



# Gikuriro's Village Nutrition Schools: An overview

## OVERVIEW

USAID's Gikuriro program (2015-2021) responds to the multi-sectoral causes of childhood malnutrition. Catholic Relief Services (CRS) collaborates with SNV, six local implementing partners and relevant government structures to implement integrated nutrition and water, sanitation and hygiene (WASH) services in eight districts across Rwanda. Gikuriro provides capacity building, nutrition specific interventions, and nutrition-sensitive activities.

## VILLAGE NUTRITION SCHOOLS

At the core of CRS's approach to delivering community level activities are village nutrition schools. A village nutrition school is a community-based approach developed by CRS in Rwanda to address and prevent malnutrition, focusing on the first 1,000 days. Village nutrition schools emphasize locally available, culturally appropriate, and affordable food products while offering:

- Information on maternal and child health and nutrition practices
- Hands on practice of improved cooking, food processing and preservation techniques and hygiene behaviors
- Mentorship and coaching for responsive and active feeding
- Rehabilitation of underweight and moderately acutely malnourished children

Building on a nurturing care approach to support overall child development, village nutrition schools also offer information and guidance to parents on positive parenting (responsive caregiving) and allow parents to practice engaging and stimulating their children through age-appropriate play.

Importantly, village nutrition schools are also layered with nutrition-sensitive activities: improved agricultural practices; household economic strengthening; promotion of safe



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drinking water, hygiene, and improved sanitation; and gender transformative activities. Specifically, all village nutrition school participants are also invited to participate in:

- farmer field learning schools (FFLS), where they learn bio-intensive agriculture techniques that can improve home production of nutritious foods;
- savings and internal lending community (SILC) groups through which they can access loans to smooth consumption and invest in income generating activities;
- handicraft skills training to produce in-demand goods, such as floor mats and shopping totes, for local markets.

In addition, communities that benefit from village nutrition schools are also targeted for community-level water, hygiene and sanitation activities, such as community-led total sanitation and improved water points. Village nutrition school sessions encourage families to participate in these activities.

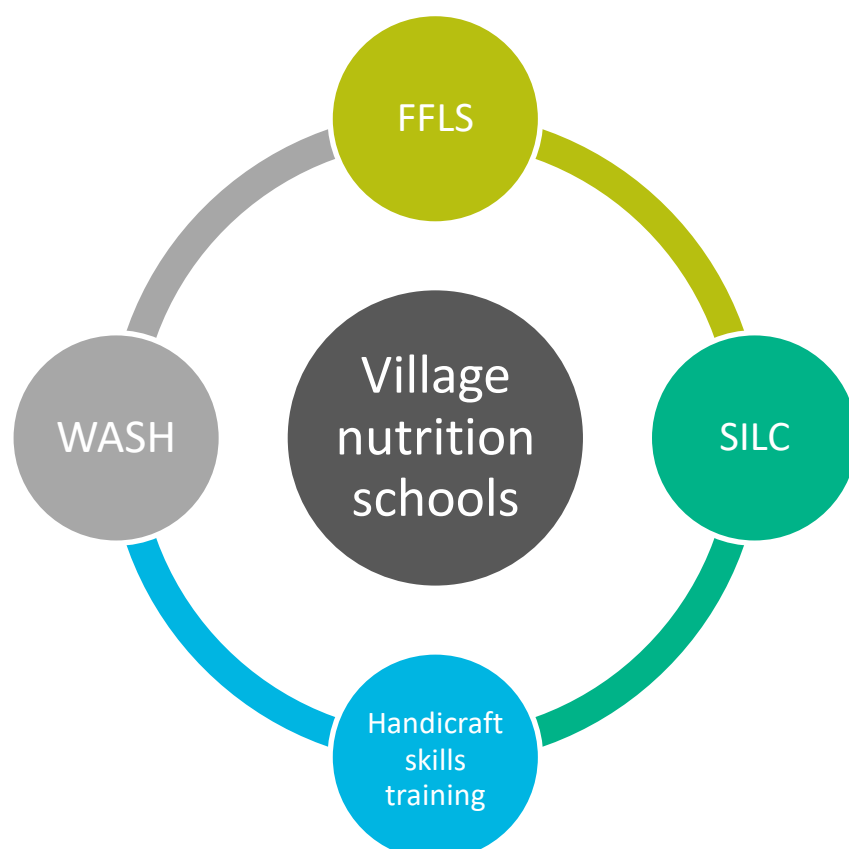
## TARGETING

Village nutrition schools target children with moderate malnutrition, or those considered at

high risk for potential malnutrition based on family poverty levels. Children with severe malnutrition are referred to health facilities, but receive community-level follow up through the program and are enrolled in village nutrition school when they have recovered to moderate malnutrition. The following are the main targeting criteria:

- Moderately underweight ( $-3Z < \text{Weight for Age} \leq -2Z$ ) child under five years of age
- Moderately wasted ( $11.5\text{cm} < \text{Mid Upper Arm Circumference} < 12.5\text{cm}$ ) child 6 to 59 months of age
- Child under five years of age has experienced two or more months without weight gain or has experienced weight loss since last growth monitoring session
- Child under five years of age who is considered at high risk for potential malnutrition due to family poverty level (Ubedehe I or II wealth category)
- Child treated for severe malnutrition in a health facility and referred for further community follow-up
- Pregnant or lactating women in Ubedehe I or II wealth category

Figure 1. Village nutrition schools are at the core of Gikuriro's approach to reducing malnutrition. Participating families are also invited to participate in agriculture, economic strengthening, and WASH activities to maximize their ability to adopt improved nutrition behaviors



## ORGANIZING VILLAGE NUTRITION SCHOOLS

Below are the key steps needed to organize village nutrition schools.

### Step 1. Train implementers

Those responsible for overseeing the village nutrition school approach – government personnel (hospital and health facility staff) and local civil society organization, nutrition staff – need to be trained in the approach so that they can in turn train the community staff who will implement activities. This training is typically five days. In addition to training in the specific village nutrition school model, CRS recommends training in maternal, infant and young children nutrition (using existing government materials) to strengthen their technical knowledge.

### Step 2. Secure Local Support

Village nutrition schools are a community-based activity requiring active community participation to succeed. Before beginning village nutrition schools, those trained to support it should meet with local authorities (in Rwanda has included district, sector, cell and village leadership), as well as influential community leaders. These meetings serve to explain the village nutrition school approach, secure community interest, and garner leaders support in mobilizing community participation, and set or validate targets as needed. During the meetings, the parties should agree on roles and responsibilities and the timeline for implementation. At this stage, it is also important to meet with local health authorities and agree on referral pathways, joint supervision, and other aspects of coordination (such as sharing reports).

### Step 3. Formative Research

Village nutrition schools seek to promote practices and recipes that are culturally appropriate and affordable to local communities. These practices are drawn from formative research in the targeted communities. Research should gather information on seasonal food availability, popular recipes and typical childcare, feeding and hygiene practices. Positive deviance inquiries, which explore the practices of poor households with well-nourished children are a powerful potential formative research tool.

### Step 4. Plan Menus

During each day of a village nutrition school, children, parents will prepare and feed their children a nutritious meal. Since all ingredients are provided by the participating families, it is essential that these meals are not only nutritious but also truly accessible to community members. Village nutrition schools follow Positive Deviance/Hearth guidance on the nutrition content of meals, seeking to provide 600-800Kcal with 25-27g of protein per session (through a meal and a snack) to facilitate recuperation of malnourished kids.

### Step 5. Design educational content

Each village nutrition school session includes a theme relevant to maternal or child nutrition, health, hygiene or early child development. Content is developed from formative research and existing national social and behavior change materials.

### Step 6. Train community health workers

Community health workers support village nutrition schools by providing close support the model parents who will implement the sessions. Those trained in step 1 train community health workers in maternal, infant and child nutrition (5 days) and the village nutrition school model, including the menus developed in Step 4 and educational content developed in Step 5 (5 days).

### Step 7. Identify and train model parents

“Model parents” are community members who host village nutrition schools. Model parents must have similar socio-economic status to targeted families, a healthy child under five years of age, positive behaviors, be able to lead others and be willing to take on this volunteer role. In Rwanda, community health workers identify four potential candidates then facilitate a community election of model parents. After election, model parents are trained on maternal infant and child nutrition principles (5 days) and village nutrition school implementation, including preparation of a healthy menu to rehabilitate malnourished children (5 days).

### Step 8. Initial targeting

Using the targeting criteria described above, the initial cohort of village nutrition school participants can now be identified and enrolled. In Rwanda, monthly growth monitoring and promotion sessions serve to



identify children in need of village nutrition school services (see Box). At this time, it may be necessary to revise targets.

After identifying children in need, community health workers and model parents brief identified families on the village nutrition school objectives and form them into groups of 10-12 families based on proximity. Families are also invited to participate in FFLS and SILC groups. Note that during monthly growth monitoring sessions, children meeting the targeting criteria (moderate malnutrition, growth faltering) are referred to the village nutrition school as new participants.

### Step 9. Select a site

Village nutrition schools typically take place at the model parents' home, but may rotate among participating families. To maintain a homey feel, sessions should not be at health facilities.

### Step 10. Ongoing implementing and capacity building

It is now time for model parents to begin holding village nutrition school sessions! Because the participants are often largely the same, many groups also choose to hold their SILC group or hygiene club activities just before or after the village nutrition school.

Throughout implementation, model Parents receive guidance on session themes through monthly in-service capacity building sessions with health facility staff. These meetings

update model parents on the priority topic for the month. They also allow model parents to discuss challenges, share best practices, exchange with peers, and ask questions of the health facility personnel.

### Growth Monitoring as an Essential Foundation for Village Nutrition Schools

In Rwanda, monthly growth monitoring and promotion is a core service organized by the Ministry of Health. All children under 5 are expected to participate to enable prompt identification and intervention for children with growth or nutritional issues. Growth monitoring is an essential foundation for village nutrition schools. It serves to:

- Enable caregivers to track the growth and development of their children
- Support caregivers with healthy children to maintain their achievements
- Identify children in need of village nutrition school services
- Monitor the nutritional status of participating children over time, including during and after the intervention (measuring success and sustainability of rehabilitation)

A caregiver feeds a young child a healthy meal prepared at a village nutrition school session.



## PHASES OF THE VILLAGE NUTRITION SCHOOL MODEL



Village nutrition school activities occur in three phases: an initial recuperation phase, a stabilization phase, and a maintenance phase.

### Phase I. Recuperation

Inspired by the Positive Deviance/Hearth approach to recuperating malnourished children in the community,<sup>1</sup> during this phase participating families meet daily (12 sessions over two weeks). The focus is helping malnourished children quickly regain a healthy weight, while providing parents the knowledge and skills to maintain their child's nutrition and prevent future malnutrition. The community health worker monitors children's weights at the start, middle (day 6), and end (day 12) of this phase. Children graduate, or move to the stabilization phase, when they meet pre-established criteria (see box).

Recuperation phases are repeated periodically for children who did not recover or newly identified malnourished children. Children who have not recovered a healthy weight at the end of the first 12 days are invited to another 12-day session. If they do not recover after two sessions, they are referred to the health facility for further evaluation and care. Most programs can expect the need for recuperation phases to decrease over time, though the frequency will depend on the context.

### Phase II. Stabilization

Following the recuperation phase, parents and their children continue to meet twice a month for three months. The goal of this phase is to continue close support for parents during this transition period to prevent relapse.

At each session, Model Parents promote nutrition behaviors and monitor children's growth, while parents jointly prepare and feed

their children a healthy meal. Parents are encouraged to discuss successes or challenges they have had adopting new behaviors and recipes. Other parents and Model Parents help identify possible solutions to challenges. In this phase, Model Parents also conduct twice monthly home visits to offer personal support.

### Determining criteria for graduation

There are two ways to determine if a child is ready to graduate from the recuperation phase:

1. Using national growth monitoring cards: In this system, criteria for graduation is met when the child moves between nutrition categories (from moderate malnutrition to normal nutritional) identified on the growth cards. In Rwanda volunteers use colors on the card - green, yellow and red. This method is easily understood by community members.

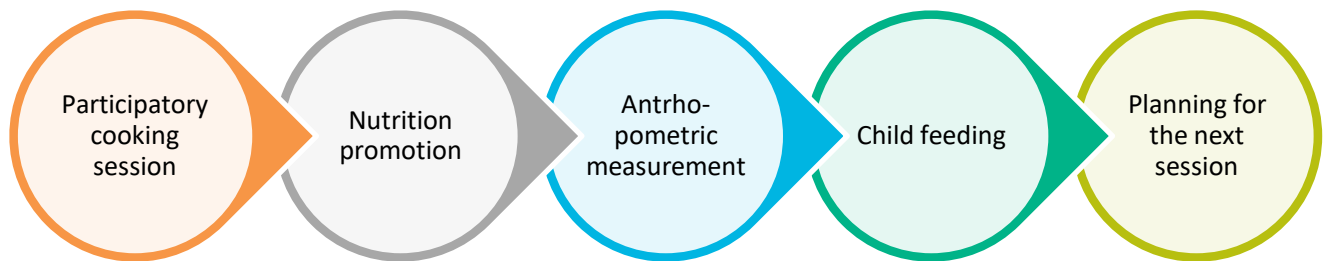
2. Using weight gain guidelines: In this system, criteria for graduation are based on catch-up growth achieved during the session. Children who have gained 400 to 800 grams (are growing as fast or faster than the 'International Standard Median') are ready for graduation.<sup>1</sup>

### Phase III. Maintenance

The focus of this phase is supporting parents to maintain enthusiasm for health and nutrition and continue to strengthen their knowledge and uptake of improved health, nutrition and hygiene practices. Model Parents continue nutrition promotion and monitor children's progress and parents continue to jointly prepare and feed their children a healthy meal.

During this phase, content on early childhood development and positive parenting principles are also emphasized, as are participation in complementary nutrition-sensitive activities such as FFLS, SILC, handicraft trainings and WASH.

## KEY ELEMENTS OF A VILLAGE NUTRITION SCHOOL SESSION



Across the three phases of the village nutrition school approach, sessions last 2-3 hours and include participatory cooking, nutrition promotion, anthropometric measurement, child feeding, and planning.

### Participatory cooking session

For each day, Model Parents pre-select a recipe from the recipe guide. Recipe selection considers seasonal availability of ingredients. Parents volunteer to bring one or more ingredients. Destitute families who are unable to provide food are asked to contribute in other ways, such as by bringing water, firewood or other materials.

At the start of the session, Model Parents explain the recipe and measures. Parents carry out the steps in the recipe, under the direction of the Model Parents. By preparing the food themselves, rather than watching, parents learn-by-doing and maximize retention. Model Parents oversee hand and food hygiene throughout the cooking process.

### Nutrition promotion

During a break in the food preparation (while the food soaks or simmers), Model Parents lead a behavior change session on a pre-selected child health, nutrition or hygiene theme. These sessions typically use visual materials (such as counseling cards) and discuss current practices and likely barriers to adopting the new practices. Some sessions also include songs, role plays, or opportunities to practice the behavior (for example handwashing) or to work together on necessary materials (for example making tippy-taps or toys).

### Anthropometric measurements

On the 1st, 6th and 12th day of the recuperative phase, and monthly during stabilization and maintenance phases, Community health workers measure and record children's weight, mid upper arm circumference (and height/length, if possible). Model Parents follow a child's progress over time with the child's parents and advise on progress or additional support needs as well as transition to another phase.

### Child feeding

Once the food is ready, everyone washes their hands with soap and water. Children are served an age-appropriate meal (and parents learn about the different portion sizes for children of different ages). Depending on their age, children feed themselves, or are fed by their parents. Model Parents support parents in responsive/active feeding practices such as understanding a young child's hunger or satiety cues, patiently encouraging children to eat, and avoiding force feeding. Following the meal, parents help with clean up.

### Planning for the next session

Before leaving, parents review the day's activities and agree on a date for the next session, the recipe to prepare, and each one's contribution.



## MONITORING, SUPERVISING AND SUSTAINING VILLAGE NUTRITION SCHOOLS

### Monitoring village nutrition schools

Model Parents conduct collect routine monitoring data for village nutrition schools through a register. The registers contain each child's identifying information, including date of birth. Attendance is tracked at each session. Weight is monitored and recorded on days 1, 6 and 12 of the recuperative session and monthly thereafter. Data from the registers are compiled and reported quarterly. The project team uses this information to assess implementation progress and make any necessary adjustments.

### Supervising village nutrition schools

Village nutrition school activities are supported by community health workers and supervised by health center and hospital staff in collaboration with the project team (field staff and the project's central nutrition point-person). Supervision visits are accompanied by a checklist that enables the verification the quality of the sessions as well as the accuracy of data recorded. In keeping with supervision best-practices, supervision visits include feedback to the facilitators about what they are doing well and how they can improve. Common weaknesses or areas for improvement are taken up at the monthly in-

service capacity building sessions for Model Parents.

Joint field visits with government stakeholders are particularly encouraged to ensure their participation in the process, and open discussion on ways for scaling up the village nutrition school model to areas not reached by the project.

### Sustaining village nutrition schools

Village nutrition schools, and their benefits, can only be sustained with the support and leadership of the communities themselves.

CRS has found that increased food and nutrition security is critical to communities' willingness and ability to sustain activities and gains. Gikuriro has linked village nutrition schools with agriculture technical assistance to promote crop diversification and encourage small animal husbandry. The project's SILC component has also helped families and communities smooth consumption, increase assets and invest in incoming generating activities. In addition, participants were supported to learn new skills and initiate group income generating activities to strengthen the sustainability of village nutrition schools.

Village nutrition school participants receive agriculture support as part of an integrated approach to improve food and security security, and sustain gains.



## KEY RESULTS AND ACHIEVEMENTS

Through September 2019:

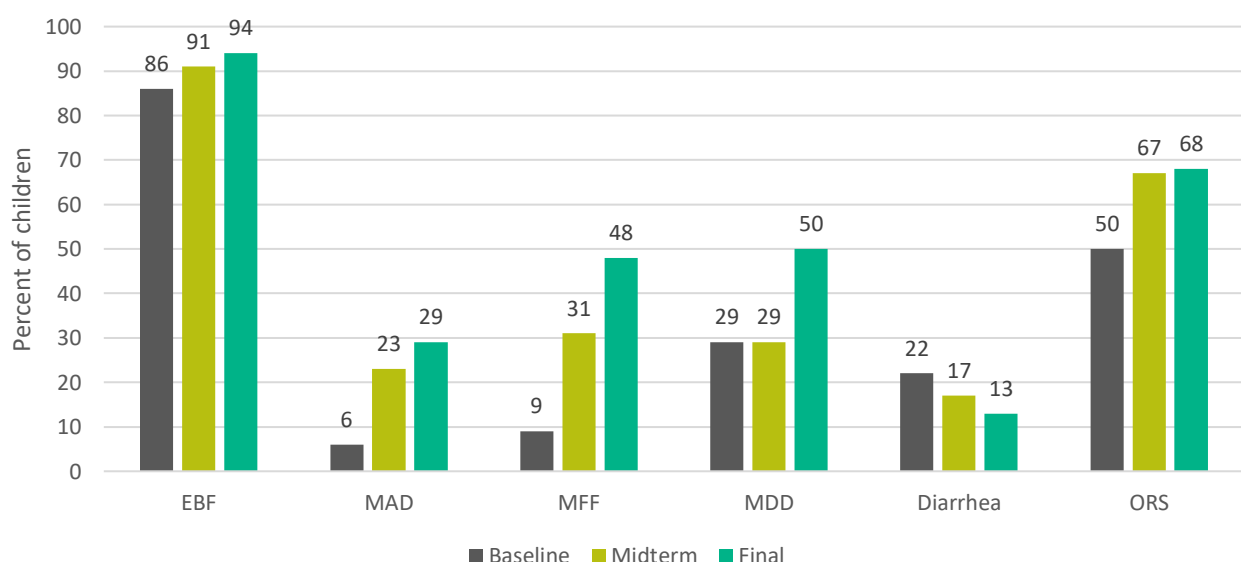
- **66,620** children have participated in village nutrition school sessions.
- **13,201** children (20%) were malnourished at the start of the session, while the remaining “at risk” children participated to prevent malnutrition.
- **12,512** malnourished children (95%) achieved a healthy weight after participation in village nutrition school sessions.
- **13,631** pregnant mothers participated in village nutrition schools to enable them to initiative healthy nutrition practices for their child throughout the first 1,000 days.

In addition, as shown in graph 1, many key child health and feeding practices improved substantially in Gikuriro project areas. Gikuriro’s evaluation also noted gains in women’s dietary diversity, from an average of 3.8 groups per day at baseline to 4.8 groups per day by endline. Data reflects entire communities and not only village nutrition participants (among whom it is presumed gains are larger).



*A caregiver helps prepare a healthy meal at a village nutrition school participatory cooking session.*

**Graph 1. Gains in child nutrition nutrition and health behaviors in Gukiroro supported districts over life of project**



EBF: Exclusive breastfeeding; MAD = Minimum Acceptable Diet for children 6-23 months; MFF = Minimum Meal Frequency for children 6-23 months; MDD = Minimum Dietary diversity for children 6-23 months; Diarrhea = prevalence of diarrhea in previous 14 days; ORS = use of oral rehydration solution among cases of child diarrhea in previous 14 days.



## LESSONS LEARNED

Over the past four years, CRS has continued to critically review the village nutrition school model in conjunction with our partners and the government of Rwanda. Through these reflections, we have identified the following lessons learned and best practices.

### 1. INTEGRATION OF NUTRITION-SENSITIVE ACTIVITIES IS A CORE PILLAR OF SUCCESS

Families targeted for village nutrition schools are also intentionally targeted for nutrition-sensitive activities including farmer field and learning schools, small livestock distribution, savings and internal lending communities (SILC), and handicraft skills trainings. This package helps families increase production of nutritious foods and build income to purchase food and other essential items for child health and wellbeing (for example health insurance coverage, construction of latrines, buying soap, or paying early childhood development center fees, etc). Where there is overlap of village nutrition school and SILC participants, regular weekly SILC meetings maintain group cohesion and reinforce interest in continued participation in village nutrition schools.

### 2. GROUPS STRENGTHEN SOCIAL COHESION IN ADDITION TO NUTRITION

An unexpected benefit that has resulted from village nutrition schools is the social cohesion that develops between members. CRS and implementing partners have noted that in every group, beneficiaries gain not only confidence, but support and a sense of belonging, as these vulnerable individuals were sometimes isolated in their communities or considered outcasts. They also gain respect from their community, who see them as working to improve their situation.

### 3. THOUGHTFUL AND DELIBERATE MALE ENGAGEMENT MAKES A DIFFERENCE

CRS chose to have Model Parents – both a mother and a father – rather just a Model Mother to encourage male engagement in nutrition with positive male role models in the community. While this approach has been valuable in garnering male interest and participation in nutrition (in many villages several men regularly attend village nutrition school sessions), it has not been without

challenges. Initially, CRS identified a husband and wife as Model Parents, but this proved unsuccessful. Given family responsibilities, it was difficult for both spouses to take on the volunteer workload of a Model Parent. In addition, the husbands of the ideal Model Mother were not always the best male role models in the community. Accordingly, CRS recommends identifying Model Mothers and Model Fathers independently to find the best candidate for each role. This also doubles the families in the community deeply committed to the success of village nutrition schools.

### 4. ANIMAL SOURCE FOODS ARE PARTICULARLY CHALLENGING TO MOBILIZE FOR RECIPES AND MAY REQUIRE ADDITIONAL SUPPORT

In Rwanda, it was difficult to identify animal source food options that were within reach of the poorest families. While recipes emphasized the most affordable options (e.g. powdered fish, eggs), in many communities, village nutrition schools initially struggled to secure the necessary contributions for recipes that included animal source foods. Given the importance of these foods for child nutrition, the project adopted several approaches to increase availability of animal source foods for village nutrition school and family meals.

First, the project opted to provide the poorest households (categories I&II) small animals (chickens, rabbits or guinea pigs); offspring sharing extended the benefits beyond the initially targeted families. Second, Model Parents were provided three chickens each, with the understanding that they would contribute eggs to village nutrition school sessions. Finally, families were encouraged to access small animals through SILC – a strategy that appears highly successful: a survey of SILC participants revealed that 46% used loans and 51% used their accumulated savings to purchase small animals while 60% used savings to purchase animal source foods.

### 5. VILLAGE NUTRITION SCHOOLS ARE A STRONG BASE FOR PROMOTING EARLY CHILDHOOD DEVELOPMENT ACTIVITIES

In 2019, the Government of Rwanda pushed forward an ambitious agenda to launch home-based early childhood development centers (HBECD) in every village nationwide. Parents

who had participated in village nutrition schools were aware of the benefits of early childhood development practices and used to pooling contributions to carry out joint activities for the benefit of their children. Accordingly, many were able to take on the work of promoting, establishing, and running HBECD.

## REMAING CHALLENGES AND FUTURE DIRECTIONS

Looking ahead, CRS is committed to further strengthening and improving the village nutrition school models. Some possible future directions include:

### 1. ENHANCE EARLY CHILDHOOD DEVELOPMENT CONTENT AND LINKAGES

Village nutrition schools already include some content on positive parenting, though nutrition is emphasized. Future village nutrition school activities can consider strengthening elements of responsive caregiving, early stimulation, and child safety in line with the nurturing care framework. A lesson on one of these themes could be included in each monthly village nutrition school session, or nutrition and other early childhood development themes could be alternated. Additionally, a formal plan to transition participating parents into parents' committees for HBECDs when children reach three years of age could be developed.

### 2. REINFORCE HOME VISITS

Home visits are essential for personalized support and to reach family members who may not participate in group sessions (men, grandmothers, etc). Many Model Parents do not conduct home visits as often as the project team would like, largely due to perceived workload. There are opportunities to better support home visits, including by stressing their importance at monthly in-service sessions and by tracking performance and adherence to home visit schedules.

### 3. OPTIMIZE INTEGRATION

A pillar of success has been that village nutrition school participants are also encouraged to participate in complementary activities (FFLS, SILC, trainings). But these groups sometimes have defined enrollment periods or a maximum number of participants, while village nutrition schools seek to enroll

any family once malnutrition strikes. This means that sometimes families wait several months for the next cycle or for enough other new families to form their own group. CRS and its partners continue to explore how to further optimize this integration.

### 4. LEVERAGE DATA FOR DECISION MAKING AND THE POTENTIAL OF ICT

Systematic record keeping and use of the data - particularly at local level - for decision-making and action supports impact and sustainability. There are opportunities to expand the use of information and communication technologies (ICT) for program monitoring and implementation. For example, the phone-based Comcare platform's case management function can track each child's individual participation and weight data throughout the intervention. Built in protocols can signal possible errors or flag warning signs for early intervention. Managers and other stakeholders can easily access powerful data for trend analysis. Systems such as Comcare can also facilitate home visits with reminders and automated content.

### 5. BUILD SUSTAINABILITY AND SCALE

Village nutrition schools are already well integrated with the local health system: community health workers help carry out sessions and weighing and identifying children, and local health facility staff host regular in-service sessions and supervise Model Parents. However, the model still relies on support from CRS and its implementing partners. For sustainability and integration, it will be particularly important to consider incentive structures (for example whether village nutrition school activities will factor into the performance-based incentives for community health workers), motivation systems for Model Parents and the health workers who supervise them, and how to build and maintain capacity to implement, monitor and supervise village nutrition schools in the long run.

#### References:

1. *Positive Deviance / Hearth: A Resource Guide for Sustainably Rehabilitating Malnourished Children*, Nutrition Working Group, Child Survival Collaborations and Resources Group (CORE), February, 2003

