ORS, medicines, and vitamin/mineral drops).
- Breastfeed on demand, day and night (8–12 times per day) for an adequate amount of time at each feeding. Empty one breast before offering the other. Offer the second breast after the infant releases the first.
- Practice correct positioning and attachment.

#### ***Promotion of optimal complementary feeding starting at 6 months, with continued breastfeeding to 2 years and beyond***

- Continue frequent, on-demand breastfeeding.
- Introduce complementary foods at 6 months.
- Increase the quantity of complementary food as the child gets older.
  - 6–8 months: 200 kcal/day
  - 9–11 months: 300 kcal/day
  - 12–23 months: 550 kcal/day
- Increase the frequency of feeding as the child gets older.
  - 6–8 months: 2–3 meals/day
  - 9–23 months: 3–4 meals/day plus 1–2 snacks/day
- Increase food consistency and variety gradually as the child gets older.
- Feed a variety of foods daily, including animal products, fortified foods, and vitamin A-rich fruits and vegetables.
- Practice responsive feeding: feed infants directly, assist older children, encourage children to eat but do not force feed, minimize distractions, and show love by talking to child and making eye contact.

#### ***Promotion of optimal nutritional care of sick and severely malnourished children***

- During illness, continue feeding and increase fluids.
  - Under 6 months: increase frequency of breastfeeding
  - 6–24 months: increase fluid intake, including breast milk, and offer food
- After illness, increase feeding until the child gains weight and is growing well.
- For diarrhea, provide zinc supplementation according to national protocol and provide ORS.
- For measles, provide vitamin A treatment, according to national protocol.
- Refer severely malnourished children for treatment (CMAM or inpatient care).

#### ***Prevention of vitamin A deficiency for women and children***

- Exclusively breastfeed children for 6 months and continue breastfeeding to 2 years and beyond.
- Consume vitamin A-rich foods, including liver; fish; egg; dark yellow and orange fruits (papaya, mango); dark leafy green vegetables; and orange- or yellow-fleshed vegetables (carrots), roots, and tubers.
- Provide high-dose vitamin A supplementation to children 6–59 months of age, according to national protocol.

- Provide postpartum high-dose vitamin A supplementation to women as soon as possible after delivery.

***Prevention and control of anemia for women and children***

- Consume iron-rich foods, especially animal products and fortified foods.
- Provide IFA supplementation to all pregnant women according to national protocol.
- Provide iron supplements to children in areas where there is no malaria.
- Deworm children over 12 months of age, pregnant women after the first trimester, and lactating women according to national protocol.
- Prevent and control malaria, including intermittent preventive treatment of pregnant women in malarial zones and sleeping under long-lasting insecticide-treated bednets.

***Prevention of iodine deficiency among women and children***

- Consume iodized salt.

***Promotion of optimal nutrition for women***

- Consume more food during pregnancy and lactation.
  - Pregnancy: 285 extra kcal/day (one additional small meal)
  - Lactation: 500 extra kcal/day (two additional small meals)
- Increase protein intake during pregnancy and lactation (e.g., *dal*, beans, legumes, animal source foods [egg, milk], oilseeds).
- Provide IFA supplementation for all pregnant women, according to national protocol.
- Treat and prevent malaria.
- Deworm after the first trimester of pregnancy in areas where parasitic worms are a common cause of anemia.
- Provide postpartum vitamin A supplementation, according to national protocol.
- Promote consumption of iodized salt.

An important element of the ENA approach is that it aims to reach mothers and children through a variety of channels, focusing on key contact points and health agents. These contact points include ANC, delivery, postpartum care, well-child care, sick-child care, and immunizations. A variety of nutrition services can be provided at each key contact point, as outlined in the table below. To accomplish this, the ENA require the involvement of a wide range of service providers and community-level workers that can incorporate the ENA message into their contacts with mothers, children, and other family members. This multi-pronged approach promotes the integration of nutrition into health programs while expanding the coverage of ENA messages among target populations and also improving the quality of health services.

**Nutrition Services to be Provided at Key Contact Points per the ENA Approach**

Contact Point	Nutrition Services
ANC	Counseling for promotion of breastfeeding, maternal diet, and fortified foods (e.g., iodized salt)
	Supplementation: IFA tablets
	Deworming
Delivery	Safe delivery services (including early initiation of breastfeeding, KMC as needed, delayed cord clamping)
	Counseling for promotion of breastfeeding, maternal diet, and fortified foods (e.g., iodized salt)
	Hygiene promotion
PNC	Counseling for promotion of breastfeeding (including LAM), maternal diet, and fortified foods (e.g., iodized salt)
	Supplementation: vitamin A, iron tablets
	Hygiene promotion
Family planning	Counseling for promotion of healthy timing and spacing of pregnancy
	Counseling for promotion of breastfeeding and/or complementary feeding as applicable, maternal diet, and fortified foods (e.g., iodized salt)
EPI	Counseling for promotion of breastfeeding, complementary feeding, maternal diet, and fortified foods (e.g., iodized salt)
	Hygiene promotion
	Supplementation: vitamin A, iron tablets/syrup, zinc
	Deworming (for children and pregnant women)
	Distribution of multiple micronutrient powders (e.g., MoniMix, Pushtikona, Sprinkles)
Sick-child visits	IMCI, including ORS and zinc for diarrhea, treatment of anemia, assessment, and counseling on feeding
	Classification and referral/treatment of undernutrition and nutrition disorders (e.g., SAM, anemia)
	Deworming
	Distribution of multiple micronutrient powders (e.g., MoniMix, Pushtikona, Sprinkles)
Well-child visits and/or GMP	Counseling for promotion of breastfeeding, complementary feeding, maternal diet, and fortified foods (e.g., iodized salt)
	Distribution of multiple micronutrient powders (e.g., MoniMix, Pushtikona, Sprinkles)
	Hygiene promotion

The ENA were initially implemented by HKI in a project in Bangladesh in 2008–2009, embedded within a larger USAID-funded Save the Children and HKI project. The project trained existing community health volunteers as well as GOB health service providers in the ENA approach. Analysis of monitoring data from the project indicated that mean WAZs among children under 2 years of age improved significantly following the implementation of the training, with significant differences between project and non-project areas. These promising results, as well as those from other countries where the ENA have been implemented on a large scale, provided the impetus to scale up ENA through USAID-funded maternal and child health programs in Bangladesh, including the SSFP.

## Annex 4. Key Hygiene Practices for Nutrition

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### 1. Safe treatment and storage of water at point-of-use

- Treat water to make it safe to drink. Treatment options include:
  - Hypochlorite (chlorine) solution
  - Boiling
  - Solar disinfection
  - Commercial filter
- Store treated water safely in a covered narrow-neck container with a tap, if possible. Pour water into a clean pitcher to serve or use a ladle that hangs on the wall to dispense water. Do not touch the water inside the container with hands.

### 2. Safe preparation and storage of food

- Wash hands before preparing food and feeding children.
- Use clean utensils and dishes.
- Clean food preparation areas with soap and water.
- Cover food with netting or cloth or store food in covered containers to protect it from insects, pests, and other animals.
- Separate raw and cooked food.
- Eat food within 6 hours of preparation.
- Use treated water to wash raw foods.
- Cook food thoroughly.

### 3. Wash hands using correct technique at critical times

- Hand washing with **soap** is the best way to prevent the spread of infection from person to person.
- Just rinsing hands is not enough. You have to use soap or ash every time you wash your hands.
- Wash hands under poured or flowing water. This removes the dirt and germs. A wash basin in which many people wash their hands in the same water does not prevent infection.
- Wash your hands **before** handling, preparing, or eating food and before feeding someone or giving medicines, and wash hands often during food preparation.
- Wash your hands **after** going to the toilet, cleaning a person who has defecated, blowing your nose, coughing, sneezing, or handling an animal or animal waste
- Wash your hands both before and after tending to someone who is sick.

### 4. Sanitary disposal of human feces

- Always use a latrine.
- Dispose of the infant's/child's feces in a latrine.
- Wash hands after going to the toilet, changing a child's diaper, or cleaning a person who has defecated.

## Annex 5. Suggested Nutrition Actions to Include in Existing Service Protocols for Health Workers

Service	Target group	Action(s)	Any present family members, especially decision makers	Tools to be developed that will support this
Adolescent counseling	Adolescent girls (married and unmarried) and their families	Assess nutritional status: <ul style="list-style-type: none"> <li>• Discuss diet</li> <li>• Test hemoglobin</li> <li>• Measure weight</li> </ul>		<ul style="list-style-type: none"> <li>• Brochures designed for low-literacy audiences, based on the counseling that took place at the session</li> <li>• Counseling guides</li> </ul>
		Counsel and negotiate for: <ul style="list-style-type: none"> <li>• Improved diet: discuss what foods she is eating and how much and discuss ways that she can eat a balanced diet with enough calories and variety</li> <li>• Improved self-care</li> <li>• Delay marriage</li> <li>• Delay pregnancy</li> </ul>		
		Provide brochures designed for low-literacy audiences, based on the counseling that took place at the session.		
Newly married counseling	Newly married couples and families	Assess nutritional status: <ul style="list-style-type: none"> <li>• Discuss diet</li> <li>• Test hemoglobin</li> <li>• Measure weight</li> </ul>		<ul style="list-style-type: none"> <li>• Brochures designed for low-literacy audiences, based on the counseling that took place at the session</li> <li>• Counseling guides</li> </ul>
		Counsel and negotiate for: <ul style="list-style-type: none"> <li>• Improved diet: discuss what foods she is eating and how much and discuss ways that she can eat a balanced diet with enough calories and variety                             <ul style="list-style-type: none"> <li>○ Nutrition to stay health in marriage</li> <li>○ Nutrition to be healthy in pregnancy</li> </ul> </li> <li>• Improved self-care</li> <li>• Delay pregnancy</li> <li>• Healthy timing and spacing of pregnancies</li> </ul>		

Service	Target group	Action(s)	Any present family members, especially decision makers	Tools to be developed that will support this
ANC at home or in clinic	Pregnant women	<p>Review records of any previous visits and adjust this visit accordingly.</p> <p>Assess nutritional status:</p> <ul style="list-style-type: none"> <li>• Discuss diet</li> <li>• Test hemoglobin</li> <li>• Measure weight</li> <li>• Measure MUAC</li> </ul> <p>Provide medications and supplements:</p> <ul style="list-style-type: none"> <li>• IFA for all pregnant women</li> <li>• Deworming for women in second or third trimester</li> <li>• In malaria zones, intermittent preventive treatment</li> <li>• Treatment of illness, such as malaria</li> </ul> <p>Counsel and negotiate for improved:</p> <ul style="list-style-type: none"> <li>• Diet: discuss what foods she is eating and how much and discuss ways that she can                             <ul style="list-style-type: none"> <li>○ Eat more food each day (determine local equivalent of 285 kcal)</li> <li>○ Eat a variety of foods, including animal source foods and fruits and vegetables</li> <li>○ Increased consumption of locally available iron- and vitamin A-rich foods</li> <li>○ Consume iodized salt</li> </ul> </li> <li>• Self-care: rest more, as possible</li> <li>• Compliance with IFA supplements, as necessary: suggestions for coping with side effects</li> <li>• Attendance at ANC</li> </ul> <p>Depending on the need for counseling on maternal diet, and the stage of pregnancy, begin counseling on (note: job aids would specify which is important at which stage):</p> <ul style="list-style-type: none"> <li>• Initiating breastfeeding immediately (within 1 hour)</li> <li>• Avoiding prelacteal feeds</li> <li>• Correct positioning and attachment through demonstration</li> <li>• Exclusive breastfeeding, i.e., providing nothing but breast milk for the first 6 months of life</li> <li>• How to maintain good milk supply</li> </ul> <p>Provide brochures designed for low-literacy audiences, based on the counseling that took place at the session.</p> <p>Record notes for follow-up visits.</p>	<p>Counsel and negotiate for:</p> <ul style="list-style-type: none"> <li>• Providing support to woman to eat more and a better quality diet</li> <li>• Support for helping the woman to rest more</li> <li>• Support for seeking health care as needed</li> <li>• Finding ways to support new mother after baby arrives so she can care for the child</li> </ul>	<ul style="list-style-type: none"> <li>• Clear protocols for ANC services</li> <li>• Job aids targeted to different providers with specific guidance based on which ANC visit and the stage of pregnancy</li> <li>• IEC materials for pregnant women to take home for reinforcement</li> </ul>

Service	Target group	Action(s)	Any present family members, especially decision makers	Tools to be developed that will support this
<p>Delivery at home or in health facility</p>	<p>Mother and newborn child</p>	<p>Assess nutritional status:</p> <ul style="list-style-type: none"> <li>• Weigh and measure baby (if facility-based delivery and/or scale is available)</li> <li>• MUAC of mother</li> <li>• Discuss mother's diet</li> </ul>	<p>Counsel and negotiate for mother's time to exclusively breastfeed</p>	<ul style="list-style-type: none"> <li>• Clear protocols for delivery services</li> <li>• Counseling job aid for delivery</li> <li>• IEC materials for pregnant women to take home for reinforcement</li> </ul>
		<p>Provide medications and supplements:</p> <ul style="list-style-type: none"> <li>• IFA for mother, as needed according to national policy</li> <li>• Post-partum vitamin A supplementation: one high dose within 6 weeks postpartum</li> </ul>		
		<p>Counsel, negotiation, and support for:</p> <ul style="list-style-type: none"> <li>• Initiating breastfeeding immediately (within 1 hour)</li> <li>• Correct positioning and attachment</li> <li>• Avoiding prelacteal feeds</li> <li>• Breastfeeding on demand, 8–12 times per day</li> <li>• Emptying one breast completely before offering the other breast</li> <li>• Exclusive breastfeeding for 6 months</li> <li>• Maternal diet: discuss what foods she is eating and how much and discuss ways that she can                             <ul style="list-style-type: none"> <li>○ Eat more food each day (determine local equivalent of 500 kcal)</li> <li>○ Eat a variety of foods, including animal source foods and fruits and vegetables</li> <li>○ Increased consumption of locally available iron- and vitamin A-rich foods</li> <li>○ Consume iodized salt</li> </ul> </li> <li>• Maternal compliance with IFA supplements, as necessary: suggestions for coping with side effects</li> <li>• Explanation of how to maintain good milk supply</li> </ul>		
		<p>Provide brochures designed for low-literacy audiences, based on the counseling that took place at the session.</p>		

Service	Target group	Action(s)	Any present family members, especially decision makers	Tools to be developed that will support this
<p>Postpartum care: at home or in health facility</p>	<p>Mother and newborn</p>	<p>Review record from any previous post-partum visits and adapt session accordingly (e.g., if there was a problem with correct positioning and attachment, follow up to be sure it's okay now).</p>	<p>Counsel and negotiate for:</p> <ul style="list-style-type: none"> <li>• Support to mother to care for herself and child</li> <li>• Rest and extra high-quality food for mother</li> <li>• Feed child only breast milk</li> <li>• If LBW baby, intensive support for mother and child because the feeding is almost constant – support for someone to take on mother's chores</li> </ul>	<ul style="list-style-type: none"> <li>• Clear protocols for postpartum visits</li> <li>• Job aid with specific guidance based on each postpartum visit</li> <li>• IEC materials for pregnant women to take home for reinforcement</li> </ul>
		<p>Assess nutritional status:</p> <ul style="list-style-type: none"> <li>• Discuss maternal diet</li> <li>• Weigh baby if not weighed at birth</li> <li>• Measure weight</li> <li>• Measure MUAC of mother</li> </ul>		
		<p>If baby weighs less than 2,500 g:</p> <ul style="list-style-type: none"> <li>• Feed every 30 minutes to 1 hour</li> <li>• Note: care of LBW baby requires intensive support</li> </ul>		
		<p>Provide medications and supplements, as necessary:</p> <ul style="list-style-type: none"> <li>• IFA as needed, according to national policy</li> <li>• High-dose vitamin A supplementation for mother: one time within first 6 weeks of delivery</li> </ul>		
		<p>Counsel, negotiate and support for :</p> <ul style="list-style-type: none"> <li>• Correct positioning and attachment</li> <li>• Exclusive breastfeeding for six months</li> <li>• Breastfeeding on-demand, 8-12 times/day</li> <li>• Empty one breast completely before offering the other breast</li> <li>• Assessing milk supply</li> <li>• Maintaining milk supply</li> <li>• Maternal diet: discuss what foods she is eating and how much and discuss ways that she can:                             <ul style="list-style-type: none"> <li>○ Eat more food each day (determine local equivalent of 500 kcal)</li> <li>○ Eat a variety of foods, including animal source foods and fruits and vegetables</li> <li>○ Increased consumption of locally available iron- and vitamin A-rich foods</li> <li>○ Consume iodized salt</li> </ul> </li> <li>• Maternal compliance with IFA supplements, as necessary: suggestions for coping with side effects</li> </ul>		
		<p>Answer any questions that the new mother and/or her family have.</p>		
<p>Provide brochures designed for low-literacy audiences, based on the counseling that took place at the session.</p>				

Service	Target group	Action(s)	Any present family members, especially decision makers	Tools to be developed that will support this
Well-child visit/ immunization/ growth promotion under 6 months	Infant under 6 months	Assess nutritional status: <ul style="list-style-type: none"> <li>• Measure weight and length of child</li> <li>• Discuss what is being fed to child</li> </ul>	Counsel and negotiate for mother's time to exclusively breastfeed	<ul style="list-style-type: none"> <li>• Protocols</li> <li>• Job aids</li> <li>• Brochures for family to take home</li> </ul>
		Counsel, negotiation, and support for: <ul style="list-style-type: none"> <li>• Discuss any challenges/problems with breastfeeding</li> <li>• Exclusive breastfeeding for 6 months</li> <li>• Discuss introduction of complementary foods at 6 months                             <ul style="list-style-type: none"> <li>○ Continue breastfeeding</li> <li>○ Age appropriate consistency and quantity</li> </ul> </li> <li>• Hygiene practices</li> <li>• Maternal diet: discuss what foods she is eating and how much and discuss ways that she can:                             <ul style="list-style-type: none"> <li>○ Eat more food each day (determine local equivalent of 500 kcal)</li> <li>○ Eat a variety of foods, including animal source foods and fruits and vegetables</li> <li>○ Increased consumption of locally available iron- and vitamin A-rich foods</li> <li>○ Consume iodized salt</li> </ul> </li> <li>• Maternal compliance with IFA supplements, as necessary: suggestions for coping with side effects</li> </ul>		
		Provide brochures designed for low-literacy audiences, based on the counseling that took place at the session		

Service	Target group	Action(s)	Any present family members, especially decision makers	Tools to be developed that will support this
Well-child visit/ immunization/ growth promotion 6–24 months	Child 6–24 months	Assess nutritional status: <ul style="list-style-type: none"> <li>• Measure weight and length/height of child</li> <li>• Measure MUAC</li> <li>• Discuss what is being fed to child</li> </ul>	Counsel and negotiate for support to mother to adequately feed and care for child	<ul style="list-style-type: none"> <li>• Protocols</li> <li>• Job aids according to age of child Brochures for family to take home</li> </ul>
		<ul style="list-style-type: none"> <li>• Provide vitamin A supplementation to children according to national policy</li> <li>• Provide iron supplementation to children in non-malaria areas, according to national policy</li> </ul>		
		Counsel, negotiation, and support for: <ul style="list-style-type: none"> <li>• Discuss any challenges/problems with breastfeeding</li> <li>• Exclusive breastfeeding for 6 months</li> <li>• Discuss introduction of complementary foods at 6 months:                             <ul style="list-style-type: none"> <li>○ Continue breastfeeding</li> <li>○ Age appropriate consistency and quantity</li> <li>○ Responsive feeding</li> </ul> </li> <li>• Food safety and hygiene practices:                             <ul style="list-style-type: none"> <li>○ Safe preparation and storage</li> <li>○ Hand washing</li> </ul> </li> <li>• Maternal diet: discuss what foods she is eating and how much and discuss ways that she can:                             <ul style="list-style-type: none"> <li>○ Eat more food each day (determine local equivalent of 500 kcal)</li> <li>○ Eat a variety of foods, including animal source foods and fruits and vegetables</li> <li>○ Increased consumption of locally available iron- and vitamin A-rich foods</li> <li>○ Consume iodized salt</li> </ul> </li> </ul>		
		Provide brochures designed for low-literacy audiences, based on the counseling that took place at the session.		

Service	Target group	Action(s)	Any present family members, especially decision makers	Tools to be developed that will support this
Sick-child visits	Mother and newborn child	Assess nutritional status. <ul style="list-style-type: none"> <li>• Measure weight and length/height of child</li> <li>• Measure MUAC</li> <li>• Discuss foods/liquids being fed to child</li> </ul>	Counsel and negotiate for mother's time to exclusively breastfeed and care for child	<ul style="list-style-type: none"> <li>• Clear protocols for delivery services</li> <li>• Counseling job aid for delivery</li> <li>• IEC materials for pregnant women to take home for reinforcement</li> </ul>
		Provide treatment: <ul style="list-style-type: none"> <li>• ORS for diarrhea</li> <li>• Zinc treatment for diarrhea</li> <li>• Vitamin A for measles</li> <li>• Deworming as necessary</li> <li>• Referral or therapeutic care for children with SAM</li> <li>• Referral as necessary for other conditions</li> </ul>		
		Counsel, negotiation, and support for: <ul style="list-style-type: none"> <li>• Children under 6 months:                             <ul style="list-style-type: none"> <li>○ Continued breastfeeding during illness</li> <li>○ Offer breast milk more often after illness</li> <li>○ Do not offer food</li> </ul> </li> <li>• Children over 6 months                             <ul style="list-style-type: none"> <li>○ Increase fluids</li> <li>○ Continue to offer food</li> <li>○ Offer extra food after illness</li> </ul> </li> <li>• Maternal diet: discuss what foods she is eating and how much and discuss ways that she can:                             <ul style="list-style-type: none"> <li>○ Eat more food each day (determine local equivalent of 500 kcal)</li> <li>○ Eat a variety of foods, including animal source foods and fruits and vegetables</li> <li>○ Increased consumption of locally available iron- and vitamin A-rich foods</li> <li>○ Consume iodized salt</li> </ul> </li> <li>• Maternal compliance with IFA supplements, as necessary: suggestions for coping with side effects</li> <li>• Explanation of how to maintain good milk supply</li> </ul>		
		<ul style="list-style-type: none"> <li>• Schedule follow-up</li> <li>• Notify community volunteer of need for follow-up at household</li> </ul>		

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