USAID
FROM THE AMERICAN PEOPLE

SPRING
Strengthening Partnerships, Results and Innovations in Nutrition Globally

Report on Findings from an Assessment of the Integration of Nutrition into HIV Programs in Selected Facilities and Communities in Haiti

February 2013

This publication is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of the Cooperative Agreement AID-OAA-A-11-00031 (The SPRING Project), managed by the John Snow Research and Training Institute, Inc. (JSI) . The contents are the responsibility of JSI, and do not necessarily reflect the views of USAID or the United States Government.

Recommended citation:

Tharaney M, Kappos K, Lamstein S,Racine N, Exume RM, Lerebours G. 2013. *Report on Findings from an Assessment of the Integration of Nutrition into HIV Programs in Selected Facilities and Communities in Haiti*. Washington DC: USAID/ Strengthening Partnerships, Results and Innovations in Nutrition Globally (SPRING) Project.

Cover photo: Nicole Racine, courtesy of the SPRING Project, April 2012.

Table of Contents

Abbreviations and Acronyms

AIDS	Acquired immune deficiency syndrome
ANC	Antenatal care
ART	Antiretroviral therapy
BMI	Body mass index
CBO	Community-based organization
CDC	U.S. Centers for Disease Control
CHAMP	Community Health and AIDS Mitigation Project
CHW	Community health worker
DHS	Demographic and Health Survey
FANTA	Food and Nutrition Technical Assistance
FHI360	Family Health International
HIV	Human immunodeficiency virus
INHSAC	*Institut Haïtien de Santé Communautaire*, or Haitian Institute for Community Health
IP	Implementing partner
IYCF	Infant and young child feeding
MUAC	Mid-upper arm circumference
MSPP	*Ministère de la Santé Publique et de la Population*, or Ministry for Public Health and Population
NACS	Nutrition assessment, counseling, and support
NGO	Non-governmental organization
ORT	Oral Rehydration Therapy
PDSC	*Point de délivrance de services communautaires*, or community service delivery point
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PLWHA	People Living with HIV or AIDS
PMTCT	Prevention of Mother-to-Child transmission
RUTF	Ready-to-use Therapeutic Foods
SAM	Severe acute malnutrition
SPRING	Strengthening Partnerships, Results and Innovations in Nutrition Globally
TB	Tuberculosis
UCD	*Unité de Coordination Départementale*, or Departmental Coordination Unit
USAID	U.S. Agency for International Development

1. EXECUTIVE SUMMARY

This report presents the findings from the study *Integration of Nutrition into HIV Programs in Selected Facilities and Communities in Haiti.* The study was led by the Strengthening Partnerships, Results and Innovations in Nutrition Globally (SPRING) Project in Haiti to inform planning for project support at the health facility and community levels in Haiti.

Preventable public health problems in Haiti remain a significant challenge for the country's development. Haiti has seen limited progress in reducing malnutrition in the past decade. According to the 2005-06 Haitian Demographic and Health Survey (DHS), 29.4% of Haitian children under age five were stunted (a 1.0% increase from 2000), 9.0% were wasted, and 18.1% were underweight (a 5.0% increase from 2000). In Haiti, the HIV and AIDS crisis has generalized. HIV and AIDS affects 1.9% of the adult population ages 15 to 49 (UNAIDS 2009). It is well established that HIV compromises the nutritional status of infected individuals. Integrating nutrition services into the package of services provided to people living with HIV and AIDS (PLWHA) is important.

The overall objectives of the assessment are (a) to better understand the national context of and gaps in HIV and nutrition programming at the facility and community levels and (b) to determine the availability of elements of nutrition programs that are essential for adults and children (i.e., assessment, counseling, drugs, and food support) at the service delivery levels in Haiti. The study used mixed methods. Quantitative tools were used to assess health facility resources, services, and capacity, as well as health provider knowledge, skills, and practices related to the integration of nutrition interventions within their current portfolio. Semi-structured interviews and open-ended questions were used to learn about the role of community health workers (CHW) and local community-based organizations in promoting nutrition for PLWHA and other vulnerable groups.

The geographic scope of the assessment included the North, West, South, and Artibonite regions of Haiti. Fourteen health facilities were surveyed in total, including six hospitals, seven health centers, and one dispensary. The number of health providers who participated in the survey was 157. Of these health providers, 68 were interviewed in hospitals, and 89 were interviewed at health centers and dispensaries. The findings were commonly disaggregated by type of facility. Note that, because the sample size for dispensaries was low, the categories for health centers and dispensaries have been combined. In addition, key informant interviews were conducted with representatives from 9 non-governmental organizations (NGOs). Semi-structured interviews were conducted with 33 CHWs as well. There were also certain limitations in the research methodology employed. The purposive sampling of health facilities, NGOs and CHWs, makes generalization of the study to other facilities in Haiti a challenge.

The report presents a detailed discussion of key findings, including:

- Health facilities surveyed were high performing. The health facilities that were included in the assessment were mainly hospitals that play a considerable role in the roll out of HIV/AIDS services in Haiti. They were supported by a number of international partners including Centers for Disease Control, Partners in Health, Miami University and Cornell University.
- Nutrition assessment and counseling services were implemented in most health facilities. The study findings suggested that there was at least one health provider trained in every facility surveyed, and a room that offered privacy for nutrition counseling in 70% of health facilities. However, there were no standardized methods for conducting nutrition assessment. This varied from facility to facility. In addition, nutrition norms and policies were not commonly available in the health facilities surveyed.
- Additional capacity-building initiatives were needed for scale up. The findings show that over 50% of health providers surveyed had received training in how to conduct nutrition assessment and counseling. Despite the high knowledge of nutrition among health providers, the research team's observations of health workers interacting with clients showed that the proportion of health providers who performed nutrition assessment and counseling was low. Only one-quarter of health providers weighed clients during the observation period. Observations of key infant and young child feeding (IYCF) counseling topics were similarly low.
- Quality assurance systems were in place in most health facilities surveyed. The health facilities surveyed all had regular managerial meetings at the health facility level. Supervision checklists were commonly used to provide feedback to staff. Electronic medical records, in addition to paper records, were in place as a means to improve clinical care and program management. However, the current quality assurance systems are geared mostly towards the clinical management of HIV and tuberculosis (TB) services, and not nutrition services.
- Human resource management was fairly sound in the health facilities surveyed. The frequency of supervision is high. Of all health providers surveyed, 84% reported being supervised at least once during their work at the facility. Among those ever supervised, approximately 80% received feedback on their work performance and over 90% had their work observed. A system to collect client feedback was in place in over 50% of health facilities surveyed. Still, weaknesses in the referral systems existed at the facility level. Community facility linkages were weak, and demand for maternal and pediatric services was low.
- Community health workers played a large role in supporting people living with HIV and AIDS and other vulnerable populations; however, their role in overall preventive health and nutrition care was limited. Most of the CHWs interviewed had weak links with the national *Ministère de la Santé Publique et de la Population (MSPP)* program, and were dependent on NGOs and community-based organizations (CBOs) for their salary, training and other support. A comprehensive change in policy and practice is needed at all levels to ensure that all CHWs in Haiti are part of the national system.

The findings from the assessment lead to clear recommendations and next steps for the SPRING program planning and for other nutrition stakeholders in Haiti. Recommendations include to define nutrition assessment, counseling and support services, including validating standard operating procedures for nutrition assessment, counseling, and support (NACS) in Haiti; use innovative approaches such as on-the-job training and clinical simulations, to enhance the capacity of health providers to deliver NACS services; integrate nutrition indicators into the ongoing quality assurance systems in Haiti; strengthen the supervision system; strengthen referral linkages between health facilities and communities; establish a committee to monitor and evaluate NACS activities in Haiti; increase demand for health services at the community level; and conduct a mapping exercise to identify networks and opportunities for PLWHA and other vulnerable populations.

2. BACKGROUND

2.1 BACKGROUND OF HIV AND AIDS AND NUTRITION IN HAITI

Haiti has seen limited progress in reducing malnutrition in the past decade. According to the 2005–06 Haitian Demographic and Health Survey (DHS), 29.4% of Haitian children under age five were stunted (a 1.0% increase from 2000), 9.0% were wasted, and 18.1% were underweight (a 5.0% increase from 2000) (Measure DHS 2006a). According to the 2010 DHS, although more than 96.0% of women initiate early breastfeeding, only 40.9% of infants are exclusively breastfed for the first three months of life (Kothari and Abderrahim 2010). As babies grow older, most are not fed sufficient quantities, nor do they consume a diet that is diverse in animal-source foods and micronutrient-rich fruits and vegetables. In 2010, only 16.1% of children ages 6 to 23 months were fed a minimum acceptable diet as defined by the World Health Organization (WHO) (Kothari and Abderrahim 2010).

Haitians also suffer from food insecurity, which was exacerbated by the 2010 earthquake. An estimated 38% of the population is food insecure (WFP 2012). Haiti relies heavily on imported foods, which has resulted in a decline in the agricultural production of key staple foods such as rice. Over a decade ago, the country was forced to cut import tariffs on rice from 50% to 3%. National rice production plummeted, and today Haiti imports 80% of its rice. The Food and Agriculture Organization (FAO) of the United Nations lists Haiti among the world's low-income food-deficit countries (FAO 2012).

The HIV and AIDS crisis in Haiti began as an epidemic among (a) men having sex with men and (b) patients infected through blood transfusions. The epidemic has generalized now and affects 1.9% of the adult population ages 15 to 49 (UNAIDS 2009). Haiti has one of the highest prevalence rates in the Americas, with higher prevalence in the North, Northeast, and Nippes departments of the country and among married women of reproductive age (Measure DHS 2006b). According to the Global Fund to Fight AIDS, Tuberculosis, and Malaria (2012), approximately 35,000 people in Haiti are currently on antiretroviral therapy (ART).

The U.S. government and the Global Fund finance the bulk of HIV and AIDS programs in Haiti. The U.S. government has been supporting HIV and AIDS programs since 2004. Through the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), Haiti received $451 million between 2004 and 2009 to support comprehensive HIV and AIDS prevention, treatment, and control programs (PEPFAR 2010). In addition, the country receives $262 million for HIV and AIDS, TB, and malaria through the Global Fund (Global Fund 2012).

HIV and AIDS activities in Haiti include basic care and support, assistance to integrate TB and HIV programs, and provision of high-quality clinical care for HIV and AIDS patients specifically in the management of opportunistic infections. The availability of ART for prevention of mother-to-child transmission of HIV (PMTCT) has been scaled up recently. At the community level, PEPFAR links care and support activities to HIV and AIDS prevention, care, and treatment centers by strengthening

CBOs and faith-based organizations. Activities include building awareness among community leaders, establishing support groups for HIV-positive individuals, providing home visits to families with HIV or AIDS, foster parenting orphans and vulnerable children, and distributing food and monthly hygiene and care packets to PLWHA.

2.2 INTEGRATING NUTRITION SUPPORT WITH HIV PREVENTION, CARE, AND SUPPORT

It is well established that HIV compromises the nutritional status of infected individuals, thereby worsening the effects of the disease. Good nutrition helps PLWHA to manage symptoms and opportunistic infections. Conversely, poor nutrition places PLWHA at increased susceptibility for infection. For infants, poor feeding practices, particularly during the first six months of life, place babies born to HIV-positive mothers at risk of becoming infected. Therefore, integrating nutrition services (assessment, counseling, and support) into the package of services provided to PLWHA is important.

Haiti has a weak enabling environment for the integration of NACS services in HIV and AIDS treatment centers for adults and children. Very few treatment centers offer NACS services in a systematic way. At the community level, NGOs and CBOs distribute food and monthly hygiene and care packets to PLWHA; however, this effort is not tied to counseling on the optimal use of these foods or on more sustainable nutrition-related practices. Similarly, Haiti's first PMTCT programs, which began in 2005, have yet to include the promotion of counseling on optimal IYCF. Furthermore, many mothers still do not use PMTCT services. This finding is not surprising given that only 25% of women in Haiti deliver in health facilities (Measure DHS 2006a).

2.3 SPRING NUTRITION INTERVENTIONS IN HAITI

The Strengthening Partnerships, Results and Innovations in Nutrition Globally (SPRING) Project is a five-year project that began October 1, 2011, and is funded by the U.S. Agency for International Development (USAID). SPRING's experienced implementation team consists of experts from JSI Research & Training Institute, Inc.; Helen Keller International; the International Food Policy Research Institute, Save the Children; and the Manoff Group. Working across sectors—including health, agriculture, and economic growth—SPRING's nutrition experts facilitate country-led, evidence-based nutrition and food-security programs. The project's technical support ensures that quality nutrition programs are taken to scale to strengthen countries' capacity to eliminate undernutrition.

In Haiti, SPRING will assist the MSPP and other partners in their effort to provide technical leadership and support in the development and integration of a full range of nutrition interventions into HIV and AIDS prevention, care, and support services. The project will focus on increasing the coverage and use of preventive nutrition services and on improving the nutrition and health status of the general population.

SPRING will use the NACS framework to strengthen assessment and counseling services and to support nutrition through the continuum of care. For nutrition and HIV, this effort will require defining a standard of care for NACS. It will also involve coordinating with existing nutrition services and stakeholders at the facility and community levels to ensure that appropriate referrals are being made and that an optimal level of quality of services and outcomes is being

achieved. By using social and behavior-change communication (SBCC) approaches, SPRING will also build on current platforms and existing materials to strengthen maternal, infant, and young child nutrition and to implement a training strategy to reach a wide range of stakeholders.

SPRING nutrition interventions will be implemented in 24 health facilities across 10 departments. In 18 of the 24 health facilities, SPRING support will be provided as part of the *Manman ak Timoun Ansante* (Healthy Mothers and Children) initiative. The MSPP is leading the initiative, with support from the Pan American Health Organization (PAHO) and the Canadian International Development Agency (CIDA). The initiative provides high-quality care to pregnant women and children under age five. SPRING plans to build on this delivery platform to support the expansion of integrated nutrition treatment and prevention programs in the target facilities and communities in their catchment areas. SPRING activities will be implemented in a phased manner beginning with six health facilities in fiscal year 2013. Over the next two years, activities will be scaled up to include additional health facilities. This assessment focuses on four high-performing health facilities in Haiti and on selected health centers and dispensaries offering HIV services in their catchment area.

3. STUDY OBJECTIVES, DESIGN, AND METHODOLOGY

3.1 RATIONALE FOR THE STUDY

Data on NACS implementation in Haiti are limited. To ensure that the project builds on existing resources (e.g., tools and services) and focuses on addressing existing gaps in HIV and AIDS, and nutrition services, SPRING conducted a needs assessment of the capacity of health facilities and community implementing partners (IPs) to implement NACS. The assessment served to identify which components of NACS need to be prioritized and strengthened at both the facility and the community levels.

3.2 STUDY OBJECTIVES

The overall objectives of the assessment are (a) to better understand the national context of and gaps in HIV and nutrition programming at the facility and community levels and (b) to determine the availability of elements of nutrition programs that are essential for adults and children (i.e., assessment, counseling, drugs, and food support) at the service delivery levels in Haiti.

Specific objectives include the following:

1. Assess capacity of health facilities (e.g., their infrastructure, equipment, drugs, and supplies) to deliver a continuum of nutrition interventions for adults and children who are HIV-positive and HIV-negative.
2. Determine the knowledge, training, and practices of health providers on integrated nutrition-related services.
3. Explore facility community links in each health facility's catchment area, including the types of partners present and the various social and community programs that they implement.
4. Gain a better understanding of the role of CHWs in promoting IYCF practices and supporting nutrition programming for PLWHA and other vulnerable groups.

The findings from the assessment will direct the design of SPRING activities and the implementation of NACS programming with a continuum-of-care approach at the community and facility levels. Such activities should reach all ages, both adults and children, regardless of their HIV status.

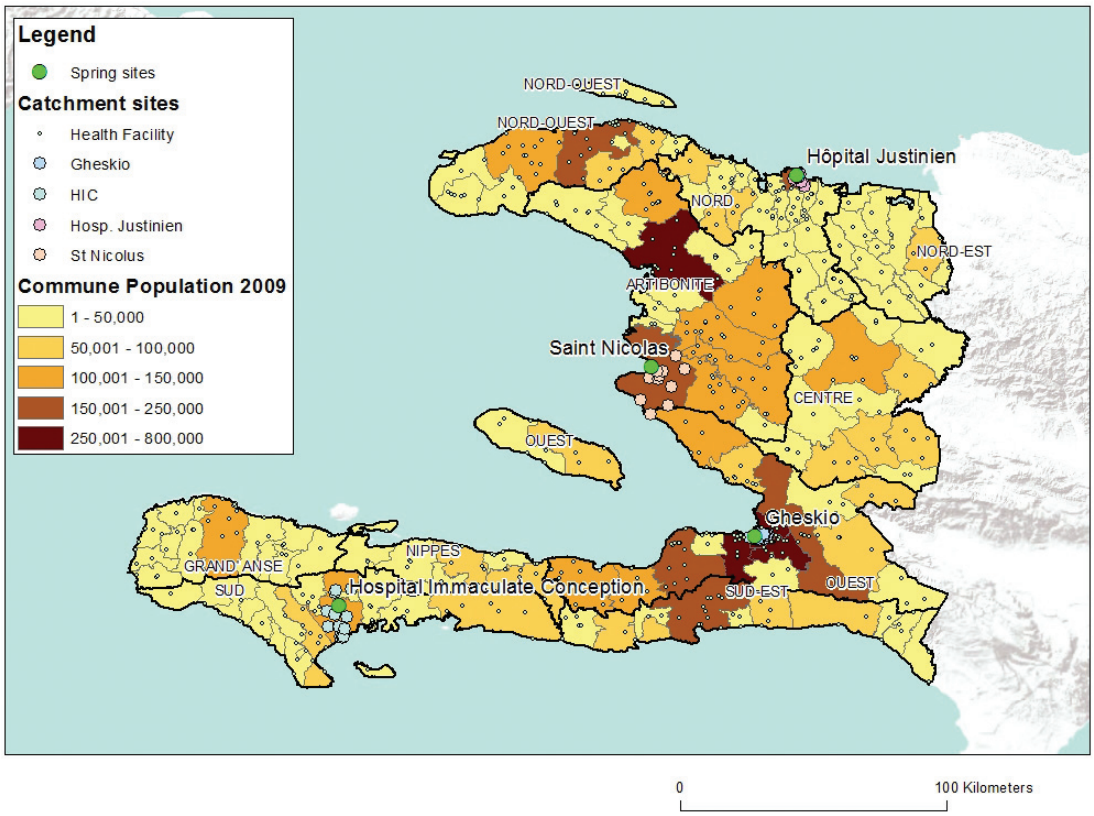
3.3 STUDY DESIGN AND METHODOLOGY

The study used mixed methods. Quantitative tools were used to assess health facility resources, services, and capacity, as well as health provider knowledge, skills, and practices related to the integration of nutrition interventions within their current portfolio. Semi-structured interviews and open-ended questions were used to learn about the role of CHWs and organizations in promoting nutrition for PLWHA and other vulnerable groups. By using mixed methods, the study was able to draw on the strengths of each method and obtain a more holistic perspective of the types of interventions needed at each site and an understanding of "what works" at the community level.

3.3.1 Selection of Facilities and Catchment Areas

The assessment was conducted in the four preselected hospitals and catchment areas where USAID had asked SPRING to focus its assessment efforts. The four hospitals, as well as the health centers and dispensaries in their catchment areas, are displayed in Figure 3.1.

Figure 3.1: Location of Preselected Health Facilities and Their Catchment Areas



3.3.2 Sampling

The quantitative component of the assessment was conducted in each of the four prioritized hospitals and in a sample of facilities providing antiretroviral and PMTCT services in their catchment areas. The number of health facilities selected from each catchment area was based on the provision of antiretroviral and PMTCT services in that area, the involvement of U.S. government IPs, and the existence of community-based programs in the catchment area.

Seventeen health facilities met those criteria, but one declined to participate because the facility was already well funded[1] and two were temporary facilities set up after the earthquake that have since been dismantled. Thus, a total of 14 health facilities participated in the assessment.

In the four prioritized hospitals, all health providers in the HIV and AIDS pediatric and antenatal care (ANC) clinics who were present on the day of the survey and gave consent were interviewed.

[1] *This health facility was privately owned and declined to participate.*

From the remaining facilities, health workers providing ART and child health services that were present on the day of the interview and gave consent were interviewed. The number of health providers interviewed varied by type of health facility and services provided.

Qualitative data collection included interviews with key informants, including CHWs and representatives of NGOs. The selection of these key informants was purposeful. With support from the MSPP and U.S. government IPs, the research team developed a list of NGOs located within the catchment areas of the 14 facilities that participated in the quantitative portion of the study. Based on this list, representatives from NGOs that provide community-based services related to HIV care, IYCF counseling, ready-to-use therapeutic foods (RUTF), ART, PMTCT, and dry rations distribution were selected to participate in interviews. CHWs were selected for participation in the study on the basis of their affiliation with NGOs that were linked to the health facilities that participated in the assessment. Additional selection criteria for CHWs outlined that: (a) the CHW should be involved in nutrition or HIV promotion activities and (b) the CHWs should have at least two years of experience working as a CHW so they had sufficient experience to comment on the systems and how they could be improved. The research team, in collaboration with NGOs linked to the targeted health facilities, set up meetings with the CHWs. The research team explained the study's objectives and invited the CHWs to participate in the study. Interview appointments were made with CHWs who gave consent to participate in the study.

3.3.2 Data Collection and Process

The quantitative aspect of the assessment involved three components: (a) a facility survey, (b) a survey of health providers, and (c) an observation of health providers providing nutrition services.

The facility survey guided interviews with several facility staff members as well as record reviews covering the following topics:

- staff
- management
- patient referrals
- availability of curative and care services such as inpatient care
- use of services
- outpatient consultations
- HIV and AIDS, ANC, and nutrition services

The provider survey covered the following:

- position
- experience
- supervision
- perceived roles and responsibilities related to nutrition
- training received related to nutrition
- knowledge of nutrition, HIV and nutrition practices, and ANC
- reported practices related to treatment of sick children and HIV-positive patients

Finally, an observation checklist was developed to differentiate between reported answers and observed practices of health providers on nutrition services. The checklist guided data collectors to observe the health providers' practices, including health providers' conduct[2], and provision of NACS services.

The research team used key informant and semi-structured interviews to better understand the community program areas of the four preselected health facilities and to explore the roles of CHWs in (a) promoting infant and young child nutrition practices, such as exclusive breastfeeding, complementary feeding, and vitamin A supplementation, and (b) identifying children with severe acute malnutrition (SAM). Key informant interviews were used to explore opportunities to strengthen and integrate preventive nutrition services within the interviewee's current programs and to widen coverage. Interviews also served to better identify the types of partners present in the catchment area.[3] These methods provide information about how CBOs and NGOs carry out programs at the community level.

3.3.3 Data Analysis

Quantitative data: cross-sectional analysis using descriptive statistics

Two data clerks entered the quantitative data using the software SPSS. Double data entry was used as a quality control measure, and the data-sets were compared to verify accuracy of the entry. Data were analyzed using the software Stata 12. A report outline with dummy tables was developed and filled out for preliminary analysis. The majority of the tables in the outline consisted of descriptive statistics that provided information about the hospital's infrastructure, quality improvement methods in place at the hospital, and supervision practices. In addition, information on NACS services provided by health providers of child health, maternal health, and HIV and AIDS and infectious disease services was provided. The data were disaggregated by type of health facility.

Semi-structured interviews: thematic analysis of interviews

The semi-structured interviews were recorded using an MP3 voice recorder. Interviewers took detailed notes as backup in the event of voice recorder failure. Transcripts of the interviews were made. The interviews were read methodically in creole to capture the nuances and the subtleties of the text. A code list was developed that was based on the major themes identified in the interview guides. The data were then sorted with cutting and sorting sentences to bring out the relationships between categories. Clusters and partitions were made, and additional themes and subthemes were identified. Data were analyzed by themes to better understand the types of programs the NGOs implement. Themes such as roles and responsibilities with regard to nutrition and HIV, challenges faced, motivation issues, and monitoring and coordination were developed from CHW transcripts.

3.4 LIMITATIONS OF THE STUDY

The assessment has several limitations. First, the assessment was carried out in preselected health facilities. Because the facilities were not randomly selected, the findings of the study may not be generalizable to other health facilities in Haiti.

---

[2] Observations of the health providers' conduct included greeting the client in an appropriate way, introducing himself/herself to the client, making eye contact with the client, and asking the client open-ended questions.

[3] The tools used in the assessment have been adapted from the former NuLife project, a USAID technical assistance program to support improved health and nutrition outcomes for PLWHA in Uganda. The NuLife project was implemented from 2008 to 2011 and was managed by University Research Co., LLC, in collaboration with Save the Children and ACDI/VOCA.

Second, the health facility and provider surveys give information about the knowledge and practices of health providers, but they do not provide information about the quality of nutrition and HIV services being offered. The study did not conduct interviews with clients at the facility or community level; thus, no information about client satisfaction with the nutrition and HIV services offered was gathered. In addition, the researchers did not collect detailed information about the support services available for HIV-positive, malnourished children and other vulnerable populations in the health facility survey. In particular, limited information was collected on the ability of health providers to refer vulnerable populations to economic development and livelihood strengthening activities.

The semi-structured interviews provided detailed information on the activities of the NGOs and CHWs, but they were not backed by participant observation. Thus, there may be certain ethnographic weaknesses between (a) what CHWs and NGOs stated about what they do and (b) actual activities implemented. Also, the researchers predominantly interviewed CHWs who were working with partner NGOs. Thus, gathering information about the roles and challenges MSPP CHWs face was not possible.

4. OVERVIEW OF THE SURVEY SAMPLE

This section describes the facilities and the health providers who participated in the assessment. It includes (a) the number, type, and geographic scope of facilities that participated in the health facility tool; (b) the number of health providers who participated in the health provider tool and their technical qualifications; (c) the number of health providers who participated in the observation checklist tool; and (d) the number of NGO representatives and CHWs who participated in interviews.

4.1 HEALTH FACILITIES

Table 4.1 displays the breakdown of the surveyed health facilities by type of facility and region of Haiti. Fourteen health facilities were surveyed in total, including six hospitals, seven health centers, and one dispensary. The geographic scope of the assessment was diverse, with facilities located across the North, West, South, and Artibonite regions of the country. Table 4.2 displays the catchment population of the health facilities surveyed by type of facility. The catchment population of all surveyed facilities (n = 14) ranged from 21,236 people to more than 1 million people. All hospitals and one health center (n = 7) reported catchment populations of more than 250,000 people, whereas the majority of health centers and dispensaries (n = 6) reported catchment populations of fewer than 50,000 people.

There are 908 facilities in Haiti (MOH 2011). Approximately 45% of the health facilities are private; 22% are mixed (i.e., they are funded through a public-private partnership); and 33% are publicly owned. As shown in Table 4.3, the operating authorities of the majority of health facilities interviewed were either private or mixed. Only 3 of the 14 facilities interviewed as part of the assessment were publicly owned.

Table 4.1: Number of Health Facilities Surveyed by Region and Type of Facility

Region	Type of Facility			Total Facilities Surveyed
	Hospitals	Health Centers	Dispensaries	
North	1	1	0	2
West	3	4	0	7
South	1	1	1	3
Artibonite	1	1	0	2
Total	**6**	**7**	**1**	**14**

Table 4.2: Catchment Population by Type of Facility

Catchment Population	Type of Health Facility			Total Facilities Surveyed
	Hospitals	Health Centers & Dispensaries		
Less than 25,000	0	4	4	4
25,000–50,000	0	2	2	2
50,001–100,000	0	0	0	0
100,001–250,000	0	1	1	1
More than 250,000	6	1	7	7

Table 4.3: Number of Health Facilities Surveyed by Type of Operating Authority

Type of Facility	Type of Operating Authority			Total Facilities Surveyed
	Public	Private	Mixed	
Hospital	2	1	3	6
Health Center	1	4	2	7
Dispensary	0	0	1	1
Total	**3**	**5**	**6**	**14**

4.2 HEALTH PROVIDERS

The number of health providers who participated in the health provider survey was 157. Of these health providers, 68 were interviewed in hospitals, and 89 were interviewed at health centers or dispensaries. Table 4.4 presents the technical qualifications of the health providers who were interviewed by type of health facility. More than half of the health providers interviewed across all facilities (n = 86) were registered nurses or midwives, and approximately one-quarter (n = 42) were auxiliary nurses or nurse aides. The technical qualification of the remaining one-quarter of respondents comprised general physicians (n = 11), pediatricians (n = 14), and psychologists or social workers (n = 4). Note that in the Haitian context health providers who perform HIV and AIDS counseling are often psychologists. The total number of health providers who were observed for nutrition assessment and counseling services was 37 (not shown).

Table 4.4: Number of Health Providers Interviewed by Type of Health Facility

Type of Health Provider	Type of Health Facility		Total
	Hospitals	Health Centers & Dispensaries	
Physician, general	6	5	11
Physician, specialist pediatrician	2	12	14
Registered nurse or midwife	35	51	86
Auxiliary nurse or aide	21	21	42
Psychologist or social worker	4	0	4
Total	**68**	**89**	**157**

4.3 NGO REPRESENTATIVES AND COMMUNITY HEALTH WORKERS

Key informant interviews were conducted with representatives from nine NGOs from four departments in Haiti. Semi-structured interviews were conducted with 33 CHWs from four departments in Haiti. The CHWs were each affiliated with one of the health facilities that participated in the assessment. The majority of CHWs had been working for at least two years. Twenty-three CHWs reported working on nutrition-specific activities, while others were involved in nutrition-sensitive activities, including HIV and AIDS, TB, and infant health programs.

5. FINDINGS: HEALTH FACILITY CAPACITY

This section describes the capacity of the health facilities assessed to implement NACS services in Haiti. It describes the organization of health facilities, including infrastructure; nutrition assessment and counseling services; nutrition support; quality assurance, referrals, and community links; staffing, service provision, and training; and human resource management.

5.1 INFRASTRUCTURE

Haiti's infrastructure, including within the health sector, is poor. However, findings from the assessment suggest that the infrastructure of the surveyed health facilities is comparatively strong. Table 5.1 presents infrastructure indicators by facility type. Findings show that 9 of 14 facilities were equipped with a generator and that an uninterrupted water source was always available in 12 of 14 facilities. One hospital and one health center or dispensary reported an interruption in the facility's water source during service provision. Half of all facilities had access to a working landline phone. Of the 14 facilities, 13 had at least one functioning computer. It is interesting to note that more facilities had access to a functioning computer than to a reliable water source.

Table 5.1: Basic Infrastructure and Resources in Surveyed Facilities by Type of Facility

Health Facility Infrastructure	Type of Facility		All Facilities *(n = 14)*
	Hospitals *(n = 6)*	Health Centers & Dispensaries *(n = 8)*	
Generator	83.3%	50.0%	64.2%
Uninterrupted water source	83.3%	87.5%	85.7%
Working phone (landline)	50.0%	37.5%	50.0%
Functioning computer	100.0%	85.7%	92.3%

5.2 NUTRITION ASSESSMENT AND COUNSELING SERVICES

5.2.1 Nutrition Assessment

Nutrition assessment (both physical and verbal) is a key component of NACS. It is the starting point for identifying malnourished clients who require nutrition counseling and support services. Examples of physical assessment practices include measuring weight, height, and middle-upper arm circumference (MUAC); plotting height and weight; checking for pallor; and testing hemoglobin levels. Examples of verbal assessment practices included asking the client about the client's dietary practices and appetite, breastfeeding practices, complementary feeding food preparation, and food storage. Table 5.2 describes the nutrition assessment services being implemented in the facilities assessed.

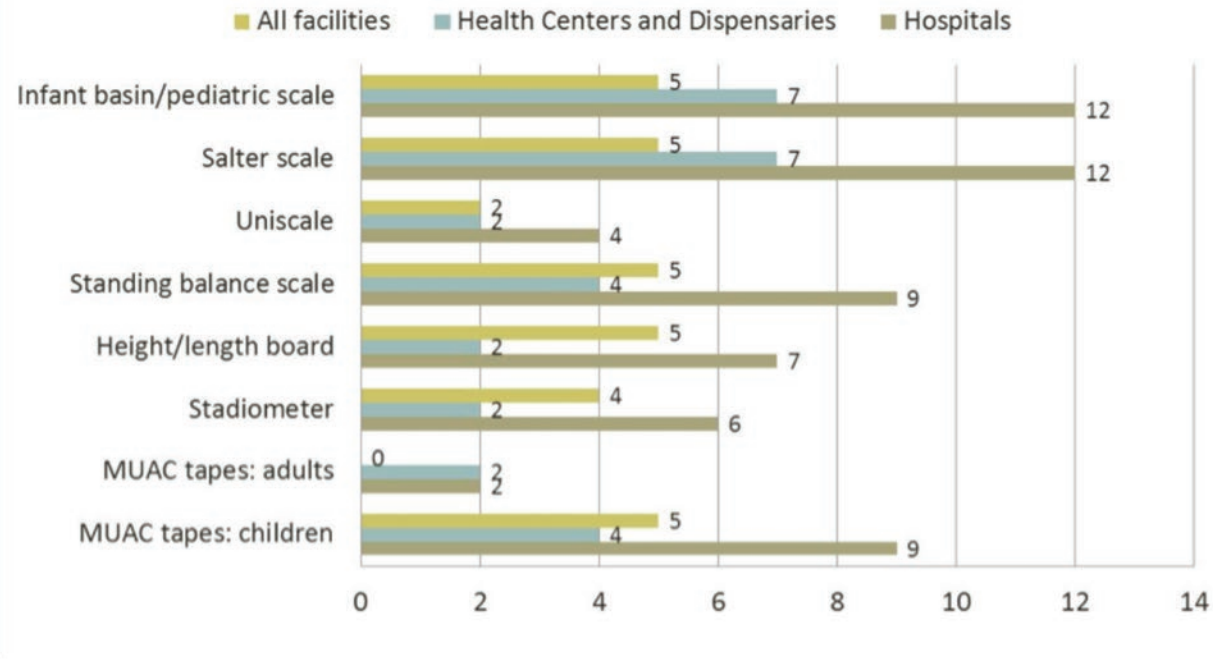
Table 5.2: Nutrition Assessment Services and Resources, by Type of Facility

Type of Services/Resources	Type of Facility		All Facilities *(n = 14)*
	Hospitals *(n = 6)*	Health Centers & Dispensaries *(n = 8)*	
Nutrition assessment services provided	100.0%	87.5%	92.9%
MUAC tapes used to measure middle-upper arm circumference for adults	33.3%	25.0%	28.6%
At least 1 provider trained in nutrition assessment services	100.0%	100.0%	100.0%
Room available that offers privacy for nutrition assessment services	83.3%	62.5%	71.4%
Assessment status noted in patient registers or clinic report	83.3%	75.0%	78.5%

As Table 5.2 shows, all six hospitals surveyed and seven of the eight health centers and dispensaries surveyed offered nutrition assessment services. All the health facilities surveyed had at least one health provider who was trained in conducting nutrition assessment. Approximately 71% of health facilities had a room available that offered privacy for nutrition assessment services, and 79% of health facilities noted information in patient registers.

Figure 5.1 presents the type of nutrition assessment equipment available in the facilities surveyed. As shown in the figure, Salter scales and infant scales were found in 90% of health facilities. A height-length board was available in half the facilities. MUAC tapes for children were available in 9 of the 14 facilities, but only 2 of the 14 health facilities had MUAC tapes for adults.

Figure 5.1: Availability of Equipment for Nutrition Assessment



5.2.2 Nutrition Counseling

Nutrition counseling is another key component of NACS. During nutrition counseling, providers use information obtained from nutrition assessment to discuss actions that would improve a client's nutritional status. Examples of counseling topics include eating a diverse diet, improving food intake and maintaining weight for HIV-positive clients, and preventing foodborne and waterborne infections. Other topics related to IYCF include exclusive breastfeeding, complementary feeding, hygienic food preparation and storage, use of iodized salt, and sleeping under an insecticide-treated bed nets.

Of the 14 facilities surveyed, 12 provided nutrition counseling services. Nutrition counseling had been integrated into HIV services at the 12 facilities for at least 2 months and up to 7 years. Of the 12 facilities that provided counseling services, 8 had a provider who had been trained in nutrition counseling. Counseling services were most

commonly provided by nurses, auxiliaries, and counselors who had a background in psychology. Of the facilities reporting nutrition counseling, 10 reported that they counsel patients at every visit, whereas 2 facilities reported that they counsel patients when a counselor is available. Moreover, 7 of the 12 facilities provided nutrition counseling for HIV/AIDS patients in a room that allowed for auditory and visual privacy, 3 conducted counseling in a non-private room but had access to visual and auditory privacy, and 2 conducted the counseling in a room where no privacy was available.

Table 5.3 presents the availability of various policies and protocols in the 14 health facilities surveyed. National protocols on the management of SAM were most commonly available in the health facilities. Four health facilities had national norms on IYCF, whereas only one health facility had the counseling cards on IYCF. None of the facilities surveyed had guidelines on micronutrient supplementation. Similarly counseling cards on IYCF and nutrition and HIV were found in only one health facility.

Table 5.3: Availability of Nutrition Policies and Protocols

Name of Protocol	Type of Health Institution		Total Health Facilities *(n = 14)*
	Hospitals *(n = 6)*	Health Centers & Dispensaries *(n = 8)*	
National norms on IYCF	3	1	4
National protocol on the management of SAM	5	3	8
National guidelines on food support and nutrition for PLWHA	1	1	2
National policy on micronutrient supplementation	0	0	0
IYCN Counseling cards on IYCF	0	1	1
Food and Nutrition Technical Assistance counseling cards	0	1	1

5.3. NUTRITION SUPPORT

Nutrition support is the final essential element of the NACS approach. Examples of nutrition support include providing therapeutic foods, micronutrient supplements, and oral rehydration therapy (ORT) and supplying referrals to community-based services.

The facilities were assessed for the availability of nutrition supplies. As shown in the Table 5.4, 85% of the facilities had folic acid and approximately 90% had amoxicillin; however, less than half had vitamin A supplements and measles vaccine. F75 and F100, which are therapeutic milk products designed to treat SAM, were not available in hospitals or health centers. The RUTF Plumpy'nut, a peanut-based paste, is more commonly used for treatment of severe malnutrition in Haiti. As noted in Table 5.3, the national protocol on management of SAM in Haiti was available in 8 of the 14 facilities surveyed. This protocol clearly outlines the appropriate use of RUTF, Vitamin A, F75 and F100 in the treatment of severe malnutrition.

Table 5.4: Availability of Drugs and Nutrition Supplies by Type of Facility

Product	Type of Health Institution	
	Hospitals *(n = 6)*	Health Centers & Dispensaries *(n = 8)*
Folic acid	83.3%	87.5%
Iron	83.3%	62.5%
Vitamin A	50.0%	37.5%
Amoxicillin	100.0%	85.7%
Cotrimoxazole	83.3%	75.0%
Mebendazole	66.7%	75.0%
Measles vaccine	33.3%	50.0%
RUTF	66.6%	37.5%
F75	0.0%	0.0%
F100	0.0%	0.0%

5.4 QUALITY ASSURANCE, REFERRALS, AND COMMUNITY LINKS

Quality assurance measures, referrals, and community links are essential elements of the enabling environment for NACS. Knowing the systems that support performance according to standards, being familiar with the systems and resources available for referral, and creating community-level demand are important for understanding the efficiency and effectiveness of service delivery in the target health facilities. These factors, in turn, are important for designing a NACS implementation plan for health facilities and communities.

Meetings allow facility staff members to discuss opportunities for improving the quality of services and for using data for decision making. At such meetings, facility staff members and community members can confer about patient satisfaction and safety issues. Table 5.5 describes how often meetings were held, who the participants were, and how discussions or outcomes from the meetings were used to improve services among surveyed facilities. Fifty percent of the hospitals and 25% of the health centers or dispensaries mentioned that they kept an official record of management meetings. During the assessment, data collectors observed the reports from these management meetings. However, official records from meetings of health facility staff members and community members were not common, and found in only 25% of hospitals and 24% of the health centers or dispensaries interviewed in the sample. It is interesting to note that 60% of hospitals and 37% of health centers or dispensaries had a system to solicit client feedback, and 39% of the health facilities had established a procedure for reviewing or reporting the client's feedback (not shown).

Table 5.5: Meetings by Type of Facility

Type of Meeting	Type of Health Institution		Total Health Facilities *(n = 14)*
	Hospitals *(n = 6)*	Health Centers & Dispensaries *(n = 8)*	
Managerial meetings held at least every 2 or 3 months	100.0%	100.0%	100.0%
Official record observed by data collectors of meetings from managerial meetings	50.0%	25.0%	35.7%
Routine meetings with facility staff members and community members held at least every 2 or 3 months	60.0%	50.0%	53.8%
Official record observed by data collectors of meetings with facility staff members and community members	25.0%	25.0%	25.0%
System to solicit client feedback from facilities that had regular meetings	60.0%	37.5%	46.1%

Table 5.6 presents the proportion of health facilities that have quality assurance measures in places. The table shows the percentage of health facilities at which (a) interviewees mentioned using a method and (b) data collectors observed the method being used. Of the 14 health facilities, 13 reported carrying out regular quality assurance activities. Use of supervisory checklists for health system components was the most frequently cited quality assurance measure in place at health facilities (54%).

Table 5.6: Quality Assurance Activities by Type of Facility

Type of Quality Assurance Activity	Type of Facility		All Facilities *(n = 14)*
	Hospitals *(n = 6)*	Health Centers & Dispensaries *(n = 8)*	
Carry out regular quality assurance activities	83.3%	100.0%	92.8%
Implement these services throughout the facility	80.0%	75.0%	76.9%
Use a supervisory checklist of health system components	80.0%	37.5%	53.8%
Use a supervisory checklist of health service provision	40.0%	50.0%	46.1%
Use a facility-wide review of mortality	40.0%	28.6%	33.3%
Audit medical records or service registers	20.0%	25.0%	23.1%
Have a quality assurance committee or staff reports	40.0%	25.0%	30.7%

All of the hospitals interviewed had a system for referring a client to another health facility for services, whereas 67% of health centers and dispensaries had a referral system in place (Table 5.7). Of all of the health facilities interviewed, 64% had a system to help the client receive services from a referral site. However, only 27% of the health facilities interviewed had a system for providing or receiving feedback for referrals that they had made (not shown).

Table 5.7: Availability and System for Referral Services by Type of Facility

Type of Referral Service	Type of Facility		All Facilities *(n = 14)*
	Hospitals *(n = 6)*	Health Centers & Dispensaries *(n = 8)*	
Keep records of referrals	83.3%	50.0%	64.3%
Have forms where name and location of referral site is documented	100.0%	66.7%	83.3%
Have a system of feedback on referrals	50.0%	75.0%	64.7%
Have a system for making individual client appointments	16.7%	37.5%	27.1%

Table 5.8 displays the proportion of health facilities that have links to CHWs. All surveyed facilities reported links with CHWs. The most popular system hospitals used to refer clients to CHWs or volunteers was a referral slip, whereas health centers and dispensaries used either a prescription form or a referral slip. CHWs mainly used referral slips or accompanied clients to the health facility (not shown). All facilities interviewed in the assessment reported having a system for periodic supervision of CHWs.

Table 5.8: Links between CHWs and Health Facility

Type of Link	Type of Health Facility		All Facilities *(n = 14)*
	Hospitals *(n = 6)*	Health Centers & Dispensaries *(n = 8)*	
Reporting format for CHWs	66.7%	37.5%	28.6%
Formal system to refer at the community level	100.0%	63.5%	71.4%
Formal system to refer at the facility level	100.0%	63.5%	71.4%
Supervision system for CHWs	100.0%	100.0%	100.0%

5.5 STAFFING AND SERVICE PROVISION

Understanding staffing patterns and the types of services that health providers provide at target facilities is important for defining how SPRING can best integrate and strengthen NACS services into existing services. Because the primary contact points for service integration will be child health services, maternal health services,[4] and HIV and AIDS and infectious disease services, the research team collected data on the technical qualifications of health providers and whether they provided the three types of services of interest for SPRING support. Table 5.9 displays the percentage of health providers who reported providing child health services, HIV and AIDS and infectious disease services, and maternal health services. The types of health providers who provided these three services included physicians (general), physician specialists (pediatricians), registered nurses, auxiliary nurses and nurse aides, and psychologists and social workers. It is important to note that one health provider may provide more than one type of service within a facility. The number of child health service providers was 102, the number of HIV and AIDS and infectious disease service providers was 102, and the number of maternal health service providers was 67.

[4] *Maternal health services are defined here as antenatal and postnatal care, which can also include family planning.*

Table 5.9: Links between CHWs and Health Facility

Type of Health Provider	Type of Health Facility					
	Hospitals			Health Centers and Dispensaries		
	Child Health Services	HIV and AIDS Services	Maternal Health Services	Child Health Services	HIV/AIDS Services	Maternal Health Services
Physician, general	6	5	4	2	5	2
Physician, specialist pediatrician	0	2	2	10	6	4
Registered nurse	27	21	18	31	36	23
Auxiliary nurse or aide	18	8	9	6	18	4
Psychologist or social worker	2	1	1	0	0	0
Total	**53**	**37**	**34**	**49**	**65**	**33**

5.6 HUMAN RESOURCE MANAGEMENT

5.6.1 Time Spent Related to Nutrition

Health providers who participated in the health provider survey were interviewed about their workload and time spent on nutrition-related activities during their workday. Health providers reported the mean number of hours worked in the health facility in an average week and the mean number of hours spent providing nutrition-related services. This included such services as counseling, testing, providing clinical care and support, providing social support services, as well as record keeping and documentation related to nutrition. These data are shown in Table 5.10, disaggregated by facility type. Table 5.10 shows that the mean number of hours worked across facilities, was 37.1 hours. Providers reported that they spent an average of 16 hours providing services related to nutrition. This figure equates to nearly half of their workday each week, which could be due to possible reporting bias.

Table 5.10: Mean Number of Hours Worked and Hours Spent per Week Providing Nutrition-Related Services by Facility Type

Type of Health Facility	Mean Number of Hours Worked *(n = 153)*	Mean Number of Hours Spent Providing Services Related to Nutrition *(n = 146)*
Hospitals (n= 63)	38.3	15.6
Health Centers and Dispensaries (n = 83)	36.2	16.7
All Providers (n= 146)	**37.1**	**16.2**

5.6.2 Supervision

Clinical supervision is considered one of the core management support systems for effective high-quality services. Many supervision approaches, such as supportive supervision, audit and feedback, coaching, and mentoring, have been proposed in the health systems literature to meet staff needs for training and quality improvement (Rohde 2006). Health providers who participated in the health provider survey were asked about the supervision they received on the job. Table 5.11 presents the proportion of health providers who have received technical supervision and the frequency of the supervision by type of facility. Eighty-four percent of all health providers surveyed (n = 154) reported being supervised at least once during their work at the facility. The frequency of supervision is high. Among those ever supervised (n = 129), 79% were supervised within the past 3 months. Only 8% of health providers reported received their last supervision seven or more months ago. Table 5.12 displays the proportion of providers who received specific types of supervision. Observation of work was reported as the most frequent type of supervision received, and 88% of respondents received it.

Table 5.11: Proportion of Health Service Providers Who Received Technical Supervision by Type of Facility

• Amount of Supervision	Type of Health Facility		All Facilities *(n = 154)*
	Hospitals *(n = 65)*	Health Centers & Dispensaries *(n = 89)*	
• Ever supervised	95.4%	75.3%	83.8%
• Among those ever supervised, timing of when supervision occurred:	*n* = 62	*n* = 67	*n* = 129
Within past 3 months	90.3%	68.7%	79.1%
4–6 months ago	6.5%	19.4%	13.2%
7–12 months ago	0.0%	4.5%	2.3%
More than 12 months ago	3.2%	7.5%	5.4%
Among those providers supervised in the past 6 months, mean number of times supervised	4.4	4.9	4.6

Table 5.12: Proportion of Health Providers Who Received Specified Types of Supervision in the Past Six Months by Type of Facility

Amount of Supervision	Type of Health Facility		All Facilities *(n = 154)*
	Hospitals *(n = 65)*	Health Centers & Dispensaries *(n = 89)*	
Deliver supplies	56.5%	47.8%	51.9%
Check your records or reports	95.2%	79.1%	86.8%
Observe your work	93.5%	83.6%	88.4%
Provide any feedback (either positive or negative) on your performance	87.1%	71.6%	79.1%
Give verbal feedback that you were doing your work well	88.7%	74.6%	81.4%
Scold you or make you feel bad about the work you are doing	48.4%	28.4%	38.0%
Provide any written comments that you were doing your work well	66.1%	40.3%	52.7%
Provide updates on administrative or technical issues related to your work	51.6%	56.7%	54.3%
Discuss problems you have encountered	66.1%	68.7%	67.4%

6. FINDINGS: TRAINING AND PRACTICES OF HEALTH PROVIDERS ON INTEGRATED NUTRITION-RELATED SERVICES

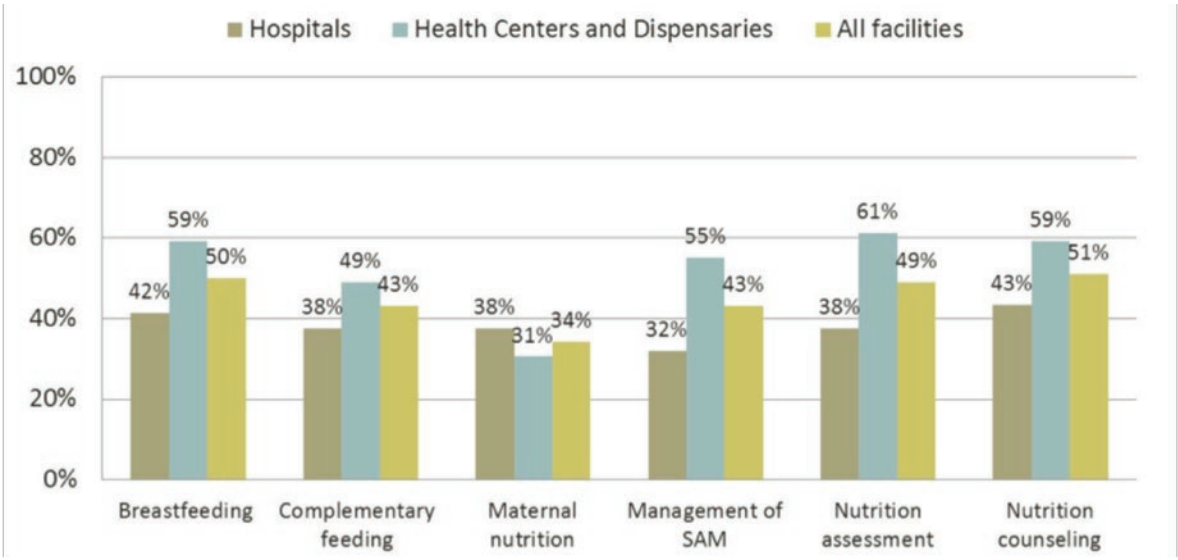
6.1 TRAINING

Understanding the capacity of the health providers who provide services at the three key contact points is critical for SPRING project planning and implementation. One way the assessment measured capacity was through the reporting of trainings received within the past three years. Providers of child health services, maternal health services, and HIV/AIDS and infectious disease services were each asked about trainings pertinent to their service provision area that they had received in the past three years. The preliminary findings are described in subsections 6.1.1, 6.1.2, and 6.1.3.

6.1.1 Providers of Child Health Services

Fifty-three providers from hospitals and 49 providers from health centers or dispensaries reported that they provide child health services. They were asked about the following eight nutrition-specific child health topics: micronutrient deficiencies, breastfeeding, complementary feeding, maternal nutrition during pregnancy, maternal nutrition during lactation, management of severely malnourished children, nutrition assessment, and nutrition counseling. Figure 6.1 presents the proportion of child health service providers who had been trained in various nutrition topics within the past three years, disaggregated by facility type. It is interesting to note that approximately 50% of health providers had been trained in both nutrition assessment and counseling, and that a higher percentage of child health providers working in health centers and dispensaries had been trained in these topics compared to those working in hospitals.

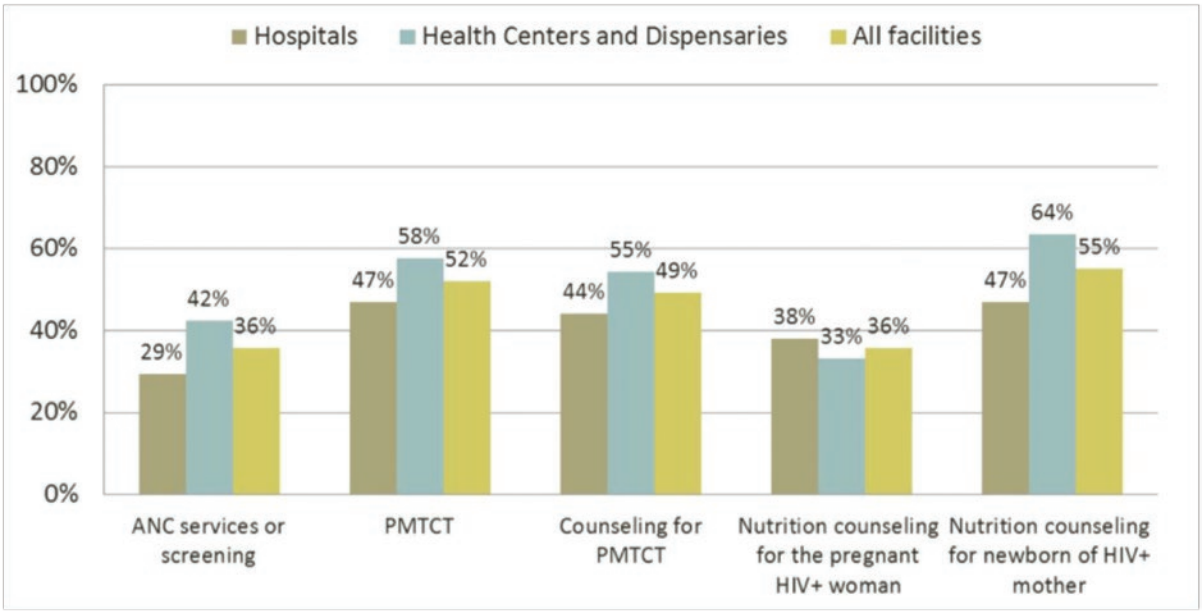
Figure 6.1: Proportion of Child Health Service Providers Who Received Training in Key Nutrition-Specific Child Health Topics in the Past Three Years, by Type of Health Facility



6.1.2 Providers of Maternal Health Services

Thirty-four providers from hospitals and 33 providers from health centers and dispensaries reported providing maternal health services. These providers were asked whether they received training on 14 key maternal health topics within the past three years. Training topics included PMTCT, nutrition counseling, ANC services, postpartum care, and ART, among others. It is interesting to note that only 47.1% of maternal health services providers working in hospitals reported having been trained in nutrition counseling for newborn care by mothers who are HIV positive compared to 63.6% of those working in health centers and dispensaries (Figure 6.2).

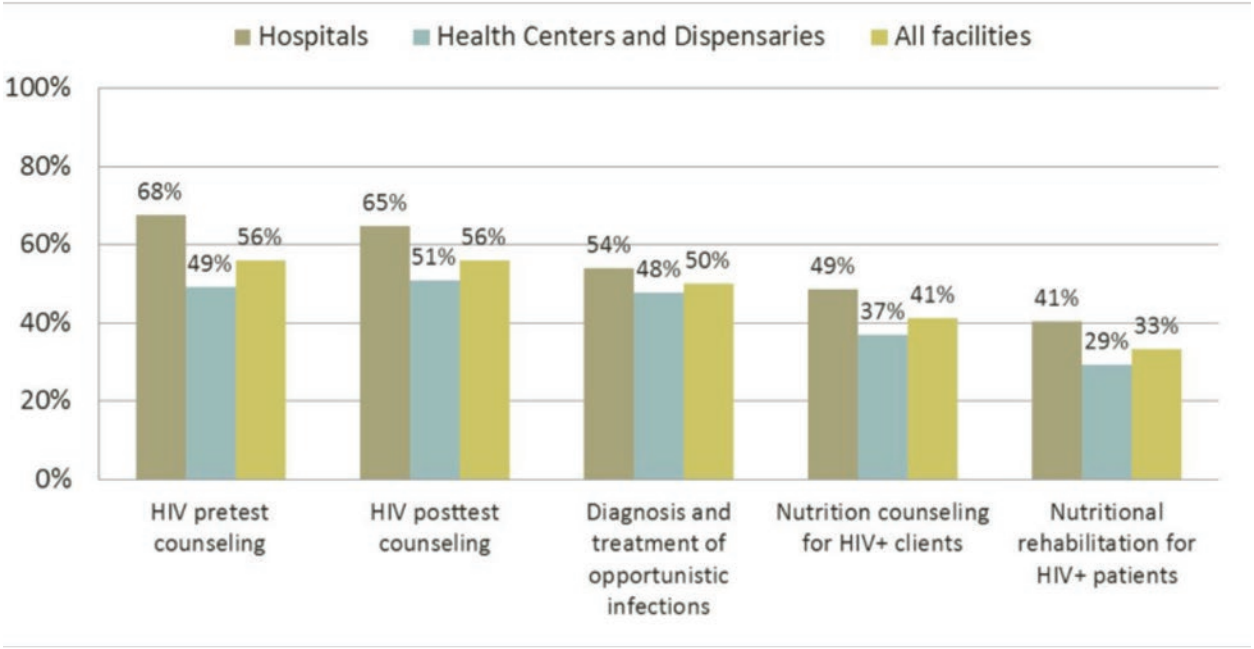
Figure 6.2: Proportion of Maternal Health Service Providers Who Received Training in Key Maternal, Newborn, and HIV and AIDS Topics in the Past Three Years, by Type of Health Facility



6.1.3 Providers of HIV and AIDS Services

Thirty-seven providers from hospitals and 65 providers from health centers and dispensaries reported providing HIV and AIDS services. Figure 6.3 presents responses from those providers when asked whether they received training on 19 key HIV and AIDS topics within the past three years. Training topics included HIV testing, HIV counseling, HIV prevention, prescribing ART, diagnosing and treating opportunistic infections, nutrition counseling, and nutrition support, among others. It is interesting to note that among all providers, 41.2% reported receiving training on nutrition counseling and 33.3% reported receiving training on nutritional rehabilitation for HIV and AIDS clients within the past three years (Figure 6.3).

Figure 6.3: Number and Proportion of HIV and AIDS Service Providers Who Received Training in Key HIV and AIDS Topics in the Past Three Years, by Type of Health Facility



6.2 PRACTICES

6.2.1 Nutrition Assessment

The providers of child health services, maternal health services, and HIV and AIDS and infectious disease services were each asked about the nutrition assessment they perform. The preliminary findings are described by provider type.

Providers of child health services

The research team asked child health service providers if they routinely performed physical and verbal assessments for both well child visits and sick child visits (which included visits of malnourished children). Among the 102 child health service providers, 56% reported performing physical assessments and 54% report performing verbal assessments during well child visits, whereas 79% reported performing physical assessments and 76% reported performing verbal assessments during sick child visits (see Figure 6.4). Examples of what providers routinely assessed during well and sick child visits are displayed in Tables 6.1 and 6.2, respectively.

Figure 6.4: Proportion of Child Health Service Providers Who Reported Performing Physical and Verbal Assessments during Well and Sick Child Visits, by Type of Child Visit and Health Facility

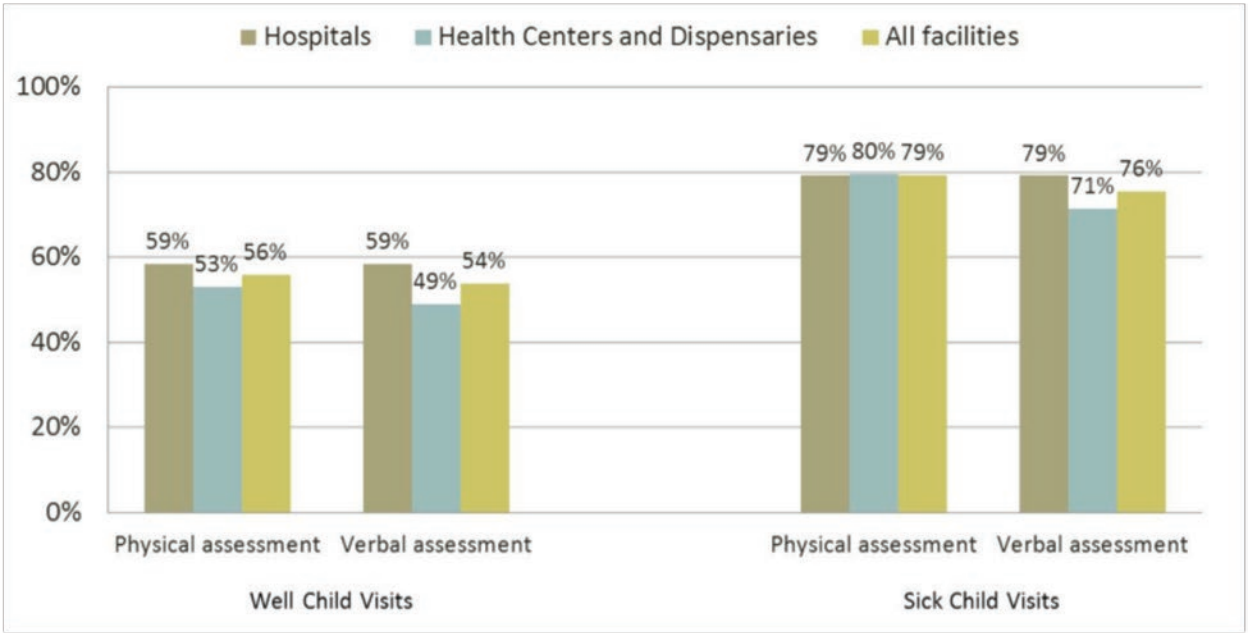


Table 6.1: Among Child Health Providers Who Reported Regularly Performing Physical Assessments, Specific Items Assessed during Well and Sick Child Visits, by Type of Visit and Health Facility

Item Assessed	Well Child Visits			Sick Child Visits		
	Type of Facility		All Facilities (n =57)	Type of Facility		All Facilities (n = 81)
	Hospitals (n = 31)	Health Centers & Dispensaries (n = 26)		Hospitals (n = 42)	Health Centers & Dispensaries s (n = 39)	
Weight	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Height	90.3%	92.3%	91.2%	86.0%	92.3%	89.0%
Pale palms or eyelids	93.5%	84.6%	89.5%	95.3%	97.4%	96.3%
Edema	NA	NA	NA	97.6%	100.0%	98.8%

Table 6.2: Among Child Health Providers Who Reported Regularly Performing Verbal Assessments, Specific Items Assessed during Well and Sick Child Visits, by Type of Visit and Health Facility

Questions Asked	Well Child Visits			Sick Child Visits		
	Type of Facility		All Facilities *(n =55)*	Type of Facility		All Facilities *(n = 77)*
	Hospitals *(n = 31)*	Health Centers & Dispensaries *(n = 24)*		Hospitals *(n = 42)*	Health Centers & Dispensaries *(n = 35)*	
Asks about the child's appetite	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Asks if the child has diarrhea	NA	NA	NA	97.6%	100.0%	98.7%
Asks about exclusive breastfeeding for children under 6 months	96.8%	95.8%	96.4%	97.6%	100.0%	98.7%
Asks about other substances the child may be receiving in addition to breast milk if the child is under 6 months	90.3%	83.3%	87.3%	97.6%	94.3%	96.1%
Asks how often the child is fed	96.8%	95.8%	96.4%	95.2%	100.0%	97.4%
Asks about the consistency of the food given to the child	96.8%	87.5%	92.7%	97.6%	91.4%	94.8%
Asks about food preparation and storage in the household	90.3%	87.5%	89.1%	95.2%	100.0%	97.4%
Asks if the caregiver knows the child's HIV status	70.0%	41.7%	57.4%	83.3%	62.9%	74.0%
Asks if the child sleeps under a bed net	86.7%	62.5%	75.9%	85.7%	51.4%	70.1%

Note: NA = not applicable.

Providers of maternal health services

Among the 67 maternal health service providers, roughly 60% reported regularly performing physical and verbal assessments during ANC visits, and between 64% and 69% reported doing so during postnatal consultations (see Figure 6.5).

A higher proportion of maternal health providers in hospitals reported performing physical and verbal assessment than did maternal health providers in health centers and dispensaries. Examples of the types of physical assessment and verbal assessment are displayed in Tables 6.3 and 6.4, respectively.

Figure 6.5: Proportion of Maternal Health Service Providers Who Reported Performing Physical and Verbal Assessments during Antenatal and Postnatal Consultations, by Type of Consultation and Health Facility

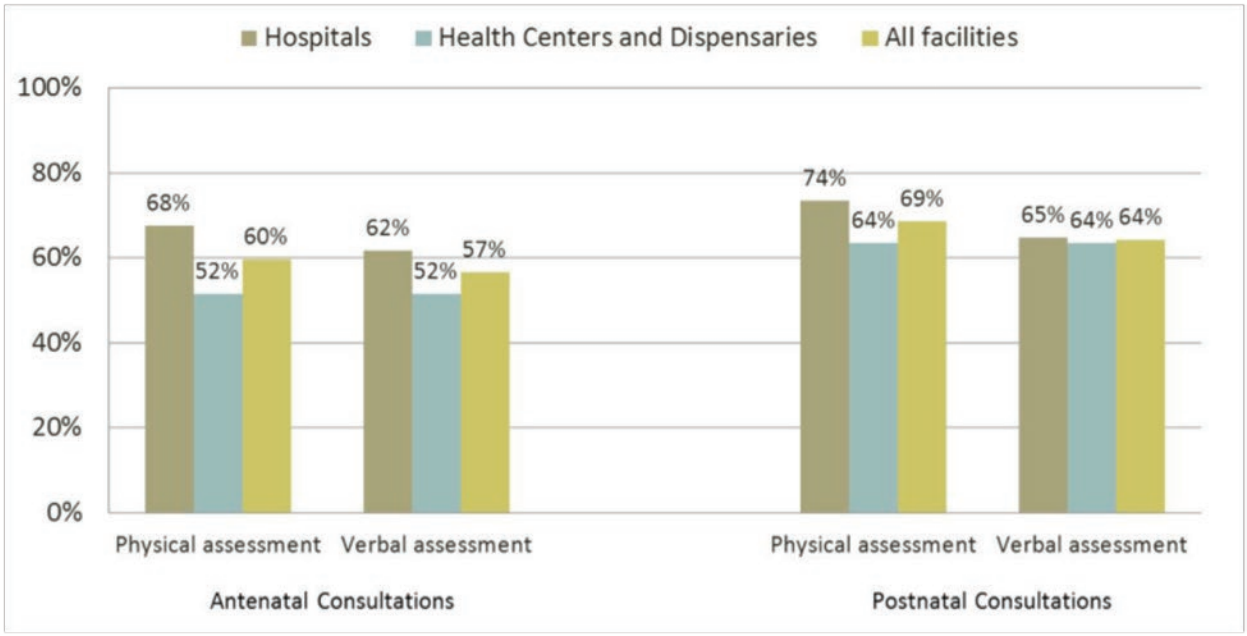


Table 6.3: Among Maternal Health Providers Who Reported Regularly Performing Physical Assessments, Specific Items Assessed during Antenatal and Postnatal Consultations, by Type of Consultation and Health Facility

Item Assessed	Antenatal Consultations			Postnatal Consultations		
	Type of Facility		All Facilities (n =40)	Type of Facility		All Facilities (n = 46)
	Hospitals (n = 23)	Health Centers & Dispensaries (n = 17)		Hospitals (n = 25)	Health Centers & Dispensaries (n = 21)	
Height	87.0%	70.6%	80.0%	NA	NA	NA
Weight	100.0%	100.0%	100.0%	NA	NA	NA
Breast exam	65.2%	88.2%	75.0%	84.0%	90.5%	87.0%
Pale palms or inner eyelids	95.7%	100.0%	97.5%	88.0%	100.0%	93.5%
Edema	95.7%	100.0%	97.5%	92.0%	100.0%	95.7%
Woman's vaccination card for vitamin A status	NA	NA	NA	76.0%	65.0%	71.1%

Note: NA = not applicable.

Table 6.4: Among Maternal Health Providers Who Reported Regularly Performing Verbal Assessments, Specific Items Assessed during Antenatal and Postnatal Consultations, by Type of Consultation and Health Facility

Questions Asked	Antenatal Consultations			Postnatal Consultations		
	Type of Facility		All Facilities *(n = 37)*	Type of Facility		All Facilities *(n = 43)*
	Hospitals *(n = 20)*	Health Centers & Dispensaries *(n = 17)*		Hospitals *(n = 22)*	Health Centers & Dispensaries *(n = 21)*	
Asks the woman about her appetite	95.0%	76.5%	86.5%	86.4%	90.5%	88.4%
Asks the woman about her eating habits	85.0%	76.5%	81.1%	NA	NA	NA
Asks the woman if she has trouble seeing at dusk	70.0%	64.7%	67.6%	54.5%	52.4%	53.5%
Asks the woman about her daily workload	85.0%	76.5%	81.1%	68.2%	66.7%	67.4%
Asks the woman if she uses iodized salt in her household	50.0%	23.5%	37.8%	50.0%	33.3%	41.9%
Asks the woman if she is taking iron and folate supplements	95.0%	94.1%	94.6%	95.5%	95.2%	95.3%
Asks the woman if she knows her HIV status	100.0%	88.2%	94.6%	90.5%	81.0%	85.7%
Asks the woman if she is exclusively breastfeeding	NA	NA	NA	86.4%	95.2%	90.7%
Asks the woman if anyone is giving the child water, juice, traditional medicine, etc. in addition to breast milk	NA	NA	NA	90.9%	85.7%	88.4%

Note: NA = not applicable.

Providers of HIV and AIDS services

Finally, providers of HIV and AIDS services were asked what physical assessments they conducted during HIV and AIDS client consultations (see Table 6.5). Among the 36 providers from hospitals and 60 providers from health centers and dispensaries who provided HIV and AIDS and infectious disease services, 64% reported measuring the client's height, and 80% or more reported weighing the client, taking the client's temperature, checking the client's palms or inner eyelids for paleness, and checking for edema. Providers were not asked about verbal assessments conducted during HIV and AIDS client consultations. In addition, slightly more than 85% of providers reported routinely asking clients whether they had experienced a change in appetite.

Table 6.5: Physical Assessments Conducted by HIV and AIDS Service Providers during Consultations with HIV and AIDS Clients, by Type of Health Facility

Item Assessed	Type of Health Facility		All Facilities *(n = 96)*
	Hospitals *(n = 36)*	Health Centers & Dispensaries *(n = 60)*	
Height	61.1%	65.0%	63.5%
Weight	80.6%	83.1%	82.1%
Temperature	83.3%	84.7%	84.2%
Blood pressure	80.6%	76.7%	78.1%
Pale palms or inner eyelids	80.6%	81.7%	81.3%
Edema	80.6%	85.0%	83.3%
Lab analysis of client's blood	72.2%	83.3%	79.2%
Lab analysis of client's urine	69.4%	81.7%	77.1%
BMI	55.6%	66.1%	62.1%

6.2.2 Nutrition Counseling

Providers of child health services, maternal health services, and HIV and AIDS and infectious disease services were each asked about the nutrition counseling they provide. All findings in this section are based on self-reported responses by health providers to the data collection team. The preliminary findings are described by provider type.

Providers of child health services

The research team asked child health service providers about providing nutrition counseling for both well child visits and sick child visits. Among the 53 providers from hospitals and 49 providers from health centers or dispensaries who provided child health services, 61% reported providing nutrition counseling during well child visits. Among the same child health service providers, 74% provided nutrition counseling during sick child visits. Table 6.6 presents the proportion of child health service providers who reported counseling on specific topics, disaggregated by type of visit and facility. Findings are similar to those related to verbal assessments conducted by child health service providers.

Table 6.6: Counseling Provided by Child Health Service Providers during Well and Sick Child Visits, by Type of Visit and Health Facility

	Well Child Visits			Sick Child Visits		
	Type of Facility		All Facilities *(n = 102)*	Type of Facility		All Facilities *(n = 102)*
	Hospitals *(n = 53)*	Health Centers & Dispensaries *(n = 49)*		Hospitals *(n = 53)*	Health Centers & Dispensaries *(n = 49)*	
Percentage of child health service providers who regularly counsel parents or caregivers	69.8%	51.0%	60.8%	69.8%	77.6%	73.5%
Among those that counsel, specific topics on which provider regularly counsels:	n = 37	n = 25	n = 63	n = 37	n = 38	n = 75
Child's growth trend	94.6%	91.7%	93.4%	NA	NA	NA
Exclusive breast-feeding for children under 6 months	100.0%	96.0%	98.4%	100.0%	100.0%	100.0%

	Well Child Visits			Sick Child Visits		
	Type of Facility		All Facilities (n = 102)	Type of Facility		All Facilities (n = 102)
	Hospitals (n = 53)	Health Centers & Dispensaries (n = 49)		Hospitals (n = 53)	Health Centers & Dispensaries (n = 49)	
Complementary feeding plus continued breastfeeding for children from 6 months to 2 years	100.0%	96.0%	98.4%	100.0%	100.0%	100.0%
Number of times the child should be fed throughout the day	91.9%	92.0%	91.9%	94.6%	100.0%	97.3%
Consistency of the food that should be fed to the child	97.3%	88.0%	93.5%	100.0%	100.0%	100.0%
Hygienic food preparation and storage methods	100.0%	92.0%	96.8%	97.3%	100.0%	98.7%
Method of feeding the child	97.3%	92.0%	95.2%	97.3%	92.1%	94.7%
Sleeping under a bed net	83.8%	64.0%	75.8%	78.4%	47.4%	62.7%
Sleeping under an insecticide-treated bed net	78.4%	66.7%	73.8%	48.6%	42.1%	45.3%

Note: NA = not applicable.

In addition, child health providers were specifically asked about the topics covered during counseling of parents and caregivers of children who are HIV-positive. More than 80% of providers reported covering the very specific topics listed in Table 6.7.

Table 6.7: Counseling Provided by Child Health Service Providers to Parents and Caregivers of Children Who Are HIV Positive, by Type Health Facility

Topics Covered	Type of Facility		All Facilities *(n = 102)*
	Hospitals *(n = 53)*	Health Centers & Dispensaries *(n = 49)*	
Initiating breastfeeding as soon as possible, if that is the infant feeding choice	95.8%	78.8%	86.0%
Using a cup and spoon to feed the baby, not a bottle, if exclusive breastfeeding is not a choice	95.8%	84.4%	89.3%
Noting frequency of feeding the child throughout the day	87.5%	87.5%	87.5%
Feeding the child an extra meal a day if the child has advanced HIV or AIDS	95.8%	96.9%	96.4%
Avoiding mixed feeding (breastfeeding and other liquids) if the child is less than 6 months of age	75.0%	83.9%	80.0%
Avoiding traditional medicines and herbs until a doctor or nurse says they are safe	100.0%	90.6%	94.6%
Looking for mouth sores getting treatment right away if they are present	100.0%	87.5%	92.9%
Feeding the child with foods rich in micronutrients such as porridge enriched with milk and sugar, ground peanuts, bean powder, or soya oil if the child is between 6 and 24 months	91.7%	100.0%	96.4%
Trying to identify the foods that the child likes and giving these food items	91.7%	100.0%	96.4%
Deworming the child every 6 months when the child is a year old	95.8%	75.0%	83.9%
Giving the child a vitamin A supplement every 6 months after the child is 6 months old	83.3%	87.5%	85.7%
Encouraging the child to be active and play, because activity will increase muscle and help with digestion	100.0%	100.0%	100.0%

Providers of maternal health services

Similarly, maternal health service providers were asked about 21 nutrition counseling messages communicated during antenatal and postnatal consultations. Among the 34 providers from hospitals and 33 providers from health centers and dispensaries who provided maternal health services, 67% reported providing nutrition counseling during antenatal consultations, but only 55% reported counseling during postnatal consultations. Table 6.8 displays examples of the specific topics covered during antenatal and postnatal counseling, by type of facility.

Table 6.8: Counseling Provided by Maternal Health Service Providers during Antenatal Consultations, by Type of Health Facility

	Antenatal Consultations			Postnatal Consultations		
	Type of Facility			Type of Facility		
	Hospitals *(n = 34)*	Health Centers & Dispensaries *(n = 49)*	**All Facilities *(n = 102)***	Hospitals *(n = 53)*	Health Centers & Dispensaries *(n = 49)*	**All Facilities *(n = 102)***
Percentage of maternal health service providers who regularly counsel women during consultations	64.7%	69.7%	67.2%	58.8%	51.5%	55.2%
Among those who counsel, topics mentioned:	*n= 22*	*n = 22*	*n = 44*	*n = 20*	*n = 17*	*n = 37*
General dietary advice	81.0%	87.0%	84.1%	95.0%	100.0%	97.1%
Adequate weight gain during pregnancy	90.9%	90.9%	90.9%	NA	NA	NA
Use of an insecticide-treated bed net	68.2%	59.1%	63.6%	70.0%	52.9%	62.2%
Use of iodized salt in the household	68.2%	25.0%	45.7%	63.2%	35.3%	50.0%

Table 6.8 *(Cont.)*

	Antenatal Consultations			Postnatal Consultations		
	Type of Facility		All Facilities *(n = 102)*	Type of Facility		All Facilities *(n = 102)*
	Hospitals *(n = 34)*	Health Centers & Dispensaries *(n = 49)*		Hospitals *(n = 53)*	Health Centers & Dispensaries *(n = 49)*	
Regular iron and folate supplementation	100.0%	95.5%	97.7%	100.0%	100.0%	100.0%
Setting up a follow-up appointment	100.0%	95.8%	97.8%	NA	NA	NA
Importance of vitamin A supplementation for the new mother within the first 8 weeks of giving birth	NA	NA	NA	85.0%	58.8%	73.0%
Importance of exclusive breastfeeding	95.5%	95.8%	95.7%	100.0%	100.0%	100.0%
Any new problems the new mother may have with breastfeeding	NA	NA	NA	95.0%	82.4%	89.2%

Note: NA = not applicable.

Providers of HIV and AIDS services

The research team asked HIV and AIDS and infectious disease services providers about providing nutrition counseling during HIV and AIDS client consultations. Table 6.9 presents the topics of nutrition counseling provided by type of facility.

Table 6.9: Counseling Provided by HIV and AIDS Service Providers during Consultations with HIV and AIDS Clients, by Type of Health Facility

Topics Covered	Type of Facility		All Facilities *(n = 97)*
	Hospitals *(n = 36)*	Health Centers & Dispensaries *(n = 61)*	
Explaining why good nutrition is important for clients' own health and the health of their families	88.9%	86.9%	87.6%
Explaining how poor nutrition can lead to a weakened immune system and an increased number of infections	88.9%	86.9%	87.6%
Suggesting clients choose locally available and affordable foods for a balanced diet and to get the nutrients they need	88.9%	82.0%	84.5%
Suggesting clients eat a balanced diet with foods from all groups if possible	88.9%	86.9%	87.6%
Suggesting clients eat locally available fresh food instead of processed food	88.9%	85.2%	86.6%
Suggesting clients eat snacks 2 or 3 times a day if possible	86.1%	75.4%	79.4%
Suggesting clients try to eat animal or legume proteins with every meal	83.3%	80.3%	81.4%
Suggesting clients not eat sugar and avoid too much junk food	86.1%	82.0%	83.5%
Suggesting clients take a multivitamin daily	86.1%	83.6%	84.5%
Suggesting clients drink at least 8 glasses of boiled water	88.9%	73.8%	79.4%
Encouraging safe storage and preparation of food	88.9%	85.2%	86.6%
Encouraging daily exercise	83.3%	75.4%	78.4%

6.2.3 Nutrition Support

In the assessment, providers of child health services (n = 91) were asked about the nutrition support services they provided during well child visits and sick child visits, including visits by malnourished children (Table 6.10).

Table 6.10: Specific Activities Performed by Child Health Service Providers during Well Child Visits and Visits with Sick and Malnourished Children, by Type of Health Facility

Activity	Well Child Visits			Well Child Visits		
	Type of Facility		All Facilities *(n = 70)*	Type of Facility		All Facilities *(n = 90)*
	Hospitals *(n = 36)*	Health Centers & Dispensaries *(n = 34)*		Hospitals *(n = 44)*	Health Centers & Dispensaries *(n = 46)*	
Administer a dose of vitamin A	80.6%	55.9%	68.6%	86.4%	70.8%	78.3%
Prescribe iron syrup or tablets	61.1%	55.9%	58.6%	77.3%	69.6%	73.3%
Prescribe any other medication	88.9%	64.7%	77.1%	76.7%	57.8%	67.0%
Suggest the child be tested for HIV	77.8%	55.9%	67.1%	90.9%	78.3%	84.4%
Suggest a follow-up visit	88.9%	64.7%	77.1%	95.2%	80.4%	87.5%
Prescribe ORT	NA	NA	NA	93.2%	73.9%	83.3%
Explain how to make ORT at home	NA	NA	NA	90.9%	73.9%	82.2%
Refer the child to a nutrition rehabilitation center	NA	NA	NA	84.1%	65.2%	74.4%

Note: NA = not applicable.

6.2.4 Actual versus Reported Practices among Health Providers

The observation checklist was used to assess the differences between the practices reported by health providers and the practices implemented. Data collectors directly observed client-provider interactions to assess health provider behavior around three main themes of interest:

1. Health worker's overall conduct
2. Nutrition assessment and counseling services provided
3. IYCF counseling services provided

Findings from the observation checklist showed that three different types of health providers commonly counsel patients on nutrition and HIV services in Haiti: nurses, psychologists, and nurse auxiliaries. Sixty-five percent of health providers observed were registered nurses, 22% were psychologists, and 13% were auxiliary nurses. Most hospitals in Haiti hire psychologists to counsel HIV patients.

Table 6.11 describes health provider conduct during the client-provider observation by type of facility. Health providers were generally polite and attentive. Eighty-eight percent of health providers observed greeted the client in a pleasant way and also acted empathetic to client's needs and concerns. Areas for improvement included introductions, provision of positive reinforcement, and tailoring of suggested nutrition actions to the client.

Table 6.12 presents findings from observation of health providers performing nutrition assessment and counseling by type of facility. The proportion of health providers who performed the nutrition assessment and counseling aspects was consistently low. Less than one-quarter of providers set nutrition goals with their clients and discussed barriers to plans to improve clients' health. Similarly, only one-quarter of health providers weighed the client or asked about nutrition-related problems. Follow-up appears to also be an area for improvement, because only 38% of providers scheduled a follow-up visit with the client.

Table 6.13 describes the proportion of health providers observed who provided IYCF counseling. Health provider conduct was observed in more than half of the observed client-provider interactions (59%), and 53% of health providers provided positive reinforcement to the client. However, a low proportion of health providers were observed providing counseling on any specific topic. For example, only 6% of providers were observed providing the client with and discussing take-home materials on IYCF. Similarly, only 19% of health providers counseled pregnant women on their ideal weight. The low proportions of health providers observed providing counseling on specific topics suggests that nutrition counseling services need strengthening. It is also interesting to note the differences in observed behaviors among health providers in hospitals and health centers or dispensaries. Health providers working in health centers or dispensaries tended to perform more poorly than health providers in hospitals in counseling women on the chosen replacement method, particularly around the pros and cons of replacement feeding and demonstrating how to position a baby adequately on the breast.

Overall, the findings from the observation of client-health provider interactions indicate a lower proportion of actual NACS performance than performance as gleaned from the self-reported health provider survey results.

Table 6.11: Health Provider Conduct by Type of Facility: Proportion of Health Providers Who Conducted Specified Observations

Type of Observation	Type of Health Facility		All Facilities *(n = 32)*
	Hospitals *(n = 14)*	Health Centers & Dispensaries *(n = 18)*	
Greeting the client in a pleasant way	85.7%	88.8%	87.5%
Introducing himself or herself to the client	50.0%	22.2%	34.4%
Actively listening	71.4%	83.3%	78.1%
Acting empathetic to the client's needs and concerns	85.7%	88.8%	87.5%
Making eye contact during the interview	100.0%	100.0%	100.0%
Asking open-ended questions	50.0%	83.3%	68.7%
Praising or reaffirming what the client is doing right	35.7%	44.4%	40.6%
Suggesting nutrition actions that are acceptable, affordable, and feasible for client	21.4%	38.8%	31.2%
Providing an opportunity for the client to ask questions	42.8%	83.3%	65.6%

Table 6.12: Observation of Health Worker Assessment and Counseling by Type of Facility: Proportion of Health Workers Who Conducted Assessment and Counseling

Type of Observation	Type of Health Facility		All Facilities *(n = 32)*
	Hospitals *(n = 14)*	Health Centers & Dispensaries *(n = 18)*	
Weighing the client	35.7%	16.6%	25.0%
Recording the client's weight	35.7%	16.6%	25.0%
Asking about nutrition-related problems experienced in the past 2 weeks	14.3%	33.3%	25.0%
Asking about the client's appetite	15.3%	44.4%	40.6%
Counseling the client on his or her ideal weight	14.3%	22.2%	18.7%
Counseling the client on how to manage food and drug complications	35.7%	44.4%	40.6%
Counseling the client on food hygiene	45.5%	54.5%	34.4%
Setting a nutrition goal with the client	14.3%	33.3%	25.0%
Suggesting nutrition actions that are acceptable, affordable, and feasible for the client	14.3%	33.3%	25.0%
Discussing the challenges the client may face in implementing the plan	7.14%	33.3%	21.9%
Scheduling a follow-up visit with the client	35.7%	38.9%	37.5%

Table 6.13: Observation of IYCF Counseling by Type of Facility: Proportion of Health Workers Who Conducted IYCF Counseling *(n = 17)*

Type of Observation	Type of Health Facility		All Facilities *(n = 17)*
	Hospitals *(n = 7)*	Health Centers & Dispensaries *(n = 10)*	
Praising or reaffirming what the client is doing right	71.4%	40.0%	52.9%
Assessing the women's home or personal situation	14.3%	30.0%	25.3%
Explaining the risk of mother–to-child transmission	28.6%	20.0%	23.5%
Counseling the client on her ideal weight	14.3%	22.2%	18.7%
Explaining the advantages of the woman's proposed feeding method and helping her determine whether it will be feasible	14.3%	10.0%	11.7%
Explaining the disadvantages of the woman's proposed feeding method and helping her determine whether it will be feasible	0.0%	10.0%	5.9%
Explaining how to implement the chosen feeding method	71.4%	20.0%	41.2%
Explaining the chosen feeding method in detail	57.1%	10.0%	29.4%
If replacement feeding (infant formula) was chosen, asking whether a health worker demonstrated how to prepare replacement feeding	57.1%	10.0%	29.4%
If replacement feeding (infant formula) was chosen, discussing the risk of bottle feeding	28.6%	0.0%	11.8%
If exclusive breastfeeding was chosen, demonstrating how to position the baby properly	71.4%	0.0%	29.4%

Type of Observation	Type of Health Facility		All Facilities (n = 17)
	Hospitals (n = 7)	Health Centers & Dispensaries (n = 10)	
Explaining the importance of feeding on demand	71.4%	30.0%	47.1%
Encouraging the woman to begin feeding complementary foods to the baby at age 6 months	71.4%	10.0%	35.3%
Reviewing with the woman the take-home material on her chosen infant feeding method	0.0%	10.0%	5.9%
Giving the woman the take-home material and encouraging reviewing it together	14.3%	0.0%	6.3%

7. FINDINGS: ROLE OF COMMUNITY HEALTH WORKERS, COMMUNITY-BASED ORGANIZATIONS, AND NON-GOVERNMENTAL ORGANIZATIONS IN STRENGTHENING COMMUNITY FACILITY LINKS

7.1 COMMUNITY HEALTH WORKERS

Individuals working as CHWs vary from simple community volunteers to paid health system employees in Haiti. In all cases, the role of CHW is a complex one that requires loyalty to the community and to the overall health system. CHWs are trusted members of the community they serve and usually have a close understanding of that community. Stronger roots in the local community increase a person's chances of success as a CHW.

7.1.1 Background of the CHW Program

CHWs have always been a cornerstone of Haiti's health system. However, the health worker context in Haiti changed in 1999–2000. The MSPP was unable to fund the national CHW program, which resulted in a dramatic reduction of CHWs. The breakdown of the program had a negative impact on a number of community health programs (Mayard 2004). Instead, to keep up with the increasing demand for health services, various local and international NGOs hired, trained, and paid CHWs.

In October 2010, the MSPP decided to revisit the CHW situation. In a framework of the tripartite cooperation agreement between Brazil, Cuba, and Haiti and with the financial support of many partners, Haiti embarked on an ambitious program to train 10,000 polyvalent CHWs.[5] The first group of 58 polyvalent CHWs was trained in Hospital Carrefour in 2011. On June 25, 2012, the MSPP officially launched the second training course, benefiting 325 polyvalent CHWs. The program will be executed by Prisma, an organization supporting the maternal health sector. WHO is currently carrying out a review of CHWs operating in the field as a first step in organizing refresher training.[6] This study interviewed CHWs that participate in this program.

7.1.2 Application and Selection of CHWs

Under the national program, six prerequisites must be met for an individual to become a polyvalent CHW in Haiti. First, the applicant must be between 20 and 35 years. Second, he or she must have completed at least nine years of school. Third, the applicant must have excellent communication and leadership skills. Fourth, the applicant must live in the community. Fifth, he or she must sign a commitment to work within that community for a minimum of five years. Finally, the applicant must show proof of endorsement from his or her community. Despite these criteria, priority was given first to MSPP employees in temporary postings and second to health center contract workers interested in obtaining permanent jobs with the MSPP. In cases where these applications did not fill all positions, community members were chosen. Gender did not appear to be a factor in selecting CHWs.

---

[5] See the polyvalent CHW training curriculum within the framework of the tripartite agreement between Brazil, Cuba, and Haiti, 2010–2012.

[6] See: the polyvalent CHW training curriculum within the framework of the tripartite agreement between Brazil, Cuba, and Haiti, 2010–2012. Paragraph 5.1, discusses the performance evaluation.

7.1.3 Activities and Training

Polyvalent CHWs were asked to operate in three primary domains:

1. Health area diagnostics, which consists of conducting individual and community health situation analyses so that activities can be planned
2. Developing and creating activities that promote health and hygiene among the general population as well as targeted promotion activities aimed at specific groups and individuals
3. Developing prevention and follow-up activities aimed at environmental and risk situations and at various priority programs, such as maternal and child health, reproductive health, and infectious diseases

Some of the activities carried out by the polyvalent CHWs include conducting group education sessions on hygiene, making home visits to pregnant women and encouraging them to attend antenatal clinics, promoting the use of various family planning methods, promoting exclusive breastfeeding, promoting healthy nutritional practices, deworming, and nutrition growth monitoring. [7]

The technical training for polyvalent CHWs is based on four core skills, each of which includes other abilities to be developed in given professional and sociocultural situations. These four skills are (a) developing a context on social issues, (b) carrying out promotion and prevention activities, (c) promoting maternal and child health, and (d) conducting follow-up at the community level. The core skills are based on three elements: technical knowledge (*savoir-faire*), general knowledge (*savoir-savoir*), and professional and ethical knowledge (*savoir-être*).

The training curriculum for polyvalent CHWs was designed and developed by the MSPP, in collaboration with the Ministry of Health in Brazil. Led by the *Institut Haïtien de Santé Communautaire* (Haitian Institute for Community Health, or INHSAC), this curriculum was adapted to the specific Haitian situation. The curriculum consists of three parts: a user guide, a trainer's guide, and a student notebook. [8]

At the level of the health institutions, there is no formal tool for evaluating CHW performance, nor is there any regular or periodic evaluation method. However, CHWs occasionally receive some guidance before taking part in large-scale community activities (e.g., World AIDS Day or World Immunization Day) or when new programs are launched (e.g., maternal breastfeeding, care management for diarrhea, or care management for acute respiratory infections).

7.1.4 Study Objectives

Semi-structured interviews were conducted with CHWs to obtain specific information on the role CHWs play in nutrition promotion, particularly among PLWHA and other vulnerable populations. The researchers were also interested in understanding the role CHWs play in linking people with health facilities and vice versa. Finally, the researchers were interested in exploring the types of partners present in the catchment areas of the facilities and the different community and social programs being implemented. As mentioned earlier, all CHWs interviewed as part of the study were paid by NGOs and other international partners. Thus, although they were part of the national polyvalent CHW program, they were closely supervised and monitored by the NGOs that paid them.

---

[7] *See the polyvalent CHW training curriculum within the framework of the tripartite agreement between Brazil, Cuba, and Haiti, 2010–2012.*

[8] *Individual interview with INHSAC personnel, who developed the curriculum.*

7.1.5 Study Findings

The results of the qualitative portion of the study show that the vast majority of CHWs were selected by community members; a few others were selected through competitive examination or directly through community health activities. Most (23 out of 33 respondents) worked directly in nutritional practices, whereas others were involved in HIV and AIDS, TB, and infant health programs. All CHWs interviewed promoted healthy feeding practices for small children and vulnerable groups. The target groups were children between 0 and 5 years old and adults.

The CHWs stated that they carried out the following activities as part of their work:

- Raise maternal awareness and educate mothers on children's nutrition
- Facilitate mother support groups and young children's clubs
- Screen for malnutrition
- Conduct nutrition assessment for children using MUAC tapes
- Disseminate key messages regarding hygiene and self-esteem
- Conduct referrals for malnourished children
- Do home visits and counseling
- Organize participatory community events (sports, culture)
- Support PLWHA and people living with TB
- Do other miscellaneous tasks at the health facilities

CHWs had weekly work schedules. They spent most of their time working on community activities and preparing regular work schedules, planning, and conducting results assessments for community activities in close collaboration with the local NGO partners. To promote healthy child nutritional practices, including exclusive maternal breastfeeding, supplemental nutrition, hygiene, and health care, most CHWs (20 out of 33) used the following strategies: organizing and setting up community structures and events such as young children's clubs, community gatherings with parents, awareness and education sessions, World Children's Day events, assembly stations, and mobile clinics.

7.1.6 Work Schedules, Pay, and Evaluation

Polyvalent CHWs have somewhat flexible work schedules, which are based on community activity planning. They receive a monthly pay of HTG 6,000 (approximately $120) through September 30, 2012. The CHWs are paid either by the MSPP or by NGOs.[9]

The findings from this study show that the majority of community workers were paid on a salaried, monthly basis by NGOs. Payment methods varied: 10 of 33 received bank drafts, 17 of 33 were paid by check, and the rest were paid in cash. Salaries varied depending on the institution. Out of 33 community workers, only 3 specified an actual amount of HTG 6,000, which was paid by NGOs.

7.1.7 Program Barriers and Suggested Changes

CHWs mentioned that several constraints hindered their work in the community. Such constraints were related to challenges at both the institutional level and the community level.

At the institutional level, the respondents felt that their salaries were low, and the delay in receiving them caused them to feel less motivated. Similarly, the shortage in supplies (hygiene kits, condoms, etc.) slowed down community activities and caused a loss of interest among clients.

[9] *Interview with key informants at INHSAC, the MSPP, and FHI360.*

At the community level, one of the most difficult challenges mentioned was client wariness. Some beneficiaries refused to provide their home address for home visits or used another person's name. Informants reported that the biggest challenge they faced was gaining their clients' trust. Some clients were very aggressive and insulted the workers. Some did not want to use the sign-in sheets.

Workers related that during the rainy season roads were impassable, and some of their work areas, therefore, become inaccessible. Most beneficiaries had to travel several kilometers to reach the health institutions. Often they did not have the means to pay for transportation. Education sessions that lasted more than 45 minutes could become embarrassing for the service providers, who were unable to offer the participants any kind of refreshment.

According to CHW perceptions, despite positive results, many obstacles still prevented the program from being successful.

CHWs would like to receive more support from partnering NGOs to strengthen their work on the ground. According to the respondent CHWs, NGOs should provide hygiene kits and water purification products, because clients always asked for those items after education sessions on hygiene practices.

CHWs believed that strengthening maternal and infant nutrition activities at the community level should include consolidating home visits and screening for malnourished individuals at home. Data should be systematically entered into a database to facilitate assessments and follow-ups. Best practices and lessons learned should be part of the discussions in educational sessions. Such discussions should also include income-generating activities to enable women to maintain the nutritional health of their families. CHWs felt that implementing the following would also allow them to better respond to family and community nutrition issues:

- an incentive system for clients who closely and correctly follow the instructions regarding nutrition
- money or food incentives to improve meetings of CHWs, community members, and community leaders
- travel reimbursement for clients
- better counseling sessions for mothers who breastfeed
- stronger support groups for mothers and fathers
- better use of available local produce and products

7.1.8 Motivation Factors

CHWs stated that good performance indicators were a source of motivation. They derived personal fulfillment from helping to educate their community, taking ownership of their activities, and obtaining pride in their work.

According to the CHWs, strengthening their capacity is the primary determining factor for performance. CHWs emphasized that they would like to receive additional training in nutrition, communication, and community mobilization. They received advice and training sessions from NGOs such as Family Health International (FHI360), Zanmi Lasanté, and *Les Centres pour le Développement et la Santé*, as well as from the MSPP. However, they also mentioned that training must come hand in hand with the availability of work supplies and pay raises.

CHWs mentioned that if they could take part in other programs, such as receiving credit, being part of savings associations, and participating

in community development projects such as building schools, their on-the-job motivation would improve. Some respondents believed that such participation could contribute toward making the activities sustainable. For community leaders who are also volunteers, payments for expenses or food could also be an incentive.

7.1.9 Attitude of Health Providers toward Their Clients and Clients toward Health Providers

Overall, the CHWs perceived that the clients were well treated in the departments that promoted nutritional practices. However, CHWs emphasized that clients were stigmatized by the referral system. Clients were often poorly welcomed in hospitals and health centers and could not find appropriate services. Some providers were perceived as rude to clients.

CHWs reported that the population was very happy with the services they offered. The community showed an interest in learning and applying the counseling they received regarding nutrition and hygiene. Community leaders were happy to collaborate and support the program. Community members expressed gratitude for the program and the providers.

According to the data analyzed, the services provided are of good quality. In terms of efficiency, NGOs offer a minimal package for people living with HIV and TB and for malnourished children. However, follow-up materials are lacking.

Overall, the population is happy with services and community activities, and many people express gratitude for the support they receive.

7.1.10 Monitoring and Coordination

Coordination is carried out at two levels: institutional and community. At the institutional level, each month, supervisors send the data to reference institutions for assessment. Different institutions run their annual worker performance evaluations at different times: some carry out the evaluation during the 16 days of HIV and AIDS activism, some run an evaluation every three months, and some run a monthly evaluation. At the community level, workers carry out a monthly evaluation with leaders so that they can plan community health and nutrition activities. These activities are scheduled in planning worksheets.

7.2 COMMUNITY-BASED ORGANIZATIONS IN THE CATCHMENT AREA OF HEALTH FACILITIES

A large number of CBOs use their own approach to mobilize communities and provide support to PLWHA; however, many of these CBOs are adopting an approach put forward by the Community Health and AIDS Mitigation Project (CHAMP), which is part of FHI360. The CHAMP model is proven, well integrated, and well received by communities. The CHAMP project contributes to strengthening the National Multisectoral HIV/AIDS Strategy across the 10 departments.

7.2.1 CHAMP Project Strategies

Along with its emphasis on service integration (health, social, spiritual, emotional, economic, school, etc.), CHAMP emphasizes:

- strengthening grassroots CBOs
- having community staff members responsible for service delivery
- setting up management systems for functional services
- promoting coordination with, support for, and partnership with community organizations
- focusing on families within communities
- creating and developing relationships with active community sectors through development projects and income-generating activities
- strengthening the referral and counter referral system within the health sector and between the health sector and other sectors

7.2.2 Role of PDSCs, NGOs, and PDSC staff

The CHAMP project has set up innovative centers called PDSCs. PDSC stands for *point de délivrance de services communautaires* (community service delivery point). A PDSC is a gathering place where clients can obtain information, advice, psychological support, health-related support, education, social activities, and living condition improvements for families and communities. It is also the starting place for referrals to health care providers. Moreover, the PDSC distributes hygiene kits, mosquito nets, condoms and Dlo Lavi oral rehydration solution. The PDSC is open Monday through Friday from 8:00 a.m. to 4:00 p.m.

CHAMP works with a large number of international NGOs, including Catholic Relief Services, International Child Care, and World Concern, at the national level. At the departmental level, the *Unité de Coordination Départementale* (Departmental Coordination Unit, or UCD) acts as a direct link between the Core Technical Team, the MSPP, and other sectors (agriculture, health, etc.). As an implementation partner, the UCD is CHAMP's technical arm in the field. CHAMP has nine UCDs, one for each department as follows:

- five UCDs related to Catholic Relief Services: North-west, Artibonite, Grande-Anse, Nippes, and South
- three UCDs related to the Catholic Medical Mission Board: North, South-east, and North-east
- one UCD related to Plan International: West

Plateau Central does not have a UCD. The role is filled by Partners in Health in Cange.

At the local level, PDSCs are staffed by a public health nurse and a social worker, who supervise the technical aspects of the program and offer help, support, and referrals. These workers train CHWs on awareness raising and community mobilization.

7.2.3 CBO Selection

The CHAMP project selects CBOs at the departmental level. Together with the MSPP (departmental or municipal office level), implementation partners, and zone health institutions, the UCDs record all CBOs and assess them using an evaluation tool known as TOCAT. CBOs that are considered high performers and that have legal status are selected. CBOs are responsible for managing the PDSCs and for selecting community workers. CHAMP offers CBOs support and advice to enable them to take an active part in managing and executing CHAMP project activities at the community level and to ensure that the CHAMP approach remains sustainable beyond the project's duration.

7.3 NON-GOVERNMENTAL ORGANIZATIONS

Several NGOs work with PLWHA in communities in Haiti. The NGOs taking part in this study were of varying types: national, international, community based, private, and faith based. The majority of them provided nutrition support for HIV and AIDS and TB. Most of the NGOs interviewed conducted two main activities: training and community activities. Training covered subjects such as vocational training for community members and capacity-building for CHWs on issues such as nutrition, counseling, and referrals. The NGOs also provided temporary facilities for physical assessment of PLWHA, care for orphans and vulnerable children, and psychosocial support. Staff members interviewed included managers of nutrition programs, maternal and infant health programs, and programs for people living with TB. The following array of activities was conducted by the NGOs interviewed:

- prevention
- ANC services
- maternal breastfeeding support
- supplemental nutrition
- HIV screening, care, and treatment

- outpatient care services
- distribution of dry rations
- PMTCT, antiretroviral, and TB services
- mental health care
- dental care

7.3.1 NGO Coverage Areas

The NGOs interviewed were active in three departments: North, Artibonite, and South. The municipalities covered and the number of groups varied by department, as shown in Table 7.1. All the NGOs interviewed covered a number of municipalities, and were staffed with large numbers of volunteers along with staff on their payroll. For example, the three NGOs/CBOs in Artibonite had over 850 volunteers and CHWs who were part of their team. The volunteers and CHWs played a critical role in reducing social stigma, sharing information, and accompanying patients for treatment and monitoring their food needs in addition to providing health education sessions at the community level.

Table 7.1: NGO Coverage by Department and Municipality

Department	Municipalities	Volunteers	Groups
North	8	56	0
Artibonite	9	879	0
South	13	668	53

7.3.2 Constraints and Challenges

NGO staff members reported several constraints that threaten the program's success:

- *Budgetary constraints.* These were characterized by slow disbursements, supply being lower than demand. The budget is rather limited.
- *Shortages of nutritional supplies and limited food and ration stock.* Shortages in items such as condoms, hygiene kits, and food rations made it hard to respond to community needs.
- *Lack of educational support for field agents.* For example, session support materials were not available.
- *Weak referral and counter referral system.* CHWs and health providers need more training (capacity building) to fully master the system.
- *Rations limited to those most vulnerable.* Such limitations negatively affect adherence to medication regimens. The food available does not match the number of clients who need it.

7.3.3 Partner Recommendations

Partner recommendations are in the same vein as the recommendations made by CHWs. Both informant categories emphasized the need for additional training and pay increases. NGO respondents made the following recommendations to improve their effectiveness:

- Build the capacity of community workers so that they can better educate clients who are infected or affected by HIV, AIDS, and TB.
- Increase inputs to meet program needs.
- Strengthen nutritional support (quantity, quality, and variety).
- Strengthen and increase the number of educational sessions.

8. DISCUSSION OF KEY FUNDINGS

A global momentum is under way for improving nutrition outcomes. In collaboration with ministries of health in other countries, the U.S. government is leading the way in implementing NACS as a framework for achieving improved nutrition outcomes, especially among pregnant and lactating women, children under five years of age, PLWHA, and other vulnerable populations. Haiti is one of several countries that the U.S. government has committed resources to in an effort to strengthen NACS at the country level. A number of projects, including SPRING, are involved in this effort.

In Haiti, SPRING is mandated to strengthen NACS at the facility and community levels in select departments across the country. At the start of the project, however, no data existed on the extent to which NACS services were being implemented in Haiti. There was anecdotal information that some aspects of NACS were being implemented in select health facilities across the country, but neither the scope nor the quality of nutrition services being implemented were well understood. To ensure that SPRING program activities strengthen NACS services by leveraging existing resources and building on current platforms, this assessment sought to better understand the national context of and gaps in NACS implementation at the facility and community levels.

The assessment achieved its objective of providing a snapshot of how nutrition assessment and counseling services are integrated into various clinics in Haiti. Despite aforementioned study limitations, the findings from the assessment highlight the current status of NACS implementation in Haiti and the capacity of health workers at facility and community levels to strengthen NACS services. This section presents those key findings.

8.1 HEALTH FACILITIES SURVEYED ARE HIGH PERFORMING

One of the key findings from the assessment is that the health facilities that participated in the study are high performing and overall there is a favorable environment to strengthen nutrition assessment, counseling and support services for HIV positive and negative populations in Haiti. Poor infrastructure is a significant development issue in Haiti, especially after the earthquake of 2010. Yet the data from the assessment suggest that the health facilities surveyed do not suffer from major infrastructure issues. Of the 14 surveyed facilities, 12 have uninterrupted water supply and 9 have a generator. Furthermore, anecdotal information from the research team that the health facilities were high functioning supports the findings from the assessment. This information is valuable for NACS implementation because basic amenities such as electricity and water are critical if a health facility is to deliver high-quality services.

8.2 NUTRITION ASSESSMENT AND COUNSELING SERVICES ARE IMPLEMENTED IN MOST HEALTH FACILITIES, BUT THEY ARE NOT IMPLEMENTED IN A SYSTEMATIC WAY

The data on the extent to which NACS is being implemented and the capacity of health facilities and communities to implement NACS are largely positive. The data suggest that nutrition assessment and nutrition counseling are not new

concepts for health providers at the facility level. Almost all health facilities that participated in the study (13 of 14) reported providing nutrition assessment services. However, there were no standard definitions of nutrition assessment to which anthropometric measurements could be applied. Health providers reported calculating BMI, a ratio used to calculate weight in relation to height; however, this was not observed in any of the health facilities assessed, nor was nutrition bilateral edema identified among children. Similarly, nearly all health facilities in study (12 of 14) reported providing nutrition counseling services, but such services were rarely tailored to the individual context of the client.

8.3 ADDITIONAL CAPACITY-BUILDING INITIATIVES ARE NEEDED FOR SCALE UP

The study's data suggest that approximately half of health providers surveyed reported receiving training in nutrition assessment and counseling within the past three years. This capacity is essential for integrating nutrition into HIV, maternal, and pediatric clinics. Such data also have implications for program planning because the findings suggest that a basic knowledge of components within the NACS framework already exists among health workers in Haiti. However, the assessment data also suggest that health worker knowledge does not necessarily translate into better quality of services or improved nutrition counseling.

The research team's observations of health workers interacting with clients show that the proportion of health providers who performed nutrition assessment and counseling was low. Only one-quarter of health providers weighed clients during the observation period. Observations of key IYCF counseling topics were similarly low. The findings from the assessment showed that counseling for optimal IYCF practices was neither common in pediatric clinics nor in maternal health clinics. Less than one-fifth of health providers counseled clients on their ideal weight. Only one-quarter of health providers counseled women who were exclusively breastfeeding on the correct positioning for breastfeeding.

In terms of implications for project planning, these findings suggest that although nutrition counseling and assessment are in fact implemented at the health facility level, implementation is not done in a systematic way. Further findings from the assessment regarding the use of national protocols and guidelines support this assertion. Only 4 of the 14 health facilities had a copy of the national norms on IYCF present at their facility. Similarly, only one health facility had a copy of the Infant and Young Child Nutrition project counseling cards on IYCF. None of the facilities surveyed had guidelines on micronutrient supplementation available. Ensuring that health providers are aware of and are using national protocols and guidelines, is integral to strengthening NACS services.

Orienting health providers on NACS and providing trainings to build capacity for NACS are also key to building health provider capacity at both the facility and the community levels. One interesting finding in the assessment is that nutrition counseling is often provided by health providers with backgrounds in psychology. This finding has implications for the technical qualifications that are selected for trainings. In addition to physicians and nurses, psychologists should be trained on NACS and, specifically, on how to provide nutrition counseling.

8.4 QUALITY ASSURANCE SYSTEMS ARE IN PLACE IN MOST HEALTH FACILITIES SURVEYED

Findings from the study showed that quality assurance activities are being implemented in all of the health facilities surveyed. All had managerial meetings every two or three months,

and approximately 60 percent of health facilities conducted meetings with facility staff members and members of the community. Quality assurance activities were introduced by the U.S. Centers for Disease Control (CDC) to improve the quality of HIV counseling, testing, and referral data. That effort has led to a number of positive actions at the health facility level, such as using a supervisory checklist for health systems components, conducting quality assurance activities in all implementing departments, and holding document quality assurance meetings. However, quality assurance activities did not extend to nutrition services. Nutrition indicators such as counseling were not part of the quality improvement activities, nor were they part of the electronic medical records systems that existed in the majority of health facilities surveyed.

In addition, quality assurance activities did not extend to the community. Findings from the assessment showed that client feedback was not actively solicited and less than half of the hospitals and health centers surveyed had a system to ask for feedback from their clients. Moreover, hospitals and health centers rarely had meetings at the community level to discuss demand and community satisfaction with the quality of services received.

8.5 HUMAN RESOURCE MANAGEMENT IS FAIRLY SOUND IN THE HEALTH FACILITIES SURVEYED

The majority of health providers surveyed were supervised in the three months previous to the study. Among other tasks, supervision practices consisted of observing health providers' work, providing feedback on performance through written comments, discussing problems encountered, and reviewing records. The quality assurance systems introduced by the CDC have been to strengthen the health workforce. However, supervisors have not been trained on the NACS approach in Haiti. Nutrition-specific supervision practices were not integrated into the overall quality improvement program.

8.6 COMMUNITY HEALTH WORKERS PLAY A SOLID ROLE IN SUPPORTING PLWHA AND OTHER VULNERABLE POPULATIONS

Interviews with CHWs confirmed that CHWs play an integral role in providing psychosocial services, education and other support services in the catchment area of the health facilities. The CHWs were also linked with the health facilities surveyed and seemed to play an effective role in referring clients to health services. However, it was clear that the CHWs were dependent on NGOs and CBOs for their salary, training and other support. Despite the national program on polyvalent CHWs, the CHWs interviewed seemed to have weak links with the national program. A comprehensive change in policy and practice is needed at all levels to ensure that all CHWs in Haiti are part of the national system. These changes will allow CHWs to contribute fully and most effectively to health and nutrition improvements across the country.

9. RECOMMENDATIONS AND NEXT STEPS

The findings from the assessment lead to clear recommendations and next steps for SPRING program planning and for other nutrition stakeholders in Haiti:

1. Although the facilities are currently implementing some nutrition assessment and counseling activities, additional systematic efforts are needed to ensure that those practices are standardized across health facilities in the country. The MSPP, along with national and subnational partners, should define nutrition assessment, counseling, and support services, including validating standard operating procedure for NACS in Haiti. In addition, an orientation package should be developed to familiarize stakeholders at the departmental, facility, and community levels on this approach.
2. SPRING, Food and Nutrition Technical Assistance (FANTA) III, and other national and United Nations partners should continue to work with the Haitian government to build the capacity of health providers with respect to nutrition assessment and counseling services. Training packages addressing counseling for adults and IYCF should be developed, and innovative ways to build health worker competencies in counseling should be introduced. SPRING, along with MSPP, FHI360, CHAMP, and other partners, should strengthen the capacity of community health workers to provide nutrition prevention and counseling services at the community level.
3. Nutrition assessment and counseling indicators should be introduced in the ongoing quality assurance systems in Haiti. A warning for abnormal nutrition status should be introduced in the current electronic medical record system. Health providers should use nutrition data to improve assessment and counseling services at the health facility and community levels.
4. Strengthening of the supervision system should continue. Supervisors at the health facility and departmental levels should be trained in the NACS approach, and a process should be developed to continuously upgrade and update supervisors' skills, particularly in the areas of communication and counseling.
5. Health facilities should be encouraged to introduce innovative approaches to build links between health facilities and community services. These approaches should include nutrition-specific, nutrition-sensitive, and livelihoods programs.
6. Given the human and financial constraints Haiti faces, a national committee that determines whether the NACS approach is achieving its proposed targets should be set up. The national committee should continue to monitor and evaluate the integration of nutrition assessment, counseling, and support services and to assess whether these programs are achieving their intended objectives.

7. In addition to strengthening the quality of nutrition assessment and counseling services at the health facility, strong efforts should be made to increase the overall demand for health services in Haiti. Findings from the 2012 DHS show that only 36 % of women who had a birth five years prior to the survey delivered in a health facility, indicating that women and other vulnerable populations face significant barriers in accessing health services in Haiti.
8. Communities in the catchment area of the health facilities will also be encouraged to articulate the barriers they face in accessing services and local solutions will be found to reduce financial, transportation and other barriers community members face in accessing health and nutrition services.
9. A more detailed community mapping exercise to identify networks and opportunities for PLHIV and other vulnerable populations will be conducted. A visual display of key community organization, partners providing economic strengthening and livelihood services will be identified. These maps will be shared with health facilities and community health workers who will link vulnerable clients to food security programs or economic strengthening opportunities.

Work Cited

FAO (Food and Agriculture Organization of the United Nations). 2012. "Low-Income Food-Deficit Countries (LIFDC): List for 2012." *http://www.fao.org/countryprofiles/lifdc/en/*.

Global Fund to Fight AIDS, Tuberculosis, and Malaria. 2012. "Grant Portfolio: Haiti." Global Fund, Geneva. *http://portfolio.theglobalfund.org/en/Country/Index/HTI*.

Kothari, M, and Noureddine, A. 2010. "Nutrition Update 2012." ICF Macro, Calverton, MD. *http://www.measuredhs.com/pubs/pdf/NUT4/NUT4.pdf*.

Mayard, G. 2004. *Étude de base sur les Agents de Santé Communautaire* (Baseline Study on Community Health Workers). Washington, DC: Management Sciences for Health, Johns Hopkins University, and U.S. Agency for International Development.

Measure DHS. 2006a. 2005–2006 DHS. Calverton, MD: Measure DHS. *http://www.measuredhs.com/Where-We-Work/Country-Main.cfm?ctry_id=16&c=Haiti*.

Measure DHS. 2006b. *HIV/AIDS in Haiti: Key Findings of the Mortality, Morbidity, and Utilization of Services Survey*. Calverton, MD: Measure DHS. *http://www.measuredhs.com/pubs/pdf/OD50/OD50.pdf*.

MOH. 2011. Ministère de la Santé Publique et de la Population. Unité de Planification et d'Evaluation. Liste des Institutions Sanitaires. Aout 2011

PEPFAR (U.S. President's Emergency Plan for AIDS Relief). 2010. "Partnership to Fight HIV/AIDS in Haiti." PEPFAR, Washington, DC. *http://www.pepfar.gov/countries/haiti/*.

Rohde, J. 2006. "Supportive Supervision to Improve Integrated Primary Health Care." Occasional Paper 2, Management Sciences for Health, Cambridge, MA.

UNAIDS (Joint United Nations Programme on HIV/AIDS). 2009. "Haiti". UNAIDS, Geneva. *http://www.unaids.org/en/regionscountries/countries/haiti/*.

WFP (World Food Programme). 2012. "Haiti: Overview." WFP, Port-au-Prince. *http://www.wfp.org/countries/haiti/overview*.

SPRING
1616 Fort Myer Drive, 16th Floor
Arlington, VA 22209
Tel: 703.528.7474 • Fax: 703.528.7480
http://spring-nutrition.org
www.facebook.com/TheSPRINGProject