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An Operations Evaluation of World Vision's Maternal and Child Health and Nutrition Program in Central Plateau, Haiti

Final Report

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ACRONYMS USED

ADP	Area Development Program
BCC	Behavior Change Communication
BF	Breastfeeding
CF	Complementary Feeding
CTS	Commodity Tracking System
CU	Cornell University
EBF	Exclusive Breastfeeding
FANTA	Food and Nutrition Technical Assistance
FDP	Food Distribution Point
FFH	Freedom from Hunger
GMP	Growth Monitoring and Promotion
HH	Household
IHE	*Institut Haitien de l'Enfance*
IFPRI	International Food Policy Research Institute
LAM	Lactational Amenorrhea Method
MC	Mothers' Club
MCH	Maternal and Child Health
ORS	Oral Rehydration Salt
PVO	Private Voluntary Organization
RP	Rally Post
SFB	Soy-Fortified Bulgur
USAID	United States Agency for International Development
WSB	Wheat-Soy Blend
WV	World Vision

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EXECUTIVE SUMMARY

Background and objectives

This report describes the methods and results of operations research undertaken to assess the effectiveness of World Vision's maternal and child health[1] (MCH) program in the Central Plateau region of Haiti. The research had three main objectives: (1) to assess the effectiveness of implementation and operations of the program relative to plans; (2) to assess the quality of delivery of the various services; and (3) to explore the perceptions of different stakeholders (i.e., beneficiaries and field implementers) regarding the operations and quality of services provided by the program.

This research is part of a larger evaluation being conducted by the International Food Policy Research Institute (IFPRI) and Cornell University (CU) in collaboration with World Vision (WV)-Haiti. The larger evaluation compares two models for delivering an integrated food and nutrition program, both with a take-home food ration component. The two models, which are being implemented by WV-Haiti, are: (1) the traditional *recuperative* approach, whereby children under 5 years of age are targeted to receive food supplements, nutrition counseling, and follow-up when they are identified as being underweight for their age; and (2) the *preventive* approach, which targets food supplements and other preventive interventions to all children below 2 years of age, irrespective of their nutritional status.[2]

It is important to note that the operations research described here was carried out in mid 2003, i.e., more than six months prior to the finalization of this report. Thus, the results depict the program as it was in 2003, a few months after all program components were fully implemented in the intervention area. As highlighted in the final section of this summary, several of the operational constraints identified in our research have been addressed since our data were collected, as part of the program's routine monitoring and strengthening activities.

Methodology

The operations research used a variety of qualitative and quantitative methods, including structured observations at different program delivery points, structured and semi-structured interviews with stakeholders, and a series of focus group discussions with WV program staff. The following three main program service delivery points were included in the evaluation: (1) the Rally Posts (RPs), where health education, growth monitoring and promotion (GMP), and other preventive health-care services are provided, and where program beneficiaries are identified; (2) the Mothers' Clubs (MCs), where smaller groups of participants gather to discuss health and nutrition topics in the context of the program's behavior change and communication

[1] The World Vision program does include a strong nutrition component and should therefore be referred to as "maternal and child health and nutrition program (MCHN)"; however, we use the term MCH in this report in order to be consistent with the terminology used by World Vision to refer to its program.

[2] Note that the main objective of this round of operations research was *not* to assess differences between the two program groups, but rather to identify potential operational constraints in the program as a whole. The next round of operations research to be carried out in 2004 will address the issue of potential differences in operations between the two program groups.

(BCC) strategy; and (3) the Food Distribution Points (FDPs), where beneficiaries receive their monthly food rations.

The stakeholders included in the research were beneficiaries of the program and the WV administrative and field staff at different levels of the program. This includes the health agents, *colvols* (community program volunteers) and food monitors, who are the direct program implementers, their supervisors (the maternal and child health [MCH] supervisors and the commodity supervisors), the regional and national health coordinators, and the regional commodity officer.

A summary of the methods used and sample sizes at different delivery points and with different stakeholders is provided in Table S1.

The research was undertaken in the area of the larger evaluation project, which covers 20 zones or clusters of communities (*localités)* in three communes: Hinche, Thomonde, and Lascahobas. Each cluster is the responsibility of one health agent, who is usually assisted by 1-3 *colvols*. The research included one program delivery point (i.e., RP, MC, and FDP) for each health agent, for a total of 19 RPs, 20 MCs and 10 FDPs.

The field team for the operations research consisted of two supervisors (Cornelia Loechl and Arsène Ferrus), two observers (responsible for observations at the RPs and FDPs), two fieldworkers (responsible for conducting the focus group discussions and semi-structured interviews with the health agents and beneficiaries), and one World Vision nurse (responsible for observations at the MCs). The training of the team, including the field-testing of questionnaires and interview guides, was done in June 2003 and data collection took place between July and September 2003.

In the following sections, the results of the operations research are presented separately for the three service delivery points—the RPs, MCs, and FDPs. This is followed by a summary of the results concerning staff perceptions of program organization and management. Note that the information derived from the different research methods used is combined and that the findings are presented by topic, rather than by research approach. This triangulation of research methods provides a rich and complete picture of each service delivery point.

The Rally Posts

Operations and organization of the Rally Posts

The RPs offer preventive health-care services to pregnant and lactating women, mothers with children less than 5 years of age, and women 15 to 49 years old. RP meetings are held monthly in each community and are managed primarily by the health agent responsible for that community, who is usually assisted by other health agents and *colvols*. As per the program implementation plan, the sequence of activities for each participant is as follows: (1) education session; (2) registration of participants, which includes updating the participant's health card, and the distribution of vitamin A, deworming tablets, and oral rehydration salts (ORS); (3) growth monitoring and promotion (GMP) activities; and (4) immunization, if required. Our main

Table S1. Summary of methodology used in the operations research

Research method/ stakeholder	Purpose	Location and sample size
Structured observations at main service delivery points	Assess operations, flow of activities, time involved in attending the delivery point	*Unit of observation/analysis is the service delivery point* **RPs**: n = 19 **MCs**: n = 20 **FDPs**: n = 10 In addition, at the RPs, information was collected on 38 tracked beneficiaries (2 per RP), using both observations and interview techniques (see below).
Structured interviews with beneficiaries	Assess access, services used, perceived importance of different services, and use of food	*Unit of analysis is the participant/beneficiary* **RPs** (n = 19): Exit interviews with tracked respondents (n = 38) Exit interviews with random sample of respondents (n = 59) **MCs** (n = 20): Exit interviews with random sample of respondents (n = 41) **FDPs** (n = 10): Exit interviews with random sample of respondents (n = 45)
Semi-structured interviews with health agents	Assess perceptions and opinions regarding operations, quality of services, constraints to program implementation, and suggestions for improvement	*Unit of analysis is the health agent* **RPs** (n = 19) **MCs** (n = 20) **FDPs** (n = 20)
Semi-structured interviews with health coordinators and commodity officer	Assess perceptions regarding current responsibilities, constraints to program implementation, supervision, coordination, and suggestions for improvement	*Unit of analysis is the health coordinator/commodity officer* National health coordinator Regional health coordinator (Hinche) Regional commodity officer (Hinche)
Semi-structured interviews with beneficiaries in their home	Assess perceptions regarding the program services, their relative importance, the constraints faced in using the services, and suggestions for improving the program	*Unit of analysis is the beneficiary* In beneficiaries' homes (n = 30)
Focus group discussions with five types of stakeholders (total of 7 focus groups)	Assess perceptions about current responsibilities, roles, workload, time constraints, supervision and incentive structure, coordination, and training	Health agents (2 groups) *Colvols* (2 groups) Food monitors (1 group) MCH supervisors (1 group) Commodity supervisors (1 group)

[a] Throughout this report, women attending the RPs are referred to as "participants," whereas mothers and children attending the MCs and the FDPs are referred to as "beneficiaries." This differentiation is made because the RPs are open to all women of reproductive age and children under 5 years in the communities served, whereas the other two program delivery points, the MCs and the FDPs, are specifically targeted to program beneficiaries.

findings regarding the efficiency of implementation of the different activities at the RPs and the quality of the services offered are presented below. This is followed by a summary of the perceptions of beneficiaries and program implementers regarding the RPs and their suggestions for potential improvements.

Implementation and quality of services at the Rally Posts

Attendance and participant/staff ratio. On average, 74 participants (children and pregnant or lactating women) attended the RPs observed, with considerable variability between the sites—from a low of 9 participants to a high of 169. These numbers do not include the caregivers accompanying the children and other family members who may also be present. Not surprisingly, the overall impression is that RPs are generally crowded. The participant/staff ratio also varies widely between RPs, ranging from 5 to 151 participants per health agent, with an average of 55. When including the *colvols* in addition to the health agents in the ratio, the numbers are more reasonable (on average, 21 participants per health staff person, but with a range of 2 to 59).

Sequencing of activities and bottlenecks. Overall, it appears that the sequence of activities in the implementation plan (described above) is rarely followed. It is not clear, however, whether or not departure from the proposed sequence of activities affects the effectiveness of implementation. Our data show no evidence of an association between the likelihood of experiencing bottlenecks (i.e., inefficient flow of participants through the different program activities) and the specific program sequence used in the different RPs. In fact, bottlenecks were not avoided even in the RPs that used a sequence of activities similar to the one proposed in the program implementation plan. Factors responsible for bottlenecks were invariably the large numbers of participants, and the high participant/staff ratios. The two RPs where no bottlenecks were observed had less than 40 participants and a low participant/staff ratio (< 14).

Education. Our observations indicate that the actual organization of the education sessions in the RPs departs considerably from the program implementation plan, which suggests that several education sessions should be held throughout the day, to accommodate all participants. The implementation plan also provides a 12-month schedule for education topics. In contrast to this plan, at most of the RPs, only one education session was held, and this session was often held early in the morning as the first activity at the RP. This resulted in significant numbers of participants missing the education session because they arrived late. Additional sessions, to accommodate late arrivers, were observed in only 4 of the 19 RPs. Second, none of the education sessions observed corresponded to the recommended topic for the month. While some flexibility in the choice of topics may be desirable to ensure that topics of particular relevance are addressed in a timely fashion (for example, the use of ORS during periods of high diarrhea incidence), the risk is that some other important topics may never be addressed.

Insufficient use of communication materials was also observed in most education sessions, in spite of the fact that such material had been provided to the health staff. This is likely to limit the effectiveness of the education, as is the large number of participants (on average, 30, and up to 76 in RPs where only one session was held), the distracting environment, and the short time allocated to this activity (between 1 and 23 minutes).

The potential effectiveness of the education conducted at the RPs was assessed by asking respondents from the home interviews what they could recall from the last education session they had attended at an RP. Most mothers had attended a session on immunization; their recall of the role of immunization for protecting children against illnesses and the importance of receiving all

doses to get full protection were quite good; some mothers could also recall the role of certain vaccines. Most mothers also reported that they regularly took their child to the RP for immunization. Thus, it appears that the recall of details and the adoption of recommended practices among mothers who had recently attended an immunization session at the RP were quite good, in spite of the generally unfavorable conditions in which the education sessions were conducted at the RPs.

Overall, our findings suggest that the generally distracting environment due to the many activities taking place at the same time and in the same area, the crowding, and the high participant/staff ratio make effective education difficult in the context of the RPs. However, the RPs can still be used as effective venues to reinforce some of the topics discussed in other more appropriate BCC venues (like the MCs; see below) and also to present simple messages on topics of general interest such as hygiene, the use of ORS, or the importance of immunization.

Registration, vitamin A supplementation, and distribution of deworming drugs and ORS. The registration of the participants at the RPs was by far the most significant bottleneck observed (primary bottleneck in 16 of the 19 RPs). This appears to be caused by the large numbers of participants and insufficient staff. While it is a slow process, the registration of participants generally seems to proceed as planned—that is, health cards are usually updated with the information on immunization, vitamin A, and the deworming dosage received on the day of observation. In contrast, bringing the food ration card to the RP—as required by the program to register the date of attendance in order to be eligible for the monthly food ration—has clearly not yet turned into a routine.

The *quality* of vitamin A supplementation and distribution of deworming drugs were assessed indirectly by verifying whether children who received it on the day of observation were actually due, and calculating the percentage of children due who did not receive it. Vitamin A supplementation is to be administered every six months to children less than 5 years of age, and deworming tablets are to be provided to all children 2 years or older, also every six months. In general, it appears that when given, the schedules of administration of vitamin A and deworming were followed. However, the lack of availability of vitamin A, and particularly of deworming tablets and ORS, was a generalized problem in the RPs observed. For instance, 26 percent of the tracked participants attended a RP where vitamin A supplementation was not provided on the day of their attendance. The situation was even worse for deworming tablets; half of the children who were eligible did not receive the tablets because the tablets were not distributed at the RP that day. The ORS packets, which should be handed out to all participants, were received by only two of our respondents from the exit interviews and none from the tracked interviews. Observations at the RP level confirm that the supply of vitamin A, deworming tablets, and ORS packets was inadequate; vitamin A was unavailable in 5 of the 19 RPs observed, whereas deworming tablets and ORS packets were unavailable in 8 RPs and 12 RPs, respectively.

Growth monitoring and promotion (GMP). In general, the GMP activities at the RPs appear to function relatively smoothly. All the caregivers, either tracked or interviewed, reported that their child was weighed, and in most cases, the weight was plotted and the child's nutritional status assessed. Only about half of the caregivers, however, were informed about their child's weight and even fewer received some post-weighing advice (n = 14/38). The likelihood of receiving counseling appeared slightly higher among caregivers who had a malnourished child,

but even then, more than half of the caregivers with a child classified as M2 (malnourished according to the Gomez classification)[3] received no individual advice following the weighing and plotting procedures.

The quality of the weighing and plotting of the weight to assess children's nutritional status was tested through the re-weighing of children by our trained and standardized fieldworkers using electronic scales. The findings show that both the weighing and plotting of the weight were less than optimal and resulted in 28 percent of the children being misclassified into different Gomez malnutrition categories. For the recuperative group, where children's eligibility to receive food rations is based on whether or not they are malnourished (M2 or M3), this is likely to result in the misclassification of children as beneficiaries or nonbeneficiaries of the program. In our sample of 38 tracked respondents, misclassification errors resulted in a similar number of eligible (M2) children who were missed (i.e., misclassified as Normal or M1) and therefore excluded from the program (n = 2), and of non-eligible children (Normal or M1) who were mistakenly classified as M2 and thus included in the program (n = 2). Although in this example the errors cancel out with regards to the amount of program resources such as food and other services required, misclassification problems reduce the cost-effectiveness of programs. This is because it results in the leakage of program benefits to children who are not malnourished, and therefore are less likely to benefit from the program, and in a lower coverage of those children who are malnourished and hence more likely to benefit from it.

Our assessment also confirms a widely documented problem with GMP activities carried out in settings such as the RPs, which is that the opportunity to use the child's weight and growth information to interact with the caregiver and to tailor individual counseling messages to the specific needs of the child is lost. In the RPs observed, even transmitting the information to the mother about the child's weight and nutritional status was difficult to achieve, let alone providing relevant and tailored individual counseling. Given the high participant/staff ratio, the distracting atmosphere, and the numerous activities going on at the same time in the RPs, it is probably unrealistic to expect that GMP could offer a venue for effective education and individual counseling of caregivers.

Immunization. A large proportion of children and caregivers included in our tracking or exit interviews at the RPs were fully immunized. For those who were not, however, approximately 40 percent were not immunized on the day of the RP because the service was not offered. This, in turn, was usually due to a lack of supply of vaccines. Clearly, the lack of supplies of vaccine and, as indicated earlier, of vitamin A, deworming tablets, and ORS packets, were common problems in the RPs observed, and this is likely to result in inadequate coverage of these important preventive services in the area.

Time involvement. On average, participants spent 20 minutes to get to the RP and close to 2 hours at the RP. The total time, including traveling to and from the RPs and the time spent there could be as high as 7 hours for some mothers, and as low as 35 minutes for others.

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[3] The Gomez classification is widely used in MCH programs to classify children as *normal* or malnourished. In this classification, normal (N) corresponds to a child having a weight for his/her age that is ≥ 90 percent of the median of the weight-for-age CDC/NCHS/WHO standards (WHO 1979); mild malnutrition (Grade M1) corresponds to a weight-for-age between 75 percent and < 90 percent of the median; moderate malnutrition (Grade M2) to 60 percent - < 75 percent of the median; and severe malnutrition (Grade M3) to ≤ 60 percent of the median (Cogill 2003).

Observations with our tracked respondents revealed that on average 75 percent of the time that caregivers spent at the RP was used in waiting in line for the services (on average, 94 minutes).

Staff perceptions and suggestions for improvement of the Rally Posts

General perceptions. Overall the data suggest that the health staff view the RPs as an extremely important component of their services to the communities and particularly of their role in fostering children's growth and health. MCH supervisors consider the RPs as the key activity of the MCH program because it is the venue where program beneficiaries are identified. In addition, the health staff expressed that they consider the RPs important because the services they offer also reach families who do not have access to the food aid component of the program. Most of the health agents interviewed felt that the RPs were working well in general and they reported high participation rates. They also felt that participants enjoyed going to the RPs.

Perceived problems. Some of the factors that the health staff felt hindered the efficient implementation of services at the RPs included problems with the lack of supplies such as medical supplies as well as scales and megaphones, insulated containers and ice for the vaccines, and furniture (chairs, benches, and tables). Other problems mentioned were the high participant/staff ratios, the late arrival of participants, and the fact that this prevented them from attending the education sessions, and the problem of participants forgetting their health or ration cards. Furthermore, the health agents felt that it was imperative that the program management provides more training for *colvols* so that they could better assist them in their duties.

Another important problem that many health agents mentioned was the lack of transport to pick up the vaccines at the dispensary or the WV office, which causes delays in the start of the RPs. They also mentioned the large distances between the different communities where they worked as a key constraint.

Suggestions on how to improve the RP services. The suggestions made by the health agents to improve the services offered at the RPs were very much in line with their comments regarding the problems they faced. In order of importance, they recommended that the program management takes the following actions: (1) provide medical supplies and vaccines regularly and in sufficient amounts, as well as all other materials and furniture needed; (2) assist with transport facilities; (3) hire more *colvols* and provide them with better training; also facilitate interaction among health staff to increase collaboration; (4) provide ice to maintain the cold-chain for vaccines; and (5) offer training to improve the logistics at the RPs and to improve their own performance.

Beneficiaries' perceptions and suggestions for improvement of the Rally Posts

Data from interviews with program beneficiaries suggested that overall, they were quite satisfied with the RP services, and considered most of them to be important for their child's health and their own. Immunization was perceived to be the most important service by the majority of the respondents. Several of them, however, felt that all services were very important and they had difficulty ranking them in order of importance. Few respondents had suggestions on how to improve the RP services, but those who did mainly focused on ways to improve the internal organization of the RPs. Examples of their suggestions include the following: improve

the venues for the RPs, ensure that the dates of the RPs do not change and that the dates are regularly announced, and encourage the health staff to arrive on time. Some also suggested that additional services be offered at the RPs, such as general medical consultations, free distribution of drugs for sick individuals, and regular availability of chlorine for water treatment.

Conclusions on operations at Rally Posts

Overall, our assessment suggests that the RPs are generally operating in accordance with World Vision's implementation plan. The problems encountered with operations relate primarily to organizational and logistical issues such as crowding, the high participant/staff ratio, long waiting times, bottlenecks at registration, and lack of supplies and transport for staff. In terms of quality of services, the areas that could benefit from some improvement are the general education sessions and the communication between health staff and caregivers in the context of the growth monitoring and promotion activities.

The Mothers' Clubs

Operations and organization of the Mothers' Clubs

World Vision, in collaboration with our research team, designed a new behavior change communication (BCC) strategy in 2002-03, focusing mainly on improving infant and young child-feeding practices. Visual and communications materials were developed for a series of 13 *learning sessions* on infant and young child feeding. The health staff were trained in the use of the new materials and their technical content, as well as in adult education techniques. The BCC strategy was fully implemented in early 2003, only a few months before the data were gathered for this operations research. In the context of this new BCC strategy, the MCs are the key venue for most of the educational and BCC interventions provided by the program.

Separate MCs are organized for pregnant women, lactating women (0-5 months postpartum), and depending on the program model, for mothers of children 6-23 months old (preventive model) or for mothers of malnourished children 6-59 months old (recuperative model). In the preventive model, the MCs organized for children are expected to be as homogenous as possible in regard to the age of the children of participating mothers. For example, it is recommended that separate groups be held for mothers of 6-11 month-old children and for mothers of older children (12-23 months). The rationale is to ensure that the learning sessions and the specific messages they contain are delivered to mothers at the time when they are most likely to need the information and to translate the newly acquired knowledge into behavior change.

Findings of our evaluation of operational aspects and of the quality of services offered at the MCs are presented below, followed by a brief summary of the perceptions of staff and beneficiaries about the MCs and their recommendations on how to improve them.

Implementation of services at the Mothers' Clubs

Organization of the MCs and attendance. The MCs are meant to gather small groups of 15-20 participants. The number of registered participants attending the 20 MCs observed was

within this range, but a number of other people—children, fathers, or other relatives—were also present at most sessions, raising the average number of participants to 18 and the upper end of the range to 41 participants. Although it is difficult to restrict participation only to registered beneficiaries, some advice may need to be provided to health agents/*colvols* on how to ensure that the size of the MCs remains manageable.

The time involved in holding or attending a MC is also a real concern. Although the learning sessions lasted, on average, one hour, the time involvement for participants and health staff was much longer, mostly because of delays in starting the session, while waiting for all participants to join. The average time health agents spent on MCs was 2.7 hours, with a range of 1.7 to 5.3 hours.

Adherence to the MC categories and planned schedule of learning sessions. In general, the MCs for pregnant and lactating women respectively included the right categories of women, except for a few mothers in the lactating groups who had children older than the maximum of 6 months recommended by the program. The schedule of learning sessions for the MCs for pregnant and lactating women was also generally as recommended—they included several sessions on breastfeeding and a session on the introduction of complementary foods and one on "children learning to eat." Many of the sessions targeted to mothers of children < 24 months in the preventive group, however, did not follow the recommended schedule of learning sessions for children of different ages, and quite a few mothers received the information at the wrong time. For instance, mothers of children 12 and 18 months, respectively, participated in a learning session about feeding of children 6-12 months of age. The same was true for a mother of a 4-month-old child who was instructed on how to feed children 12 months and older. Our results suggest that there are still some logistical difficulties in forming MCs that are homogeneous, especially with respect to the small age ranges recommended for the MCs in the preventive program group. It is important to note, however, that this new system had been implemented only a few months prior to our research, and therefore may still have been in a transition phase.

Quality of education at the Mothers' Clubs and recall and use of information

Quality of education at the MCs. The quality of education at the MCs was observed to be very good, especially considering that training in the use of the new materials and adult education techniques had been completed only a few months before our observations. The technical content of the education was correct and complete in a large majority of the MCs observed and the management and organization of the sessions were generally good. The health staff's facilitation and teaching skills were also generally good; they used open-ended questions to probe and encourage the participants, and approximately one-half of them managed to establish a real dialogue and interaction with the group. These results are very encouraging and show a major improvement compared to the situation observed before the training. Previously, the education provided at the MCs was generally based on a lecture-type approach to teaching and a classroom-like arrangement for the group, both of which are considered inappropriate for effective BCC. The improvement in facilitation and teaching skills and in attitudes observed during the operations research show that the training of the health staff conducted in 2003 was highly effective. Clearly a behavior change process at the level of the health staff itself has commenced.

Recall and use of information discussed at the MCs. Overall, the mothers' recall of the sessions they had attended 1- 2 weeks prior to the interviews was very good. Most could recall the main topic of the session and at least two or three more specific concepts related to the main topic. The rate of *reported* adoption of the recommended practices was also quite high, especially with regards to exclusive breastfeeding and the use of enriched gruels for the complementary feeding of infants and young children. The main reasons reported by mothers for not adopting the recommendation to feed their child enriched foods were financial. For three of the mothers who were taught to express breast milk, their reason for not adopting the recommended practice was their fear of contamination of the milk during storage.

We also used a *subjective rating* approach to assess the overall comprehension of the concepts discussed at the MCs by beneficiary women. The results indicated that one-third of the respondents had very good comprehension—i.e., they recalled information correctly and were consistent in what they recalled and then reported translating into practice. Very few women had very poor comprehension (n = 3/30), and the remaining women were in the middle two categories (upper and lower middle). Thus overall, it appears that the learning sessions were quite effective in transferring knowledge to women and also in initiating a process of behavior change, at least in some of the participants.

It is important to highlight that the BCC strategy had only recently been implemented and that the findings may be a reflection of a great momentum among the health staff about what they had recently learned and were eager to put into practice. The same is true for the participating women who may have been particularly enthusiastic to try some of the new recipes or other practices they had just learned at the MCs. It will be important to reassess in the next round of operations research to be carried out in 2004 whether this momentum could be sustained and whether the quality of the intervention and its impact on behavior change are maintained over time.

Staff perceptions and suggestions for improvement of the Mothers' Clubs

General perceptions. All health agents interviewed felt that the MCs were working well in general. The *colvols* expressed the same view and indicated that participating mothers liked the clubs. Health agents, *colvols*, and the MCH supervisors all referred to the MCs as an important forum for mothers to exchange ideas, receive important information, and acquire skills that will help them take better care of their children. There was also a general sense that MCs had improved since the previous year, both in relation to organizational aspects as well as in the content of the lessons, the availability of communication materials, and the supervision.

Perceived problems. The most common problems reported were the late arrival of participants and absenteeism. Strategies to address these problems were also discussed and included threatening the participants with considering them absent if they arrived late at the MC and refusing to sign their ration card if they were either late or absent. Other problems indicated by the health agents were the poor venues of the MCs and the lack of appropriate seating arrangement for the participants, and the problem with mothers who forget their ration cards.

Suggestions on how to improve the MCs. Again, most of the suggestions made by the health agents were in direct relation to the problems identified. Their recommendations focused

on the following aspects: (1) *staff training*: ensure retraining, monitoring, and supervision to maintain quality; (2) *resources*: provide more suitable and better-equipped venues and more *colvols* to assist them in their work; (3) *time and workload*: provide transport; (4) *calendars*: improve the scheduling of the MCs.

Beneficiary perceptions about the Mothers' Clubs

The MCs were well appreciated by the respondents, who indicated that the clubs were important for their children's health. Some of them considered that the MCs were the most important service offered by WV, although many had trouble ranking the different services according to their importance because they felt that all were important. The majority of respondents felt that attendance at the MCs improved their knowledge about infant and child feeding and care. Nearly two-thirds of the home interview respondents (n = 18) felt that the MCs were the easiest service to use among the different WV activities that they attended. The main reasons were that the clubs were relatively close to their homes and the time involvement was reasonable.

Conclusions on operations at the Mothers' Clubs

Overall, our results suggest that the MCs are appreciated by both the staff and the beneficiaries and are perceived to be the least time-consuming requirement of the program for beneficiaries. MCs are also recognized as being a key element of the package of services offered by the program and as being the primary venue for the education and BCC strategy. Our results also showed marked improvements in the quality of the education provided at the MCs, both with regards to the technical content of the sessions and the health staff's facilitation and teaching skills. Ensuring the intended composition of the clubs (especially in the preventive program group) in order to maximize their effectiveness and impact on behavior change is still a challenge and will probably require continued supervision and re-training of the staff. The same is true for sustaining the quality of education over time and maintaining the motivation of both staff and beneficiaries.

The Food Distribution Points

Operations and organization of the Food Distribution Points

The distribution of food aid commodities to beneficiaries of the WV program occurs on a monthly basis at special Food Distribution Points (FDPs). Beneficiaries from several communities are scheduled to receive their food rations at a central distribution point on the same day.

Beneficiary households receive both direct and indirect rations. The direct ration is intended for the beneficiary child and/or mother, whereas the indirect ration is to complement the family diet and is to be shared among all family members. The direct ration for a beneficiary child consists of 8 kg of wheat-soy blend (WSB) and 2 kg of oil; the indirect ration includes 10 kg of soy-fortified bulgur (SFB) and 2.5 kg of lentils. For the pregnant or lactating mother, the direct ration is 5 kg of SFB, 2 kg of lentils, and 1.5 kg of vegetable oil; the indirect ration is 5 kg

of SFB, 2 kg of lentils, and 1.5 kg of vegetable oil. Families with more than one direct beneficiary can receive a maximum of 1 indirect ration.

There are three steps in the process of food distribution at the FDPs: (1) verification of eligibility based on information in the beneficiary ration card; (2) collection of food by the beneficiary; and (3) verification by the food monitor that the ration received corresponds to the ration allocated, and signature of the ration card.

The key findings of our evaluation of the operations and quality of services at the FDPs are presented below, along with a summary of the perceptions of beneficiaries and staff.

Operations and quality of services at the Food Distribution Points

Attendance and beneficiary/staff. Attendance at the FDPs is very high (average of 240 beneficiaries, with a maximum of 375), and so is the beneficiary/food monitor ratio, with an average of 77 (ranging up to 187). Not surprisingly, the time involvement for participants in this activity is extremely high, averaging 6 hours including travel time (average 1 hour each way) and the time spent at the FDP (average 4 hours). This varied from 2.5 hours in the best case to a very high 9 hours in the worst case. The main reasons for the large amount of time involved in receiving the food are delays in both the food and the staff getting to the FDPs. For example, although beneficiaries are typically asked to come to the FDPs at 8:00 a.m., 4 of the 10 FDPs observed did not start their activities until between 11 and 12 a.m. Food was late to arrive in 3 out of 10 FDPs and food monitors were late in half of the FDPs observed.

Amount of food received. Our measurement of the amount of food received by different types of beneficiaries showed that, on average, they received close to one-half a kilo less of the SFB than allocated and a quarter of a kilo more oil. On average, the amounts of WSB and lentils received differed from the amounts allocated by only approximately 100 g. Assuming that a margin of error of 200 g is acceptable, only 16 percent of the beneficiaries received the correct amount of SFB, less than half received the correct amount of WSB, approximately half received the right amount of oil, and 68 percent the right amount of lentils. The magnitude of the gap between the amounts allocated and the amounts received ranged from –2 kg to +4 kg for SFB and from –2 kg to +2 kg for WSB, the two most problematic commodities in that regard. These levels of errors are very high, especially for WSB—a difference of ±2 kilos represents 25 percent of the 8 kg allocated to a beneficiary child (note that WSB is provided only as a direct ration to beneficiary children; it is not included in the direct ration for pregnant and lactating women nor in the indirect ratio for other family members). Of course, from the perspective of the program and the total amount of food distributed, these errors tend to cancel out. However, from the point of view of the beneficiaries, these problems lead to feelings of injustice and dissatisfaction with the program.

The food commodities were usually measured using containers tailored to the amounts allocated for each of the commodities. Clearly, this approach is not as exact as using a scale, and our results confirm that it seems to result in significant levels of errors.

Quality of the food commodities. Problems with the quality of the food were observed only in one FDP, where three of the five bags of SFB inspected were visibly humid from the

outside and the product quality had been altered. Neither visible infestation of food commodities with insects or worms, nor any visible color changes, were observed or reported in the interviews.

The use of food rations

Our interviews with beneficiaries showed that, on average, the commodities received lasted two-to-three weeks, but none lasted for the entire month. Sharing of the commodities among all family members was almost universal for SFB and for lentils, but not for WSB. Approximately 40 percent of the beneficiaries reported feeding the different WSB-based recipes mostly to the beneficiary child. For the other products, and especially for lentils, only between 5 and 10 percent of the mothers reported feeding the donated foods mostly to the beneficiary child. A large majority (70 percent) of beneficiaries reported sharing the food commodities either with other family members (not living in the same household), or with neighbors or other people.

These results confirm the well-recognized sharing of donated food commodities among family members and in many cases also with other families and individuals. Although there is some indication that the WSB—which is specifically targeted to the young child and has higher levels of multi-micronutrient fortification than the other commodities—is used preferentially for the young child, more than half of the households (60 percent) reported sharing WSB with other family members.

The practice of sharing donated commodities reflects the reality of rural Haiti, where most families are extremely poor and rely heavily on social networks, and where sharing of received goods is an obligation in order to benefit in turn from goods that others may receive. A few families also admitted to selling some of the donated commodities at times, in order to purchase other basic needs. It will be difficult for the program to change these practices unless other supporting program activities can be put in place to significantly increase the resource base available to these poor households.

Staff perceptions and suggestions for improvement of the Food Distribution Points

Perceived problems. The program staff identified several concerns regarding the functioning of the FDPs, and most of them were related to logistical and organizational aspects. Delays in the start of the food distribution due to the late arrival of the food were perceived by the health agents as a major operational problem. The food monitors and their supervisors also expressed their concerns regarding the start time of the food distribution, and mentioned that adherence to the schedule of food distribution was also an issue. Differences in the list of beneficiaries included in the monthly distribution lists and the master list, which includes all beneficiaries with information about entry/exit dates in the program, were also noted by both the health and the commodity staff. The problem related to the beneficiaries not having their ration cards with them was also raised by all groups. Problems with the lists and/or with the ration card are a real concern because they result in some beneficiaries returning home without their food ration. This causes a lot of frustration among beneficiaries and dissatisfaction with the program, and also results in problems for the staff.

Other concerns raised mostly by the health agents included crowding at the FDPs, a lack of respect from the food monitors towards the beneficiaries and the health staff, and the non-hygienic handling of foods in some cases.

Suggestions for improvements. The health agents recommended that the program management addresses the overall logistical and punctuality issues by providing support to ensure the timely arrival of the food at the FDPs and enable adherence to the scheduled distribution dates. They also made two specific suggestions on how to reduce crowding, i.e., establishing smaller distribution points and scheduling beneficiaries from different zones to arrive at different times. They also recommended that additional efforts be made to ensure that all eligible beneficiaries receive their food. They suggested that this problem could be addressed by encouraging the health staff and the commodity staff to work jointly on the preparation of the lists. The health agents also recommended that hygiene in food handling be improved and that local containers be standardized to ensure that beneficiaries receive the amount of each commodity they are entitled to.

Beneficiaries' perceptions regarding the Food Distribution Points

As expected, the food distribution component of the program was well appreciated by the respondents. Many indicated that they particularly appreciated the WSB because it contains vitamins, which keep children healthy. Other respondents felt that the food distribution helped them to cope with food insecurity, and prevent hunger.

Perceived problems. The problems expressed by the beneficiaries were also not entirely unexpected, considering our findings reported above. Most beneficiaries considered that the time involved in attending a FDP was a major obstacle to the use of the service, and it was due to a combination of the long distances traveled to and from the FDP and delays in the start of the food distribution. A significant number of respondents expressed concerns about the food, and especially the WSB and the SFB, which they believed caused diarrhea. In some cases, this was reported in adults as well as in children, but only when they first started to consume the product (50 percent). For others, diarrhea was believed to result when the foods were consumed frequently. It is important to recognize that in environments such as these rural Haitian communities, where the incidence of diarrhea is generally so high (Menon and Ruel 2003), it is difficult to tell whether the donated foods are really responsible for the reported diarrhea.

Suggestions for improvement. Only a few beneficiaries proposed suggestions on how to improve the food distribution. Their recommendations were very similar to those made by the health staff and focused mainly on ways to improve the logistics and punctuality issues. They also recommended that the program staff visit the local markets after a food distribution day to assess the extent of food selling. Finally, they indicated their wish that ration sizes be increased and that everybody receive food donations so that there is no need for sharing with non-recipients.

Conclusions on operations at the Food Distribution Points

In summary, our data confirm the existence of logistical constraints related to the transport and distribution of food commodities in the study area. Transport problems, which

affect the timely arrival of both food and staff, are difficult to overcome in areas such as the Central Plateau, which are characterized by extremely poor road conditions, especially during the rainy season. Other problems, such as excessive crowding and long waiting times, which are also affected by logistical constraints inherent to the environment, continue to be a challenge but need to be addressed. Solving the measurement problems to ensure that beneficiaries receive the amount of food they are entitled to is also important for fairness as well as to ensure efficient use of resources. The sharing of food commodities is probably unavoidable, but the program should continue to emphasize the importance of prioritizing the targeted beneficiaries within the family, and the differential use of selected food commodities such as WSB for young children who have high nutrient requirements. The other commodities, which are provided specifically to complement the diet of other family members, can continue to be used for this purpose.

Staff perceptions of program organization and management

Data from focus group discussions with five categories of program implementers were used to assess their perceptions regarding various aspects of the program's organization and management. The focus groups were organized as follows: two groups each of *colvols* and health agents, and one group each of MCH supervisors, food monitors, and commodity supervisors. The data from the focus groups were supplemented by semi-structured interviews with the national and regional health coordinators and the regional commodity officer.

A consistent finding from these focus groups is that, at all levels, staff feel that they are engaged in important activities that are leading to improvement in the lives of the people the program serves. They believe that their jobs entail serious responsibilities, and they express confidence in their preparation and ability to meet these responsibilities. The conviction that they are contributing to the development of the communities in which they work, and facilitating behavior change in individuals and families, are important sources of motivation. Many also find the work itself enjoyable.

The acquisition of professional status and the value of training were also highlighted by community-level staff as a source of job satisfaction and a factor in the development of their capacities to carry out their jobs. Some of the respondents contrasted the current training orientation with their previous experiences, emphasizing not only the new technical knowledge they have acquired, but also that they have developed improved modes of interacting with their clients (e.g., using adult learning principles in the design of their education activities).

At every level of the program delivery system, staff called attention to expansion in their workloads. Various perspectives were expressed concerning the significance of this fact. While some felt it to be a source of discouragement, this was not universally the case. One consequence is that expanded work time puts greater pressure on the availability and management of time for other personal obligations (e.g., in agriculture and other domestic activities). For community volunteers (*colvols*), a significant source of tension vis-à-vis health agents is that they see themselves as working as hard as the agents without appropriate financial compensation.

The operations research identified five issues that negatively affect the satisfaction people experience in their jobs. For health agents and community volunteers (*colvols*), these are:

(1) lack of respect from supervisors and higher management levels; (2) low salaries and problems with payment arrangements; (3) lack of transport and supplies to facilitate their work; (4) responsibility for too many activities; and (5) weak planning and coordination between the different levels in the program. MCH supervisors expressed concern only about lack of transport and supplies to facilitate their work and responsibility for too many activities. Commodity supervisors noted only lack of transport and supplies to facilitate their work as a problem that affects their job satisfaction.

At each level, staff were asked to reflect on their relationships with their direct supervisors. At every level, from *colvols* to supervisors, positive comments on supervision reflected two general features: (1) the feeling that supervision is stimulating and motivating; and (2) the view that they received adequate technical guidance for problem-solving, planning, and other technical issues. The value of technical guidance and appreciation for it was articulated in all the focus groups, with the exception of the MCH supervisors, where this perception was not brought up in the discussions. On the other hand, concerns were also expressed about how supportive supervisors were. At the opposite extreme from "stimulating and motivating" was the view that supervision was sometimes demoralizing (expressed in one of the *colvol* focus group discussions). "Moderate support" and "nonsupport," intermediate positions on this dimension, were also expressed.

With respect to coordination between the health and commodity sectors, positive features of the relationship noted by respondents emphasized the value of exchange of ideas, and the fact that there is joint preparation for the food distribution, and joint transportation of staff. The themes representing aspects of the coordination that were seen as negatively affecting the program were: (1) insufficient communication and dialogue between the two teams, (2) insufficient collaboration in preparing for the food distribution and during the distribution process, and (3) lack of respect from the food team for the health staff and also for the beneficiaries.

In all of the focus groups, respondents were asked to provide their ideas about how to increase support and address problems. A variety of suggestions were offered, ranging from providing field staff with WV badges and transportation facilities to more training on job responsibilities and technical health and nutrition issues.

In all of the focus groups, a number of suggestions were also made about how to improve supervision. Suggestions covered a range of matters under the general topics of strengthening coordination and collaboration between different levels in the program and shifting workloads to provide increased opportunities for supervision.

Finally, in all seven focus groups, a number of suggestions were made about how to alleviate the constraints for good coordination between the health and the commodity team. These ranged from activities to increase dialogue and collaboration between the two teams to suggestions about how to improve mutual understanding and respect.

Feedback to program management and plan of action developed by World Vision to improve selected aspects of program operations and service delivery

The results of this first round of operations research were presented by the IFPRI-CU team in Haiti in February 2004. The general presentation of the results to PVOs and USAID staff was followed by a one-and-a-half-day-long meeting of the IFPRI-CU team and the WV-Haiti management staff. The main objectives of the meeting were:

1. To review and discuss the findings of the operations research;

2. To discuss the constraints to implementation that were identified in our assessment and to identify potential solutions to address these constraints and to strengthen program operations and quality of service delivery; and

3. To prioritize the constraints to be addressed and the potential solutions to be implemented, and to develop an "action plan" for implementing the selected actions to strengthen the program.

A matrix was used to guide the discussions and to facilitate prioritization of the constraints to be addressed by the program in the short term. The matrix consisted of five columns; the first two columns listed the operational constraints identified at the different service delivery points and for different activities; the next column was used to list the potential solutions identified by the management staff to address the different constraints; the fourth column summarized discussions regarding the feasibility of adopting the proposed solution(s) in the short term; and the fifth column provided an assessment of the potential impact of addressing the different constraints identified on program operations as well as on the overall impact of the program on its targeted beneficiaries.

The process utilized by the IFPRI-CU-WV team to review and prioritize potential solutions to the constraints identified was based on consideration of the following three criteria: (1) the possibility of identifying a solution (corrective measure) that was within the scope of current program activities; (2) the feasibility of implementing these corrective measures, given the program's current financial and human resources; and (3) the estimated impact of implementing these corrective measures to strengthen a particular aspect of program operations on the overall program's effectiveness and impact. These latter criteria are important because it may be that for some aspects of the program, very simple and low-cost solutions exist, which if implemented could have a major impact on operations and on the effectiveness of the program. By contrast, efforts to improve other aspects may not warrant the level of investment necessary to implement corrective actions because their overall potential to improve the programs' effectiveness is small. These aspects were carefully gauged in the discussions held in Haiti.

A summary of agreements on the corrective actions to be implemented by the program at the different delivery points is provided below and summarized in Table S2 (which is a reduced version of the original matrix developed at the meeting and which presents only four columns, focusing on the constraints identified at different service delivery points and for different activities, the corrective actions to be implemented to address these different constraints and their potential impact on effectiveness and impact of the program).

At the Rally Posts

The logistical constraints related to crowding, high participant/staff ratio and time involvement for both staff and participants at the RPs were discussed in length, but few solutions were identified to solve these problems in the short term. Given that the program is already perceived as having a large number of health agents and *colvols*, it was not considered feasible to increase the number of staff at this time. It was also considered inappropriate to recommend a major effort to split existing RPs into smaller ones, because the staff is already stretched to their maximum, with health agents being responsible for up to nine RPs per month. It was agreed, however, that the management would continue to examine the situation on a case-by-case basis and that RPs that are clearly unmanageably large would be reexamined and split if deemed possible.

A suggestion was made by some of the health agents interviewed during the operations research to improve the training of *colvols* in order to increase the support they provide to the program. The management staff indicated that this measure had already been implemented and that *colvols* were now being included in all field staff training. The *colvols* had also recently been "promoted" and their salary was raised from 30 percent of the health agents' salary to 50 percent. This change was accompanied by a change in title, whereby the *colvols* are now referred to as "agents promoteurs de santé," or health promoter agents.

It was suggested that improving the venue of the RPs with some basic furniture, such as chairs, benches, and tables, could facilitate the logistics and organization of the RPs. The management staff agreed to follow up on this aspect and felt that it was feasible to mobilize community resources to improve the venue of the RPs.

Finally, the group revisited the program's proposed sequence of activities at the RPs that, according to our operations research, was not particularly effective in preventing bottlenecks at registration and long waiting times for participants. The group agreed on a revised sequence of activities to be tested and implemented if effective (see Table S2, second row, third column, for the new sequence). The main changes in the proposed sequence of activities included: (1) giving a number to each participant as they arrive at the RP, (2) weighing the children before they are registered, (3) evaluating the nutritional status and individual counseling of the mother along with registration rather than with weighing, and (4) providing the deworming, vitamin A, and ORS tablets as the last activity for participants (along with immunization), rather than providing these at the time of registration.

It is hoped that these relatively simple modifications in the RP operations will help improve the flow of participants through the different activities, and reduce the time burden for both health staff and participants, making the RP generally more efficient and pleasant. Avoiding bottlenecks may also help improve the quality of services if it allows the health staff to dedicate slightly more time to each participant and if the overall environment is less crowded.

Education. The group agreed that it was worth pursuing efforts to increase the coverage of the education sessions by offering more than one education session at the RPs. It was felt that this could easily be achieved by ensuring that supervisors reinforce the importance of providing additional education sessions to accommodate late arriving participants. There was a general

consensus, however, that the RPs were not the most suitable venue for effective education, given the generally crowded, busy, and noisy environment and the number of activities taking place simultaneously. It was therefore agreed that the education sessions at the RPs should be used to deliver simple messages on topics of general interest, such as hygiene, immunization, or family planning. The RPs were to be considered as a complementary opportunity to cover additional topics and to reinforce some of the messages provided at the MCs (the main venue for the education and BCC strategy). The team also agreed that supervisors needed to be more active in promoting the use of the 12-month calendar of education topics to ensure that participants were exposed to the complete set of topics planned by the program, which ultimately should help increase their general knowledge of health, nutrition, and hygiene.

Supplies. The lack of supply of vitamins, ORS, deworming tablets, and vaccines at the RPs appeared to be mostly due to a problem with the main providers (Ministry of Health, UNICEF, etc.). It was therefore considered important that the program management continues to pursue every effort to ensure constant supply of these important preventive health services, but no action was recommended for field staff because it was considered to be outside of their control. High coverage of these preventive services is extremely important in the context of MCH programs, as they are key complementary strategies to improve child growth, health, and survival and should therefore continue to be prioritized by the program management.

Growth monitoring and promotion. Growth monitoring and promotion in the context of the WV MCH program has two main purposes: (1) to identify malnourished children in the recuperative program communities; and (2) to communicate with mothers (from both preventive and recuperative groups) about their child's nutritional status and growth and provide individual counseling. For the first purpose, it is important to minimize measurement error in order to reduce misclassification of children during the screening process. For the second purpose, i.e., to communicate with the mother, it is important that the health staff spend some time with the mother to inform her of the results of the weighing and nutritional status assessment, and to provide her with specific advice regarding her child's progress. Problems with both of these aspects were identified through our operations research and the solutions proposed at the meeting to address them are summarized below.

With respect to the measurement problems, again the group agreed that given the environment at the RPs and the equipment used to measure children, a certain level of error is to be expected. It was agreed, however, that re-training and increased supervision of the health staff will be used to reduce measurement errors and misclassification problems. One simple recommendation, which according to the results of our operations research, could significantly reduce measurement error, is to make sure that the child's weight is recorded when the needle of the scale is stable (as opposed to when it is moving significantly). Plans to re-train and improve supervision of the plotting of children's weight on the growth card were also agreed upon.

The discussions on process of GMP and the communication with mothers led to an agreement that all mothers should be informed about the child's weight, nutritional status, and progress since last weighing and that a brief of individual advice should be provided. The group was very clear about the limitations of conducting GMP in the context of the RPs, and especially with regards to the time that the health staff can allocate to individually counseling each mother about her child's growth. Given the crowded and noisy environment and the severe time

constraints faced by the health staff, it was agreed that the brief advice would consist of praising and encouraging the mother if her child is growing well. If her child was not growing well, the advice would consist primarily of a recommendation to follow up with other program activities and to adopt the recommended practices discussed at the MCs (e.g., exclusive breastfeeding, use of enriched porridges, etc.).

At the Mothers' Clubs

Implementation of the new BCC strategy in 2003 required significant reorganization of the MCs, especially in the preventive program group. This is because the strategy emphasizes the importance of the timely delivery of education messages to mothers, based on the specific age and developmental stage of their child. This approach is based on the premise that a much greater impact on behavior change is expected if the intervention reaches the beneficiaries at their best learning moment. Our findings showed that there were still some problems with the reorganization of the clubs and that some mothers were in the wrong groups relative to the age of their child, and thus likely to receive education messages that were not particularly relevant. Management staff agreed that improving this aspect of the MCs was feasible since so much had been achieved already, but that it would require strengthening supervision in the field. The management staff emphasized the need to strengthen the training of the supervisors themselves in both the rationale for the recommended structure of the clubs and how to operationalize it. It was also agreed that one modification to the current system would be made in the preventive group, which now uses two age groupings for the MCs for beneficiary children: mothers of children 6-8 months and mothers of children 9-23 months. The change recommended was to replace these two groups with the two groups that were originally planned: 6-11 months and 12-23 months. These two groups are better balanced and include children with more similar needs relative to child-feeding practices. It was also agreed that the MCs with children 6-11 months would emphasize the differences in recommended practices for children 6-8 and 9-11 months of age regarding the number of meals, and the consistency and quantity of food.

Remarkable improvements in the quality of education delivered at the MCs were achieved since health staff were trained in the implementation of the new BCC strategy in 2003. The importance of effective supervision and feedback were emphasized during the meetings as being key to maintaining the quality of the intervention, and even more important, to maintaining the enthusiasm and motivation of the staff, and the interest of the beneficiaries.

At the Food Distribution Points

The logistical problems related to the distribution of the food, and especially the transport of food and staff to the point of distribution, and the time burden of this activity for staff and beneficiaries, were discussed at length in the meeting. The commodity team is fully aware of the problems highlighted by our operations research and many of the constraints identified have already been addressed since our data were collected. The commodity staff have been actively working on improving the logistics of the food distribution, including taking measures to improve local storage facilities. Transport and other logistical problems, however, can never be fully overcome in areas such as the Central Plateau, where road conditions are so bad and the availability of fuel continues to be a major constraint. These problems are systemic to the context in which this program operates. It is worth pursuing efforts to try to improve the

situation, but flexibility and patience will always be required by staff at all levels and by the beneficiaries themselves.

Errors in the amount of food received by the beneficiaries are also difficult to avoid, but the management staff recommended that the existing supervision system be strengthened. This system consists of having the supervisors systematically verify the ration received by a subsample of beneficiaries as they leave the RP. This system is clearly worth reinforcing to minimize errors in food allocation, and consequently improve beneficiary satisfaction.

The communication difficulties that had been reported between the commodity staff and the health staff and beneficiaries respectively were also well understood by the management staff, who indicated that these cases had been addressed individually by the supervisors or regional coordinators on a case-by-case basis. Continued supervision will be required to maintain good communication among all staff and with the beneficiaries.

Finally, the problems of hygiene in the distribution of food commodities, which had been raised in our operations research, had also been addressed in part by the program. Plastic sheets are now being used and the suggestion to provide gloves to food handlers was perceived as feasible. An additional suggestion was to provide a small compensation to the food handlers to motivate them to do their work more carefully and more hygienically. The possibility of acquiring larger containers with a tap to distribute the oil more hygienically was also discussed. It is important to recognize that these proposed approaches to increasing hygiene in the food distribution process will require identifying the financial means to acquire the materials proposed.

Final comments

The action plan described above to address some of the operational constraints identified through our operations research relies almost entirely on a strong and effective supervision system. At the time of the meeting, the management staff indicated that they had already been taking steps to strengthen the supervision of the program at all levels, and the health team presented their newly developed supervision plan for the region.

Our next round of operations research will be conducted in 2004, starting in June. This will allow some time for the WV team to experiment with the implementation of the corrective measures agreed upon. Our operations research will focus on assessing the effectiveness of implementation of these corrective measures and on studying the supervision structure. An additional objective of the next round of operations research will be to assess differences in implementation between the two program intervention groups; understanding of differences will facilitate interpretation of the final impact evaluation findings.

Table S2. Summary of discussions held in Haiti with World Vision staff on the operations research findings and follow up corrective actions to be implemented

A - RALLY POSTS (RPs)

Aspects/activities	Constraint(s) identified	Corrective action to be implemented	Potential impact of improving this aspect on effectiveness and impact of program
Organization	Too crowded, too many beneficiaries; ratio of participants/staff is too high	- Continue to work on a case-by-case basis to split the RPs that are really too big and can be split - Improve venue of the RPs by providing basic furniture (chairs, benches, tables); this will be done through community mobilization	- Will reduce staff and participants' time burden and frustrations - May increase participation at RPs, and increase program impact - May increase quality of services at RPs
	Registration is a major bottleneck; sequence of activities varies a lot between RPs and does not usually follow the implementation plan	The following sequence was recommended: 1) give a number to each participant; 2) provide general education session 3) weigh child, plot weight on growth chart in health card; 4) do general registration (including register weight in registry); 5) evaluate nutritional status 6) inform and advise mother (see below in GMP) 7) give required immunization, deworming, vitamin A, and ORS Supervisors will have to assist staff in implementing and testing this sequence	See above
Specific activities (organization and quality)			
1. Education	Still mostly one session, first thing in the morning; late arrivers miss the session	Give at least two education sessions and, if needed, up to three; supervisors need to motivate staff to adopt this practice	Will improve coverage of participating mothers, and possibly increase knowledge and reinforce messages discussed at the MCs.
	- Quality of education is non-optimal (messages tend to be vague, little use of visual materials, limited interaction between staff and participants) - Monthly education topics recommended by the program are rarely used	- Focus on simple topics and messages of general interest (e.g., ORS, immunization, family planning, hygiene) - Ensure that the 12-month calendar of topics is distributed to all supervisors and discussed in monthly meetings with health staff - Supervisors will have to monitor accuracy and clarity of messages and adherence to monthly schedule of topics	Following calendar of monthly topics will allow mothers to receive education on the full set of topics deemed important and of general interest to mothers. This can increase their general knowledge of health, nutrition, and hygiene.
2. Vitamin A/ deworming/ORS	Many participants do not receive the services and this seems to be due largely to a lack of supply of the products	This problem is due to a lack of availability from the main providers (Ministry of Health, UNICEF, etc.), and is therefore outside of the program's control, but efforts should be pursued to ensure a constant supply	These preventive health services are very important for child's health, growth, development, and survival. Therefore it is important to achieve high coverage.

Aspects/activities	Constraint(s) identified	Corrective action to be implemented	Potential impact of improving this aspect on effectiveness and impact of program
3. Growth monitoring and promotion	Children are weighed, their weight is recorded and their nutritional status assessed, but there is little use of the information to communicate with the mother and to give her tailored individual advice regarding her child's growth and progress	Retrain personnel, supervise and motivate staff to ensure that each mother receives the following information: 1) Child's weight 2) Child's nutritional status 3) Child's progress (gained or lost weight) 4) Brief message of encouragement (if child is growing well); and recommendations for follow-up with other program activities (e.g., MCs) if child is not growing well. If child is M3, make sure s/he is scheduled for a home visit.	The information provided to mothers about their child's nutritional status and growth can help raise awareness among mothers and motivate them to engage more actively in the BCC activities and to adopt the recommended practices.
	Quality of weighing and plotting varies; errors result in misclassification of children, and thus in errors in screening beneficiary children (only for recuperative group, which uses children's nutritional status as a screening criteria)	- Retrain health staff to improve quality of weighing (making sure that needle of the hanging scale is still before recording the weight will help) and of plotting the child's weight on the growth chart. - Supervisors need to ensure that information is provided to mothers and that quality of weighing and plotting is improved.	Improving the weighing and plotting of the weights in the growth chart will reduce misclassification errors, thereby improving the cost-effectiveness of the program.
4. Immunization	Lack of supplies	See above (vitamin A, ORS, and deworming)	See above (vitamin A, ORS, deworming)

B - MOTHERS' CLUBS (MCs)

Aspects/activities	Constraint(s) identified	Corrective action to be implemented	Potential impact of improving this aspect on effectiveness and impact of program
Organization	Problems with reorganization of MCs for different subgroups of mothers/children (especially in preventive group)	- Ensure that supervisors understand the rationale for the reorganization of the clubs, and continue to reinforce importance of implementing this reorganization as planned. - Modify current system for preventive group, which is to form two groups with 6-23 month old: 6-8 and 9-23. Replace with the following groups: 6-11 and 12-23.	The importance of the timely delivery of the education for the effectiveness of the BCC cannot be overemphasized. A much greater impact on behavior change is expected if the intervention reaches the beneficiaries at their best learning moment. Achievement of behavior change may, in turn, reduce childhood malnutrition.
Quality of the education and BCC intervention	Very good quality overall; marked improvements since staff was trained in new BCC; performance varies, however, and improvements can still be achieved	- Strengthen supervision and ongoing training of staff; continue to use supervision checklists to provide feedback to staff and to monitor progress. - Strengthen communication of concepts and technical content of sessions, as well as utilization of the communication material and the adult education techniques.	The greater the quality of the BCC in MCs, the greater the potential impact of the program on improved child feeding and care and consequently on children's nutritional status, health, and development.

C - FOOD DISTRIBUTION POINTS (FDPs)

Aspects/activities	Constraint(s) identified	Corrective action to be implemented	Potential impact of improving this aspect on effectiveness and impact of program
Organization	Very large number of beneficiaries per FDP and high beneficiary/staff ratios	- Some organizational and logistical constraints have already been addressed by the program, including improving local storage facilities. - Difficult to solve completely, because most logistical problems are inherent to the environmental conditions prevalent in the area.	Improving the logistics of food distribution could reduce the staff and beneficiary time burden and increase satisfaction.
	Important delays in arrival of food and staff at FDP		
	High time burden for beneficiaries and staff		
Quality	Amount of food received by beneficiaries is not always the amount allocated by the program	Strengthen the existing system to ensure that supervisors systematically check that the amount of food received by beneficiaries corresponds to the amount allocated (on a subsample of beneficiaries as they exit the FDP).	Could increase beneficiary satisfaction and reduce food losses.
	Communication difficulties reported between commodity and health staff and commodity staff and beneficiaries	Continue to address these problems on an ongoing basis, as they occur; this as been done successfully in the past.	Could improve staff satisfaction with their work and beneficiary satisfaction with the program.
	Certain problems of hygiene in the manipulation of the food during the distribution process have been identified.	- Suggestions have been made to provide gloves to food handlers and a small compensation to motivate them to adopt more hygienic practices. - Use of plastic sheets and cleaning of measurement tools have already been adopted. - The possibility of acquiring large containers with a tap for the distribution of oil will be assessed. - Funds will be necessary to acquire the materials proposed above.	Would reduce the risk of contamination of the food.

1. INTRODUCTION

1.1 Background

This report describes the operations research that was undertaken for the purpose of assessing the effectiveness and quality of implementation and delivery of World Vision's maternal and child health and nutrition[4] (MCH) program in the Central Plateau region of Haiti. The main purpose was to identify features that may require modifications to strengthen program activities. This research is part of a larger evaluation being conducted by IFPRI and CU in collaboration with WV-Haiti to compare two models for delivering an integrated food and nutrition program, both with a take-home food ration component. The two models, which are being implemented by WV-Haiti, are: (1) the traditional *recuperative* approach, whereby children under 5 years of age are targeted to receive food supplements, nutrition counseling, and follow-up when they are identified as being underweight for their age; and (2) the *preventive* approach, which targets food supplements and other preventive interventions to all children below 2 years of age, irrespective of their nutritional status.

In addition to conducting the impact and operations research of the two program models, the IFPRI-CU team also provided WV-Haiti with technical assistance for the development and refining of the program models. The focus of the technical assistance was the strengthening of the education and communication component of the MCH program. Thus, following an intensive formative research study in 2002 (see Menon et al. 2002a and Menon et al. 2002b), the IFPRI-CU team worked with WV staff to develop a Behavior Change Communication (BCC) strategy, and to define the implementation of this BCC strategy within the separate contexts of the two program models (see Loechl et al. 2003a and Loechl et al. 2003b).

The full field-based implementation of the BCC strategy in conjunction with the other program components (i.e., the food distribution and preventive health-care services) started only in May 2003. Data collection for the operations research described in this report was initiated in July 2003, three months after the program became fully operational, and concluded in September 2003. Thus, the results presented here depict the program as it was in mid 2003, i.e., more than six months prior to the finalization of this report. As highlighted in the final section of the report (Section 7), several of the operational constraints identified in our research have already been at least partially addressed since our data were collected, as part of the program's routine monitoring and strengthening activities.

1.2 Organization of the report

The report is structured as follows. Section 2 presents an overview of the objectives, design, and methodology of the operations research. The following three sections describe the results of the operations research carried out at the three main program delivery points, i.e., the Rally Posts (Section 3), the Mothers' Clubs (Section 4), and the Food Distribution Points

[4] The World Vision program does include a strong nutrition component and should therefore be referred to as "maternal and child health and nutrition program" (MCHN); however, we use the term MCH in this report in order to be consistent with the terminology used by World Vision to refer to its program.

(Section 5). This is followed by Section 6, which describes staff perceptions of program organization and management. Issues such as perceptions of the staff relative to their roles, motivation and incentives, and staff supervision and coordination are examined. The report concludes with a description of the process and outcomes of our discussions with WV-Haiti to design a plan of action to improve program operations and service delivery and quality based on the results of the operations research (Section 7).

2. THE OPERATIONS RESEARCH

2.1 Objectives

The main purpose of the operations research reported here was to gather information on the effectiveness of delivery of the different components of the program and to determine whether the program was operating as planned. This first round of operations research was designed primarily as a "troubleshooting" exercise; i.e., its main purpose was to identify bottlenecks or constraints and possible solutions to ensure smooth implementation of the program and its various components.

The specific objectives of this first round of operations research were:

1) To assess the implementation of the program, using operations research methodologies to identify constraints and potential solutions to improving program operations.

2) To assess the quality of delivery of the intervention with respect to the planned delivery system (for example, quality of the different services provided by the local staff, quality of the food distributed, quality of the education provided).

3) To explore the perceptions of different stakeholders about the program with a special emphasis on their perceptions regarding its effectiveness, the quality of services provided, and their roles and responsibilities within the program structure.

2.2 The system studied in the operations research

The WV MCH program (both preventive and recuperative) offers services at five major points of contact between program staff and participants. These are: (1) the *Rally Posts* (RPs), where health education, growth monitoring and promotion, and preventive health care are provided and beneficiaries are identified; (2) the *Mothers' Clubs* (MCs), where smaller groups of participants gather to discuss health and nutrition topics in the context of the program's behavior change and communication (BCC) strategy; (3) the *Pre- and Postnatal Consultations*, where pregnant and lactating women receive preventive health care and education; (4) the *Food Distribution Points* (FDPs), where beneficiaries receive their monthly food rations; and (5) the *Home Visits*, where beneficiary households with a newborn infant, a severely malnourished child, or a child with growth faltering are visited by the WV health staff.

The main beneficiaries of the preventive MCH program are *all* children between 6 and 23 months of age who reside in the program areas, whereas the beneficiaries of the recuperative MCH program are *malnourished* children[5] between 6 and 59 months of age who reside in the

[5] Malnourished children are defined as M2 and M3 according to the Gomez classification. In this classification, normal (N) corresponds to ≥ 90 percent of the median of the weight-for-age CDC/NCHS/WHO standards; mild malnutrition (Grade M1), to 75 percent - < 90 percent; moderate malnutrition (Grade M2), to 60 percent - < 75 percent; and severe malnutrition (Grade M3), to ≤ 60 percent (Cogill 2003).

program areas. In both programs, pregnant and lactating mothers (until their infant reaches 6 months of age) are targeted as well.

Severely malnourished children between 24 and 59 months of age in the preventive program are also eligible to participate in the preventive program. These children (classified as M3 according to the Gomez classification) are identified through the regular growth monitoring and promotion activities done at the RPs. The services provided for the severely malnourished children in this age group include: (1) distribution of food rations for 9 months, (2) two meetings for the mothers where issues related to malnutrition and recuperation are discussed, and (3) home visits by health agents during the first weeks after identification.

The RP is the entry point in both programs, and is used to refer beneficiaries to the appropriate program services. New beneficiaries are identified at the RPs every month; eligible children are admitted into the program on a monthly basis, whereas pregnant and lactating women can enter the program only every four months. The upper age limit for admitting children into the preventive program is 18 months, to ensure that all children in the program receive food aid and other services for at least six months (up to 23 months of age). For the recuperative model, there is no defined upper age limit for admittance, although there is an upper age limit for eligibility for program services. For instance, a child can be admitted at 58 months, but s/he would have to exit the program one month later when she/he reaches the age of 59 months.

For mothers of children 6-23 months old in the preventive program and mothers of malnourished children in the recuperative model, monthly attendance at the RPs and at MCs is mandatory to be eligible to receive the monthly food rations offered by the program. Pregnant and lactating women are also required to participate in MCs and pre- and postnatal consultations to be eligible for the monthly food rations (see Figure 2.1).

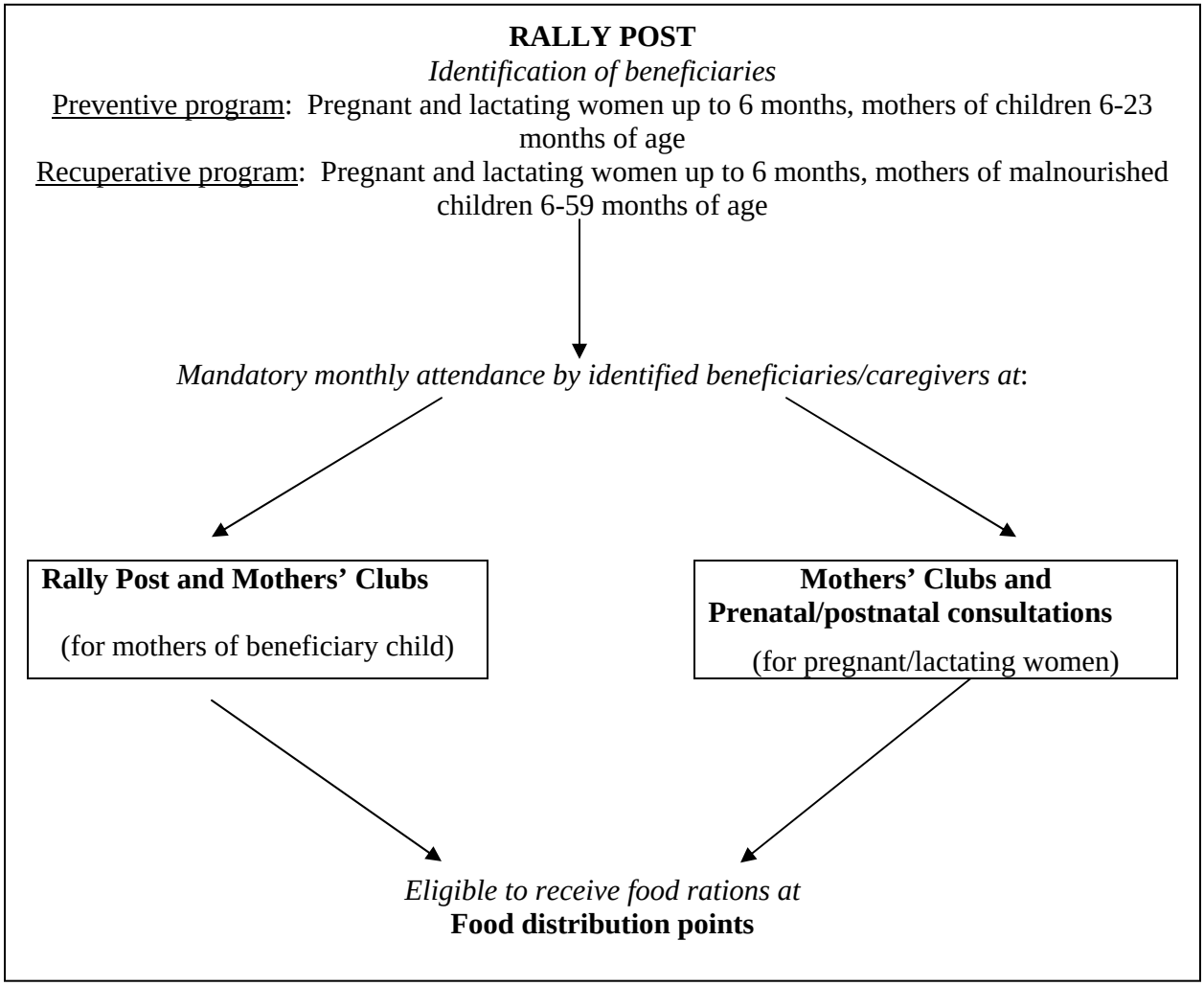
For the first round of operations research, it was decided that the study would begin with an examination of the services delivered at the RPs, MCs, and FDPs and would conclude with interviews with beneficiaries in their homes. The latter were to be conducted with women two weeks after they had attended an MC meeting.

2.3 The key stakeholders included in the research

For the purpose of this research, the main stakeholders included administration and field staff at different levels of the program as well as program beneficiaries. The roles of these different stakeholders in the program structure are outlined below.

- *World Vision health agents and colvols*. The health agents and *colvols* are the direct implementers of the MCH program in the field and thus, are the frontline staff in contact with the program participants. They are in charge of the interventions being delivered at the RPs and MCs and of assisting the food monitors at the FDPs. They attest to the attendance by beneficiaries at the different MCH activities (which determines their eligibility to receive food rations).

Figure 2.1. Beneficiary requirements for participation in the World Vision MCH program



- *World Vision food monitors*. Food monitors are responsible for the distribution of the food rations at the FDPs and for ensuring that only eligible beneficiaries receive the food. They are also responsible for verifying the beneficiary lists provided by the MCH supervisors. This verification is done mainly by consulting the beneficiary card, which contains information about the beneficiaries and indicates whether or not they have complied with their attendance requirements at the MCH activities.

- *World Vision health (MCH) and commodity supervisors at local level*. MCH supervisors are nurses responsible for the supervision of the health agents and *colvols*, and commodities field supervisors are responsible for the supervision of the food monitors. The MCH supervisors generate monthly lists of beneficiaries eligible to receive the food rations, based on lists of attendance prepared by the health agents for each service delivery point. The Commodity Section uses these lists to program the food amounts needed per distribution point.

- *World Vision management staff at the national and regional levels in MCH and Commodity*. We identified several key informants at the regional level: (1) the Assistant of the Regional Health Coordinator who supervises the MCH supervisors, (2) the Assistant of the Regional Commodity Officer who supervises the commodity field supervisors, (3) the Regional Health Coordinator, and (4) the Regional Commodity Officer at the Hinche regional office, both of whom are responsible for the WV activities in the Central Plateau. At the national level, the key informant was the National Health Coordinator at Port-au-Prince headquarters, who oversees the implementation of the various health activities in all the program areas of WV in Haiti.

- *Beneficiaries*. Program beneficiaries eligible for the food rations are all pregnant and lactating women, and malnourished children 6-59 months old (in the recuperative program areas) and children 6-23 months old (in the preventive program areas). The pregnant/lactating women and the mothers of the targeted children are the key recipients of all BCC activities. As described in the previous section, beneficiaries receive food rations, nutrition counseling, and other preventive interventions. They must meet the conditions set by the program in order to benefit from the food rations (i.e., regular attendance at RPs, MCs, Pre- and Postnatal Consultations).

2.4 Methodology

The operations research used a variety of qualitative and quantitative research methods. These included: (1) structured observations at the different program delivery points; (2) structured interviews with beneficiaries; (3) semi-structured interviews with various types of stakeholders, including national and regional health coordinators and regional commodity officers, health agents, and beneficiary women; and (4) focus group discussions with WV program staff. A description of each of these approaches is provided below.

Structured observations, as well as the semi-structured, individual interviews and focus group discussions with program staff were used to identify bottlenecks and constraints in the implementation of different program activities (first objective of the research).

In order to assess the quality of intervention delivery (second objective of the research), structured observations and semi-structured interviews with beneficiaries were used.

Finally, qualitative methods (focus group discussions and semi-structured interviews with program staff and beneficiaries), as well as structured interviews with beneficiaries, were used to explore attitudes, opinions, and the level of satisfaction of the different stakeholders (third objective of the research).

2.4.1 Structured observations

2.4.1.1 Observations at Rally Posts

A tracking form was designed to follow randomly chosen caregivers who were accompanying a food aid beneficiary child through the different services provided at the RP. The main purpose was to observe the different activities that took place in the RPs, the quality of

services, and the duration and sequence of the activities from the caregiver's perspective. Therefore, we concentrated on the following aspects:

1) *Time allocated to the different activities*. The fieldworkers noted each activity of the caregiver and the start time of this activity. Activities recorded included both program activities (registration, education, child weighing, deworming, immunization, etc.) as well as nonprogram activities (feeding the child, cleaning the child, talking to a friend, etc.).

2) *Unused services and reason for non-usage*. Using a checklist of all program services that are supposed to be offered at the RPs, the fieldworkers checked off each of the services not used by the caregiver on the day of observation and asked the reason for non-usage. When necessary, the fieldworkers verified information in the health agents' registers to verify the accuracy of the caregivers' response.

3) *Growth monitoring and promotion (GMP)*. The observation of this activity included the following aspects: who was involved in this activity, the assessment of the quality of method of measurement, the reweighing of the child on an electronic scale to determine the extent of measurement error and misclassification (into malnourished/versus well-nourished child), the assessment of whether the plotting was done accurately, and the assessment of the type and quality of interaction of the health agent or *colvol* with the caregiver.

4) *Education session*. The purpose of observing the education sessions was: (1) to document some technical aspects, such as who conducted the session and whether any communication materials were used for the session; and (2) to assess the quality of the education/communication session by observing the interaction between the educator and the mothers (e.g., whether the educator was engaging and dynamic, whether s/he asked questions and was successful in soliciting responses, etc.), and observing the general ambience in which the session was conducted (noise level, distractions, etc.).

5) *Status of cards*. The fieldworkers checked whether the participating mothers had their health card and their ration card for the child. They then verified the content of the cards, including the following aspects: (1) whether the weight of the child was entered, whether it was properly plotted, and whether information on vitamin A, vaccination, and deworming was entered on the health card; and (2) whether information was properly entered regarding the type of beneficiary the child was, and whether the attendance at the RP was noted on the card. If information on vitamin A and deworming was not entered on the card, the fieldworkers used the health agent's register to verify the last date that the child received a vitamin A capsule and/or a deworming tablet.

An additional observation sheet was used to capture the general ambience at the RP. For example, observations were made regarding the venue where the RP was held, where the different activities took place, the types of activities that appeared to create bottlenecks to participant movement through the RP, and how many health agents and *colvols* were present.

Finally, information was also obtained on attendance, either through observation or through consulting the health agents' daily reports of the RPs. The following data were recorded: the total number of adult participants per education session, the number of pregnant and lactating women, the total number of children under 5 years and under 24 months who attended the RP, and the number of malnourished children identified.

2.4.1.2 Observations at Mothers' Clubs

The objective of the observations at the MCs was to assess the quality of education provided at this delivery point. It was particularly important to evaluate the education at this point because the MCs are intended to be the primary venue for the BCC activities of the MCH program. The observation instrument was based on an observation checklist developed by Freedom from Hunger (FFH) for use with their *Credit for Education* programs in Haiti. The checklist focused on the following aspects: technical content, session management and organization, facilitation and teaching skills (small-group management, use of open-ended questions and visual materials), attitudes displayed, and atmosphere at the learning session.

A separate form was used to obtain general data on the venue for the MC, the size of the group, the number of mothers arriving late and the number of mothers who were absent. We were also interested in knowing who else attended the Club meeting (e.g., children, grandmothers, fathers, etc.) and how many of them were present. The fieldworkers also observed whether the meeting started at the scheduled time and how much time the health staff dedicated to this activity (measuring from the time the first participant arrived until the last one left).

2.4.1.3 Observations at Food Distribution Points

An observation form was designed (1) to capture the general organization and ambience at the FDPs, and (2) to assess the quality of the food commodities distributed. Observation of the general organization and ambience included the following: the location of the food distribution; the number of food monitors, health agents, *colvols*, MCH supervisors and commodity field supervisors present at the distribution point; the number of beneficiaries planned for and the number present; whether all beneficiaries from different communities (*localités)* were invited to come to receive their food ration at the same time; whether the food and staff arrived on time at the FDPs; and the start time of the distribution.

Observation of the food quality focused on the following: visible infection of the food commodities with insects or worms, visible moisture in the different food commodities and/or any visible color change. This observation was done before the food was distributed to the beneficiaries. In addition, five bags of wheat-soy blend (WSB), soy-fortified bulgur (SFB) and lentils were randomly checked at each distribution point to see whether the bags appeared humid from the outside and to check their expiration date. The expiration date of five containers of oil at each distribution point was also verified.

2.4.2 Structured interviews with beneficiaries

Structured questionnaires were used to conduct exit interviews with beneficiaries at various delivery points. The questions concerned access, services utilized, and perceptions of

these services. Beneficiaries were also asked to provide suggestions on how the program could be improved.

2.4.2.1 Exit interviews at Rally Posts

At the RPs, two different types of exit interviews were conducted:

1) *Exit interviews with the tracked respondents*. These interviews targeted those beneficiaries who had been involved in the tracking observations described above. In the exit interview, the respondents were asked questions about access to the RP (type, time, and cost of transport), perceived importance of the different services at the RP, and suggestions for program improvement.

2) *Exit interviews with randomly chosen caregivers who were bringing a food aid beneficiary child to the RP*. This interview included a larger number of topics than the exit interview with the tracked respondents. In addition to the questions related to access and perceived importance of the different services at the RP, the caregivers were also asked their relationship to the child. If the respondent was not the mother of the child, further questions were asked to learn whether the respondent usually brought the child to the RP, where the child's mother was and what she was doing when the respondent brought the child to the RP. Information on the child's date of birth and nutritional status (according to the health card) was also collected. Finally, the respondent was asked to list the services that the child had received that day and the reasons for non-usage of services.

2.4.2.2 Exit interviews at Mothers' Clubs

The exit interviews at the MCs were conducted with randomly chosen program beneficiaries, as they were about to leave the Club. Again, participants were asked questions related to access to the Club, and their perceptions regarding the importance of various topics discussed at the MCs. They were also asked how many times they had attended this MC. Finally, the birth date of the child was obtained from the ration card and from the respondent.

2.4.2.3 Exit interviews at Food Distribution Points

Exit interviews were conducted at FDPs with randomly chosen caregivers who had a child in the program. These interviews included the following questions:

1) *Access to the FDP*. The respondents were asked about transport to the FDP (type, time and cost).

2) *Ration card*. The information collected concerned the type of program beneficiary that the child was, how long the beneficiary had been receiving food rations (according to the respondent's recall), the number of direct and indirect beneficiaries in the household, and the type of indirect ration received on the day of the interview.

3) *Use of food*. The types of questions asked regarding the use of food included: how long the different food commodities usually lasted, what types of recipes families

usually prepared using this food, and which family members usually consumed the preparations made with donated foods. The respondents were asked if they added different ingredients (for example: eggs, goat milk, breast milk, cows milk, beans, groundnuts, dried fish, meat, liver, etc.) to the recipes prepared for the beneficiary child/children using the food aid commodities, and if so, how frequently they added the different ingredients.

4) *Amount of food received*. In order to verify whether the respondents were receiving the correct amount of donated food rations, the fieldworkers reweighed the foods that the respondents had received that day, using an electronic scale.

5) *Perceptions of the food quality*. The respondents were asked whether they ever faced problems with the quality of the food and if so, what kinds of problems.

6) *Time spent at the FDP*. The respondents were asked how much time they had spent at the FDP on the day of observation and how much time they usually spent there on previous visits.

Finally, information was also collected on the relationship between the beneficiary child and respondent, and the birth date of the child (comparing the information from the respondent and the ration card).

2.4.3 Semi-structured interviews

Semi-structured interviews were conducted with several types of stakeholders, namely, the national and regional health coordinators and regional commodity officer, the health agents at RPs, MCs, and FDPs, and beneficiary women.

2.4.3.1 National and regional health coordinators and regional commodity officer

The objective of these individual interviews was to gather information about their perceptions related to their current responsibilities, the constraints on their performance, the supervision structure in the program, the coordination between Commodity and MCH staff, and to gather their suggestions for program improvement.

2.4.3.2 Health agents at Rally Posts, Mothers' Clubs, and Food Distribution Points

These individual interviews with the health agents were held at the end of the sessions at each of the delivery points. The objective was to obtain information about their perceptions and opinions regarding the three service delivery points, the types of problems they faced, and, for the RPs, their opinion about the supply situation (vaccines, vitamin A capsules, ORS packets, deworming tablets, health cards, ration beneficiary cards). They were also asked whether they had any suggestions on how to improve the delivery of the services at the different delivery points.

2.4.3.3 Beneficiary women

Semi-structured interviews with beneficiary women in their homes were conducted to capture their perceptions about program services, their relative importance, and the types of constraints they faced (if any) in using the services. The following topics were explored regarding the different services provided by the program.

1) *Rally Posts*. The respondents were asked about the education session at the last RP they attended, what topics they remembered, whether the ideas and information were new, interesting, and useful to them. They were also asked whether they were able to use the advice received at the RPs and if not, why not. Mothers were also asked to comment on the child weighing at the RP: whether the health agent/*colvol* told them their child's weight, informed them of whether the child was growing adequately or not, whether they gave them advice about their child, and if so, whether it was useful, and finally, whether they liked to find out about their child's weight when they came to the RP.

2) *Mothers' Clubs*. The interviews with participants in the MCs were designed to find out about their knowledge of the topics that were taught. Mothers were asked to describe topics covered in the previous session of the MCs meeting (spontaneously and prompted) and which ideas or information were new, interesting, and useful to them. They were also asked about the feasibility of using the advice received at the MCs and possible constraints to using it.

3) *Use of food received from the program*. The questions asked included the following: what kind of food they had received, what types of recipes they had prepared with these food commodities, who consumed these foods, whether they liked it, and whether they faced any problems with the commodities. They were also asked about the food distribution process: whether they had encountered any problems and whether they had any suggestions on how this process could be improved.

4) *Sharing and selling of food received from the program*. Our main interest here was to find out whether beneficiary families shared, sold or exchanged the donated food they had received. If the respondent indicated that they felt that they had to share the food, they were asked with whom they shared it, which types of foods they shared, how much of the food they shared, and what their reasons were for sharing. If the respondent admitted selling or exchanging the food commodities, they were asked which foods and how much of them they had sold or exchanged, and what they did with the money or the services received in exchange.

5) *Suggestions for program improvement*. Similar to other stakeholders, beneficiary mothers were asked to provide their suggestions regarding how the different components of the program could be improved, either from the point of view of the effectiveness of service delivery or the quality of services.

2.4.4 Focus group discussions

Focus group discussions were organized separately for five different types of stakeholders: health agents, *colvols*, MCH supervisors, food monitors, and commodity supervisors.

The focus group discussion was the only method used to obtain information from *colvols*, MCH supervisors, food monitors, and commodity supervisors. For all groups, the objective was to gather information on perceptions about their current responsibilities, workload and time constraints, the supervision structure in the program, and the support they receive from the program. They were also asked for their views about the coordination between Commodity and MCH staff and the constraints on their performance, as well as their suggestions for program improvement.

In the focus group discussions conducted with the food monitors and the commodity supervisors, an additional discussion point was their experience with food distribution, whether they experienced any problems, and if so, what types of problems.

The focus groups with the health agents, *colvols*, and the MCH supervisors were also used to obtain information on their perception of the training (and re-training) that they received in 2003. In addition, information was gathered in the focus groups with the *colvols* and the MCH supervisors about their views of the three service delivery points, the types of problems they face, and, for the RPs, their opinion about the supply situation (vaccines, vitamin A capsules, ORS packets, deworming tablets, health cards, ration beneficiary cards).

2.4.5 Data analysis

The emphasis of the data analysis was to assess the overall implementation of the MCH program, since the primary objective of this phase of operations research was to identify bottlenecks to implementation of the program models. We did not aim to evaluate the differences in evaluation of the two program models in this round of operations research.

Data entry of the quantitative information was conducted by the *Institut Haitien de l'Enfance* (IHE). A standard statistical software package (SPSS) was used for the analysis of these data.

The focus group discussions, the semi-structured interviews with the health agents, and the semi-structured interviews with beneficiaries were conducted in Creole. Extensive field notes were taken during the interview. The focus group discussions and the semi-structured interviews with beneficiaries were also audio taped. Every evening, the interview notes were transcribed in French and complemented with the information from the audiotapes, preserving emic terms or phrases in Creole where necessary. The field notes were organized under the themes of the semi-structured interview guides to facilitate later analysis. The transcripts were then analyzed using a qualitative data analysis software package called Atlas-ti.

2.5 Fieldwork logistics, geographic area and sample

2.5.1 Research staff and training

The field team for the data collection included the following staff.

1) *Two supervisors*. Cornelia Loechl (postdoctoral nutritionist) and Arsène Ferrus (IFPRI consultant). A. Ferrus was also responsible for the semi-structured interviews with the health agents at the RPs and FDPs as well as the collection of general data and observation at these two service delivery points.

2) *Two observers* responsible for the quantitative data collection at the RPs and FDPs: Remy Lafalaise and Mathieu Honoré.

3) *Two fieldworkers* experienced in qualitative research methods and responsible for conducting the focus group discussions and semi-structured interviews with beneficiaries: Josianne Loredan and Dominique Pierre Lenz. They were also responsible for the semi-structured interviews with the health agents at the MCs.

4) *A World Vision nurse,* Elisabeth Elysée, to observe the education sessions at the MCs. The person responsible for this task had to be extremely familiar with adult learning principles for effective communication and with the adapted communication materials on infant and young child feeding used in the study. Since it was not possible to identify a person external to the program who met these conditions, we decided to assign this responsibility to a member of the WV staff, in spite of the fact that she was part of the implementation team. She was an excellent person for this task, having participated in all training of trainers' sessions on the new communication strategy and the adapted communication materials. Also, as part of the trainers' team, she had been directly involved in the training of health agents and *colvols* in the use of the infant and young child learning sessions and thus, had a clear idea of what to evaluate when observing an education session.

The training of the team, including the field-testing of questionnaires and interview guides, was done in June 2003 and data collection took place between July and September 2003.

Ethical approval for the study activities was obtained from the CU Commission on Human Subjects. Informed consent was obtained from all study participants before any data collection was conducted.

2.5.2 Geographic area and sample

The operations research took place in the intervention area of the IFPRI-CU-World Vision evaluation project, which covers 20 zones or clusters of communities (*localités*) in three communes: Hinche, Thomonde, and Lascahobas. These 20 clusters of communities, with program services for each cluster covered by one health agent, were selected from WV's program areas at the beginning of the evaluation. In each cluster, the health agent is assisted by 1-3 *colvols*. Ten pairs of clusters were constituted that were matched for distance to main road, access to a dispensary, type of terrain, and access to WV's private sponsorship program arm

(called the Area Development Program). Within each pair of clusters, one was randomly assigned to receive the preventive program and the other one to receive the recuperative program. A list of the 20 clusters with the type of program model they were randomized to is provided in Annex 1.

The operations research studied one program delivery point, i.e., RP, MC, and FDP, for each health agent (see detailed protocol in Annex 2 and summary in Table 2.1). A total of 19 RPs, 20 MCs, and 10 FDPs were observed. One FDP covers several clusters and the 10 FDPs observed covered all 20 clusters of the project area. The MCs included in the sample reflected the different categories of MCs, i.e., MCs for pregnant women and MCs for lactating mothers (in both programs), MCs for mothers of children 6-23 months of age (in the preventive program), and MCs for mothers of malnourished children (in the recuperative program).

Table 2.1. Summary of methods used in operations research and sample sizes

Research method /stakeholder	**Purpose**	**Location and sample size**
Structured observations at main service delivery points	Assess operations, flow of activities, time involved in attending the delivery point	*Unit of observation/ analysis is the service delivery point:* **RPs**: n = 19 **MCs**: n = 20 **FDPs**: n = 10 In addition, at the RPs, information was collected on 38 tracked beneficiaries (2 per RP), using both observations and interview techniques (see below).
Structured interviews with beneficiaries	Assess access, services used, perceived importance of different services and use of food	*Unit of analysis is the participant/beneficiary*[a] **RPs** (n = 19): Exit interviews with tracked respondents (n = 38) Exit interviews with random sample of respondents (n = 59) **MCs** (n = 20): Exit interviews with random sample of respondents (n = 41) **FDPs** (n = 10): Exit interviews with random sample of respondents (n = 45)
Semi-structured interviews with health agents	Assess perceptions and opinions regarding operations, quality of services, constraints to program implementation, and suggestions for improvement	*Unit of analysis is the health agent* **RPs** (n = 19) **MCs** (n = 20) **FDPs** (n = 20)
Semi-structured interviews with health coordinators and commodity officer	Assess perceptions regarding current responsibilities, constraints to program implementation, supervision, coordination, and suggestions for improvement	*Unit of analysis is the health coordinator/commodity officer* National health coordinator Regional health coordinator (Hinche) Regional commodity officer (Hinche)
Semi-structured interviews with beneficiaries in their home	Assess perceptions regarding the program services, their relative importance, the constraints faced in using the services, and suggestions for improving the program	*Unit of analysis is the beneficiary* In beneficiaries' homes (n = 30)
Focus group discussions with five types of stakeholders (total of seven focus groups)	Assess perceptions about current responsibilities, roles, workload, time constraints, supervision and incentive structure, coordination and training	Health agents (2 groups) *Colvols* (2 groups) Food monitors (1 group) MCH supervisors (1 group) Commodity supervisors (1 group)

[a] Throughout this report, women attending the RPs are referred to as "participants," whereas mothers and children attending the MCs and the FDPs are referred to as "beneficiaries." This differentiation is made because the RPs are open to all women of reproductive age and children under 5 years in the communities served, whereas the other two program delivery points, the MCs and the FDPs, are specifically targeted to program beneficiaries.

For the semi-structured interviews with program beneficiary women, appointments with two women were fixed at each of 15 MCs during the exit interviews. The interviewers scheduled these appointments to take place at home, 1-2 weeks after the MC meeting. Because the study took place during the rainy season, appointments for home interviews could not be scheduled in clusters with very difficult access. The total number of home interviews was 30.

The focus groups were planned with the assistance of the Assistant of the Regional Health Coordinator and the Assistant of the Regional Commodity Officer. Two focus group sessions were organized with health agents and *colvols*, and one focus group was planned with each of the following groups: MCH supervisors, food monitors, and commodity supervisors. A total of seven focus groups were held. Annex 3 lists the different focus groups and presents details about the composition of each group.

The next three sections present the results of the operations research carried out at the RPs, MCs and FDPs, respectively.

3. PROGRAM OPERATIONS AT THE RALLY POSTS

This section describes the results of the operations research conducted at the RPs. First, the expected sequence of activities at the RPs is described to provide context. This is followed by a short summary of the methods and samples used to carry out the research, and a presentation of the results. The results are described in relation to the three main objectives of the research, i.e., to assess the effectiveness of implementation of the different activities, the quality of service delivery, and the perception of the main stakeholders of the program, i.e., the implementers and users. As noted above, this round of operations research did not aim to assess whether operational differences between the preventive and recuperative programs could be observed, so most tables present the results for the sample as a whole.

3.1 Description of Rally Post operations according to the implementation plan

RPs are open to all pregnant women, mothers with children less than 5 years of age, and women 15 to 49 years old in the communities attended. Services provided include health and nutrition education, growth monitoring and promotion of children under 5 years of age, immunization, vitamin A supplementation, deworming, free distribution of ORS, and information about the family planning component[6]. The monthly weighing of children who are MCH beneficiaries in either the preventive or recuperative program, and attendance at the RP by the child's caregiver are mandatory. Either the mother or another caregiver can take the child to the RP.

RP meetings are held on a monthly basis in each community and are managed primarily by the health agent responsible for that community. The health agent is usually assisted by at least two other health agents and two *colvols*. The sequence of activities described in the implementation plan is as follows (also see Figure 3.1 below):

1) The education session is the first activity to be carried out at the RP. The sessions run for about 10 minutes, depending on the topic. WV sets up a calendar of monthly topics, which include the following topics: immunization, pre- and postnatal care, preparation for child delivery, diet for pregnant and lactating mothers, weaning techniques, description of kwashiorkor and marasmus, hygiene and environment, diarrhea and preparation of oral rehydration salts, acute respiratory infections, family planning, and HIV prevention. It is expected that appropriate visual materials will be used to communicate more effectively. The health agent or *colvol* is also expected to conduct several sessions on the same topic at the RP to allow all mothers to participate and to restrict the size of the group to 10-15 persons.

2) After the education session, the health agent registers attendance of each participant. The health agent determines the type of vaccines to be administered, and whether the participant is due to receive a dose of vitamin A or deworming tablets. She also updates the health cards with the information on immunization and vitamin A

[6] World Vision offers hormone pills and three monthly injections. Women can receive these services administered by WV nurses at mobile clinics, in health centers during pre- and postnatal consultations, or at Area Development Program clinics.

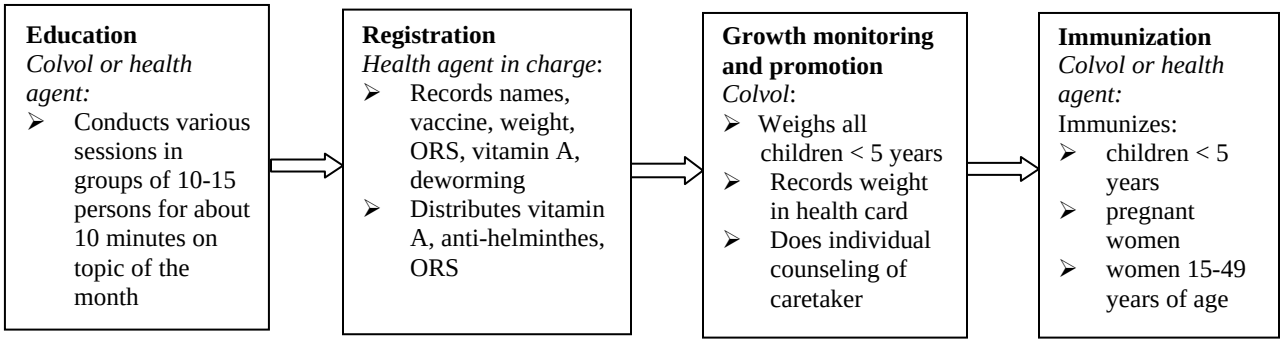
supplementation, and for food aid beneficiaries, s/he signs attendance on the ration card. This same health agent also does the distribution of vitamin A (every six months for children less than 5 years of age), anti-helminths tablets (every six months to children 2-5 years of age), and oral rehydration salts (ORS) sachets (three sachets per month per household).

3) The next activity at the RP is growth monitoring and promotion. Each child is weighed and the weight is recorded on the growth chart printed in the health card kept by the caretaker. It is expected that at least the caregivers of malnourished children, especially of moderately and severely malnourished children (M2 or M3 for weight-for-age according to the Gomez classification), will receive brief counseling about feeding practices and prevention of childhood illnesses.

4) After growth monitoring and promotion, children are directed to receive their immunizations. Children receive vaccinations based on their age and previous immunization history (previously verified by the health agent in Step 2 above).

The activities at the RPs are identical for the recuperative and preventive programs, with the only differences being the criteria for selection of food aid beneficiaries. In the recuperative program group, children are targeted based on their nutritional status, whereas in the preventive program group, the selection of beneficiaries is based on age.

Figure 3.1. Flow of activities at the RP



3.2 Methods used to assess the Rally Post operations

The data that provide information on the functioning of the different activities at the RPs in the next sections were gathered using the following methods:

1) Observations to capture the general ambiance at the RPs (N = 19);

2) The tracking of caregivers through the different services provided at the RP (N = 38);

3) Structured exit interviews with the tracked respondents (N = 38) and with randomly chosen caregivers who were accompanying a food aid beneficiary child, (N = 59);

4) Individual semi-structured interviews with health agents at the end of each observed RP (N = 19);

5) Semi-structured interviews with beneficiary women in their homes (N = 30);

6) Focus group discussions with *colvols* and MCH supervisors (N = 3).

3.3 Operations and quality of services at the Rally Posts

The presentation of data on the operations of the different activities at the RPs follows the sequence of activities as laid out in the implementation plan (see above), i.e., the education, registration, growth monitoring and promotion, and immunization. Where available, the results on quality of implementation are presented after results on the implementation itself. The results on the functioning of these activities are preceded by a description of the general context of the RP. In addition, general information on the number of participants attending RPs and the number of health staff present, and findings on the internal organization of the RPs as well as on time commitment needed for participants to attend the RP are included.

3.3.1 Attendance and participant/staff ratio

3.3.1.1 Number of pregnant/lactating women and children under 5 years

Table 3.1 presents the numbers of participants from each program group, as well as the total number attending the RP. This information was collected by the health staff after the RP meeting. The data indicate that the total number of pregnant and lactating women as well as children under the age of five years was very similar in the two program groups. On average, 74 participants, not counting the accompanying caregivers of children and siblings, were reported to attend a RP meeting. The range is high, indicating that RPs vary quite considerably in size and therefore in workload for the health staff involved. Most of the participants reached the RPs on foot. Only one of the interviewed participants used a mule to come to the RP. Nobody had to pay for transportation. The average travel time to get to the RP was 19 minutes, varying between 1 and 90 minutes (n = 97).

The data on the tracked respondents (N = 38) and from the exit interviews (N = 59) indicate that in general, children were accompanied by their mother (91 percent); only 3 percent (n = 3) were brought by their father and 6 percent (n = 6) by their grandmother or another family member.

On average, the RPs observed hosted approximately 26 pregnant and lactating women and 49 children under the age of five years on the day of observation. Again, the data do not show major differences between the two program groups, except with respect to the age of the children attending. As expected, given the difference in targeting mechanisms used for the preventive and the recuperative groups, the proportion of children who were under 24 months of age in RPs from the preventive group was much higher than in the RPs from the recuperative group. Also, a larger percentage of children attending the RPs in the recuperative area was identified as being malnourished using the Gomez classification (35 percent) at the RPs in the recuperative program group, compared to those in the preventive program group (9 percent).

This is because the prevalence of malnutrition tends to increase gradually with age, and thus, higher malnutrition rates are usually found among older, compared to younger, children (Ruel 2001).

Table 3.1. Number of pregnant/lactating women and children under 5 years per RP, by program group

Number of participants attended on day of observation	*Variable name*	Program group	Mean [N = 19]	Range
Pregnant/lactating women	*q102*	Preventive	25	0-72
		Recuperative	27	6-61
		Total	26	0-72
Children under the age of five years	*q103*	Preventive	50	9-97
		Recuperative	47	21-95
		Total	49	9-97
Children under the age of 24 months	*q104*	Preventive	41	9-91
		Recuperative	28	15-62
		Total	35	9-91
Children identified as M2	*q105*	Preventive	4	1-7
		Recuperative	15	4-51
		Total	9	1-51
Children identified as M3	*q107*	Preventive	0.4	0-1
		Recuperative	2	0-6
		Total	1	0-6
Total number of pregnant/lactating women and children under five years present	*numwochi*	Preventive	75	9-169
		Recuperative	74	27-151
		Total	74	9-169
			Percentage	
Percent of all children identified as M2		Preventive	8	
		Recuperative	31	
		Total	19	
Percent of all children identified as M3		Preventive	1	
		Recuperative	4	
		Total	2	

These results do suggest that children between 24 and 59 months old in the preventive program and younger children, i.e., under 24 months old, in the recuperative program are less likely to benefit from the services offered at RPs (vitamin A supplementation, deworming, immunization, ORS, etc.), even though they are eligible to receive these services. Differences in the targeting mode apply only for eligibility to receive the food, not the remaining of the MCH package of interventions. The program supervisors should emphasize this point with health agents and *colvols* so that they reinforce the importance of the RP services for all children under 5 years old in their motivational efforts with the community.

3.3.1.2 Number of health staff at Rally Posts

WV's implementation plan recommends that each health agent in charge of a RP be assisted by at least two other health agents and two *colvols* when they hold a RP session. The data presented in Table 3.2 show that only at about half of the RPs observed did the health agent responsible receive any help from another health agent, and only three of them received help from two or more additional health agents. Nonetheless, all but one health agent received support from *colvols*, and most of them had two or even three *colvols* to assist them. Thus, although assistance from *colvols* appeared to be in conformity with WV's requirements, help from other health agents was generally unavailable. It is not clear why some of the health agents managed to get more help from other health agents than others; there is no relationship between the amount of help from other health agents and the number of people attending a RP; and there is also no relationship between the number of helping hands and the duration of employment of the health agent in charge.

Table 3.2. Number of health staff present at RPs

Number of health staff	***Variable name***	**Numbers [N = 19]**	
Number of health agents aside from the health agent responsible:	*q108*		
- None		10	
- 1		6	
- 2		2	
- 3		1	
Number of *colvols* available to assist the health agent responsible:	*q109*		
- None		1	
- 1		1	
- 2		11	
- 3		6	
		Mean [N=19]	**Range**
Participant per health agent ratio	*ratioasb*	55	5-151
Participant per health staff ratio (health agents + *colvols*)	*ratiostb*	22	2-59

As could be expected, the ratio of RP participant per health agent was high: on average, 55, whereas the ratio of all health staff (health agent + *colvols*) was more reasonable, at 22 beneficiaries per health staff person (see Table 3.2). Note that the variation in both ratios is quite high, and at the upper end ranges as high as 151 beneficiaries per health agent. Also note that the ratios presented in Table 3.2 do not include nonpregnant and nonlactating caregivers or women in the age range 15-49 years old who are also eligible to receive services at the RPs, such as immunization.

3.3.2 General organization and sequencing of activities at the Rally Posts

Location and bottlenecks. Of the 19 RP meetings observed, about half were held in a church (n = 10), 4 in the courtyard of a private house, 3 in a school, and 2 in a dispensary. Venues like a church or a school, which usually have only one room, make it difficult to physically separate the different activities of the RP and to avoid interference. The data on the 19 RPs observed indicate that in most cases, the different services provided were indeed located in one single area, next to each other (see Table 3.3). In 4 of the RPs, a few services, such as

registration, education, weighing, or vaccination were held in a separate room of a dispensary (n = 2), or a separate area in a church (n = 1), or the courtyard of a private house (n = 1).

Table 3.3. Organization of activities at RPs

Location and "bottlenecks"	*Variable name*	Number of RPs [N=19]
Location of individual activities (number of RPs where the individual activity was held in a separate area):		
- Registration	*q110a*	1
- Education session	*q110b*	3
- Vitamin A distribution	*q110c*	0
- Deworming	*q110d*	0
- ORS distribution	*q110e*	0
- Weighing	*q110f*	2
- Vaccination	*q110g*	3
Most important bottleneck to participant movement:	*q111*	
- Registration		16
- Vaccination		1
- None		2
Second important bottleneck to participant movement:	*q112*	
- Registration		1
- Vaccination		7
- Weighing		4
- None		5

Data were also gathered on the services that appeared to create the largest "bottlenecks" to participant movements. Table 3.3 shows that registration was either the most important or the next most important bottleneck in the majority of the RPs (n = 17). Another activity that hindered efficient participant movement through the services was immunization (in 8 of the observed RPs). Weighing constituted the second most important bottleneck in 4 RPs. Only 2 of the RPs had no bottlenecks to participant movement and both of these had fewer than 40 participants.

Sequencing of activities. The implementation plan specifies that each caregiver attending a RP meeting should be guided through the different services in the following sequence (see Section 3.1): (1) education, (2) registration, including the distribution of vitamin A and deworming dosage, if necessary, as well as ORS packets, (3) growth monitoring and promotion, and (4) immunization.

Our results from the tracking of two respondents per RP (for a total of 38 tracked respondents in 19 RPs) through the various program activities are presented in Table 3.4. The data indicate that none of the respondents followed the sequence of activities as proposed in the implementation plan. Sequence 1 (see Table 3.4), which was followed by 8 of 38 tracked respondents, is the one that comes closest to the recommended sequence, although the vitamin A and deworming tablet dosages were not administered along with the registration, and immunization was not provided.

Table 3.4. Sequence of program services for tracked respondents at RPs

Sequence	Numbers [N = 38]
Sequence 1:	8
Education	
Registration	
Child weighing (+post-weighing counseling, *if used*)	
Vitamin A dosage, *if used*	
Sequence 2:	14
Registration	
Education	
Child weighing	
If used, sequence varies:	
Post-weighing counseling	
Immunization of child	
Vitamin A/deworming tablet dosage	
Sequence 3:	9
Registration	
Child weighing (+post-weighing counseling, *if used*)	
Education	
Immunization of child, *if used*	
Vitamin A dosage, *if used*	
Immunization of respondent, *if used*	
Other sequences	7

For about a third of the tracked respondents, the sequence was the following: registration, followed by education, weighing or growth monitoring and promotion, immunization, and vitamin A dosage (see Sequence 2 in Table 3.4). A third sequence, which 9 of the tracked respondents followed, started again with registration, followed by weighing or growth monitoring and promotion, education, immunization, and vitamin A dosage. Slightly modified sequences were observed for 7 caregivers.

These data show that the sequence in which participants used the various program activities varies widely across RPs. In 4 of the RPs, the sequence even varies between caregivers during the same RP session. Education is rarely the first activity that caregivers attend at a RP. In addition, the vitamin A and deworming tablet dosages are not administered along with the registration as stipulated by the implementation plan. They are either given before/after the weighing, or before/after the immunization.

3.3.3 Education sessions

3.3.3.1 Implementation of education sessions and attendance

Observations in the RPs generated data on the number of education sessions held at the different RPs. Information on attendance at the education sessions was obtained from the tracking of caregivers and the exit interviews. Our formative research conducted in 2002 (Menon et al. 2002b) had revealed that a number of participants could not benefit from the education sessions conducted at the RP because they arrived late, and the only education session provided was usually carried out at the beginning of the meeting. Based on the discussions of

these results, it was decided that multiple education sessions should be held at the RPs to facilitate attendance by those participants who arrive late.

Table 3.5 presents the data on the number of education sessions held at RPs, and shows that only one education session was conducted at the majority of the RPs observed. Only four of the RPs conducted two (n = 3) or three (n = 1) education sessions on the day of observation. The number of adults participating in the education sessions varied from 6 to 76 in the RPs where one session was conducted, compared to 9-29 where two sessions were held, and 4-51 in the RP where three sessions were held.

Table 3.5. Number of education sessions at RPs and number of participants per session

Education session	***Variable name***	**Numbers [N = 19]**	
Number of education sessions held:	*q114*		
- One		15	
- Two		3	
- Three		1	
		Mean [N = 19]	**Range**
Number of adults per session in RP where:			
- 1 session was held (n = 15)	*numbpartif1sess*	30	6-76
- 2 sessions were held (n = 3)	*numbpartif2sess*	19	9-29
- 3 sessions were held (n = 1)	*numbpartif3sess*	20	4-51

The data presented in Table 3.6 on attendance at education sessions show that all tracked respondents participated in an education session, whereas only 80 percent of the exit interview respondents did so. The remaining 20 percent (n = 12) of respondents from the exit interview sample reported that they had arrived too late at the RP to attend an education session. The reason for this difference in attendance between the tracked respondents and the exit interview respondents may be that the tracked respondents were usually selected right at the start of the RP, while the exit interview respondents were selected as they left the RP. Thus, some of the exit interview respondents could have arrived too late to attend the education session, while all the tracked respondents had arrived at the stipulated start time and, therefore, had attended the education session. Further, as expected, non-attendance of the education session by exit

Table 3.6. Attendance of education sessions at RPs and reason for non-attendance

Education session	***Variable name***	**Tracked respondents[a] (n = 38)**	**Exit interview respondents[b] (n = 59)**
Number of caregivers who attended education	*q310+q311* *q214+q215*	38	47
If not, reason for non-attendance			(n=12)
- Arrived too late at the RP			12

[a] Tracked respondents were the sample of 38 beneficiaries (2/RP) observed by our fieldworkers as they went through the different RP activities.

[b] The sample of exit interview respondents consisted of two-to-four randomly selected caregivers accompanying a food aid beneficiary child in each RP [n = 59].

interview respondents was more common in RPs where only one education session was conducted because this session was also more likely to be conducted shortly after the start of the RP. The results from the home interviews (n = 30) also confirmed that education sessions were frequently missed when mothers arrived late at the RP. About two-thirds of the 27 home interview respondents who had attended a RP recently reported that they had missed the education session at the RP because they had arrived too late and no other education session was held while they attended the RP.

The majority of the education sessions observed was conducted by the health agent in charge of the RP (see Table 3.7). As noted above, the number of participants ranged from 6 to 76. On average, the health staff talked for about 10 minutes, but the duration ranged from as low as 1 minute to 23 minutes. Very little use of any communication material was observed, even though a variety of tools do exist, and WV had provided a set of these materials to each health agent and *colvol*.

Table 3.7. Observations of education sessions held at the RPs

Characteristics	***Variable name***	**Numbers [N = 38]**	**Range**
Who facilitates the education session?	*q330*		
- Health agent in charge		28	
- *Colvol*		8	
- Other health agent		2	
Topics of the sessions by month:	*q331a*		
July (n=12)			
- Immunization		8	
- Importance of health card		2	
- Importance of weighing		2	
August (n=20)			
- Immunization		12	
- Importance of weighing		2	
- Treatment of drinking water		4	
- Family Planning		2	
September (n=6)			
- Immunization		2	
- Importance of health card		2	
- Treatment of drinking water		2	
Number of participants at the session	*q332*		6 to 76
Type of visual materials used:	*q333*		
- World Vision album of pictures		3	
- Images on infant and young child feeding from IFPRI-CU-WV team		1	
- Images from CARE Guide		2	
- None		32	
Other reference material is used	*q334*	6	
		Mean [N = 38]	**Range**
Average length of education sessions (minutes)	*lengeduc*	10	1-23

The topics presented varied between the different RPs, even within the same month. Up to four different topics were addressed in the RPs observed within a one-month period (see month of August, Table 3.7). The most popular topics were immunization, the importance of the health card, and of weighing the child. The results from the home interviews confirmed that immunization was by far the predominant topic presented at the RP education sessions in the months prior to the home interviews. None of these topics corresponded to the topics suggested for discussion during the study months by the program. For instance, the topics for July to September were: family planning, HIV/AIDS and *Moringa olifeira*. It is not clear why the scheduled topics were not discussed, i.e., whether it was because the health agents were not aware of these monthly topics, or whether they did not feel comfortable enough with the topics.

3.3.3.2 Quality of education at the Rally Posts

Table 3.8 presents an assessment of the quality of the education provided at the RPs, from fieldworkers' observations of the activity. A good ambiance was reported by the fieldworkers for 15 of the 38 sessions observed, i.e., participants were attentive to the health agent's presentation, there were few distractions, and the health agent/*colvol* spoke clearly and loud enough so that she/he could be understood by the participants. In 9 of the 38 observed sessions, however, the noise levels were high, which is understandable, given the level of crowding at many of these sessions and the fact that there was no separate space available to carry out the education.

Table 3.8. Quality of education provided at RPs

	Numbers [N = 38]
Positive aspects	
Good ambiance	15
Practical advice	6
Use of demonstrations	2
Dialogue	2
Animator asks questions to audience	
- No questions	10
- Many questions	18
Negative aspects	
No animation (songs, sketch)	22
Distracting atmosphere (side-conversations, crying children, etc.) and crowded	9
Audience asks questions to animator	
- No questions	34
- A few questions	4

A few health agents and *colvols* also included practical advice and demonstrations in the sessions, or attempted to create a dialogue with the participants. In about one-half of the observed sessions, the animators asked many questions to the audience. However, in most of the sessions, the audience asked no questions to the animator and therefore, a real dialogue or interaction was not established. In more than one-half of the sessions, the animator did not use songs or sketches to animate the group and to interest the participants in the topic. Finally, the education sessions tended to focus on messages rather than use concepts of behavior change, and lacked practical advice and/or the discussion of potential constraints to behavior change and solutions to address them.

The potential effectiveness of the education conducted at the RPs was assessed based on the recall and application of the information presented at the education sessions by the home interview respondents. The respondents were asked to recall as many of the details concerning what they had heard and learnt and to talk about what they were able to use. The results are presented in Table 3.9.

Table 3.9. Spontaneous recall and application of advice received at RP education sessions (home interview sample of mothers exposed to specific education topics)

Spontaneous recall of details	Numbers	Application/adoption	Numbers
Immunization protects against illness (N = 9)	8	Taking the child regularly to RP for immunization (N = 9)	7
Importance of giving all doses to fully protect the child (N = 9)	3		
Role of certain vaccines (N = 9)	3		
Dosage for treatment of drinking water and role of chlorine (N = 1)	1	Treatment of drinking water, daily (N = 1)	1
		Preparation of ORS when child has diarrhea (N = 1)	2

In general, the information given in the education sessions on immunization was considered useful by the respondents, although it was not new to some of them. The recall of details and the adoption of recommended practices were quite good, given the lack of depth of presentation of topics at the RPs. For instance, most of the mothers who remembered the topic of immunization had actively taken their child regularly to the RP for immunization. Further, most of the women who had attended an education session on immunization also recalled that immunization protects against illness, and a few mentioned the importance of fully immunizing the child in order to achieve total protection. Others remembered the role of specific vaccines, although not always correctly, and some either recalled names of vaccines or that there was an immunization schedule to be followed, but without remembering more of the details.

The one woman who attended a session on water treatment provided detailed information on dosage for chlorine and its role. She also reported treating the drinking water on a daily basis. No details were recalled by respondents who had attended RP education sessions on the importance of weighing and ORS. When asked about the application of advice, though, the one woman who had heard about the importance of weighing said that she takes the child regularly to the RP for weighing. Similarly, two women mentioned that they prepared ORS at home when their child has diarrhea, even though one of these women had actually not attended a session on ORS at the last RP.

3.3.4 Registration, vitamin A, deworming, and ORS

3.3.4.1 Implementation and use of registration, vitamin A, deworming, and ORS services

According to the implementation plan (see Section 3.1), registration is the second activity a caregiver would attend at the RP. The same health agent who does the registration is expected to distribute vitamin A capsules, deworming tablets, and ORS sachets. Therefore, the results for these services are discussed in the same section, although the data presented in Section 3.3.2

show that vitamin A, deworming, and ORS are often administered along with the weighing or the immunization activities.

The data presented in Table 3.10 on the use of services show that all tracked respondents were registered. Information about registration was not obtained in the exit interviews. About one-third of the children of tracked respondents received a vitamin A capsule on the day of observation/interview. Among those who did not receive vitamin A, the reasons for not receiving the vitamin A included: (1) the child was not due to receive vitamin A on the day of observation (n = 14; 8 of these 14 children attended a RP where this service was not offered on the day of observation), (2) vitamin A capsules were not available on the day of their visit to the RP (n = 2), and (3) the caregiver had not used the service for unknown reasons, although the child was due to receive vitamin A the day of observation (n = 7). Thus, about 38 percent of the tracked children who were due to receive a vitamin A capsule on the day of observation did not receive it (9/24 tracked children).

Table 3.10. Use of registration, vitamin A, and deworming tablet dosage and ORS packets at RPs and reason for non-usage

Registration, vitamin A, deworming, ORS	***Variable name***	**Tracked respondents[a] (n = 38)**	**Exit interview respondents[b] (n = 59)**
Number of caregivers who were registered	*q310+q311*	38	-
Number of caregivers with child who received vitamin A (among those due)	*q310+q311*	15 (of 24 due)	-
If not, reason for non-usage:		(n = 23)	
- Vitamin A not due		14	
- Service not used (reason not known), but due		7	
- Service not offered day of observation, but due		2	
Number of caregivers with child who received deworming tablet (among those eligible > 2 years)	*q310+q311* *q214+q215*	2 (of 13 eligible)	3 (of 20 eligible)
If not, reason for non-usage:		(n = 36)	(n = 56)
- Not eligible for deworming		25	39
- Service not used (reason not known), but eligible		4	8
- Service not offered day of observation, but eligible		7	9
Number of caregivers who received ORS packets (all children are eligible)	*q310+q311* *q214+q215*	0 (of 38 eligible)	2 (of 59 eligible)
If not, reason for non-usage:		(n = 38)	(n = 57)
- Service not used (reason not known)		14	20
- Service not offered day of observation		24	37

[a] Tracked respondents were the sample of 38 beneficiaries (2/RP) observed by our fieldworkers as they went through the different RP activities.

[b] The exit interview respondent samples consisted of 2-4 randomly selected caregivers accompanying a food aid beneficiary child in each RP [n = 59].

Similarly, very few of the children eligible to receive deworming tablets (i.e., > 24 months) on the day of observation/interview received them. For approximately half of the eligible children, this was due to the fact that the service was not offered on the day of observation/interview (this was the case for 7 of the 13 eligible tracked children; and 9 of the 20 eligible children from exit interviews). For the others, the caregivers had not used the service for unknown reasons. Among children who did not receive the service, approximately 70 percent were not eligible (9 of the 25 non-eligible tracked children attended a RP where the service was not offered on the day of observation; this was the case for 15 of the 39 non-eligible children from exit interviews). None of the tracked respondents and only 2 of the exit interview respondents received ORS packets, either because they were not offered on the day of observation (approximately two-thirds of the children) or the respondent had not used this service for unknown reasons.

The supply of vitamin A capsules, deworming tablets, and ORS packets was inadequate in many of the RPs observed; vitamin A was unavailable in 5 of the 19 RPs, whereas deworming tablets and ORS were unavailable in 8 RPs and12 RPs, respectively.

In the process of registration, the health agent is also expected to update the health cards with information on the vaccines, vitamin A supplementation, and deworming that the child is supposed to receive if available on the day of the RP, and signs attendance on the ration card for food aid beneficiaries. The data presented in Table 3.11 summarize the information on the status of beneficiary cards of the child beneficiaries accompanied by the tracked respondents. The results show that most respondents, with the exception of three, had the child beneficiary's health card in hand when they came to the RP. For all of those who had their health card, the information regarding the immunizations and vitamin A supplementation they received on the day of observation was duly recorded in their cards. For one of the two children who received deworming tablets, however, the information was not entered in the card.

The data in Table 3.11 also show that only 27 of 38 tracked respondents had brought the ration card to the RP. Ten respondents had forgotten to bring their ration cards and one respondent reported that she did not yet have a ration card for her child, who was a beneficiary of the food aid program. The date of attendance, which is mandatory in order for the beneficiary to receive the food rations, had been entered by the health agent on the cards of about one-half of the respondents who had the cards in their possession. The other half were probably not marked for attendance because the system of noting beneficiary attendance at the RP on the ration card was only recently established as a way of verifying the eligibility of the beneficiaries at the distribution site. The other system in place to ensure that only eligible beneficiaries receive their food ration is a list (prepared by the health staff) of all beneficiaries who attended the mandatory RP and MCH activities. Thus, in spite of the fact that many beneficiaries did not get the date of attendance entered on their ration card, they should be able to receive their food ration if their name appears on the list provided by the health staff to the commodity section.

According to the birth date information on their health cards, all beneficiary children in the preventive program group were of the required age for that category (i.e., between 6 and 23 months old). Similarly, none of the beneficiary children in the recuperative program group was older than the upper age limit of that category (i.e., 5 years old). Two of the 13 children

Table 3.11. Status of beneficiary health and ration cards

Characteristics	*Variable name*	Numbers [N = 38]	
Number of respondents who had the child beneficiary's health card with them on the day of observation	*q338*	35	
Among those with health card (n = 35):			
Vaccination:	*q343*		
- Number who received vaccination		7	
- Number whose vaccination was entered in card		7	
Vitamin A	*q341*		
- Number who received vitamin A		14	
- Number whose vitamin A was entered in card		14	
Deworming	*q344*		
- Number who received deworming		2	
- Number whose deworming was entered in card		1	
Number of respondents who own a ration card for the child	*q346*	37	
Among those who own ration card (n = 37):			
- Number who brought card at RP	*q346*	27	
- Number where date of attendance was entered (among those with card = 27)	*q348*	15	
- Number of children in beneficiary categories:	*q347*		
- 6-23 months		14	
- Malnourished < 5 years		13	
		Mean	**Range**
Average age of children in each category, according to health card (n = 27):	*agechild& q347*		
- 6-23 months old (n = 14)		16	7-23
- Malnourished child < 5 years (n = 13)		23	8-46

classified in Table 3.11 under the category "malnourished child < 5 years" do not belong to the recuperative program group, i.e., these were two children in the preventive group for whom "malnourished child under 5 years" was marked in their ration cards. One of the two misclassified children was 15 months old and therefore in the targeted age range for the preventive group. It is likely that the misclassification in this case is a mistake made when the information was entered in the card. The other misclassified child was malnourished (M2) and nearly 25 months old, thus not eligible for food rations in the preventive program group. One possible explanation for this child being a beneficiary (in spite of being older than the cutoff age of 24 months in the preventive program) could be that this child was found to be severely malnourished (M3) at a previous visit and was therefore eligible to receive food aid, and had now improved and became M2, as opposed to M3.[7] We do not have any information on the child's previous nutritional status, however, to verify this assumption.

[7] Severely malnourished children between 24 and 59 months of age in the preventive program do also receive food rations for 9 months.

3.3.4.2 Quality of vitamin A supplementation and deworming services

One way to assess the quality of services in the case of vitamin A supplementation and the distribution of deworming drugs is to determine whether the staff adheres to the recommended schedule of administration/distribution of these services, which in both cases is every six months. Data were available for 34 of the 38 tracked children concerning the vitamin A dosage and for 6 of 13 children older than 24 months and therefore eligible to receive deworming tablets (shown in Table 3.12). The fieldworkers obtained the information from the health card and the health agents' register. It is not clear why information could not be obtained for the other eligible children, whether these had never received vitamin A or deworming, or whether it was due to incomplete reporting.

The results show that five children had not received a vitamin A capsule the day of observation, although their last dosage was more than 6 months ago. On average, the last dosage was 8 months ago, with a variation from 7 to 15 months. For two of the five children who had not received their dosage on time, the service was not offered at the RP they attended. For the three other children, the respondent did not use the service that day for unknown reasons, although vitamin A capsules were available at the RP. It is not clear whether the health agent did not distribute capsules to these children or whether the respondents chose not to take them. All children for whom information on deworming tablets was available had received their dosage on time, i.e., none of these children had received their last deworming tablets more than 6 months ago.

Table 3.12. Timing of vitamin A and deworming tablet dosage (tracked respondents)

Characteristics	***Variable name***	**Tracked respondents [N=38]**
Number of children who received last vitamin A dosage (n = 34)	*q342 vitam*	
- ≤ 6 months ago		29
- > 6 months ago		5
Number of children who did not receive vitamin A dosage the day of observation (n = 17) and whose last dose was > 6 months ago	*vitam&q341*	5
Number of children who received last deworming dosage (n = 6)	*q345 deworm*	
- ≤ 6 months ago		6
- > 6 months ago		0
Number of children who did not receive deworming dosage the day of observation (n = 4) and whose last dose was > 6 months ago	*deworm&q344*	0

3.3.5 Growth monitoring and promotion

3.3.5.1 Implementation of growth monitoring and promotion activities

As part of the activities carried out at the RP, each child should be weighed, the weight recorded on the growth chart (weight-for-age) printed in the health card, and the child's weight interpreted to evaluate nutritional status (i.e., whether or not the child has an adequate weight for his age, and if s/he is moderately or severely malnourished, i.e., M2 or M3, according to the Gomez classification). It is expected that caregivers will be informed about the child's weight and receive brief counseling, especially if their child is malnourished (M2, M3).

The data from observations of tracked respondents and exit interviews (Table 3.13) indicate that all children were indeed weighed. Data concerning the subsequent steps, i.e., informing the caregiver of the child's weight, recording the weight, assessing the child's nutritional status, and informing the caregiver, were only available for the tracked respondents. They show that although the health staff tended to comply with the "mechanical" steps involved in growth monitoring and promotion, namely, the weighing, recording, and nutritional status assessment, they were much less likely to have communicated the results to the caregivers or to have engaged in any type of discussion or counseling. Only half of the tracked respondents were informed of the child's weight and only 25 percent were told about the child's nutritional status. Similarly, only about one-third of all respondents (tracked or interviewed) received any post-weighing counseling.

Table 3.13 also provides information on the likelihood of being counseled according to the child's nutritional status. For both tracked respondents and exit interview respondents, having a malnourished child (M2 or M3) seemed to increase the likelihood of receiving counseling (e.g., 50 percent of the exit interview respondents who had a malnourished child were counseled, compared to 30 percent among respondents of a nonmalnourished child). Thus, it seems like the health staff did pay some attention to the nutritional status of the child in deciding whether or not to communicate with the mother about the child's status. However, they still did not provide counseling to 50 percent or more of the caregivers who had a malnourished child. Similarly, the vast majority of mothers who were accompanying a well-nourished child were not praised or encouraged for having a well-nourished child.

These results are also confirmed by the information from the home interviews. Of the 21 home interview respondents whose children were recently weighed at a RP, only 8 received counseling after the weighing. One respondent explained why individual advice at RPs is difficult to get:

- "There were many children; there was no time to counsel us" (Beneficiary mother).

Table 3.13. Use of weighing and other steps in growth monitoring and promotion activities and reasons for non-usage

Weighing and other growth monitoring and promotion activities	*Variable name*	Tracked respondents[a] (n=38)	Exit interview respondents[b] (n=59)
Child was weighed	*q310+q311 q214+q215*	38	59
Caregiver was informed of child's weight	*q317*	16	-
Child weight was recorded in health card (n = 35)	*q339*	29	-
Nutritional status was assessed	*q319*	32	-
Caregiver was informed of child's nutritional status	*q321*	9	-
Post-weighing advice was given to caregiver	*q310+q311 q214+q215*	14	22
If not, reason for non-usage		(n = 24)	(n = 37)
- Service not provided/not used		24	37
If child malnourished	*q357&*	(n = 20)	(n = 22)
- M2: Received counseling	*q3103117*	9/20	10/21
- M3: Received counseling	*q209&*	0/0	1/1
If child not malnourished	*q2146*	(n = 18)	(n = 33)
- M1: Received counseling		3/9	6/22
- Normal: Received counseling		2/9	4/11

[a] Tracked respondents were the sample of 38 beneficiaries (2/RP) observed by our fieldworkers as they went through the different RP activities.

[b] The sample of exit interview respondents consisted of two-to-four randomly selected caregivers accompanying a food aid beneficiary child in each RP [n = 59].

Observations in the RPs revealed that most of the weighing was done by a *colvol*, whereas the person who noted the weight down was more likely to have been the health agent in charge (see Table 3.14). As noted above, only approximately half of the tracked respondents were informed about their child's weight and this was equally likely to have been done by the health agent in charge or the *colvol*. However, the children's nutritional status, which was assessed for approximately 85 percent of the children, was much more likely to have been determined by the health agent in charge (20/32) than by a *colvol* (11/32) or another health agent (1/32).

The results of the home interviews support the observations at the RP. Less than half of the home interview respondents whose children were recently weighed at the RP were informed about their child's weight (7/21), and only two were informed of his/her nutritional status. One respondent reported having managed to read the weight on the scale herself and three respondents had not received any information about either the weight or the nutritional status of the child. All respondents who received counseling (8/21), however, were told their child's weight and/or nutritional status.

Table 3.14. Observations of weighing sessions at RPs

Characteristics	*Variable name*	Numbers [N = 38]
Child was weighed	*q312*	38
Person who conducted the weighing:	*q313*	
- Health agent in charge		7
- *Colvol*		28
- Other health agent		3
Person who noted weight down:	*q316*	
- Health agent in charge		25
- *Colvol*		7
- Other health agent		6
Person who informed the caregiver of the child weight (n = 16):	*q318*	
- Health agent in charge		8
- *Colvol*		6
- Other health agent		2
Person who evaluated the child's nutritional status (n = 32):		
- Health agent in charge		20
- *Colvol*		11
- Other health agent		1
Person who informed the caregiver about the child's nutritional status (n = 9):	*q322*	
- Health agent in charge		8
- *Colvol*		1

Note that the evaluation of nutritional status is intended to be carried out at the RP itself, using the growth chart printed in the health card. In three of the RPs observed, the health agents had not done it immediately on site, but did it at home. This was apparently due to the fact that two different health cards were used at the time of our study: the "old" health card with a growth chart based on the percentage of the median of the weight-for-age CDC/NCHS/WHO reference standards (WHO 1979) using the Gomez classification[8] and the "new" health card, where the growth chart is based on weight-for-age Z-scores[9] that are derived by comparing the child's measurements to the same reference standards, but using the WHO classification.[10] Newly identified beneficiaries had started to receive the new health card, whereas WV was continuing to base its reporting of children's nutritional status on the Gomez classification.

In this transition period, the health agents had been advised to plot the weight in the growth chart of the new card and to note down the weight in their registers, but to evaluate the nutritional status to be included in their daily reports only at home, using the old health card. According to the fieldworkers' observations, this procedure was respected in three RPs. In most of the other RPs, the evaluation with the old health card was done immediately after the weighing or before the end of the RP. In some RPs, the recommended procedure was somewhat

[8] Normal (N) corresponds to ≥ 90 percent of the median of the weight-for-age CDC/NCHS/WHO standards; mild malnutrition (Grade M1) to 75 percent - < 90 percent; moderate malnutrition (Grade M2) to 60 percent - < 75 percent, and severe malnutrition (Grade M3) to ≤ 60 percent (Cogill 2003).

[9] A Z-score (or standard deviation score) is defined as the deviation of the value of an individual child from the median value of the reference population, divided by the standard deviation for the reference population (WHO 1995).

[10] Normal corresponds to a Z-score of ≥-1 standard deviations; mild malnutrition corresponds to a Z-score of ≥-2 and <-1 standard deviations; moderate malnutrition (low weight-for-age) to a Z-score of ≥-3 and <-2 standard deviations, and severe malnutrition (very low weight-for-age) to <-3 standard deviations (Cogill 2003).

modified and the nutritional status was evaluated using the new card but translated into the different degrees of the Gomez classification for the report.

3.3.5.2 Quality of the growth monitoring and promotion activities

Weighing and plotting

Results of our assessment of the quality of the weighing procedures at the RPs are presented in Table 3.15. Hanging (SALTER) scales are used to weigh the children. The difficulties in reading the weight of a moving (and/or crying) child on these scales are well recognized. Therefore, one of the observations made by the fieldworkers was the movement of the scale's needle at the time of measurement. In most of the observed cases, the needle was stable or only somewhat moving (80 percent), but in 20 percent (n = 8) of the observations, the needle was moving a lot. The children were re-weighed using an electronic scale by the fieldworkers (who had been trained and standardized in taking anthropometric measurements) to assess the extent of measurement error. On average, the weight measured with the hanging scale was 120 g higher compared to the weight measured with the electronic scale, but there were large variations in the magnitude of the measurement errors (from –2,600 to + 1,000 g).

If we consider that a difference of + or – 100 g between the two measurements is acceptable, nearly half of the observed measurements done by the health staff are within this range (n = 18). However, the percentage of acceptable measurements is lower when the needle of the scale swings a lot (25 percent), compared to when the needle is stable (where 47 percent are within +/- 100 g). This finding suggests that the extent of measurement errors could be considerably lowered if the health staff paid more attention to the movement of the scale's needle at the time of measurement. It has to be noted also that *colvols* were much more likely to achieve exact measurements than health agents.

Besides the precision of the weighing, data were collected on whether the plotting was done accurately—using the weight as measured by the health staff - and on the extent of misclassification that resulted from incorrect plotting. Results indicate that the plotting was done accurately in only half of the cases where the weight of the child was plotted in his/her health card (n = 14/29). These findings were similar whether the health agent or the *colvol* had done the plotting. The implications of these plotting errors for the classification of children into the different Gomez categories were also assessed by our fieldworkers, again using the weights obtained by the health staff. The results presented in Table 3.15 show that the plotting errors actually resulted in relatively small misclassification errors—no differences in classification were found in 87 percent of the cases (n = 28/32). This was probably due to the fact that the plotting errors were not of large magnitude, and therefore, although they were found in approximately half of the cases, they resulted in only about 13 percent (n = 4/32) of the children being misclassified into the different Gomez malnutrition categories. Note that none of the *colvols* who evaluated the nutritional status misclassified children into malnourished versus well-nourished.

The implications of the combination of weighing and plotting errors for the classification of children into the different Gomez categories were also assessed by comparing the

Table 3.15. Quality of weighing sessions at RPs (observations and re-weighing by our staff)

Characteristics	*Variable name*	Mean [N = 38]	Range
Difference between weight measured by fieldworkers (electronic scale) and by health staff (Salter scale) (g)	*wt_diff (q315&q356)*	-120	-2600 - +1000
	Variable name	**Number [N = 38]**	
Scale's needle movement at the time of measurement:	*q314*		
- A lot		8	
- Somewhat		15	
- Not at all (needle is stable)		15	
Number of correct measurements when electronic scale measure is used as reference (+/- 100g)	*wt_diff*	18	
Number of correct measurements (+/-100g) when weight read when:	*wt_diff& q314*		
- Needle is stable (n = 15)		7	
- Needle swings somewhat (n = 15)		9	
- Needle swings a lot (n = 8)		2	
Number of correct measurements (+/-100g) when person weighing is:	*wt_diff& q313*		
- Health agent (n = 10)		3	
- *Colvol* (n = 28)		15	
Weight was correctly plotted into growth chart (n = 29)	*q340*	14	
Number of weights correctly plotted when person who noted down the weight was:	*q340& q316*		
- Health agent (n = 22)		10	
- *Colvol* (n = 7)		4	
Difference in classification of nutritional status (Gomez) evaluated by fieldworkers versus evaluated by health staff based on weight as measured by the health staff (n = 32):	*q320& q357*		
- No difference in classification		28	
o Health agent (n = 21)		17	
o *Colvol* (n = 11)		11	
Misclassification of children's nutritional status:			
- "Normal" according to fieldworker but classified by health staff as "M1"		1	
- "M1" according to fieldworker but classified by health staff as "Normal"		2	
- "M2" according to fieldworker but classified by health staff as "M1"		1	
Difference in classification of nutritional status (Gomez) evaluated by fieldworker versus evaluated by health staff based on weight as measured by the fieldworkers (n = 32):	*q320& nutrstatverified*		
- No difference in classification		23	
o Health agent (n = 21)		13	
o *Colvol* (n = 11)		10	
Misclassification of children's nutritional status:			
- "Normal" according to IFPRI team but classified by health staff as "M1"		2	
- "M1" according to IFPRI team but classified by health staff as "Normal"		3	
- "M2" according to IFPRI team but classified by health staff as "M1"		2	
- "M1" according to IFPRI team but classified by health staff as "M2"		2	

classifications obtained by the health staff with those obtained by our research staff (using their measurement of the child's weight and their plotting of the child's weight). As expected, the results presented in Table 3.15 show that the misclassification errors are slightly higher—no differences in classification were found in 72 percent of the cases (n = 23/32), but about 28 percent (n = 9/32) of the children were misclassified into the different Gomez malnutrition

categories. This was due to the fact that in addition to plotting errors, weighing errors occurred in about half of the observed measurements done by the health staff. Again, misclassification errors are less frequent when *colvols* evaluated the nutritional status as opposed to health agents.

Note that these results also highlight the implications of the misclassification for the program in terms of leakage of food to non-eligible children or not reaching targeted beneficiaries (see Table 3.15). Misclassification errors in this case resulted in a similar number of eligible children being excluded from the program (n = 2) and of non-eligible children mistakenly being included in the program (n = 2). Although in terms of food aid amounts the numbers cancel out, the leakage of the intervention to children who may not need it and missing children who do need it results in lower cost-effectiveness of the program. It is therefore important that every effort be made to try to minimize the measurement errors encountered through weighing of the child and plotting of the child's weight on the growth chart.

Post-weighing counseling

The quality of the post-weighing counseling received by tracked respondents (in cases where it was offered) was also assessed during our observations in the RPs (see Table 3.16). The post-weighing counseling was done exclusively by health agents, and mostly by the health agent in charge. Therefore, it seems that the likelihood of receiving counseling was greater if the health agent in charge was the person evaluating the nutritional status of the child. For the counseling, only two respondents were taken aside to guarantee a private atmosphere, while the others received the advice publicly in front of other participants. Of the 12 respondents who had a malnourished child, one was reprimanded, whereas one of the two respondents whose child had normal weight-for-age was complimented. For 65 percent (n = 9) of the respondents counseled, the health agent checked through a few questions whether the respondent had understood the advice given. The counseling was very brief and lasted, on average, about 3 minutes, varying between 1 and 6 minutes.

Table 3.16. Quality of post-weighing counseling in RPs (among tracked respondents who received counseling (n=14))

Characteristics	*Variable name*	Numbers (n=14)
Person who provided advise/counseling	*q325*	
- Health agent in charge		13
- Other health agent		1
Counseling/advice was given in a private place	*q326*	2
Caregiver of malnourished child (n = 12) was reprimanded while advice was being given	*q327* *q327&q357*	1
Caregiver of well-nourished child (n = 2) was complimented while advice was being given	*q328* *q328&q357*	1
Person giving the advice checked to ensure that the respondent understood the advice	*q329*	9
Time (minutes) used in post-weighing counseling	*act1&minutes*	
- Mean		2.8
- Range		1-6

These results suggest that counseling was offered to a relatively small proportion of participants and generally involved little interaction time between the health agent and the respondent. Moreover, Table 3.17 documents that the quality of interaction and of nutritional advice provided through the individual counseling was generally poor. Overall, the advice is characterized by a lack of detail and precision, and is generally of little practical relevance; the health staff does not provide examples of types of foods children should be fed, nor information on appropriate feeding frequency and portion sizes for specific children of different ages. Only one caregiver was giving advice on specific foods to give (fruits and fruit juice), but she was not advised on how often and in what quantity these should be given to the child.

For 3 of the 14 tracked respondents counseled, the nutritional status of the child had not been evaluated by the health staff, so the advice given to these caregivers was not expected to be related to the child's nutritional status. It is unclear how the health staff decided which advice to give. The findings for the remaining 11 tracked respondents counseled show that, with two exceptions, the type of advice provided was generally related to the child's nutritional status. For two of them, however, the advice was not related to the child's nutritional status: (1) the mother of a well-nourished child (Normal) was told to take better care of the child; and (2) the mother of a malnourished child (M2) was advised to continue to feed the same way, which seemed inappropriate, given that the child was malnourished.

Table 3.17. Type of individual advice given at RPs, by nutritional status

Nutritional status, as evaluated by health staff (*q320*), using Gomez classification	**N [N = 14]**	**Type of advice given (*q324*), multiple advice possible**
Nutritional status not evaluated	3	Feed the child more food (n = 1) Encourage child to eat (n = 1) Feed the child more food and give fruits, fruit juice (n = 1) Take better care of your child (n = 1)
Normal	2	Continue to feed same way/compliment (n = 1) *Take better care of your child*[a] (n = 1)
M1	2	Feed frequently (n = 1) Feed the child more food (n = 2)
M2	7	Feed the child more food (n = 5) Take the child to the hospital (n = 3) Encourage child to eat (n = 1) Take better care of your child (n = 1) Feed WV ration to the child (n = 1) *Continue to feed the same way* (n = 1)

[a] Sentences in italic refer to a type of advice that was inappropriate given the nutritional status of the child.

Data from home interviews (n = 30) also provided information on respondent participation in the RPs, and the quality of weighing and counseling activities. Of the 21 respondents whose children were weighed at the RP they attended recently, only 8 reported having received counseling after the weighing. The type of individual advice given to these respondents is similar to the examples of advice given to the tracked respondents (see above, Table 3.17). Again, the advice was general and only one respondent was told which specific foods to feed the child (bouillon and enriched milk), but without providing details on how often and in what quantity these foods should be fed. No information on the nutritional status of the

children was collected in these interviews, and therefore it is not possible to determine whether the type of advice given was related to the child's nutritional status.

All 8 home interview respondents who received counseling reported that they considered the advice given useful and applied what the health staff had told them, keeping their comments as vague as the advice was. The two respondents who were told to take the child to the hospital had done so and their children were treated. One respondent who was advised to continue to feed enriched meals said she could not afford the ingredients for enriched meals on a regular basis. No other details in relation to using the advice (e.g., which foods, how often, amounts fed) were provided by the mothers.

3.3.6 Immunization

Immunization services at the RP are offered to all children under 5 years old and to women 15-49 years of age. The results in relation to the use of immunization by children and caregivers are presented in Table 3.18. About 25 percent of both tracked respondents and caregivers interviewed in the exit interviews were accompanying a child who had received some immunization on the day of observation. The majority of children who were not immunized on the day of observation were already fully immunized.[11] In 20 percent of the cases, however, children were not immunized because the service was not available at the RP that day, although we do not know how many of these children were actually due to receive some immunization. Only two children were not immunized (although due) because the caregiver had not been using the service (for unknown reasons).

According to the fieldworkers' observations and the exit interviews, only a few respondents received an anti-tetanus vaccine at the RP (see Table 3.18). Most of the respondents were already immunized, i.e., had received two doses of anti-tetanus vaccine, or were attending a RP where this vaccine was not available on the day of observation. A few respondents had not used the service for unknown reasons, although they were not yet immunized. Four respondents were older than 49 years (grandmother) or male (father) and thus not eligible for the anti-tetanus vaccine.

Immunization for children was not offered in four of the RPs. In one of them, it was not offered because an immunization campaign organized by a hospital nearby was ongoing. In two other RPs, the health staff could not obtain the vaccines from the WV office. In the fourth one, too few participants attended the RP and the health agent preferred not to open a vial containing 20 doses only for the 4 children who were due to receive their immunization that day. The anti-tetanus vaccine for women was in even shorter supply and was not available in six of the RPs.

[11] A child is considered fully immunized in Haiti if s/he has received one dose of BCG, three doses of polio, three doses of DTP, and one dose of measles vaccination.

Table 3.18. Use of immunization at RPs and reason for non-usage

Immunization of child and caregiver	*Variable name*	Tracked respondents[a] (n = 38)	Exit interview respondents[b] (n = 59)
Number of caregivers with child who was immunized	*q310+q311 q214+q215*	8	16
If not, reason for non-usage:		(n = 30)	(n = 43)
- Child fully immunized		23	32
- Service not used (reason unknown)		1	1
- Service not offered day of observation		6	10
Number of caregivers who were immunized		1	4
If not, reasons for non-usage:		(n = 37)	(n = 55)
- Service not received because post run out of vaccines		1	1
- Non applicable because respondent >49 y or male		1	3
- Respondent already immunized		18	25
- Service not used (reason unknown)		5	8
- Service not offered day of observation		12	18

[a] Tracked respondents were the sample of 38 beneficiaries (2/RP) observed by our fieldworkers as they went through the different RP activities.

[b] The sample exit interview respondents consisted of 2-4 randomly selected caregivers accompanying a food aid beneficiary child in each RP [n = 59].

In summary, it appears that a significant percentage of children attending the RPs was fully immunized and that half of the caregivers was already immunized. However, regular availability of all vaccines was definitely a problem at the time of the evaluation.

3.3.7 Time commitment required for Rally Post attendance

The tracked respondents were followed through the different services provided at the RP in order to assess the amount of time they had to invest in attending an RP. Program activities as well as waiting time and nonprogram activities carried out during the waiting periods were recorded during the observation, and caregivers were also asked to estimate the time it took them to get to the RP. Results are presented in Table 3.19.

The data reveal that respondents spent, on average, 20 minutes, varying between 2 and 90 minutes, to get to the RP. In addition, they spent a total of about 2 hours at the RPs with very high variability—between 15 minutes and 4 hours. This variation is certainly a function of the number of other respondents already present at the time of arrival and of the internal organization of the RP. Only 3 out of the 19 RPs observed were well organized in the sense that health agents were giving out numbers to every arriving caregiver to ensure that caregivers would be attended in the order in which they arrived. In the remaining RPs, the organization was rather chaotic and sometimes the first caregivers to arrive were the last ones to leave. The total time implication of RP attendance, including travel time to and from the RP, in addition to the time spent there was, on average, 2.5 hours—varying between 35 minutes in the best case to 7 hours in the worst case.

Table 3.19. Time commitment required for RP attendance

Time allocation by tracked respondents	*Variable name*	Mean [N = 38]	Range
Average time taken to get to RP (in minutes)	*q306*	20 (18)	2-90
Total time spent at RP (in minutes)	*ttime*	117	15-242
Total time implication of RP attendance (in minutes)	*tottimeimpl*	156	35-422
Time per program activity spent by respondent (in minutes):			
- Registration (n = 37)	*act1*	5	1-30
- Education session (n = 38)	*minutes*	10	1-23
- Vitamin A distribution (n = 17)		4	1-14
- Deworming (n = 2)		3	2-3
- ORS distribution (n = 0)		0	
- Weighing (n = 38)		4	1-14
- Counseling after weighing (n = 14)		3	1-6
- Vaccination child (n = 9)		3	1-8
- Vaccination adult (n = 1)		3	3
Time spent waiting by respondent (in minutes)	*act1 minutes*	94	4-234
		%	**Range**
Proportion of waiting time/total time at RP	*propwaittotaltime*	74	10-97

Among the program activities provided at the RPs, the tracked respondents spent, on average, more time for the education session than for any of the other services. However, by far the most time-consuming activity at the RP was waiting in line for the next service. On average, respondents spent 74 percent of their time at the RP waiting. This ranged up to 97 percent—indicating that at least for one respondent, only 3 percent of the four hours she spent at the RP was dedicated to receiving services, whereas the remainder was waiting. While waiting, the respondents fed, cleaned, or played with their children, and/or talked to friends and neighbors.

For one RP where both respondents spent less than 25 percent of their time waiting, no bottleneck had been identified; this was the RP with the lowest number of participants and the lowest ratio of participants per health staff person.

3.4 Staff perceptions about Rally Post operations

Information about perceptions and opinions of the health staff regarding the RPs was obtained in individual interviews with 19 health agents (one per RP) and in three focus group discussions with *colvols* and MCH supervisors. This section summarizes the results on their general perceptions about RPs, the types of problems they face, their opinions on the supply situation, their experiences with weighing scales and bringing health and ration cards to the RP meetings, and finally, their suggestions on how to improve the delivery of services at RPs.

3.4.1 General perception of Rally Posts

Most of the health agents interviewed felt that the RPs were working well in general. Half of them reported high participation rates in the RPs they organized. Overall, they considered RPs as an important activity for the communities they served because they perceived

that the services they offered (education, immunization, ORS, vitamin A and anti-helminths) were most needed in these communities. They also felt that people enjoyed going to the RPs.

In all three focus groups, the discussants voiced that mothers liked RPs because they get to know their child's weight and whether their child is malnourished or not, and they receive advice from the health staff if the child is malnourished. The discussants also expressed that more people were interested in RPs now than in the past. The important contribution for community development of helping children be healthier was also raised in the discussions in one of the two focus groups with *colvols* and in the MCH supervisors' group. In addition, according to the MCH supervisors, RPs are important because the services also reach those in the population who do not have access to the food aid program. MCH supervisors considered the RPs as the key activity of the MCH program because this is where program beneficiaries are identified.

3.4.2 Perceived problems with Rally Post operations

This section presents findings from the interviews with WV health staff on the problems they encountered with trying to ensure the smooth operations of the RP. Some of the problems mentioned included issues with supplies, the late arrival of participants, participants arriving without their health and ration cards, and a high participant/staff ratio. Other issues included the need for better training for *colvols* and a better transport situation for all health staff, so that they would be able to reach their beneficiaries more easily. These problems are summarized in this section, combining data from the focus groups with health staff and the individual interviews conducted with health agents at the RPs.

3.4.2.1 General problems

When asked about the problems they faced in carrying out their responsibilities at the RP, the majority of health agents mentioned the lack of medical supplies and vaccines, and the lack of other materials, such as scales and megaphones, insulated containers and ice for the vaccines, and chairs, benches, and tables. These problems were also voiced in all three focus groups. In addition, the MCH supervisors expressed their concerns regarding participants who arrive late at the RP and miss the education session.

In one of the two focus groups with *colvols*, discussants felt that the high participant/staff ratio made RPs very time-consuming both for the health staff and for the participants. Some of the health agents seemed to have this in mind when they complained about not receiving sufficient assistance from other health agents or *colvols*. They also deplored the fact that some of their assistants (i.e., *colvols*) were not able to enter the weight in the health card, to interpret the growth chart, or to immunize children, which increased the burden on them. As reported earlier (Section 3.3.1), the participant/staff ratio, and especially the participant-health agent ratio in the 19 observed RPs, was indeed quite high.

Another important problem that many health agents mentioned was the lack of availability of transport facilities to pick up the vaccines at the dispensary or WV office, which causes delays in the start of the RPs. They also mentioned that the large distances between the different communities where they worked were a constraint.

3.4.2.2 Supply situation

Tables 3.20, 3.21, and 3.22 present the results from the focus group discussions and the individual interviews regarding the availability of medical supplies, vaccines, and health cards at RPs. The results presented in Table 3.20 confirm the data from the observations in 19 RPs (see Section 3.3.4) and the concerns expressed by health agents in interviews that the lack of supplies was a real constraint. The data indicate that medical supplies were rarely available in sufficient quantities to cover all the population attending the RPs, and were sometimes not available at all. Health agents reported that they had to give new appointments to caregivers and their children when they ran out of supplies during the RP meetings or that they distributed during home visits. Only one of the health agents reported teaching caregivers the use of vitamin A-rich foods when

Table 3.20. Availability of medical supplies in RPs

	Focus group (X indicates that theme was present in focus group transcript)			**Individual interviews Health agents [N = 19]** (Presence in interview transcript)
Vitamin A, anti-helminths, ORS	***Colvols 1***	***Colvols 2***	**MCH supervisors**	
Problems				
- Ran out during the RP	rare	sometimes	often	12
- Not available at all	often	sometimes	sometimes	17
Actions taken				
- Try to get it from WV office	X	X		2
- Give another appointment	X	X		14
- Distribute during home visits			X	4
- Request to supervisor for supplies		X	X	1
- *If vitamin A shortage*, explain which foods are rich in vitamin A				1
- *If ORS shortage*, explain how to prepare ORS at home		X		3
Strategies for distribution if running out				
- First come, first serve principle	X			5
- Priority to ones who receive it for the first time				3
- *If ORS shortage*, priority to children with diarrhea		X		6
- *If vitamin A shortage*, priority to mothers with newborns				2
- *If vitamin A shortage*, priority to children with low weight				1
- *If anti-helminths shortage*, priority to children with symptoms of parasites				2
Reasons for running out/non-availability				
- Shortage of stock at WV office	X	X	X	15
- Insufficient quantities provided by WV office				13
- Shortage of stock at Ministry level			X	
- Insufficient quantities taken by health agent/too many beneficiaries	X	X	X	1
- Long order time			X	

vitamin A capsules were unavailable, and only three indicated teaching caregivers how to prepare a sugar-salt solution at home when packets of ORS were unavailable at the RPs.

The health agents indicated that they followed a variety of strategies when they had to decide which children should receive the vitamin A supplements, deworming tablets, or ORS packets on days of shortage. Among the most common strategies were the use of a "first come, first served" approach, and prioritizing those who seemed to be most at need. The most common reasons reported by the health staff for the shortage of supplies were insufficient amounts provided by the WV office or shortage of stock at the WV office.

The availability of vaccines was also reported to be limited (see Table 3.21), again confirming our observations and the reports from interviews with health agents; most health staff reported having experienced a situation where certain vaccines were not available at all or where they ran out of vaccines during the RP meeting. BCG and polio vaccines were the ones reported to be most frequently unavailable, whereas the DTP, anti-tetanus, and measles vaccines were less frequently reported as being unavailable. The most commonly taken action by the health staff when they ran out of vaccines was to give participants another appointment. Because of the need to maintain the cold-chain, the health staff did not use home visits to give immunizations, as they sometimes did when other supplies were missing. The strategies used to decide which children

Table 3.21. Availability of vaccines in RPs

	Focus group (X indicates that theme was present in focus group transcript)			**Individual interviews Health agents [N = 19]** (Presence in interview transcript)
Vaccines	***Colvols 1***	***Colvols 2***	**MCH supervisors**	
Problems				
- Ran out during the RP		often		10
- Not available at all	often	often	often	18
Actions taken				
- Try to get it from WV office	X			2
- Give another appointment	X	X		6
- Request to supervisors for vaccines	X			
- Send mother to hospital for immunization				1
Strategies for distribution if running out				
- First come, first serve principle				3
- Priority to ones who come for the first time to the RP				3
- Priority to youngest children/newborns			X	4
- Priority to MCH beneficiaries	X			
Reasons for running out/non-availability				
- Shortage of stock at WV office	X			15
- Insufficient quantities provided by WV office				7
- Shortage of stock at Ministry level	X		X	8
- Too many beneficiaries		X		3
- No gas for refrigerator		X	X	

should be given priority for immunization on days of shortage and the reasons for the availability problems were quite similar to the ones described for the medical supplies and are provided in Table 3.21.

Although the health agents reported problems with the availability of insulated containers and ice for the conservation of the vaccines when asked about general constraints, they all reported in the individual interviews that it was always possible for them to keep the vaccines cold throughout the day. This was confirmed in the focus group discussions with the *colvols*. However, the MCH supervisors voiced that ice was not always available or was of bad quality (not frozen deeply enough). Similarly, they expressed concerns regarding the poor quality of some of the insulated containers, the sometimes negligent manipulation of the vaccines by health staff, and the fact that containers were sometimes exposed in the sun in poor RP venues.

Table 3.22 presents the results regarding the availability of health cards at RPs. No information is available for the ration cards, as they are not distributed at the RPs. The health staff reported frequently running out of health cards during the RP or not having any to start with. Understandably, these problems are not perceived by the health staff as being as severe as the lack of medical supplies and vaccines. When cards are unavailable, health staff reported that

Table 3.22. Availability of health cards in RPs

	Focus group (X indicates that theme was present in focus group transcript)			**Individual interviews Health agents [N = 19]** (Presence in interview transcript)
Health cards	***Colvols 1***	***Colvols 2***	**MCH supervisors**	
Problems				
- Ran out during the RP	X	X	X	16
- Not available at all	X	X	X	14
Actions taken				
- Try to get it from WV office				1
- Register services in register and/or on a paper and give new card next month		X	X	15
- Register in an old small health card				4
Strategies for distribution if running out				
- First come, first serve principle		X		7
- Priority to ones who come for the first time to the RP		X	X	5
- Priority to youngest children/newborns			X	4
- Priority to MCH beneficiaries/ malnourished children	X			1
Reasons for running out/non-availability				
- Lack of stock at WV office	X	X	X	15
- Lack of stock at Ministry level				2
- Too many beneficiaries		X		
- Too many beneficiaries who lost card		X		

they simply note down the services on a piece of paper and/or in the health agent's register and complete the cards once available.

Again, the “first come-first serve” strategy is commonly used when health cards are in short supply. The lack of health cards at the WV office or at the Ministry level were noted as the most frequent reasons for the unavailability problems encountered at the level of the RPs.

3.4.2.3 Weighing scales

Twelve of the 19 health agents indicated that they had never experienced any problems with the weighing scale. The problems mentioned by the remaining 7 health agents were the following: (1) that they did not have their own scale and had to share with other health agents (n = 5); (2) that the needle of the scale gets blocked (n = 2); and (3) that it is difficult to fix the needle at zero (n = 1). None of them reported that they had an extra scale, with one exception, where the health agent owned a scale that did not belong to the project. These findings were confirmed in the discussions with all three focus groups.

The strategies that the health staff indicated using in response to their problems with the weighing scales included trying to get another scale from another health agent, giving a new appointment to participants sometime during the same month while trying to get the scale repaired in the meantime, or simply not weighing children during that month and requesting another scale.

When asked whether they calibrated their scale, the majority of health agents (as well as the *colvols* and MCH supervisors) explained that they usually checked if the needle of the scale points to zero before starting the RP meeting and, in addition, several times during the RP. This shows that calibrating a scale was not understood as checking the accuracy of the scale with a standard weight, but simply as ensuring that the needle points to zero. The reported frequency of setting the scale to zero during the RP varied considerably, from just once to 10-15 times. A few even said that they did it each time before a new child was weighed.

3.4.2.4 Participants arriving at RPs without health cards and ration cards

One common problem encountered by health staff was that caregivers often forgot to bring their health card and/or ration card to the RP meetings. Only six health agents indicated that caregivers attending their RPs always had the health card of their child with them and three indicated that they always brought the ration cards to the RP. However, half of the health agents were unable to report experiences with the ration card because the distribution of the cards had only started recently.

According to the health staff, the most frequently used strategy to deal with forgotten health cards is to ask caregivers to return home to get the card, or in the case where the caregiver lived too far away, to register the services provided to the child in the health agent’s register and/or on a paper and to remind the caregiver to bring the child’s health card the following month. In the case of the ration card, the caregivers are also sent back home if they do not live too far, but if they do, they are asked to bring the card to the Mother’s Club.

3.4.3 Suggestions on how to improve Rally Post services

Most of the suggestions made by the health agents were in direct relation to the problems identified earlier. In order of priority, they recommended that program managers take the following actions:

- Provide medical supplies and vaccines regularly and in sufficient amounts in order to serve all RP participants.
- Provide all materials needed to run the RPs effectively (megaphone, scale, insulated containers etc.) and to improve the work environment (chairs, tables, benches).
- Understand that the health staff needs transport facilities (horse/mule) in order to efficiently carry out their work and to be able to start the RP meetings on time.
- Hire more *colvols* to assist them in their work and provide the *colvols* with training in growth monitoring and promotion, immunization, vitamin A distribution, and family planning before they start their work.
- Help them to network with other health agents in order to get more assistance in running the RPs.
- Contract ice-sellers, so that they do not need to pay themselves for the ice to preserve the vaccines and to ensure that ice is always available nearby.
- Offer training in how to better organize the participants' flow through the RP activities as well as regular supervision in order to improve their performance.

3.5 Beneficiary perceptions about Rally Posts

In this section, beneficiary perceptions regarding the different Rally Post services are presented as well as their suggestions to improve these services. Information was obtained from tracked respondents (n = 38), from exit interview respondents (n = 59), and from home interview respondents (n = 30).

3.5.1 Perceived importance of different Rally Post services

Table 3.23 shows the perceptions of respondents regarding the importance of the different services provided at Rally Posts. About half of the tracked respondents and exit interview respondents considered immunization as the most important service, in order to protect them and/or their children against illnesses. Far fewer respondents judged weighing or education to be the most important service. One-quarter could not point out a specific service, but felt that all services were equally important. When asked about the second most important service at Rally Posts, respondents were more likely to cite child weighing, education and immunization services than vitamin A supplementation, deworming, ORS distribution, or post-weighing counseling. Again, a quarter of the respondents could not identify a second most important service, but considered all services, after the most important one they had identified, to be

equally important. None of the respondents were able to specify a service that they would consider as the least important.

Table 3.23. Perceived importance of services at Rally Posts

Characteristics	*Variable name*	Numbers[a]
Service considered most important and reasons (N = 97)	*q216/217*	
- Immunization	*+q349/350*	53
o Protect against illness		
- Weighing		9
o Knowing weight/growth of child		
o Knowing child's status/if healthy		
- Education		8
o Learn how to take care of child		
o Learn importance of vaccines/how to prepare ORS/how to prepare food for child		
- Post-weighing counseling		1
o Knowing child's weight		
- Vitamin A dosage		1
o Protects child		
- All services equally important		25
Next most important service and reasons (n = 72)	*q218/219*	
- Weighing	*+q351/352*	23
o Same reasons as above		
- Education		14
o Same reasons as above		
- Immunization		13
o Same reasons as above		
- Vitamin A dosage		3
o Protects the child		
o Improves child's appetite		
- Post-weighing counseling		1
o Same reasons as above		
- Deworming tablet dosage		1
o Cleans the child's intestines		
- ORS packets		1
o Protects the child		
- All services equally important		16
Least important service (n = 72)	*q220/353*	
- None		40

[a] Data from exit interviews with randomly chosen caregivers who were accompanying a food aid beneficiary child [N = 59] were combined with data from the tracking of respondents through the different services provided at the RP [N = 38].

We also have information from the home interviews (n = 30) regarding the perceived importance of the different Rally Post services. In general, Rally Posts were well appreciated by these respondents. They felt that the immunization, weighing, vitamin A supplementation, and ORS offered at the Rally Posts were important for their children's health. About half of them considered immunization as more important than all the other WV services they used; one respondent felt that the weighing was more important for her child's health than other services. It is important to note, though, that many respondents had difficulties ranking different services according to their importance, as they felt that they were all important. Very few respondents indicated that Rally Post attendance was important as an entry point into the food aid program.

The home interviews showed that beneficiaries generally perceived immunization as being an important service because it protects the child against different illnesses. They felt that a fully immunized child would stay healthy, and vaccines were perceived as guarding children's health. In addition, they explained that immunization of pregnant women would also help protect the children's health.

The importance of weighing was seen as a means to check whether the child was growing well or not. The respondents voiced that a regular check of the child's weight was very useful in order to identify changes in the child's growth, since growth faltering could go unnoticed for some time. A few respondents admitted that weighing was important in order to know the child's weight and to check if the weight was adequate, but felt, at the same time, that this service did not have a direct impact on their child's health.

Respondents expressed that the vitamin A capsules were important because they prevented their children from having eye problems. The ORS was perceived as important when the child had diarrhea, in order to replace lost water.

3.5.2 Ease of use

Approximately one-third of the home interview respondents felt that the services offered at the RPs were the easiest ones to use of all the WV activities they attended. They perceived that the RPs were convenient because they were relatively close to their homes and the time spent there was reasonable, especially if they arrived early in the morning. One respondent also highlighted that services at the RPs were reliable, in the sense that immunization, weighing, and vitamin A supplementation were always offered at the monthly RP.

However, one respondent felt that the time involved in attending the Rally Post made this service package less convenient to use. She expressed that the weighing was particularly time-consuming because there were always many children to be weighed.

3.5.3 Suggestions on how to improve the Rally Post services

Table 3.24 presents the suggestions made by the tracked respondents regarding potential improvements to the RPs in order to make them more relevant. Many respondents had no suggestions. However, the suggestions that were made by those who contributed can be grouped into two types: (1) suggestions related to the internal organization of the RPs, such as better venues for the Rally Posts, no changes in dates, repeated announcements of the dates, and timely arrival of the health staff; and (2) suggestions requesting additional services to be offered at the Rally Post, such as general consultations, free distribution of drugs for sick children or parents, and regular availability of chlorine for water treatment.

Only two of the home interview respondents had suggestions on how to improve the RP services, and both related to the weighing—one recommended having more scales at the RPs in order to make the weighing quicker, and the other asked that health staff shows more respect when doing the weighing.

Table 3.24. Suggestions for RP services improvement made by participants

Suggestions on how the services at the RP could be improved (several answers possible):	*Variable name*	Numbers [N = 38]
- Have general consultations for sick persons at RPs or construct dispensary	*q355*	6
- Have the chlorine solution for water treatment always available		1
- Distribute free drugs to sick children/parents		1
- Ensure that health agents arrive on time		1
- Improve the Rally Post venue		1
- Train health agents and *colvols*		1
- Announce the RP meeting several times		2
- Do not change the RP dates		1
- No suggestion		26

3.6 Summary of findings regarding operations at the Rally Posts

3.6.1 Operations and quality of services at the Rally Posts

Attendance and participant/staff ratio. On average, 74 participants (children and pregnant or lactating women) attended the RPs observed, with considerable variability between the sites—from a low of 9 participants to a high of 169. Not surprisingly, the overall impression is that RPs are generally crowded. The participant/staff ratio also varies widely, but is generally high (average of 55 participants/health agent, and up to 151 in one RP).

Sequencing of activities and bottlenecks. Overall, it appears that the sequence of activities described in the program implementation plan is rarely used. Our data, however, show no evidence that the likelihood of experiencing bottlenecks is related to the type of program sequence used. Factors responsible for bottlenecks were invariably the large numbers of attendants and the high participant/staff ratios.

Education. Our observations indicate that attendance at the education session is still a problem because the session is usually held first thing in the morning and many participants arrive late. The plan suggests holding one or more additional sessions to accommodate late arrivers; this occurred in only four of the observed RPs.

Second, none of the education sessions observed corresponded to the recommended topic for the month. While some flexibility in the choice of topics may be desirable to ensure that topics of particular relevance are addressed in a timely fashion (for example, the use of ORS during periods of high diarrhea incidence), the risk is that some other important topics may never be addressed.

Insufficient use of communication materials was also observed in most education sessions, in spite of the fact that material had been provided to the health staff. This is likely to limit the effectiveness of the education, as is the large number of participants, the distracting environment, and the short time allocated to this activity (between 1 and 23 minutes).

Overall, our findings suggest that in spite of some rare attempts to conduct dynamic and interactive education sessions, the generally distracting environment due to the many activities

taking place at the same time and in the same area, the crowding, and the high participant/staff ratio make effective education difficult in the context of the RPs. However, the RPs can still be used as effective venues to reinforce some of the topics discussed in other more appropriate BCC venues (like the MCs; see below) and also to present information on general topics such as hygiene, the use of ORS, or the importance of immunization.

Registration, vitamin A supplementation, and distribution of deworming drugs and ORS. The registration of the participants at the RPs was by far the most significant bottleneck observed (primary bottleneck in 16 of the 19 RPs). This appears to be caused by the large numbers of participants and insufficient staff. While it is a slow process, the registration of beneficiaries generally seems to proceed as planned—that is, cards are usually updated with the information on immunization, vitamin A, and deworming dosage received on the day of observation. In contrast, bringing the ration card to the RP—as required by the program to register the date of attendance in order to be eligible for the monthly food ration—has clearly not yet turned into a routine.

The *quality* of vitamin A supplementation and distribution of deworming drugs was assessed indirectly by verifying whether children who received it on the day of observation were actually due, and calculating the percentage of children due who did not receive it. In general, it appears that when given, the schedules of administration of vitamin A and deworming were followed. However, the lack of availability of vitamin A, and particularly of deworming tablets and ORS, was a generalized problem in the observed RPs.

Growth monitoring and promotion (GMP). In general, the mechanical aspects of GMP activities at the RPs appear to function relatively smoothly. All the caregivers, either tracked or interviewed, reported that their child was weighed, and in most cases the weight was plotted and the child's nutritional status assessed. Only about half of the caregivers, however, were informed about their child's weight and even fewer received some post-weighing advice. The likelihood of receiving counseling appeared slightly higher among caregivers who had a malnourished child, but even then, more than half of the caregivers with a child classified as M2 received no individual advice following the weighing and plotting procedures.

The quality of the weighing and plotting of the weight to assess children's nutritional status was less than optimal and resulted in 28 percent of the children being misclassified into the different Gomez malnutrition categories. For the recuperative group, where children's eligibility to receive food rations is based on whether or not they are malnourished (M2 or M3), this is likely to result in the misclassification of children as beneficiaries or nonbeneficiaries of the program. In our sample of 38 tracked respondents, misclassification errors resulted in a similar number of eligible (M2) children who were missed (misclassified as Normal or M1) and therefore excluded from the program (n = 2), and of non-eligible children (Normal or M1) who were mistakenly classified as M2 and thus included in the program (n = 2). Although, in this example, the errors cancel out with regards to the amount of program resources such as food and other services required, misclassification problems reduces the cost-effectiveness of programs. This is because it results in the leakage of program benefits to children who are less likely to benefit, and in a lower coverage of children who need it and would be more likely to benefit from it.

Our assessment also confirms a widely documented problem with GMP activities carried out in clinical settings, such as the RPs, which is that the opportunity to use the child's weight and growth information to interact with the caregiver and to tailor individual counseling messages to the specific needs of the child is lost. In the RPs observed, even transmitting the information to the mother about the child's weight and nutritional status was difficult to achieve, let alone providing relevant and tailored individual counseling. Given the high participant/staff ratio, the distracting atmosphere, and the numerous activities going on at the same time in the RPs, it is probably unrealistic to expect that GMP could offer a venue for effective education and individual counseling of caregivers.

Immunization. A large proportion of children and caregivers included in our tracking or exit interviews at the RPs were fully immunized. For those who were not, however, close to half of them were not immunized on the day of the RP because the service was not offered. This, in turn, was usually due to a lack of a supply of vaccines. Clearly the lack of supplies of vaccine and, as indicated earlier, of vitamin A, deworming tablets, and ORS packets, is a widespread problem that needs to be addressed by the program in order to improve its coverage of these important preventive services.

3.6.2 Staff perceptions and suggestions for improvement of the Rally Posts

General perceptions. Overall the data suggest that the health staff views the RPs as an extremely important component of their services to the communities and particularly of their role in fostering children's growth and health. They also expressed that they consider the RPs important because the services they offer also reach families who do not have access to the food aid component of the program. Most of the health agents interviewed felt that the RPs were working well, that attendance was high, and that participants enjoyed the RPs.

Perceived problems. The problems most commonly voiced by the health staff with regards to the RPs were the lack of supplies, both medical and general, and furniture. Other problems mentioned were the high participant/staff ratios, the late arrival of participants, participants forgetting their health or ration cards, and the lack of transport for them to carry out their activities. Furthermore, the health agents felt that it was imperative that the program provide more training for *colvols* so that they could better assist them in their duties.

Suggestions on how to improve the RP services. The suggestions made by the health agents to improve the services offered at the RP were very much in line with their comments regarding the problems they faced. In order of importance, they recommended that the program takes the following actions: (1) provide medical supplies and vaccines regularly and in sufficient amounts, as well as all other materials and furniture needed; (2) assist with transport facilities; (3) hire more *colvols* and provide them with better training; (4) provide ice to maintain the cold-chain for vaccines; and (5) offer training to improve the logistics at the RPs and to improve their own performance.

3.6.3 Beneficiaries' perceptions and suggestions for improvement of the Rally Posts

Overall, program beneficiaries indicated that they were quite satisfied with the RP services. Immunization was perceived to be the most important service by most respondents,

although, in general, respondents had difficulties ranking them in order of importance. Few respondents had suggestions on how to improve the RP services, but those who did mainly focused on ways to improve the internal organization of the RPs, such as improving the venue, ensure that dates are announced and do not change, and encouraging staff to arrive on time.

3.6.4 Conclusions on operations at Rally Posts

Overall, our assessment suggests that the RPs are generally operating in accordance with the World Vision's implementation plan. The problems encountered with operations relate primarily to organizational and logistical issues such as crowding, the high participant/staff ratio, long waiting times, bottlenecks at registration, and lack of supplies and transport for staff. In terms of quality of services, the areas that could benefit from some improvement are the general education sessions and the communication between health staff and caregivers in the context of the growth monitoring and promotion activities.

4. PROGRAM OPERATIONS AT THE MOTHERS' CLUBS

This section is structured as the previous one: it first describes the activities and operations in the MCs, as laid out in the program implementation plan; it then briefly summarizes the research methods used for assessing the MCs; and it presents the results regarding implementation, quality, and perceptions of staff and beneficiaries.

4.1 Description of the Mothers' Clubs operations according to implementation plan

Results from our initial formative research (Menon et al. 2002b) revealed that the MCs are an ideal setting for effective BCC activities since they are located close to the mothers' homes and include only a small group of participants, resulting in minimal distraction (especially compared to the RPs). Thus, the WV program decided to use the MCs as the primary venue for BCC activities.

The formative research also showed that while the MCs were an ideal setting for BCC activities, there were many aspects of the club sessions that needed to be modified to ensure that the BCC would, in fact, be effective. Among other things, the clubs were reorganized in 2003 to include groups of mothers of a particular physiological state and/or with children of a particular age. For instance, separate clubs now exist for pregnant women, for lactating mothers up to 6 months, and, depending on the program model, for mothers of children 6-23 months old (preventive) or for mothers of malnourished children 6-59 months old (recuperative).

Finally, observations of MC sessions during the formative research had shown a clear need for training the field staff in appropriate methods of communicating with adults. Thus, the WV staff was trained in 2003 in the use of adult education techniques, in addition to receiving additional technical training on infant and young child feeding and care practices. The staff were also equipped with newly developed visual communication materials, which they could use as a guide for the different learning sessions on infant and young child feeding.

4.1.1 Schedule of education sessions at the Mothers' Clubs and duration of exposure, by program group

The schedule of sessions for the MCs was reorganized to be age-specific and to address behaviors that are immediately relevant for the child's health, development, and growth at a particular age. This was done for the pregnant and lactating MCs from both the preventive and the recuperative groups, and for the MCs with mothers 6-23-month-old children in the preventive group. This was not done for the MCs with mothers of malnourished children in the recuperative group, because the objective of these MCs is to discuss the recuperation of malnourished children, irrespective of their age.

According to the new MC schedule, women should be exposed to materials and advice about the initiation of breastfeeding and exclusive breastfeeding during pregnancy (see Annex 4a), and the messages should be reinforced throughout the first few months of lactation. Similarly, a session introducing lactating women to complementary feeding should be held when infants are four months old, and a follow-up session on nutritious complementary food when

infants are five months old. This is intended to prepare caregivers for the appropriate introduction of complementary foods when infants are six months old. Once the child reaches 6 months of age, mothers in the preventive group start attending the clubs for mothers of 6-23 month old children (see Annex 4b) and again, emphasis is put on educating mothers about the current needs of their child such as the introduction of complementary foods between 6-8 months of age, the use of enriched porridges to improve the quality of the child's diet (6-8 and 9-11 months), and the gradual transition from complementary feeding to the family diet (12-23 months).

The schedule of sessions for malnourished children from the recuperative group is different, and consists of a fixed set of nine learning sessions (see Annex 4c), which do not take the age of the child into consideration.

The duration of attendance by mothers at the MCs (and other BCC activities) also differs between the two program groups; mothers in the preventive program may benefit from the BCC activities for longer than mothers in the recuperative program. For example, a mother who starts attending the MC during pregnancy (as expected), continues to attend the same club throughout her first six months of lactation and subsequently, for another 18 months when the child is between 6 and 23 months of age. Thus, mothers in the preventive model may attend the MCs for up to 30 monthly sessions, without interruption.

In the recuperative model, this continuity of attendance is not the norm. In order to be eligible for the MCs, mothers from this group must be either pregnant or lactating, and/or have a malnourished child 6-59 months of age. Thus, the length of participation of mothers in the MCs depends on their physiological status and on their child's nutritional status. Mothers are eligible to attend the MCs for 6 months during pregnancy, 6 months during lactation (the first 6 months postpartum), and up to 9 additional months if they have a malnourished child at any point in time between 6 and 59 months of age. Thus, the maximum possible non-interrupted time mothers in this program group can attend the MCs is 21 months, and this will happen only if they start attending during pregnancy, continue through lactation, and have a malnourished child when they reach 6 months postpartum (the malnourished child can be the 6-month-old one or an older child, as long as s/he is less than 60 months of age).

4.1.2 Communication materials used

The communication materials currently used in the MCs for the infant and young child feeding topics were adapted by the IFPRI-CU-World Vision team from materials developed by Freedom from Hunger (FFH) for use with their *Credit for Education* programs in Haiti (see Loechl et al. 2003a). All materials are organized into learning sessions, which are designed to be completed in about one hour. Each of these sessions covers specific key practices using a variety of communication methods, including a presentation by the health agent/*colvol*, small group discussions among participants, role-plays, songs, and theater-like activities. All the sessions consist of a set of instructions to the health agents/*colvols*, accompanied by activities for them to carry out with the group of participants in order to achieve the objectives of the learning session. The instructions for conducting the learning session are accompanied by visual materials. The materials are described in detail in Loechl et al. (2003a).

Other communication materials are used for topics other than infant and child feeding, such as an album of images with key messages related to other aspects of maternal and child health, including immunization, pre- and postnatal care, preparation for child delivery, diet for pregnant and lactating mothers, hygiene and environment, diarrhea and preparation of ORS, family planning, and HIV prevention.

4.1.3 Final note on organization of the Mothers' Clubs

Under the current program implementation plan for the MCs, women are brought together in small groups (15-20 women). Health agents or *colvols* (or both) facilitate the meetings, which are held once a month. Meetings take place in a variety of locations, including dispensaries, local schools, or participants' homes.

As noted above, the MCs are expected to be as homogenous as possible in terms of the child's age and/or the mother's stage of pregnancy or lactation. However, other criteria, such as distance from the mothers' homes and the need to ensure a minimum of 15 participants per club, are taken into consideration. The organization of the clubs thus reflects a compromise between three factors, i.e., stage of pregnancy/child age, distance from the mothers' homes, and ensuring that each club has at least 15 members. In principle, in situations where a club consists of a relatively heterogeneous group (e.g., where there are women with children of widely different ages), both the health agent and the *colvol* should facilitate the Mother's Club meeting and they should split the group into two subgroups to provide relevant and timely messages to mothers based on their specific needs.

Unlike the RPs and the FDPs, mothers are required to attend the MCs themselves and cannot send another family member to use this service. This ensures that mothers have direct exposure to the BCC activities, which were developed for them.

4.2 Methods used to assess the Mothers' Club operations

The data used to assess the operations of the MCs were collected using the following methods:

1) Observation of general issues related to the MCs organization (N = 20);

2) Observation checklist to assess the quality of education (N = 20);

3) Structured exit interviews with randomly selected program beneficiaries at the end of each observed MC (N = 41);

4) Individual semi-structured interviews with health agents at the end of each observed MC meeting (N = 20);

5) Semi-structured interviews with beneficiary women in their homes (N = 30);

6) Focus group discussions with health agents, *colvols*, and MCH supervisors (N = 5).

4.3 Operations and quality of services at the Mothers' Clubs

This section presents results regarding the organizational aspects of the MCs and the quality of education provided at the Clubs. It also summarizes the information gathered on the participants' recall and adoption of recommended practices and behaviors discussed at the MCs. As in the previous section on RPs, the results are presented by topic rather than according to the research methods used.

4.3.1 Organization of the Mothers Clubs and attendance

A total of 20 MCs in the preventive and recuperative program groups were observed. Of those, 5 were organized for pregnant women (n = 3 in the preventive program group and n = 2 in the recuperative program group) and 5 for lactating mothers up to 6 months (n = 1 in the preventive program group and n = 4 in the recuperative program group). In addition, 6 MCs for mothers of children 6-23 months old in the preventive program group and 4 for mothers of malnourished children 6-59 months old in the recuperative program group were observed. Although we had planned to observe the MCs held by the 20 health agents working in our evaluation project area, this was not possible in five cases because the health agents had to be replaced by a *colvol* on the day of observation. Because our data collection schedule was tight, it was not possible to reschedule the observations and therefore the MCs were observed as they were run on the day of observation, i.e., by a *colvol*, as opposed to the health agent in charge.

4.3.1.1 Topics discussed in Mothers' Clubs

Table 4.1 shows the session topics that were discussed in the observed MCs, by category of MC. The "Session" numbers in the table refer to the location of the learning session in the communication materials adapted by the IFPRI-CU-World Vision team (see Annex 4 for the schedule of learning sessions for the different types of MCs). The learning session materials were used in all the observed MCs to guide and animate the meeting.

Table 4.1. Session topics discussed in the different categories of MCs observed

		Session topic		
Category of MC observed	***Variable name***	**Breastfeeding (Session #1-4)**	**LAM (Session #5)**	**Complementary Feeding (Session #6-12)**
Pregnant women	*categori &*	4 MCs (#1-3)	1 MC	0
Lactating mothers	*sessnumbrecod*	2 MCs (#4)	1 MC	2 MCs (#6+7)
Mothers of children 6-23 months old		0	0	6 MCs (#8-12)
Mothers of malnourished children 6-59 months old		0	0	4 MCs (#8+9)

The MCs for pregnant women focused on issues related to breastfeeding, such as early initiation of breastfeeding, the use of colostrum, and the benefits of exclusive breastfeeding (sessions #1-3). In one of the MCs for pregnant women, the lactational amenorrhea method (LAM) for birth spacing was discussed (session #5). The MCs for lactating mothers addressed the following topics: (1) detailed information and problem-solving related to breastfeeding (session #4); (2) information on LAM (session #5); and (3) advice concerning the introduction of complementary foods (sessions #6-7). In the two other categories of MCs (those targeting either mothers of children 6-23 months old or mothers of malnourished children), issues related to

complementary feeding were discussed (sessions #8-12). These included a cooking and tasting trial where mothers prepared and tasted different enriched complementary foods (Session #8).

4.3.1.2 Size of the Mothers' Clubs and beneficiary characteristics

Most of the MCs observed were held either in the courtyard of a private house (n = 9) or in a church (n = 8). Two used a school and one a dispensary as venues. The health staff always tried to set up the group in a circle in order to facilitate interaction, although this was difficult in some of the venues where the number of benches or chairs available was limited.

The data on attendance at the MC are presented in Table 4.2. Note that we differentiated in our observations between women who the health agent had identified as regular participants (i.e., registered in his/her list for the observed Mother's Club) and other people, such as accompanying children, fathers, grandmothers or others, who were present at the meeting. On average, 11 women who were registered for the MCs attended the meeting on the day of observation, varying from 2 to 24. In 7 of the 20 clubs, all the registered women arrived before the health agent started the learning session. In the remaining 13 clubs, on average, 3 women arrived after the start of the session. For 8 of the MCs, the health agent pointed out that all registered women were present; in the remaining clubs, on average, 3 women were absent. Most of the MCs (16/20) included a number of participants other than the registered mothers. On average, 9 additional persons were present. Counting both registered women and other participants, the average number of people present at the MCs was 18, but were as many as 41 persons in one MC.

Table 4.2. Number of participants of Mothers' Clubs

Characteristics	***Variable name***	**Mean [N = 20]**	**Range**
Average number of registered women present at sessions	*q602*	11	2-24
Average number of registered women arriving late	*q602A*	3	1-10
Average number of absent registered women	*absence*	3	1-10
Average number of other people present	*q604*	9	2-17
Average number of total people present	*particpall*	18	2-41

The data from the exit interview respondents (n = 41) indicate that the participating women had attended the same MC an average of 4 times before the meeting on the day of observation. The frequency varied from 2 to 10 times. All respondents reached the MCs on foot and therefore nobody paid for transportation. The average travel time to get to the MCs was 18 minutes, varying between 3 and 60 minutes.

According to the implementation plan, a group size of 15-20 participants is recommended with a minimum of 5-6 participants if the health agent splits one MC in two subgroups. Our results show that four MCs were outside the recommended range. Two of them had less than 5 women registered and two others exceeded the upper limit of 20 participants.

4.3.1.3 Time commitments required for Mothers' Club attendance and facilitation

On average, the MCs started 40 minutes later than scheduled (see Table 4.3). Note that the variability is quite high, and that some Clubs even started earlier than scheduled (up to 25

minutes early). Only five MCs started within +/- 15 minutes of the scheduled starting time. The sessions lasted for approximately one hour, with a range from 25 minutes to more than two hours, depending on the session topic. As expected, the four cooking and tasting sessions (#8) were by far the longest of all observed sessions.

Table 4.3. Duration of Mothers' Clubs

Characteristics	*Variable name*	Mean [N = 20]	Range
Gap between actual start time and scheduled start time of the session (minutes)	*gapsched*	40	-25 - +135
Average session length (minutes)	*sessleng*	66	25-150
Average total time implication for health staff (hours) (n = 18)	*timeimpl*	2.7	1.7-5.3

Although the duration of the learning session itself was, on average, one hour, the total time involved in chairing or attending a Mother's Club was much higher. We did not directly measure the time that the health agent/*colvol* spent at the location of the MCs, but we measured the time between the arrival of the first participant and the departure of the last one. In general this corresponded roughly to the time spent by the health agent/*colvol* at the MC venue. In two cases, however, some of the participants arrived before our fieldworkers and their arrival time could not be assessed, leaving these two MCs with missing information on this aspect.

On average, health staff spent approximately 3 hours for one MC, and up to 5 hours in one case (see Table 4.3). Usually, the health agents or *colvols* arrived earlier than the participants in order to prepare the venue and the communication materials; they also tended to stay longer to register attendance in their lists, sign the mothers' attendance in their ration cards, and answer individual questions, if any. We also observed that in general, the health staff waited until most of the registered women had arrived before starting the session. A special case was again the cooking and tasting session. In two of the four observed cooking sessions, the women had forgotten to bring along the ingredients they had promised to bring to prepare the recipes. They were sent back home to pick up these ingredients, which significantly delayed the start of the session. The start of meetings was also delayed in one case where the MC was scheduled on the morning of a market day. The women came to the club meeting only after they had gone to the market.

Another difficulty with beginning at the scheduled start time is that most women do not own watches in these rural areas. This probably explains why some women came one to two hours early, while others arrived much later than the scheduled start time. The result is that the time implications of running (for the health staff) or attending (for the mothers) a MC can be considerable, in spite of the fact that the actual activity usually lasts only approximately one hour.

4.3.1.4 Adherence to Mothers' Club categories

Table 4.4 shows the age of the children of mothers who participated in the exit interviews at the MCs. In general, the children's ages matched the expected age range for each MC category, with only a few exceptions; in the MCs for lactating mothers, three children were older than 6 months of age (they were between 6 and 9 months of age); and in the MCs for mothers of

children 6-23 months of age, one mother had a 4.5 month old infant. Thus, four of the 41 women interviewed participated in the "wrong" type of MC.

Table 4.4. Adherence to MC categories

Average age of children in each MC category, according to respondent	*Variable name*	Mean [N = 34][a]	Range
Pregnant women (n = 4/11)	*agemres&*	2.1	1.2-2.7
Lactating mothers until 6 months (n = 10/10)	*categori*	4.7	0.4-9.2
Mothers of children 6-23 months old (n = 12/12)		11.1	4.5-22.4
Mothers of malnourished children 6-59 months old (n = 8/8)		31.5	16.1-52.8

[a] The sample of women interviewed in "exit interviews" consisted of 2-3 randomly selected women in each Mother's Club [n = 41]. Seven women in the MCs for pregnant women had not given birth and, therefore, they were excluded for the calculations in this table [n = 34].

The MCs for pregnant women also included mothers who had already given birth, but this is consistent with the implementation plan. This is because Clubs for pregnant women are formed in a given community with women at different stages of pregnancy. All women continue to attend the Club until all participating mothers have given birth. The Club then becomes a MC for lactating women. This explains why four of the 11 women interviewed in the MCs for pregnant women had infants between 1 and 3 months of age. They had given birth but kept attending the same MC because other participants had not yet delivered their baby.

4.3.1.5 Adherence to planned schedule of learning sessions

According to the implementation plan, the schedule of learning sessions is set up in such a way as to be age-specific for all categories of beneficiaries in the preventive program group. As described above, this type of scheduling also exists for the pregnant and lactating MCs in the recuperative program, but not for the mothers of malnourished children MCs.

We assessed the appropriateness of the scheduling of the MCs (see schedules in Annex 4a-4c) by examining the age of the children of the women in the different MCs, focusing on the appropriateness of the session topic and MC category for women with children in that age group. Table 4.5 presents the age of the children of mothers who attended the different Clubs, by session topic and MC category.

The sessions on breastfeeding (#1 and #2) are meant to be discussed when women are in their last trimester of pregnancy. Both sessions emphasize the importance of breastfeeding—early initiation, the benefits of exclusive breastfeeding, and the recommendation to continue breastfeeding until the child is 2 years of age or beyond. The topics for lactating mothers with infants 1-2 months old (#3 and #4) focus on how to ensure successful breastfeeding and especially exclusive breastfeeding, and suggest ways to share experiences with breastfeeding among mothers and discuss solutions for problems encountered. The presentation of the birth spacing method LAM (#5) and its requirements is meant to take place when the infants are about 3 months old. According to the schedule, lactating women with infants 4-5 months old are introduced to different aspects of complementary feeding (how children learn to eat, how to breastfeed, and feed children between 6 and 12 months) to prepare them for the appropriate introduction of complementary foods when the infants are six months old (#6 and #7).

Table 4.5. Adherence to Mothers' Club schedules: age (in months) of children who attended the different MCs (from exit interviews; n=41)

	Mothers' Club category				
	Pregnant women				
	Still pregnant (n = 7)	Given birth (n = 4)	Lactating mothers (n = 10)	Mothers of children 6-23 months old (n = 12)	Mothers of malnourished children 6-59 months old (n = 8)
Topic (session number)	Number	Child age (months)	Child age (months)	Child age (months)	Child age (months)
Pregnancy					
Breastfeeding (#1)	1	2.7 months			
Breastfeeding (#2)	2	1.8 and 2.6 months[a]			
Lactation					
Exclusive breastfeeding (#3)	2	1.2 months			
Exclusive breastfeeding (#4)			2.1; 3.1; 3.4, and 4.5 months		
LAM (#5)	2		0.4 and 6.7 months[a]		
Introduction of Complementary Feeding (#6)			7.8 and 9.2 months[a]		
Learning to eat (#7)			4.9 and 5.0 months[a]		
Mothers of children >6 months					
Cooking trial (#8)				6.2; 7.1; 10.9 and 11.2 months	16.1; 18.0; 18.8; 26.9; 41.7 and 52.8 months.
Complementary Feeding for children <12 months (#9)				11.8 and 18.2 months[a]	26.4 and 51.5 months.[a]
Food variety (#10)				7.9 and 8.5 months[a]	
Prevention of diarrhea (#11)				8.6 and 22.4 months[a]	
Complementary Feeding for children >12 months (#12)				4.5 and 15.7 months[a]	

[a] In these cases, the two mothers who attended the same session topic were also frequenting the same MC.

A cooking and tasting trial (#8), where mothers prepare and taste enriched complementary foods, is scheduled several times with different groups when children are 6-7 months old (last session of a MC for lactating mothers; and first session for mothers of children between 6 and 23 months, or second session for mothers of malnourished children between 6 and 59 months). In the MCs for mothers with children 6-23 months old, the next topics (scheduled when children are between 8 and 11 months) concentrate on issues related to complementary feeding practices. One session (#9) focuses on helping children between 6 and 12 months to eat well when healthy as well as during and after illness; the next topic (#10) emphasizes the importance of food variety for children 6-12 months of age, including examples of enriched meals; session #11 deals with diarrhea prevention and hygiene; and session #12, which is meant to occur when children are about 11 months of age, addresses issues concerning feeding children beyond 12 months of age. In the MCs for malnourished children, these topics are presented in the sessions following the cooking trial—one after the other in a fixed schedule that does not specifically take into account the age of the participating children.

The findings show that for the MCs for pregnant women, the schedule was generally followed, and most women received information on breastfeeding at a very appropriate moment. However, three of the four mothers interviewed at the MCs for pregnant women, who had already given birth, listened to topics related to early initiation of breastfeeding and the use of colostrum (#1 and #2) when their infants were already 2-3 months old.

In the MCs for lactating mothers, the picture was different and indicates that for many of the mothers interviewed, the topics addressed at the MCs were discussed too late to be relevant for immediate application with their infants (see Table 4.5). This was especially true for the following cases: (1) one mother who attended the session on experiences with and constraints to exclusive breastfeeding (#4) had an infant who was already approximately 5 months old; (2) one mother who attended the session on LAM (#5) had an infant who was already 7 months old, i.e., beyond the period of potential usefulness of LAM; and (3) two mothers who attended the session on the introduction of complementary foods at 6 months (#6) had infants who were already 8 and 9 months old, respectively. In contrast, the timing of the session on learning how to eat for children 6-11 months of age (#7) was perfect for the two mothers who attended this Mother's Club (their children were both approximately 5 months old).

Mothers who attended the MCs intended for those with children aged 6-23 months old generally had children who were either slightly too old or slightly too young for the topics addressed, again precluding immediate application of the new practices. This was especially the case for a mother of a 5-month-old infant who attended the session on feeding practices for children 12-23 months of age (#12). Two mothers also attended the cooking session (#8) on special complementary foods slightly too late, i.e., when their children were already 10 and 11 months old. These complementary foods are particularly important for 6-12-month-old infants, so mothers should be prepared in advance in order to start introducing them when the child is approximately 6 months of age. The timing of the food variety session (#10), however, was good; mothers attending had children who were 8 and 8.5 months of age. Finally, the timing was slightly off for two mothers with children older than 12 months who attended the session on feeding practices for children under 12 months of age (#9). Two mothers also attended the session on hygiene and diarrhea prevention (#11) with children that were 9 and 22 months, respectively, as opposed to the recommended 10 months, but this is not so problematic, because the topic is more general and can be useful for mothers of children of all ages.

The information on the children's age by learning session number for the MCs for mothers of malnourished children is presented for descriptive purposes, since the schedule for this category is not age-specific. All children were between 6-59 months of age as expected.

Besides showing departures from the schedule, the results in Table 4.5 also show that the age of the children attending the same MCs varied considerably, especially in the Clubs for mothers of 6-23-month-old children (e.g., ranging from 9 to 22 months for session #11, and from 5 to 16 months for session #12).

Thus, there are clearly some logistical difficulties in forming MCs that are homogenous in terms of children's age and/or the mother's stage of pregnancy or lactation and in ensuring that all women attend the session that is most relevant for them at a particular time.

Coordination of this aspect is particularly complex for the preventive group and will require additional attention from the health staff and their supervisors.

4.3.2 Quality of education at the Mothers' Clubs

Table 4.6 presents an assessment of the quality of the education provided at the MCs based on the observations of the education sessions. This table focuses on key findings; additional details can be found in Annex 5.

Table 4.6. Quality of education provided at Mothers' Clubs

	Numbers [N = 20]
Positive aspects	
Technical content	
- 80-100 percent of technical information communicated was correct and complete	15
- No incorrect information communicated (n = 15)	8
Session Management and organization	
- Completed all session steps	19
Facilitation and teaching skills	
- Used open-ended questions to probe and encourage, in addition to open-ended questions included in session guide	13
- Used other teaching techniques/facilitation skills as written in learning session guide	18
- Assured that all participants could see visual materials (n = 14)	13
Attitudes displayed	
- Provided praise/affirmation to participants	19
- Attempted to create good dialogue and/or limit lecture style	9
Atmosphere at the learning session	
- Did animations (songs, sketch) with the group, in addition to what is included in session guide	10
Negative aspects	
Technical content	
- Failed to bring back focus to promoted behavior	12
Session Management and organization	
- Failed to complete session in recommended time +/- 15 minutes	11
Facilitation and teaching skills	
- Failed to use small groups as suggested	4
Atmosphere at the learning session	
- Distracting side-conversations during the session	12
- Distracting environmental events	14

The observations suggest that most of the technical information communicated in the MCs was correct and complete, and was consistent with the intended content of the learning sessions (on average, 83 percent of the information was correct and complete). In 15 of the MCs observed, between 80 and 100 percent of the technical information was presented correctly and was complete; in 8 of them (approximately half), no incorrect information was communicated, although the information presented was not always complete. The weakest point concerning the technical content of the education was that about half of the health agents/*colvols* failed to bring back the focus of the discussion to the behaviors being promoted when participants said something incorrect, which means that participants in these cases may have been left with incorrect information.

The management of the sessions was generally good. Most of the observed health agents/*colvols* completed all session steps and in the order indicated in the instructions. Most of

them also had no difficulties in reading the activities included in the learning session guide, i.e., they were able to read Creole easily. However, two health agents/*colvols* read to the participants the specific instructions included in the learning session, which are only meant for the health staff. Half of the health staff had difficulties in completing the session in the recommended time +/- 15 minutes. A few went through the learning session faster than recommended, and thus spent too little time interacting with the participants. Others spent up to one hour longer on the session, which increased the time burden for the health staff and participants. This was especially the case for the cooking sessions, for which the duration depends on the recipes prepared.

Concerning facilitation and teaching skills, we observed that nearly all of the health agents/*colvols* used open-ended questions as suggested in the learning session guide. Thirteen of them even asked other open-ended questions to probe and encourage participants. The large majority (n = 18) also used the various communication methods recommended in the session guides, such as role-plays, stories, games, and demonstrations, in addition to the presentations. The two others tried to use them, but none of the participants actually understood what the health agent/*colvol* was asking them. The use of small group discussions among participants, as recommended in the materials, did not function very well. In four MCs, the small groups approach was not used, although it was suggested in the learning session. Those who did use the method seemed to experience various problems, such as difficulties in clearly defining the question to be discussed, and logistical problems in arranging the participants to face each other or in circulating around the room to help the groups in their discussions (see Annex 5 for details). In general, the visual materials accompanying the learning sessions were used and the health staff tried to ensure that all participants could see them by moving or passing them around.

The attitudes displayed during the MCs meetings were quite positive, especially when considering that the health staff was used to a lecture-type approach before, as observed during our previous formative research. Nearly all of them provided praise and affirmation to the participants. However, demonstrating respect and helping participants to feel at ease when they made interventions was less common. A real dialogue or interaction was established by eight of the health agents/*colvols* observed. They were successful in returning questions from participants to participants, in reacting to the participants' comments, and in asking additional open-ended questions.

In general, the atmosphere at the meetings was good. Half of the health staff did animations (songs, sketches) with the group in addition to what was suggested in the learning session guide. Although distracting side-conversations and environmental events (for example, a passing motorbike, animals making noise, etc.) were reported for more than half of the MCs, the level of distraction was definitely lower than at the RP education sessions. In half of the meetings, laughter was observed during the session, which can be considered an indication that participants felt at ease in the group.

These results are very encouraging and show a major improvement in the quality of education provided in the MCs since the recent training in the new BCC strategy.

4.3.3 Recall and use of the information discussed at the Mothers' Clubs

This section summarizes the findings on the recall and use of the information discussed in the MC education sessions by participating women. Data from 30 home interviews are used. The home interview respondents were identified at 15 MC meetings and were interviewed approximately 1-2 weeks after the meeting.

In general, respondents considered that the information provided at the MCs was useful. They were asked to recall as many of the details as they could concerning what they had heard and learnt at the MCs. They were also asked which of the recommended behaviors they were able to adopt or try. The recall information was asked specifically with reference to the last MC meeting they had attended, whereas information on the application and adoption of the recommended practices was obtained for all sessions that the women had attended up to the interview date. We first present the recall and adoption of practices in relation to the topic addressed at the last MC meeting that each respondent had attended (see Table 4.7). The left-hand-side column lists the topics that are addressed in the different sessions, as a reference. Then, all recommended practices that respondents reported adopting since they had started attending MCs are presented (see Table 4.8).

4.3.3.1 Sessions #1-4—Breastfeeding practices

The results in Table 4.7 indicate that all 12 home interview respondents spontaneously recalled the message regarding exclusive breastfeeding up to 6 months. Two-thirds of the respondents recalled the topic of breast milk expression and some of them also talked about how to store the expressed breast milk. The importance of feeding colostrum to the child and the risks of bottle-feeding were less likely to be recalled. Hardly anyone spontaneously recalled issues related to breastfeeding frequency and duration of feedings, good positioning of the child during feeding, or when to introduce complementary foods.

Six of the 7 lactating respondents reported that they were currently practicing exclusive breastfeeding and that they were planning to do so until their child reached 6 months of age. For all except one, this was their first experience with exclusive breastfeeding. Also, all 5 pregnant respondents expressed their intention to exclusively breastfeed their infant. About half of the lactating respondents had expressed breast milk several times since the last MC meeting and left it for the child when they were away from home. This is a very promising result, given the fact that our previous formative research had revealed that many women had heard about expressing breast milk, but in most cases had not tried it. Three respondents reported drinking water while breastfeeding at every feed as a result of having heard about it at the last MC they had attended. Although this recommendation was presented mainly as a practice to avoid dehydration and fatigue, respondents explained that they did it because it increased their milk production.

4.3.3.2 Session #5—Lactational Amenorrhea Method (LAM)

The two respondents who had attended the session on the lactational amenorrhea birth control method recalled spontaneously the objective of this method (birth spacing), and one of them remembered two of the three requirements: exclusive breastfeeding and infant less than 6

Table 4.7. Spontaneous recall and application of advice received at Mothers' Club education

Topics covered in sessions	Spontaneous recall of details	Numbers who reported adopting
Sessions #1-4 (n = 7 lactating and n = 5 pregnant women)		
Early initiation of BF		
Importance of colostrums	4	
Exclusive breastfeeding up to 6 months	12	6 (Exclusive BF up to 6 months)
	3 (EBF protects from pregnancy [LAM])	5 (pregnant women say they will do EBF up to 6 months)
Continued breastfeeding up to 2 years		
Risks of bottle feeding	2 (for diarrhea)	
Local beliefs and practices, compared to recommended practices		
Good breastfeeding techniques, frequent, on demand breastfeeding, care of nipples and breasts		
Expression of breast milk, storage of expressed milk	8	3
	3	
Importance of mother drinking water while BF		3
Introduction of foods at 6 months		
Session #5 (n = 2)		
LAM method for longer spacing between births:	2 (longer spacing between children)	1 (practice of LAM, i.e., EBF up to 6 months)
- EBF frequently	1 EBF up to 6 months	1 (practice of LAM, i.e., EBF up to 6 months; and no monthly bleeding)
- No monthly bleeding since birth		
- Infant < 6 months	1 (infant < 6 months)	
Session #8 (n = 10)		
Enriched complementary foods/recipes/meals (recipes, etc.)	10 (recipes for enriched meals)	7 (gruel with egg or milk)
		2 (mashed plantain with pumpkin and fish sauce)
Role of different ingredients	6	
Feasibility of preparing enriched recipes/meals		6 (feeding of other rich foods or meals)
Food texture	7 (texture of gruel)	
Feeding frequency		
Serving sizes		
Importance of encouraging child to eat	3	2
Session #9-12 (n = 6)		
Types of foods to introduce in child's diet after 6 months of age	2	
	3 (EBF until 6 months)	1 (EBF up to 6 months)
Child development steps	4	
Learning to eat (food texture, breastfeeding and feeding)		
Feeding frequency	2	
Serving size		
Helping children to eat	2	
Helping children to eat well when ill, convalescent		
Importance of food variety and enriched meals		5 (feeding nutrient-rich foods: leaves, beans, lemon juice, eggs) 1 gruel with egg or milk 2 mashed plantain with pumpkin and fish sauce
Feeding children beyond 12 months of age:		
- enriched meals		
- vitamin A-rich foods		
- importance of evening meal		

months old. None of them stated the third requirement correctly (i.e., no monthly bleeding since birth). The reported application of the method was as incomplete as the recall. One respondent reported that she was practicing LAM, although she talked only about one of the three requirements. The second respondent said that she could practice LAM as long as her monthly bleeding was not back and she breastfed exclusively (her child was already 7 months old on the day of the interview). These results suggest that the concept of LAM and the need to meet all three requirements was not fully understood by the respondents.

4.3.3.3 Session #8—Cooking and tasting of enriched meals

The cooking and tasting session is scheduled for mothers with children 6-7 months old to introduce the concept of enriched complementary foods and to provide them with concrete recipes. Mothers prepare and taste at least two different recipes in groups (enriched gruel and meal). In addition, the feasibility of preparing these recipes and other enriched foods or meals at home is discussed and information on food texture, feeding frequency, and serving sizes is provided by the health staff.

The results in Table 4.7 show that all 10 home interview respondents remembered the enriched recipes that were prepared, although these recipes were new for all of them. About half of the respondents also stated the roles of the different ingredients and recalled that they were instructed to prepare a thicker gruel than the one they had usually made in order to fill the child's stomach with nutritious food rather than water only. In addition, one-third of the respondents remembered that it is important to encourage the child to eat. However, most of the respondents did not spontaneously talk about practices related to feeding frequency, serving sizes, and how a child has to learn to eat.

The results of immediate application of the improved recipes at home are encouraging. Seven respondents reported having prepared enriched gruel—either adding an egg or milk—at least once since the last MC meeting. Some had prepared it as often as every day. Two respondents of the four who had prepared the mashed plantain recipe with added pumpkin and dried fish sauce in the last club meeting also reported having tried the recipe twice at home. Three had prepared other rich foods or meals like rice with bean sauce and vegetables, vegetables with dried fish and leaves, bread soup with added leaves and dried fish, bean puree, egg sauce, or fruits a few times since the last meeting and for some, up to 2-3 times per week.

4.3.3.4 Sessions #9, 10 and 12—Complementary feeding practices

These sessions concentrate on issues related to complementary feeding practices for different age groups: 6-8 months, 9-11 months, and beyond 12 months of age, and are scheduled for mothers of children older than 6 months. Important information is provided on child development and learning to eat (food texture, breastfeeding, and feeding). The sessions also cover feeding frequency, serving size, and how to help children eat well.

The results show that more than half of the respondents recalled different child development steps that were presented in the chart accompanying the learning sessions. Half of the respondents remembered the importance of exclusive breastfeeding up to 6 months, although the three sessions (#10-12) focus on practices for children older than 6 months. One-third of the

respondents talked about the frequency of feeding for children 6-8 months old. They recalled that children in this age group should have 2 meals and 1 additional snack or eat 3 times per day. Two respondents mentioned that they learned what types of foods to introduce at 6 months, and two mothers remembered that it is important to encourage the children to eat. None of the respondents talked spontaneously about feeding during and after illness, serving sizes, food texture, food variety issues and vitamin A-rich foods, or of the importance of an evening meal.

Five respondents reported that they had fed their child rich foods such as leaves, bean sauce, eggs, or lemon juice several times per week, and/or enriched meals such as enriched gruels nearly daily, or mashed plantain with added pumpkin and dried fish sauce 2-3 times since the last MC meeting. One respondent stated that she practiced exclusive breastfeeding for 6 months with her last child, who was, at the time of the interview, 8 months old.

Table 4.8 summarizes all the recommended practices that women reported adopting since they had started attending the MCs. Pregnant respondents were excluded from this analysis because they had not yet had a chance to practice any of the recommendations related to infant and child feeding and care by the time of the interviews. The practices are grouped according to the following specific themes: (1) feeding of individual recommended foods, (2) feeding of improved meals, (3) adding individual ingredients to enrich meals, (4) food selection, (5) psychosocial aspects of feeding, (6) breastfeeding, and (7) hygiene and diarrhea-related practices.

The results show that the practices most commonly reported as having been adopted were related to feeding richer meals, especially enriched gruels or nutrient-rich foods, and to breastfeeding. A few respondents referred to some of the psychosocial aspects of feeding, including encouragement to eat and feeding style. The results are positive and suggest that the process of behavior change toward the adoption of recommended child feeding practices has commenced. This is a particularly encouraging finding, given that the full BCC strategy at the MCs had been implemented only a few months before the interviews were carried out.

Table 4.8 also reports on some of the constraints that respondents expressed, which explained why they were unable to adopt some of the recommendations received at the MCs. Four of the eight respondents who reported constraints indicated that they were not able to provide nutrient-enriched foods and meals to their child on a regular basis due to economic constraints. The remaining four reported constraints related to the expression of breast milk. One of them faced difficulties with the family after trying it once; the others were too concerned about the risk of contamination of the expressed breast milk when they had to leave it behind for the child to consume when they were away from home. It will be important to continue to focus on assessing the constraints to using recommendations in the second round of operations research to be carried out in 2004. By that time mothers will have had even greater exposure to the messages and will have had a chance to ascertain the feasibility of adopting the recommended practices and using them on a regular basis over time.

The results on recall and use of practices recommended in the MC education sessions also provide hints for the program, such as the issues that the health staff need to emphasize more in the learning sessions. It also helps identify the topics that should be revisited with the

Table 4.8. Application of advice received at Mothers' Club education and reasons for not using

	Numbers
Application of recommended practices (n = 25)	
Feeding of individual recommended foods:	
- Rich foods such as leaves, beans, lemon juice, fruits, eggs	8
Feeding of improved meal composition:	
- Rich meals such as vegetables/bread soup with dried fish and leaves	5
Adding ingredients to enrich meals:	
- Adding pumpkin to mashed plantain with dried fish sauce	4
- Adding an egg or milk to a gruel	8
Food selection:	
- Feeding of three groups of food	1
Helping children to eat – the psychosocial aspects:	
- Encourage child to eat	2
- Feeding of foods/meals that child likes	1
- Feeding of food for child in a separate dish	1
Breastfeeding:	
- Feeding colostrums	1
- Exclusive breastfeeding up to 6 months	9
- Expression of breast milk	4
- Drinking water while breastfeeding	3
- Good positioning of the child	1
- Wash breasts before feeding	2
- How to treat breast pain	1
- Continue breastfeeding up to 2 years	1
Hygiene and diarrhea related aspects:	
- Preparation of ORS when child has diarrhea	4
- Treatment of drinking water	3
- Washing hands before eating	1
Recommendations not practiced and reasons	
Feeding practices:	
- Feeding of rich foods, adding of ingredients to enrich meals not practiced because of no money to buy ingredients	1
- Feed frequently, no money	1
- Feed liver, no money	1
- Nothing practiced, no money	1
Breastfeeding practices:	
- Expression of breast milk, not accepted by husband (no time to feed expressed breast milk, don't accept expression) and not accepted by other family members (bad smell of expressed breast milk)	1
- Expression of breast milk, risk of contamination with microbes	3

health staff in their re-training in order to ensure that the health agents/*colvols* are fully comfortable with these topics. In general, there was very little spontaneous recall from the part of the mothers regarding certain recommendations related to complementary feeding practices, namely food texture, feeding frequency and serving sizes for different age groups, and food variety. It is not clear whether this is because the health staff did not sufficiently emphasize these aspects, or whether mothers did not grasp them as readily as other simpler messages. Finally, the constraints stated by some respondents in relation to adopting the feeding recommendations emphasize the need for the program management to think about supporting program activities that increase resource availability within households in order to support translation of knowledge into behaviors and improved child outcomes.

4.3.4 Overall comprehension of new concepts discussed in Mothers' Clubs

In addition to the analysis of the recall information and adoption of recommended practices, we also assessed the overall comprehension of the new concepts discussed at the MCs by home interview respondents. This assessment was done after all the above-presented data were analyzed and once we had a good understanding of the data obtained from the home interviews. We used the approach of subjective rating with the data from the spontaneous and probed recalls and the information on the adoption of recommended practices for each respondent. Specifically, we examined the data to evaluate the consistency in the recall (spontaneous and probed) and the application of the topics discussed at the MC. We then classified respondents into the following four categories of overall comprehension: (1) very good, (2) upper middle, (3) lower middle and (4) very poor. Subjective ratings are commonly used in clinical research; for instance, all clinical judgments regarding how well patients respond to a treatment are subjective ratings.

The results of the subjective rating exercise are presented in Table 4.9. One-third of the respondents had a very good overall comprehension, i.e., they recalled information correctly and were consistent in what they recalled and then reported translating information into practice. Very few respondents had a very poor comprehension. Most respondents fell in the middle categories of "upper" and "lower" middle.

Table 4.9. Overall comprehension of new concepts discussed in Mothers' Club

Categories (n = 30)	Numbers
Very good	10
Upper middle	8
Lower middle	9
Very poor	3

In order to illustrate the meaning of the subjective rating exercise, Table 4.10 shows one example of a respondent rated as having very good overall comprehension and another one rated as having very poor comprehension. The two respondents had attended MCs covering different topics; the respondent with very good comprehension had attended a session on breastfeeding (session #3), whereas the one with very poor comprehension had attended a session on LAM (session #5).

It is clear from the first example that in addition to having a more accurate recall of the details of the content of the messages, the respondent who was ranked as having very good comprehension was more consistent in the behaviors/practices that she recalled and those that she applied. The respondent who was ranked by the team as having very poor comprehension not only performed relatively poorly on the spontaneous recall, but also reported applying very few of the recommendations from the MC meeting (second example).

Table 4.10. Examples of a very good and a very poor overall comprehension

Example of very good overall comprehension

Session #3 – How to breastfeed better

The individual: 2 children, youngest is 2 months old

Spontaneous recall

- Importance of exclusive breastfeeding up to 6 months;
- Expression of breast milk if the mother has to leave the house for some time;
- Storage of expressed breast milk in a clean cup, to be kept in a cool place next to an earthenware vessel, so breast milk can keep for 8 hours without spoiling;
- She did a demonstration of how to express breast milk in front of the others;

Probed recall

- Good probed recall, complemented with many correct comments by mother, e.g., exclusive breastfeeding so that child gets sick less frequently, good attachment of child (baby's mouth wide open), explains how to store expressed breast milk, drinking water while breastfeeding to avoid fatigue;

Application

- Breastfed exclusively so that child develops well and to prevent getting her monthly bleeding too early;
- Drank water while breastfeeding every time she feeds to avoid fatigue and to have more milk;
- Expressed breast milk so that child has something when s/he is hungry during her absence and helps to avoid giving other foods than breast milk; she demonstrated herself the expression of breast milk at the MC, but has not yet practiced it at home since she did not leave the house.

Example of very poor overall comprehension

Session #5 – LAM

The individual: 4 children, youngest is 7 months old

Spontaneous recall

- In the first place, she did not remember the topic of the last MC meeting; when asked about specific ideas or pieces of information that she remembered of the last MC meeting, she talked about the following:
  - Family planning, birth spacing to have less children that could be sent to school and could get medical treatment if sick;
  - Wrong recall of requirements: monthly bleeding necessary for LAM;

Probed recall

- Good probed recall, but no further comments from the mother herself;

Application

- Could practice LAM (if: no monthly bleeding, feeding only breast milk, third requirement not mentioned), helps child to be healthy;
- Breastfed exclusively during 6 months;
- Prepared wheat gruel and bread soup two times per month;
- Fed mangos two times and bananas every time she goes to market.

The women rated as having very good overall comprehension were, on average, slightly younger and had slightly less children than the women with very poor overall comprehension. The average number of MCs attended or the location where they live, however, was unrelated to their overall comprehension.

It is important to note that the ranking into the different categories took into consideration that the implementation of the BCC component had started only a few months before the interviews were done. Therefore, complete acquisition of knowledge and translation into practices was not expected. The very good overall comprehension level is relative to the other observed comprehension levels in the sample. It was surprisingly difficult to identify respondents who had very poor overall comprehension. The majority of them had actually done

well in terms of recall and application, in spite of the fact that the restructured MCs had been implemented only recently.

4.4 Staff perceptions about the Mothers' Clubs

Information about perceptions and opinions of the health staff regarding the MCs was obtained in individual interviews with 20 health agents (one per MC) and in five focus group discussions with health agents, *colvols*, and MCH supervisors. This section summarizes the results on their general perceptions about the MCs, the types of problems they face, their experiences with participants bringing their ration cards to the MC meetings, and finally, their suggestions on how to improve the MCs.

4.4.1 General perception of the Mothers' Clubs

All health agents interviewed felt that the MCs were working well in general. Thirteen expressed that the MCs provide a forum for mothers to exchange ideas, to receive important information, and to learn very useful things. They also felt that the MCs helped change mothers' behaviors in a positive direction, and that mothers who attended the Clubs were in a position to take better care of their children, to avoid certain illnesses, and to fight malnutrition. Five health agents expressed that the MCs are the ideal venue of the MCH program for behavior change communication. A few health agents mentioned that mothers liked the clubs and that they were interested and motivated to participate. Only two health agents expressed that more efforts were still necessary to improve the functioning of the MCs.

The discussants of both focus groups with *colvols* confirmed the health agents' points of view, as they, too, expressed that the MCs were working well and that mothers liked the clubs. The important contribution of MCs to positive behavior change toward recommended child feeding practices was raised in the discussions in one of the two focus groups with *colvols*.

Participants in the MCH supervisors focus group, however, felt that mothers participate in the MCs only in order to get their ration cards signed and to be eligible to receive donated foods. They also expressed that the MCs are the basis of the MCH program because they are an ideal forum to initiate behavior change.

In the four focus groups with health agents and *colvols*, there was also discussion about how the organization of the MCs had changed compared to the previous year. The following changes were mentioned by the discussants:

- Women and mothers were regrouped into different MCs according to their situation: pregnant women, lactating mothers, and mothers of children (6-23 months old or 6-59 months old and malnourished);
- Subgroups for MCs were established in order to address the session topics most relevant to the mothers' situation;
- Communication materials including visual tools were developed;
- The MCs were relocated in order to bring them closer to the women's homes;

- The content of the MCs was made more applied for mothers, less theoretical;
- There is more supervision now than the previous year.

In two individual interviews, the health agents expressed the view that they now manage to establish a dialogue with mothers instead of holding monologues and that mothers participate more in the discussions in the MC meetings than they did in the previous year.

4.4.2 Problems encountered in facilitating the Mothers' Clubs

When asked about the problems they faced with the MCs, the majority of health agents complained about late arrival of the participants and absenteeism. Other difficulties that 12 health agents mentioned were poor venues for the MCs and/or the lack of sufficient chairs and benches for all participants. Six health agents mentioned low active participation of women during the sessions and especially at the beginning of a new club. These difficulties were also voiced by the discussants in the focus groups with *colvols* and MCH supervisors. Other problems mentioned less frequently included the following: (1) lack of availability of transport facilities to reach the MCs in remote areas; (2) lack of time to prepare the learning sessions for the MCs; (3) difficulties of fixing the child development and feeding chart during the meeting; (4) the small number of participants in some MCs; and (5) bad timing of meetings (market day, at noon) or having several MC meetings per day. Finally, the staff also discussed how they dealt with women who did not bring their ration cards to the MC (since they were required to mark attendance on these cards in order for beneficiaries to receive food rations).

Dealing with late arrivals and absenteeism. The health agents voiced three consequences if women arrive late: (1) the club meeting starts late if the health agent waits for them; (2) these women miss certain steps of the learning session if they arrive after the start of the club; and (3) the other participants are disturbed. Three health agents talked about potential strategies to use to encourage women to arrive on time: either to threaten the participants arriving late with considering them as absent so that they lose their eligibility to receive the food for that month, or to refuse to sign their ration cards so that they cannot receive the food. The problem of late arrivals was also voiced in the focus groups with *colvols* and the MCH supervisors. The most frequent strategies used to deal with absent participants are to find out the reason for the absence during a home visit and to encourage women to participate the next month, and to not sign their ration cards. Four health agents reported threatening absent participants with not receiving food if the absence is not motivated by illness, and another three reported that they made sure that participants who were absent for other reasons than illness did not receive their food ration. One health agent indicated that s/he checks with the supervisor to decide what to do about the participants who miss the MCs.

Bringing ration cards to Mothers' Clubs. The findings from the individual interviews with health agents and the three focus group discussions with *colvols* and MCH supervisors indicate that beneficiary women sometimes forgot to bring their ration card to the MC meetings. Only one health agent indicated that women always had the ration card with them and one indicated that the cards were not yet distributed in the communities (*localités)* in which s/he worked.

According to the health staff, the most frequent strategy used to deal with forgotten ration cards is to ask the women to bring the card to the next RP meeting or to bring it later to the health agent. Two health agents reported asking women to return home to get their card, or in the case of beneficiaries living far away. One health agent keeps the cards for the women and gives them back to them at the RP, before the next food distribution. Two other health agents simply do not sign the ration cards if mothers do not bring them to the Mother's Club.

4.4.3 Suggestions on how to improve the Mothers' Clubs

Most of the suggestions made by the health agents were in direct relation to the problems identified earlier. In order of priority, they recommended that program management take the following actions:

- Offer more training in general and specifically, regular retraining concerning the infant and child feeding module.
- Understand that the health staff need transport facilities (horse/mule) in order to efficiently carry out their work and to hold MCs in remote areas.
- Understand that the health staff need time to constantly encourage and motivate the beneficiary women to attend the MCs and to arrive on time at the meeting.
- Provide special and better venues for the MCs meetings equipped with chairs and benches, in order to set up the group in a circle to facilitate interaction, and with something to hold up the child development and feeding chart.
- Hire more *colvols* to assist them in their work.
- Provide regular supervision of the MCs in order to help motivate participants.
- Review the calendars for the MC meetings with participants to take their schedules into consideration.
- Help them to revise the MC calendars regularly, at least each time when new MCs for pregnant women are formed (every four months).

4.5 Beneficiary perceptions about Mothers' Clubs

Information about the beneficiaries' perceptions of the Mothers' Clubs was obtained in home interviews (n = 30). This section summarizes the results on the perceived importance of Mothers' Clubs and their ease of use.

4.5.1 Perceived importance of Mothers Clubs

The MCs were well appreciated by the home interview respondents. They felt that the MCs were important for their children's health. Some of them considered this service as more important than all the other WV services they used, although many had difficulties ranking the

different services according to their importance because they felt that all services were important. One respondent indicated that MC attendance was important in order to receive the food ration.

The majority of respondents felt that attendance at the MCs improved their knowledge about infant and child feeding and about how to take care of their children. The examples that they provided to illustrate what they had learned included the following: (1) exclusive breastfeeding up to 6 months, (2) expression of breast milk when they leave the house and storage in a cold place, (3) drinking water during breastfeeding to avoid fatigue, (4) ways to encourage children to eat when they have no appetite, (5) what foods to introduce at 6 months, and (6) how to prepare special meals for children.

4.5.2 Ease of use

Nearly two-thirds of the home interview respondents (n = 18) felt that the MC was the easiest service to use among the different WV activities they attended. The reasons stated for the perceived convenience of the MCs were related to distance from home and time spent at the club. The respondents voiced that the MCs were very close to their homes and that they usually did not last longer than one hour, since it was a group meeting that addressed everybody at the same time. Only the cooking session appeared to be more time-consuming, or when mothers arrived late at the meeting. They also mentioned that they still had time for other activities on the day of the MCs, either before and after the meeting. However, one respondent expressed that it was difficult for her to use the MCs because she needed to arrange childcare in order to be able to attend.

4.6 Summary of findings regarding operations at the Mothers' Clubs

4.6.1 Organization and operations of the Mothers' Clubs

Organization of the MCs and attendance. The MCs are meant to gather small groups of 15-20 participants. The number of registered participants attending the 20 MCs observed was within this range, but a number of other people—children, fathers, or other relatives—were also present at most sessions, raising the average number of participants to 18 and the upper end of the range to 41 participants. Although it is difficult to restrict participation only to registered beneficiaries, some advice may need to be provided to health agents/*colvols* on how to ensure that the size of the MCs remains manageable.

The time involved in attending or facilitating an MC is also of concern. Although the learning sessions lasted, on average, one hour, the time involvement for participants and health staff was much longer, mostly because of delays in starting the session, while waiting for all participants to join.

Adherence to the MC categories and planned schedule of learning sessions. In general, the MCs for pregnant and lactating women respectively included the right categories of women, except for a few mothers in the lactating groups who had children older than the maximum of 6 months recommended by the program. The schedule of learning sessions for these MCs was also generally as recommended. Many of the sessions targeted to mothers of children < 24 months in the preventive group, however, did not follow the recommended schedule of learning sessions

for children of different ages, and quite a few mothers received the information at the wrong time. Our results suggest that there are still some logistical difficulties in forming MCs that are homogeneous, especially with respect to the small age ranges recommended for the MCs in the preventive program group. It is important to note, however, that this new system had been implemented only a few months prior to our research, and therefore may still have been in a transition phase.

4.6.2 Quality of education at the Mothers' Clubs and recall and use of information

Quality of education at the MCs. The quality of education at the MCs observed was very good, especially considering that training in the use of the new materials and adult education techniques had been completed only a few months before our research. The technical content of the education was correct and complete in a large majority of the MCs observed and the management and organization of the sessions were generally good. The health staff's facilitation and teaching skills were also generally good; they used open-ended questions to probe and encourage the participants, and approximately one-half of them managed to establish a real dialogue and interaction with the group. These results are very encouraging and show a major improvement compared to the situation observed before the training carried out in 2003. Clearly, a behavior change process at the level of the health staff itself has commenced.

Recall and use of information discussed at the MCs. Overall, the mothers' recall of the sessions they had attended 1-2 weeks prior to the interviews was very good. Most could recall the main topic of the session and at least two or three more specific concepts related to the main topic. The rate of *reported* adoption of the recommended practices was also quite high, especially for exclusive breastfeeding and the use of enriched gruels for complementary feeding of infants and young children.

Results of the subjective rating approach also indicated that one-third of the respondents had very good comprehension—i.e., they recalled information correctly and were consistent in what they recalled and then reported translating into practice. Very few women had very poor comprehension (n = 3/30), and the remaining women were in the middle two categories (upper and lower middle). Thus overall, it appears that the learning sessions were quite effective in transferring knowledge to women and also in initiating a process of behavior change, at least in some of the participants.

It is important to highlight that the BCC strategy had only recently been implemented and that the findings may be a reflection of a great momentum among the health staff about what they had recently learned and were eager to put into practice. The same is true for the participating women who may have been particularly enthusiastic to try some of the new recipes or other practices they have just learned at the MCs. It will be important to reassess in the next round of operations research, to be carried out in 2004, whether this momentum could be sustained and whether the quality of the intervention and its impact on behavior change were maintained.

4.6.3 Staff perceptions about the Mothers' Clubs

General perceptions. The health staff felt that the MCs were working well in general and the *colvols* also indicated that participating mothers liked the clubs. Health agents, *colvols*, and the MCH supervisors all referred to the MCs as an important forum for mothers to exchange ideas, receive important information, and acquire skills that will help them take better care of their children. There was also a general sense that MCs had improved since the previous year, both in relation to organizational aspects as well as the content of the lessons, the availability of communication materials, and the supervision.

Perceived problems. The most common problems reported were the late arrival of participants and absenteeism, and strategies to address these problems were discussed. Other problems indicated by the health agents were the poor venues of the MCs and the lack of appropriate seating arrangement for the participants, and the problem with mothers who forget their ration cards.

Suggestions on how to improve the MCs. Again, most of the suggestions made by the health agents were in direct relation to the problems identified. Their recommendations focused on the following aspects: (1) *staff training*: ensure retraining, monitoring, and supervision to maintain the quality; (2) *resources*: provide more suitable and better-equipped venues and more *colvols* to assist them in their work; (3) *time and workload*: provide transport; (4) *calendars*: improve the scheduling of the MCs.

4.6.4 Beneficiary perceptions about the Mothers' Clubs

The MCs were well appreciated by the respondents, who indicated that the clubs were important for their children's health, and that their attendance at the clubs improved their knowledge about infant and child feeding and care. Nearly two-thirds of the home interview respondents felt that the MCs were the easiest service to use among the different WV activities that they attended, especially because they were relatively close to their homes and not so time consuming.

4.6.5 Conclusions on operations at the Mothers' Clubs

Overall, our results suggest that the MCs are appreciated by both the staff and the beneficiaries and are perceived to be the least time consuming requirement of the program for beneficiaries. MCs are also perceived as being a key element in the package of services offered by the program and as being the primary venue for the education and BCC strategy. Ensuring the intended composition of the clubs (especially in the preventive group) is still a challenge and will probably require continued supervision and retraining of the staff. The same is true for sustaining the quality of education over time and maintaining the motivation of both health staff and beneficiaries.

5. PROGRAM OPERATIONS AT FOOD DISTRIBUTION POINTS

This section is structured as the previous two. It presents a brief description of planned operations at the Food Distribution Points (FDPs) and of the methods used to assess operations. The findings related to operations and quality of service delivery are presented next, followed by a summary of the perceptions of field program staff and beneficiaries regarding this service delivery point and their suggestions for improvements.

5.1 Description of operations at Food Distribution Points according to implementation plan

The distribution of food aid commodities to the MCH beneficiaries of the WV program occurs on a monthly basis at special distribution points. Beneficiaries from several communities (*localités*) are scheduled to receive their food rations at a central distribution point on the same day. The distribution is done by community and starts with beneficiaries from the communities that are far away from the distribution point. Within each community food rations are provided first to lactating and pregnant women and then to caregivers of child beneficiaries.

There are a total of 10 central FDPs covering 50 RPs in the area included in the research (including preventive and recuperative program communities). Unlike at the MCs, a beneficiary can designate another family member to collect the food ration by handing over the beneficiary card to this person.

The beneficiary households receive both direct and indirect rations. The amounts and commodities vary with respect to the beneficiary category (see Table 5.1). Even if a household has two direct beneficiaries participating in the program, only one indirect ration is provided.

Table 5.1. Composition of direct and indirect food rations, per beneficiary category

	Children 6-23 months of age (preventive model) Undernourished children 6-59 months of age (recuperative model)		**Pregnant and lactating women (both models)**	
Type of commodity	Direct child ration (kg)	Indirect child ration (kg)	Direct women ration (kg)	Indirect women ration (kg)
WSB	8			
SFB		10	5	5
Lentils		2.5	2	2
Vegetable oil	2		1.5	1.5

The sequence of activities at the FDPs is as follows:

1) Eligibility of the beneficiary is verified by food monitors and health agents mainly based on the information on the beneficiary card. This card contains information about the beneficiaries (direct and indirect) and indicates attendance by the beneficiary at the other MCH activities (i.e., Mothers' Clubs, Rally Posts, and pre- and postnatal consultations) that are required in order to receive the food rations.

2) Once their eligibility is verified, the beneficiaries proceed to collect their rations. A team of trained beneficiaries assists the WV staff during the distribution and is responsible for opening food sacks, measuring out appropriate amounts of each of the commodities, and handing over the food to beneficiaries.

3) Finally, once the beneficiary (or designee) has received his/her rations, the food monitor verifies the rations received and the beneficiary card. In some cases, the food monitors reweigh the rations to verify that the right amounts have been given to the beneficiary. Once this final check is complete, the food monitor signs the beneficiary card to indicate that the correct ration has been delivered to that beneficiary.

The activities at the FDPs are identical for both programs, and beneficiaries from both program groups can attend at the same FDP.

5.2 Methods used to assess operations at the Food Distribution Points

The data that provide information on the functioning of the FDPs in the next sections were gathered using the following methods:

1) Observation of the general organization and ambience at the FDPs and of the quality of food commodities distributed (N = 10);

2) Structured exit interviews with randomly selected caregivers who had a food aid beneficiary child, as they were about to leave the FDP (N = 45);

3) Individual semi-structured interviews with health agents at the end of the observed FDPs (N = 20);

4) Semi-structured interviews with beneficiary women in their homes (N = 30);

5) Focus group discussions with *colvols*, MCH supervisors, food monitors, and commodity supervisors (N = 5).

5.3 Operations and quality of services at the Food Distribution Points

This section presents a picture of the general operations of FDPs as compared to the implementation plan. It also provides a brief description of the characteristics of the beneficiaries and of the quality of the services provided, e.g., the timeliness of the services and the quality of the food commodities. As in previous sections, the results are presented by topic rather than by research method.

5.3.1 Attendance and beneficiary/staff ratio

5.3.1.1 Beneficiary attendance and characteristics

Beneficiaries are considered eligible to receive the food donations for the current month only if they have attended the mandatory MCH activities for their beneficiary category in the previous month. Table 5.2 shows that, on average, the FDPs observed hosted approximately 240

beneficiaries on the day of observation. The variability among FDPs is wide, with as many as 375 at one FDP and as few as 117 at another. On average, approximately 16 beneficiaries per FDP were absent on the day of observation and did not pick up their food ration, although they had met all the requirements.

Table 5.2. Number of beneficiaries at the FDPs

Number of beneficiaries	*Variable name*	Mean [N=10 FDPs]	Range
Number of beneficiaries planned to receive food, according to beneficiary list	*q406*	256	122-396
Number of beneficiaries who actually received food	*q406a*	241	117-375
Number of absent beneficiaries	*absentbenef*	16	2-45

Table 5.3 presents data on the characteristics of the food aid beneficiaries. These data are derived from the exit interviews at the FDPs (N = 45). The data show that it was primarily mothers of the beneficiary children (91 percent) who came to pick up the food rations; in three cases, fathers accompanied a beneficiary child, and in one case, another family member attended.

An examination of the ration cards showed that all beneficiary children who were in the preventive beneficiary category according to their ration card were, in fact, in the correct age range for that category and also lived in an area where the preventive program operates. According to the birth date information in the ration card, the beneficiary children were between 8 and 23 months old (see Table 5.3). Similarly, beneficiary children in the recuperative beneficiary category were also correctly identified for their group, i.e., they had been identified as malnourished at a Rally Post and they were under 5 years of age.

However, 3 of the 22 children identified as belonging to the recuperative program did not actually live in any area where the recuperative program operates. They were, in fact, from preventive program communities, but had "malnourished child under 5 years" marked in their ration cards. Two of these 3 misclassified children were less than 23 months of age (18 and 20 months) and therefore they were in the targeted age range for the preventive program group (and thus eligible to receive the food). It is likely that the misclassification in these two cases was a mistake made when the information was entered in the card. The other misclassified child was malnourished (M3) and 25 months old, thus also eligible for food rations in the preventive program group.[12] In this case, the health staff had indicated that the child belonged to the category "malnourished child under 5 years" because the child was no longer in the 6-23 month age range of the beneficiaries targeted by the preventive program group. A more accurate labeling for this child would be "malnourished (M3) child 24-60 months of age." In spite of these slight inaccuracies in the beneficiary cards, all 45 children included in our exit interviews were eligible to receive the food ration on the day of the interview.

According to the beneficiary ration card, the majority of exit interview respondents had one direct beneficiary (i.e., one child in the food aid program), and, on average, four indirect

[12] Severely malnourished children between 24 and 59 months of age in the preventive program are also eligible to receive food rations for 9 months.

Table 5.3. Characteristics of beneficiaries at the FDPs

Characteristics of beneficiaries	*Variable name*	Mean [N = 45 beneficiaries]	Range
Average age of children in each category, according to beneficiary ration card (n = 43):	*agembrc& q509*		
- 6-23 months old (n = 21)		15	8-23
- Malnourished child < 5 years (n = 22)		29	15-52
Number of other family members in the household	*q512*	4	1-9
Average duration of households' participation in the food distribution program (months), according to respondent (n = 44)	*durpar11/ durpar22*	7	1-17
		Numbers	
Relationship to the child:	*q501*		
- Mother		41	
- Father		3	
- Other		1	
Category of beneficiary child:	*q509*		
- 6-23 months old		23	
- Malnourished child under 5 years		22	
Number of direct beneficiaries:	*q511*		
- One		41	
- Two		4	
Duration of participation in the food distribution program, according to respondent (n = 44)	*durpart1categ*		
- < 3 months		5	
- 3-8 months		28	
- 9-11 months		6	
- ≥ 12 months		5	

beneficiaries. Some beneficiaries had up to nine other family members, but the program still provides only one indirect ration for the household, irrespective of household size. Four of the households from the exit interviews had two children in the program (i.e., direct beneficiaries); these families then receive two direct and one indirect ration.

About half of the households from the exit interviews had been receiving food from the WV program for 3 to 8 months. The overall average duration of participation was approximately 7 months (range: 1 to 17 months). Note that this duration of participation in the program does not reflect the duration for a given beneficiary, but rather, the duration for the household as a whole. We do not have information on the average duration of participation for individual beneficiaries or categories of beneficiaries (i.e., pregnant, lactating women, malnourished children, or children 6-23 months of age).

Table 5.4 presents data on the time commitment required for households to come to and from the FDPs and to use the food distribution services. Most of the respondents traveled to and from the FDPs on foot (n = 38). Seven of the respondents used a mule to come to the distribution site. Nobody had to pay for transportation. It took between 5 minutes and 3 hours (average of 1 hour) to get from their homes to the FDP. In addition, they spent an average of about 4 hours at the distribution site on the day of the observation. The respondents also reported that the time they spent at the FDP on the day of observation was typical of what they

usually spend there. Again, the time spent at the FDP varied widely, ranging from a low of 1.5 hour to almost 7 hours.

As expected, respondents at the distribution sites where the food and food monitors arrived late and the food distribution started only at around noon stayed at the FDP much longer than those at distribution sites where the food and monitors arrived on time. The total time commitment of food distribution attendance, including travel time and time spent at the FDP, averaged 6 hours. This varied between 2.5 hours in the best case to 9 hours in the worst case.

Table 5.4. Time commitment for beneficiaries who attend FDPs

Characteristics	*Variable name*	Mean [N = 45]	Range
Average time taken to get to FDP (minutes)	*q506a*	58	5-180
Total time spent at the FDP on the day of observation (minutes)	*q522 (durmi522)*	241	90-435
Total time *usually* spent at the FDP (minutes)	*q523 (durmi523)*	240	60-600
Difference between total time usually spent and total time spent on the day of observation (minutes)	*timegaptoday_usual*	-0.7	-240 - +420
Total time spent on food distribution attendance (minutes)	*timeimpl_att*	357	150-555

5.3.1.2 Health and commodity staff

At most of the observed distribution points, 3-4 food monitors were assisted by 1-2 health agents and 1-2 *colvols* (see Table 5.5). On the day of observation, there was no MCH supervisor present in half of the FDPs. In contrast, at least one commodity supervisor came to supervise the activities of the food monitors and the food distribution process.

Food monitors usually stayed at the FDP for the whole day—until the food distribution was completed. The supervisors, however, only spent a limited amount of time at the FDP. The food monitors are the main actors at the FDP, and the pace of the food distribution depends mainly on them. Therefore, we based our assessment of the beneficiary/staff ratio only on the food monitors and did not include the supervisors, health agents, and *colvols* in the calculations. Using this approach, we found a high average beneficiary/staff ratio of 77, ranging up to 188 beneficiaries per food monitor.

5.3.2 General implementation characteristics

This section presents results on the general implementation of the FDPs, and covers aspects such as the venue for the food distribution, the number of communities (*localités)* covered, and the amount of food distributed. Where possible, the data are compared to the implementation plan for the FDPs.

Table 5.5. Number of MCH and commodity staff present at FDPs

Number of staff	*Variable name*	Numbers [N=10]	
Number of food monitors present:	*q402*		
- 2		1	
- 3		4	
- 4		5	
Number of health agents present:	*q403*		
- 1		2	
- 2		6	
- 4		1	
- 6		1	
Number of *colvols* present:	*q404*		
- 1		2	
- 2		5	
- 4		3	
Number of MCH supervisors present:	*q405a*		
- None		5	
- 1		4	
- 3		1	
Number of commodity supervisors present:	*q405b*		
- 1		5	
- 2		3	
- 3		2	
		Mean [N = 10]	**Range**
Beneficiary/food monitor ratio	*ratiobenefmonitor*	77	29-188

5.3.2.1 Venue and communities covered

Of the 10 FDPs observed, 3 were held in the courtyard of a private house, 2 each at a church, school or ADP office, and 1 at a dispensary. The 10 FDPs observed covered all the areas included in the research. On average, one FDP covered 18 communities, varying between 6 and 42. The FDPs were not held separately for preventive and recuperative program communities, so beneficiaries of both program groups received their food rations at one FDP for the group of communities covered by that distribution point.

5.3.2.2 Amount of food received

Table 5.6 presents data on the amount of food received by the exit interview respondents and compares this to the amount of food allocated by the program. These data were obtained by reweighing the foods that respondents received on the day of the interview, using an electronic scale. The amount of food a respondent should have received was calculated based on the knowledge of the number of direct and indirect rations that they were eligible for. This information was available for a total of 44 beneficiaries, 41 of whom were eligible for 1 direct and 1 indirect ration, and 3 of whom were eligible for 2 direct and 1 indirect ration[13]. One case

[13] Even if a household has two direct beneficiaries participating in the program, only one indirect ration is provided.

of this latter group was excluded from the calculations because of uncertainty regarding the beneficiary category of the second direct beneficiary.

Table 5.6. Amount of food received

	1 direct child ration + 1 indirect child ration [N = 41]		2 direct rations for children + 1 indirect child ration [N = 2]	
Food commodity	**Amount allocated in kg**	**Average amount received in kg (range)**	**Amount allocated in kg**	**Average amount received in kg (range)**
WSB	8.0	7.9 (5.7-9.8)	16.0	16.1 (15.6-17.0)
SFB	10.0	9.5 (8.1-13.9)	10.0	10.3 (8.1-12.8)
Lentils	2.5	2.6 (1.0-5.6)	2.5	2.6 (2.5-2.7)
Oil	2.0	2.4 (1.7-2.7)	4.0	4.3 (3.8-4.7)

The data in Table 5.6 show that on average, the amount received is close to the amount allocated. The difference between the average amount received and the allocation was highest for the SFB, with a difference of 0.5 kg (shown in Table 5.7). However, the variability in the gap between amount allocated and the amount received is quite high, particularly for WSB, SFB, and lentils. Thus, some households are likely to have received much less than their allocation, and some other households much more. At the extremes, one respondent household received 2 kg less, while another received 4 kg more SFB than was allocated.

Table 5.7. Differences between amount of food received and allocated

Characteristics	***Variable name***	**Mean [N=44]**	**Range**
Gap between amount received and amount allocated (kg)	*gapwsb/gapsfb/*		
- WSB	*gaplenti/gapoil*	-0.07	-2.3 - +1.8
- SFB		-0.48	-1.9 - +3.9
- Lentils		+0.10	-1.5 - +3.1
- Oil		+0.22	-0.3 - +0.7
		Numbers	
Number of respondents who received correct amount of food (+/- 0.20 kg)	*gapwsbcorr/ gapsfbcorr/*		
- WSB	*gaplentcorri/*	17	
- SFB	*gapoilcorr*	7	
- Lentils		30	
- Oil		22	
Number of respondents who received less food than they were allocated:	*gapwsb/gapsfb/ gaplenti/gapoil*		
- WSB		28	
- SFB		36	
- Lentils		10	
- Oil		7	
Number of respondents who received more food than they were allocated:	*gapwsb/gapsfb/ gaplenti/gapoil*		
- WSB		14	
- SFB		8	
- Lentils		24	
- Oil		33	

We assumed an acceptable gap between allocated amount and received amount to be +/- 0.2 kg and used this to derive the number of households who received the appropriate amount of food rations for their beneficiary category. By this yardstick, approximately half of the respondents received the correct amounts of lentils (n = 30) and oil (n = 22), and about 39 percent (n = 17/44) received the correct amount of WSB. The results are worst for the SFB, where only 16 percent (n = 7/44) received the correct amount (see Table 5.7). We also calculated the number of respondents who received less food or more food than they were allocated. The results show that the majority of respondents received less SFB than allocated (n = 36). For WSB, more than half of the respondents received less (n = 28). In contrast, the number of respondents who received more lentils (n = 24) and oil (n = 33) than allocated is much higher than the numbers who received less of these foods.

In summary, a large proportion of beneficiaries do not receive the amount of the different commodities to which they are entitled. There seems to be a systematic bias, whereby recipients are more likely to receive larger amounts of lentils and oil than allocated, but lower amounts of SFB and WSB. It is not clear whether the direction of these errors is purely coincidental, but it is unfortunate that the two commodities that seem to be generally distributed in smaller amounts than allocated are the two fortified commodities SFB and WSB.

5.3.3 Quality of implementation

This section presents results on the overall quality of implementation of services at the FDPs. Findings are presented on the timeliness of the operations as well as on the quality of the food commodities that were distributed to participating beneficiaries.

5.3.3.1 Timeliness of operations

Our observations of the timeliness of the operation of the FDPs assessed whether the food arrived on time and also whether the health and commodity staff arrived on time. We also investigated whether all beneficiaries (from different communities) were invited to come to the FDP at the same time. This particular aspect was included in our observations because our research team had suggested to the WV program to invite beneficiaries from different communities at different times in order to control the flow of beneficiaries and hopefully reduce the waiting time. It was also felt that this could facilitate the implementation of complementary BCC activities such as cooking demonstrations or distribution of education material to emphasize the educational messages discussed at other venues, such as the MCs.

The results shown in Table 5.8 demonstrate that although the beneficiaries were usually told to be at the FDP at 8:00 a.m., none of the observed food distribution activities actually started before 9:00 a.m. At three FDPs, the distribution started between 9:00 and 10:00 a.m.; at three other sites, between 10:00 and 11:00 a.m.; and at four sites, it started between 11:00 a.m. and 12:00 p.m. These delays can lead to substantial increases in the time commitment required for beneficiaries.

Our observations revealed that the food arrived on time at 7 of the 10 distribution points on the day of the observation. Delays in the arrival of the food at the remaining distribution

points were due to bad roads, a flat tire, difficulty finding transport facilities for the food, and delays with loading the food at the warehouse.

Table 5.8. Timeliness of operations at FDPs

Characteristics	*Variable name*	Numbers [N = 10]
Start time of the food distribution:	*q414recod*	
- Between 9:00-10:00 a.m.		3
- Between 10:00-11:00 a.m.		3
- Between 11:00 a.m. - 12:00 p.m.		4
Food arrived at the time communicated to the beneficiaries	*q408*	7
Food monitors arrived on time	*q410*	5
Health agents arrived on time	*q412*	8
Proportion of beneficiaries asked to come at different times of day (percent)	*q407*	0

The food monitors arrived on time at only half of the distribution points. Reasons reported by those who were late included: having to stop to buy food or to eat before coming to the FDP, the lack of fuel for their motorcycles, bad roads, or having to help load the food at the warehouse. Food monitors are crucial to the functioning of the FDP and their late arrival often results in severe delays for the large number of people involved in the food distribution activities.

The health staff, on the other hand, arrived on time at most distribution points, and were delayed at only two distribution sites—one because of lack of transport and the other because s/he did not know the start time for the food distribution.

Our recommendation to invite beneficiaries from different communities to come to the FDPs at different times was not adopted by the program at the time of our interviews. All beneficiaries in the observed FDPs had been asked to come at the same time. Thus, the waiting time for beneficiaries was shorter or longer, depending on the order in which the communities were called. We did not collect information on beneficiaries from all different communities within a FDP, and therefore we cannot assess the magnitude of the differences in waiting time between, say, a beneficiary from the first community served and one from the last community served on a given day.

5.3.3.2 Quality of the food commodities

Our observations of the quality of the food at the 10 FDPs focused on visible infestation of the food commodities with insects or worms, visible moisture, and/or any visible color change. These observations were done before the food was distributed to the beneficiaries. In addition, five bags each of wheat-soy blend (WSB), soy-fortified bulgur (SFB), and lentils were randomly checked at each distribution point to see whether the bags appeared moist on the outside and to check their expiration date. The expiration date of five containers of oil at each distribution point was also verified.

In only one distribution site, three of the five bags of SFB checked appeared visibly humid from the outside and the bulgur inside was lumpy. No other problems with the quality of the food were observed in any of the other FDPs. There were no expiration dates on any of the bags or containers examined at the 10 FDPs.

The data from the exit interviews with respondents (N = 45) also suggest that visible infections or any other visible alterations in the quality of the food are rarely noticed. Only 2 respondents reported having seen insects in the food commodities distributed. The data from the home interviews also confirmed that infestation was not a widespread problem. Of the 29 home interview respondents who had received food rations the previous month, approximately two-thirds (n = 18) reported that they did not experience any problems with the foods. They felt that the food was always fresh and that food monitors checked for humid bags, which were put aside. Only four respondents mentioned occasional problems with the food quality, usually insect infestation, and one mentioned that on one occasion the WSB tasted bitter.

The results from the individual interviews with health agents (n = 20) suggest that the majority felt that the quality of the food distributed was always good. However, two health agents talked about their occasional experience with poor food quality, i.e., that they had observed insects in the food, that the food was humid, or had a rancid taste. One of them reported in addition that beneficiaries complained about very small lentil grains or SFB causing diarrhea. The discussants of one of the two *colvols*' focus groups voiced the same occasional problems with the food quality. Members of the food monitors' focus group explained that they usually checked for bags with spoiled food at the warehouse. They reported that when they did find bags with spoiled food, they immediately put those aside.

5.4 Use of food rations

This section presents the results on the use of food rations by the beneficiary families. The usual length of time the different food commodities lasted in the home, the types of recipes usually prepared with the food commodities and the sharing and selling of the foods received are described. As in previous sections, the results are presented by topic, rather than by research method.

5.4.1 Length of time food lasts in the household

Table 5.9 presents the results on the length of time each commodity lasts in beneficiary households, by number of rations received and by number of indirect beneficiaries in the household. In general, all the commodities were consumed within 2 to 3 weeks, depending on the amount of food received and on the number of indirect beneficiaries in a household.

None of the commodities distributed by the program lasted for the entire month, i.e., until the next food distribution. The SFB, lentils, and oil tended to run out before the WSB. The WSB is the commodity with the highest fortification level of micronutrients and the one intended for the beneficiary child; the WSB lasted, on average, approximately 3 to 3.5 weeks. Further, the data in Table 5.9 indicate that the length of time is *not* strongly affected by the number of indirect beneficiaries in the household. In cases where one direct child ration was received (n = 41), the average duration of consumption of WSB decreased only slightly, from about 3.5 to 3 weeks with the increase in the number of indirect beneficiaries. This suggests that a significant proportion of the WSB may be consumed by the beneficiary child, which, if true, is consistent with the program's intention. The picture changes when a household received two direct rations, i.e., when the amount of WSB doubles. With two direct rations, the food lasted about twice as long when there were 4-6 indirect beneficiaries as opposed to 7-9 indirect beneficiaries in the

household. This finding might be purely by chance due to the small sample size, but could also indicate a greater tendency to share or sell the food commodities in larger households, when the amount of WSB received is larger. The same trend is observed for the donated oil.

Table 5.9. Duration of use of food in beneficiary households, by number of rations received and by number of indirect beneficiaries

Duration	*Variable name*	Mean [N = 45]	Range
How long the food lasted (weeks)	*q514a-d*		
- WSB		3.4	2-8
- SFB		2.2	1-6
- Lentils		1.6	1-4
- Oil		2.3	1-6
Duration of **WSB** in the household by number of direct and indirect beneficiaries (weeks)	*q514a/q511/ q512recod*		
If 1 direct child + 1 indirect child rations and			
- 1-3 indirect beneficiaries (n = 19)		3.5	2-5
- 4-6 indirect beneficiaries (n = 19)		3.3	2-8
- 7-9 indirect beneficiaries (n = 3)		3.3	3-4
If 2 direct child + 1 indirect child rations and			
- 4-6 indirect beneficiaries (n = 3)		4.0	4
- 7-9 indirect beneficiaries (n = 1)		2.0	2
Duration of **SFB** in the household by number of direct and indirect beneficiaries (weeks)	*q514b/q511/ q512recod*		
If 1 direct child + 1 indirect child rations and			
- 1-3 indirect beneficiaries (n = 19)		2.3	1-4
- 4-6 indirect beneficiaries (n = 19)		2.3	1-6
- 7-9 indirect beneficiaries (n = 3)		1.3	1-2
If 2 direct child + 1 indirect child rations and			
- 4-6 indirect beneficiaries (n = 3)		2.3	1-4
- 7-9 indirect beneficiaries (n = 1)		2.0	2
Duration of **lentils** in the household by number of direct and indirect beneficiaries (weeks)	*q514c/q511/ q512recod*		
If 1 direct child + 1 indirect child rations and			
- 1-3 indirect beneficiaries (n = 19)		1.9	1-4
- 4-6 indirect beneficiaries (n = 19)		1.5	1-4
- 7-9 indirect beneficiaries (n = 3)		1.0	1
If 2 direct child + 1 indirect child rations and			
- 4-6 indirect beneficiaries (n = 3)		1.0	1
- 7-9 indirect beneficiaries (n = 1)		1.0	1
Duration of **oil** in the household by number of direct and indirect beneficiaries (weeks)	*q514d/q511/ q512recod*		
If 1 direct child + 1 indirect child rations and			
- 1-3 indirect beneficiaries (n = 19)		2.2	1-4
- 4-6 indirect beneficiaries (n = 19)		2.1	1-4
- 7-9 indirect beneficiaries (n = 3)		2.3	2-3
If 2 direct child + 1 indirect child rations and			
- 4-6 indirect beneficiaries (n = 3)		4.7	4-6
- 7-9 indirect beneficiaries (n = 1)		2.0	2

For the SFB and the lentils, which are meant to be consumed by other household members rather than by the beneficiary child, the data show that in households that received one direct child ration, the food lasted for a shorter time when there were more than six indirect beneficiaries in the household. The amounts of SFB and lentils donated by the program do not change when a household has two direct beneficiary children. As expected, these commodities lasted for approximately the same amount of time, regardless of the number of direct rations received.

5.4.2 Recipes prepared with the food commodities

The exit interview respondents were asked what recipes they usually prepare with the donated foods, namely WSB, SFB, and lentils, and which family members usually consumed these recipes. At the time of the data collection, the fieldworkers also made note of when the respondents mentioned that they did not consume all of the food, for example, that they shared the foods or meals prepared, using the food commodities with others outside their household.

The results are presented in Table 5.10, and show that all respondents reported having prepared gruel with the WSB. Half of them used the donated flour to prepare dumplings and about one-third made fried snacks. In a few households, the flour was consumed raw, and 10 of the 45 respondents indicated that they did not consume all of the flour (i.e., they shared with others outside of their household). In nearly half of the households, the preparations made with the WSB were consumed by all family members. Only approximately 30-40 percent of the respondents reported that the preparations were used mainly for the beneficiary child; this percentage was slightly higher (44 percent) for the gruel, compared to the dumplings (30 percent).

The SFB was usually cooked with lentils or beans (n = 45) in the same fashion as the traditional Haitian dish of rice and beans. Other frequent preparations were SFB with leafy vegetables and dried fish (n = 27) or gruel (n = 19). Half of the respondents reported having cooked it plain. About one-third prepared the SFB with vegetables, or beans and fish, or served it with bean sauce. Approximately 50 percent (n = 22) mentioned that they shared the SFB with others outside the household. Compared to the WSB-based meals, the cooked SFB was even more frequently consumed by the entire family, with the exception of the gruel, which was consumed mainly by the beneficiary child in a third of households.

The majority of respondents cooked lentils with SFB (n = 44) or prepared lentil sauce (n = 41). Less frequently, the lentils were cooked with other cereals than SFB (n = 33), used for a bouillon, or prepared with SFB and fish (n = 2). Twelve respondents mentioned that they shared some of the lentils with others outside the household. As with the SFB, the meals cooked with lentils are consumed in most of the households by the entire family.

Table 5.10. Recipes prepared with the commodities (from exit interviews, n = 45)

Type of recipe	*Variable name*	Frequency of preparation (Numbers)	Who consumed (percent)		
			Mainly beneficiary child	All children	Entire family
WSB					
Gruel	*q515a1-a5*	45	44	16	40
Dumplings	*gruel/*	23	30	13	57
Fried snacks	*dumpling*	14	36	21	43
Other (eat raw)	*other/dncall*	5	40	20	40
Did not consume all (sharing of food/meals with others outside household)	*congruel/ condump/ conmarin/ conother*	10			
SFB					
Gruel	*q515b1-b5*	19	26		74
SFB cooked plain	*sfbgruel/*	23	9		91
SFB cooked with lentils or beans	*plain/lentil/*	45	11		89
SFB with leafy vegetables and dried fish	*fish/sfbother/sfbnall/*	27	7		93
Other (SFB with vegetables, SFB with beans + fish, SFB with bean sauce)	*consfbgr/ conplain/*	15	7		93
Did not consume all (sharing of food/meals with others outside household)	*conlent/ confish/ consfbot*	22			
Lentils					
Lentil sauce	*q515c1-c5*	41	5		95
SFB cooked with lentils	*lensauce/*	44	11		89
Other cereals cooked with lentils	*lenbean/*	33	9		91
Other (Lentils with SFB + fish, Bouillon with lentils)	*lenothc/ lenother/*	2			100
Do not consume all (sharing of food/meals with others outside household)	*lennall/ consauce/ conbean/ conlcere/ conlenot*	12			

Table 5.11 presents information on the addition of extra ingredients when the food aid commodities are prepared for the beneficiary children. Depending on the food, up to 80-90 percent of the caregivers reported that they added beans, meat, dried fish. or cow's milk 2-3 times per week to the meals prepared for the children. About half of the caregivers stated that they added eggs, liver, or other ingredients, such as vegetables, green leaves, or fish, once or twice per week to these meals. Note that the frequency of use ranged from as low as less than once per week to every day for certain ingredients. However, these results are encouraging, provided that the frequencies do not only reflect what caregivers would have liked to do but rather what they were actually able to do. Also note that we have no information on the amounts of the different ingredients added.

The data from the home interviews about the types of recipes prepared with the different food commodities confirm the information presented above from the exit interviews. All of the home interview respondents who had received WSB (n = 12) declared they used the flour mainly

Table 5.11. Use of additional ingredients when preparing the food commodities for children (from exit interviews, n = 45)

Added ingredient		*Variable name*	Percent	Frequency of use (times/week) Mean	Range
Eggs	(n = 25)	*q517a/eggw*	56	2.2	0.2-3
Goat's milk	(n = 4)	*q517b/goatmw*	9	2.0	1-3
Breast milk	(n = 0)	*q517c/breastmw*	0		
Cow's milk	(n = 39)	*q517d/cowmw*	87	3.4	0.2-7
Beans	(n = 42)	*q517e/beansw*	93	2.7	0.7-7
Groundnuts	(n = 4)	*q517f/nutsw*	9	1.5	0.5-3
Dried fish	(n = 37)	*q517g/fishw*	82	2.8	0.9-5
Meat	(n = 39)	*q517h/meatw*	87	1.8	0.5-7
Liver	(n = 21)	*q517i/liverw*	47	1.1	0.2-4
Other (vegetables/green leafs, fish, banana, corn, canned milk)	(n = 27)	*q517j/other1w*	60	2.0	0.2-5
Other (vegetables, banana, fish, canned milk)	(n = 9)	*q517k/other2w*	20	1.6	0.2-3

for gruel. Half of them used the WSB for dumplings, and about one-third made fried snacks. Most of the respondents who had received SFB the month before (n = 29), reported cooking it with lentils or beans. Half of the respondents mentioned that they had cooked it plain or prepared it as gruel. Similar to the findings from the exit interviews, the lentils were mainly used for sauce or cooked with cereals. Consistent with the exit interviews findings, the home interview respondents reported that the meals prepared with the food commodities were generally consumed by the entire family. The respondents also reported that young infants (under 6 months of age) were not fed meals prepared using the donated food commodities. In one case, the respondent reported that the WSB gruel was consumed only by her and the children and that the dumplings and fried snacks were prepared specifically for the children. Many of the respondents mentioned that neighbors also consumed the meals prepared using the donated food commodities, especially the ones prepared with SFB and lentils.

Overall, the findings confirm the well-recognized sharing of donated commodities among family members and even, in some cases, with other families and neighbors. There is some indication that the WSB—which is intended for the beneficiary child—may be used preferentially for this child in approximately 40 percent of the households interviewed. However, most foods and meals made with donated foods are consumed by all family members.

5.4.3 Sharing and selling of food commodities

We have information from home interview respondents (n = 29) who had received food the previous month on whether they shared, sold, or exchanged the donated food. A majority reported having shared food, either from time-to-time or regularly, with neighbors or other family members living outside the household (see Table 5.12). The most frequently mentioned family members with whom they had shared the food were their mother, sister, mother-in-law, sister-in-law, and grandmother. Two respondents said that they also shared the food with strangers, for example, people that they met on their way back home from the distribution site.

Sharing of food was in many cases motivated either by feelings of charity—a person was hungry, in a miserable situation, or simply not in the program—or by a felt obligation vis-à-vis other family members, hoping to receive the same favor when they would be in need. Three respondents expressed that they sometimes compensated people who had helped them by offering them some of the donated food (either raw commodities or prepared meals). These people were either working on their farm or a family member who usually picked up the food at the distribution site. A few indicated that they shared the food with neighbors to avert jealousy or because God had said that one should share. Many of the respondents who reported not having shared the donated foods mentioned that prepared meals using these foods were often shared with visitors who arrived when the family was eating.

Table 5.12. Sharing and selling of food commodities (from home interviews, n = 29)

Characteristics	Frequency (Numbers)
Number of beneficiaries who shared food	20
Shared with whom:	
- Family	10
- Neighbors	11
- Strangers	2
Reasons for sharing:	
- Person not in program	9
- Because person/family is hungry	8
- Because they are family	6
- Compensation for help	3
- God says so	1
- To avert jealousy	1
Number of beneficiaries who exchanged the food for other food	1
Number of beneficiaries who sold food to buy other necessities	3

Seven respondents shared only one food commodity (SFB in most cases) with others, 5 shared SFB and/or lentils, and the remaining 8 shared three foods (SFB, WSB or lentils, oil). SFB was by far the most frequently shared commodity (n = 19/29), followed by oil (n = 11/29), lentils (n = 10/29), and WSB (n = 1/12). The amounts reported for the last time they had shared food varied widely: (1) for the SFB, between 1 measuring cup and 1 local pot (about 2.5 kg); (2) for the lentils, between ½ cup and 4 cups; (3) for the WSB, 10 cups (only one family reported sharing the WSB); and (4) for the oil, between 3 ounces and 2 quarts. Although the amounts of SFB and oil shared go up to 1 local pot and 2 quarts, respectively, the reported amounts for these foods ranged in most cases between 1-12 cups for SFB and 3-18 ounces for oil.

One respondent reported having exchanged some of the SFB for corn or millet. She felt that the food received from the program sometimes caused diarrhea, specifically the SFB.

Only three respondents confirmed that they needed to sell some of their food ration from time-to-time. All three voiced that they had been obliged to sell about ½—1 local pot of SFB (approximately 1.2-2.5 kg) in order to buy other necessities, such as soap, bleach to purify water, gas, spices, or rice. Some of the respondents who reported that they did not sell any of the food received gave the following reasons: one indicated that the amount of food—after having shared the ration with friends, family, and neighbors—is usually just enough for her family and that there is nothing left that could be sold; others stated that they liked the food too much, especially

the SFB, to sell it or exchange it—they also mentioned that they even buy the SFB on the market if they run out of it; finally, others mentioned that they never sold any of the food received, in spite of the fact that they saw others do it.

In addition to these results, our fieldworkers reported on rumors about food selling that they heard from beneficiaries. There is a rumor that traders from Port-au-Prince come to buy the donated foods from the beneficiaries. As reported by some beneficiaries, they either wait not far away from the distribution site for the beneficiaries or they go from house to house to buy the food. Other beneficiaries mentioned that they got robbed when they returned home after 6:00 p.m. The fieldworkers also reported on a number of approaches people use to try to get into the food aid program or to stay longer in the program: (1) volunteers help unloading the food from the trucks to be well seen by the food monitors and hopefully to benefit from possible leftover food; (2) women try to get pregnant from whomever in order to benefit from the food; and (3) some beneficiary families do not give the WSB to the child in order to keep the child malnourished (the WSB is rightly seen as the most nutrient-dense food). These rumors are not unusual in the context of food aid programs, but they are of real concern and are probably worth following up.

5.5 Staff perceptions about the Food Distribution Points

Information about perceptions and opinions of the health staff regarding the FDPs was obtained in individual interviews with the 20 health agents and in five focus group discussions with *colvols*, MCH supervisors, food monitors, and commodity supervisors. This section summarizes the results concerning the problems they perceived in relation to the food distribution process and their suggestions on how to improve the food distribution.

5.5.1 Perceived problems with the food distribution

The individual interviews and focus groups with the program staff revealed the following major concerns with the food distribution process.

Delays in commencing at the FDP. Individual interviews with the health agents revealed that they perceive delays in the start of the food distribution due to the late arrival of the food to be a major concern (n = 17). At the same time, the health staff understood the reasons for such delays; the *colvols* indicated that rain was a major obstacle for the timely arrival of the food at the distribution site, as was the availability of food at the regional warehouse on the scheduled day for the distribution. Most of the health agents (n = 16) also confirmed in individual interviews that the latter was a concern, but they pointed out that it did not happen frequently. Some of the health agents also attributed some of the delays to the bad conditions of the roads.

The challenge of trying to adhere to the scheduled distribution dates and start times was a concern that was also voiced in the focus groups with food monitors and commodity supervisors. They explained that bad roads, rain, breakdown of trucks, or administrative problems made timely arrival of the food at the distribution site difficult. In addition, they explained that the food stock at the regional warehouse was sometimes insufficient, but that they did not receive the information on time to be able to communicate the change in the distribution date to the health team.

Mismatched beneficiary lists. In the individual interviews with health agents, a frequent concern was that the names of eligible beneficiaries were often missing from the distribution lists of the commodity team (n = 15). The discussants of the focus groups with food monitors and commodity supervisors also raised concerns about frequent differences in the number of eligible beneficiaries listed in the monthly distribution lists compared to the number of beneficiaries listed in the master list that includes all beneficiaries with information on entry/exit dates in the program. They also indicated that beneficiaries did not receive their rations if their entry and exit dates did not figure in the master list or the ration cards, or if the name of a beneficiary appeared on two distribution lists of different zones.

Six health agents expressed that they frequently experienced problems with beneficiaries getting angry if they did not receive their food rations. Members of the *colvols*' focus group also felt that beneficiaries blamed the health staff in situations where they had to return home without their ration.

Crowding at FDPs. Half of the health agents felt that there are too many beneficiaries per distribution point. This concern was also mentioned by the discussants in the MCH supervisors' focus group. Note that the commodity team (food monitors and commodity supervisors) did not raise this point as one of their concerns.

Lack of respect for beneficiaries and health staff. In the three focus groups with the health staff (*colvols*, MCH supervisors), the discussants expressed their view that food monitors lack respect towards the health agents and *colvols* and towards the beneficiaries. They felt that food monitors often treated the beneficiaries badly, even to the extent that they would not distribute the food ration to a person who was present at the FDP if s/he did not hear his/her name called the first time, because of the noisy environment. Also, the health staff felt that making beneficiaries wait in the sun the whole day to receive their ration was humiliating. MCH supervisors expressed that the food monitors often viewed the health staff with suspicion. These points were also raised by a few health agents in the individual interviews. In addition, others indicated that there was a lack of dialogue and collaboration between the health staff and the food monitors.

Food handling. Several health agents as well as the discussants in the *colvols*' and MCH supervisors' focus groups expressed concerns in relation to food handling during the distribution. They felt that the distribution process was often unhygienic—the SFB was emptied on dirty plastic films and the oil in dirty containers, and members of the distribution team used their hands when measuring the oil. In addition, they complained about the local containers used to measure the amounts allocated per beneficiary. They felt that different people received different food amounts at the same distribution point.

Bringing ration cards to FDPs. The individual interviews with health agents and the five focus group discussions all raised the concern of beneficiaries not bringing their cards to the FDPs. For the health staff, the main concern was that beneficiaries who were otherwise eligible were not given their food rations, even if the health staff vouched for them. Two health agents reported that they often asked beneficiaries to return home to get the card, but that beneficiaries who lived far away came back too late to the FDP, when the food monitors had already prepared their reports and the food distribution was over. These points were also raised by discussants in

the two focus groups with *colvols* and the MCH supervisors' group. In addition, the *colvols* expressed that whether beneficiaries who forgot their cards would receive food or not depended mainly on the food monitor's goodwill.

The commodity staff, on the other hand, were bound by the rules of the food distribution process, and explained that they were not allowed to distribute food to those beneficiaries who do not bring their ration cards, except in cases where beneficiaries had recently entered the program and did not yet have cards. The commodity supervisors were more flexible, and expressed the view that they would distribute food rations to a beneficiary who forgot the ration card if the health staff confirmed the eligibility of the person and if the beneficiary were able to list the names of at least three indirect beneficiaries in order to verify that the person is a beneficiary registered in the master list. It could be that this potential for flexibility was not communicated well to the food monitors.

5.5.2 Suggestions on how to improve the food distribution process

Most of the suggestions made by the health agents were in direct relation to the problems identified earlier, and are listed below in the order of the priority in which they were expressed by the staff. They recommended that the following actions be taken by program managers in order to improve the functioning of the FDPs:

- *Address overall logistical and punctuality issues by:*
  - Providing the necessary support to ensure the timely arrival of the food at the FDP, the timely start of the distribution process, and adherence to the scheduled distribution dates for the different zones.
  - Reviewing the number of beneficiaries per distribution point and establishing smaller distribution points.
  - Scheduling beneficiaries from different zones to receive food at different times on the day of distribution.
- *Ensure that all eligible beneficiaries receive food by:*
  - Requesting the commodity team to prepare the distribution lists together with the health agents to make sure that all eligible beneficiaries are listed.
  - Preparing lists separately by zone when beneficiaries from different zones received the food rations at the same distribution point. This would help facilitate the preparation of reports by the health agents.
- *Encourage better collaboration between food monitors and health agents by:*
  - Encouraging greater respect on the part of the food monitors for beneficiaries and for health agents, particularly when the latter made the case for beneficiaries who had lost or forgotten their ration cards.

- *Ensure appropriate food handling and correct amount of food by:*
    - Requesting that the commodity team ensures hygienic food handling during the distribution process.
    - Developing standardized local containers for each food commodity in order to make sure that all beneficiaries receive the allocated food amounts.
    - Requesting that the commodity team announce the food amounts allocated for the different beneficiary categories in local measures instead of kilograms at the information session before the distribution starts.
- *Consider increasing the ration size and introducing milk powder in the ration for children.*

5.6 Beneficiary perceptions about Food Distribution Points

Information about perceptions of the beneficiaries regarding the FDPs and the quality of the food rations was obtained through the home interviews (n = 29). This section summarizes the results on the problems they perceived in relation to the food distribution process, the perceptions of the importance of the food distribution and the food rations, and their suggestions on how to improve the food distribution program.

5.6.1 Perceived problems with the Food Distribution Points

Most of the home interview respondents (n = 22) expressed that the time involved in attending the food distribution was a major obstacle to the use of this service. They explained that the food distribution often took the whole day because of the late arrival of the food or simply because there were so many beneficiaries at the FDP. According to them, the time implications also depended on the beneficiary category one belonged to—pregnant and lactating women were served before the children. In addition, the respondents indicated that distribution points were in general not close to their homes and they had to walk long distances to get there. One-third (n = 7) complained that they sometimes even returned home without the food, either because they were away for a few minutes when their name was called, or else their name was not called at all, or the food did not arrive on that day.

Only two respondents felt that the amounts of food received varied considerably. They explained that the local measures used were not standardized and that the quantity also depended on when a beneficiary was served. They felt that those who received the food early on during the day got less food than those who were served toward the end of the day. One respondent also expressed that beneficiaries were sometimes badly treated and that she felt a lack of respect from the food commodity staff towards the beneficiaries. She expressed that one's dignity should be preserved even if food is donated.

5.6.2 Perceptions about the importance of the food distribution and the food rations

The food distribution was well appreciated by respondents. Some of them considered this service as more important than other WV services they used, although many had difficulties ranking different services because they felt that all services were important.

In general, all respondents indicated that they liked the food because it gives strength, contains vitamins, and does not exist in the market (in the case of WSB). Many respondents expressed that the foods, and specifically the WSB, kept their children healthy, although it did not prevent illnesses. Lactating respondents explained that even though the child did not consume the food, it received strength and vitamins with the breast milk. Other respondents felt that the food received helped them to cope with food insecurity, when they had nothing to eat at home. They expressed that thanks to the donated food, they could be sure that their children would not starve from hunger.

There were a few exceptions, where some family members did not appreciate the food. In one case, the respondent reported that her child (the beneficiary child) did not want to eat the WSB.

Twelve respondents voiced some concerns about problems with the food and talked about episodes of diarrhea after the consumption of WSB and/or SFB. In some cases, this was seen among adults as well as children only when they first started consuming the food (50 percent), while for others, it was seen when they consumed the food frequently. Similar findings were reported in the exit interviews at the FDPs.

5.6.3 Suggestions on how to improve the food distribution

Approximately two-thirds of the home interview respondents had no suggestions on how to improve the food distribution. The remaining respondents recommended that program managers take the following actions:

- *Address overall issues of logistics and punctuality by:*
    - Ensuring the early arrival of the food at the distribution site so that beneficiaries return home before nightfall.
    - Avoiding food distribution when it rains.
    - Organizing FDPs closer to home communities of beneficiaries and with fewer beneficiaries per point; for example, by organizing the food distribution by beneficiary category, i.e., one day for pregnant women, one day for lactating women, and another day for children.
    - Informing beneficiaries in advance of changes in the distribution dates; also informing the beneficiaries who are not eligible to receive the rations in advance, so that they do not come to the FDP for nothing.
- *Ensure all eligible beneficiaries receive food.*

- Standardize the local measures for each food commodity, so that everybody receives the same amount of food.

In addition, they suggested that the program staff should check the local markets after a food distribution in order to assess the extent of food selling. Some said that it would be nice if everyone could be in the program, so that there would be no need to sharing the food received. Finally, some said that the food ration should be increased as the amounts are not sufficient.

5.7 Summary of findings regarding operations at the Food Distribution Points

5.7.1 Operations and quality of services at the Food Distribution Points

Attendance and beneficiary/staff ratio. Attendance at the FDPs is very high and so is the beneficiary/food monitor ratio. Not surprisingly, the time involvement for participants in this activity is extremely high, averaging 6 hours, including travel time. The main reasons for the large amount of time involved in receiving the food are delays in the arrival of the food and the staff at the FDPs.

Amount of food received. Our measurement of the amount of food received by different types of beneficiaries showed that there were significant errors and that the large majority of beneficiaries did not receive the allocated amount of the different products. The problem was more severe for SFB (only 16 percent of the beneficiaries received the correct amount +/- 0.2 kg) and WSB (less than half received the right amount). Because some received more and others less, from the program resources perspective, these errors may cancel each other out. However, from the point of view of the beneficiaries, these problems lead to feelings of injustice and dissatisfaction with the program.

Quality of the food commodities. The quality of the food observed was generally good and problems were observed only in one FDP, where three of the five bags of SFB inspected were visibly humid from the outside and the product quality had been altered. Neither visible infestation of food commodities with insects or worms nor any visible color changes were observed or reported in the interviews.

5.7.2 The use of food rations

On average, the commodities received lasted 2-3 weeks, but none lasted for the entire month. Sharing of the commodities among all family members was almost universal for SFB and for lentils, but was less common for WSB. The large majority of beneficiaries (70 percent) also reported sharing the food commodities, either with other family members (not living in the same household) or with neighbors or other people.

These results confirm the well-recognized sharing of donated food commodities among family members and in many cases also with other families and individuals. Although there is some indication that the WSB—which is specifically targeted to the young child and has higher levels of multi-micronutrient fortification than the other commodities—is used preferentially for the young child, more than half of the households (60 percent) reported sharing the WSB among other family members.

The practice of sharing donated commodities reflects the reality of rural Haiti, where most families are extremely poor and rely heavily on social networks, and where sharing of received goods is an obligation in order to benefit in turn from goods that others may receive. A few families also admitted to selling some of the donated commodities at times, in order to purchase other basic needs. It will be difficult for the program to change these practices unless other supporting program activities can be put in place to significantly increase the resource base available to these poor households.

5.7.3 Staff perceptions about the Food Distribution Points

Perceived problems. The program staff identified several concerns regarding the functioning of the FDPs, most of which related to logistical and organizational aspects. Delays in the start of the food distribution due to the late arrival of the food was perceived by the health agents as a major operational problem. The food monitors and their supervisors also expressed their concerns regarding the start time of the food distribution, and mentioned that adherence to the schedule of food distribution was also an issue. Problems with the lists of beneficiaries and with beneficiaries forgetting their ration cards were also commonly raised. These problems are real concerns, because they result in some beneficiaries returning home without their food ration. This causes a lot of frustration among beneficiaries and dissatisfaction with the program, and also results in problems for the staff.

Other concerns raised mostly by the health agents included crowding at the FDPs, lack of respect from the food monitors towards the beneficiaries and the health staff, and the non-hygienic handling of foods in some cases.

Suggestions for improvements. The health agents recommended that the program address the overall logistical and punctuality issues by providing support to ensure the timely arrival of the food at the FDPs and to enable adherence to the scheduled distribution dates. They also made two specific suggestions on how to reduce crowding: establish smaller distribution points; and schedule beneficiaries from different zones to arrive at different times. They recommended that additional efforts be made to ensure that all eligible beneficiaries receive their food. The health agents also recommended that hygiene in food handling be improved and that local containers be standardized to ensure that beneficiaries receive the correct amount of each commodity.

5.7.4 Beneficiaries' perceptions regarding the Food Distribution Points

As expected, the food distribution was well appreciated by respondents. Many indicated that they particularly appreciated the WSB because it contains vitamins, which keeps children healthy. Some also felt that the food distribution helped them to cope with food insecurity.

Perceived problems. As expected, most beneficiaries considered that the time involved in attending a FDP was a major obstacle to the use of the service, and it was due to a combination of the long distance to the FDP and delays in the start of the food distribution. A significant number of respondents expressed concerns about the food, and especially the WSB and the SFB, which they believed caused diarrhea. It is difficult, however, to tell whether the donated foods are really responsible for the reported diarrhea.

Suggestions for improvement. Only a few beneficiaries proposed suggestions on how to improve food distribution. Their recommendations were very similar to those made by the health staff and focused mainly on ways to improve the logistics and punctuality issues. They also recommended that the program staff visit the local markets after a food distribution day to assess the extent of food selling. Finally, they indicated their wish that everybody should receive food donations so that there is no need for sharing with non-recipients; they also recommended that the ration sizes be increased.

5.7.5 Conclusions on operations at the Food Distribution Points

In summary, our data confirm the existence of logistical constraints related to the transport and distribution of food commodities in the study area. Transport problems, which affect the timely arrival of both food and staff, are difficult to overcome in areas such as the Central Plateau, which are characterized by extremely poor road conditions, and especially so during the rainy season. Other problems, such as excessive crowding and long waiting times, which are also affected by logistical constraints inherent to the environment, continue to be a challenge, but need to be addressed. Solving the measurement problems to ensure that beneficiaries receive the amount of food they are entitled to is also important for fairness as well as to ensure efficient use of resources. The sharing of food commodities is probably unavoidable, but the program should continue to emphasize the importance of prioritizing the targeted beneficiaries within the family, and the differential use of selected food commodities such as the WSB for young children who have high nutrient requirements. The other commodities, which are provided specifically to complement the diet of other family members, can continue to be used for this purpose.

6. STAFF PERCEPTIONS OF PROGRAM ORGANIZATION AND MANAGEMENT

This section describes the perceptions of the different WV stakeholders regarding various aspects of the program's organization and management. First, the management structure and the key stakeholders in the program are described to provide context. This is followed by a short summary of the methods and samples used to assess the staff perceptions, and then by a presentation of the results related to work roles, motivation, constraints to general satisfaction, supervision, and coordination between the health and food components of the program.

6.1 Management structure and key stakeholders in the program

For the purpose of this evaluation, the main stakeholders in the program included management and field staff at different levels of the program. The roles of these different stakeholders are described in detail in Section 2.3. A brief overview of the organizational structure, including the roles of the key stakeholders in the program, is presented below.

Health agents and *colvols* (program volunteers) are the direct implementers of the MCH program in the field and thus, are the frontline staff in contact with the program participants. They are in charge of the interventions being delivered at the RPs and MCs and assist the food monitors at the FDPs. Health agents are WV employees and receive a monthly salary. *Colvols* are community volunteers who assist the health agents in their duties. They receive a small monthly incentive from WV. Both health agents and *colvols* are supervised by nurses who work under the supervision of the Assistant of the Regional Health Coordinator in Hinche. This assistant is supervised by the Regional Health Coordinator. The National Health Coordinator for WV is based in Port-au-Prince and oversees the activities in all the program areas of WV in Haiti. The organizational structure for the health component of the program is presented in Annex 6.

Food monitors are responsible for the distribution of the food rations at the FDPs. They pertain to the Commodity Section of the program, and are supervised by the field supervisors, who work under the supervision of the Assistant of the Regional Commodity Officer. This Assistant is, in turn, supervised by the Regional Commodity Officer in Hinche. The organizational structure for the food component of the program is outlined in Annex 7.

6.2 Methods used to understand the program organization and management

The data that provided information on the program organization and management were gathered using the following methods:

1) Focus group discussions with *colvols*, health agents, and MCH supervisors (N = 5);

2) Focus group discussions with food monitors and commodity supervisors (N = 2).

The data from the focus groups were supplemented by semi-structured interviews with the national and regional health coordinators and the regional commodity officer.

As described in Section 2.4.5, the field notes and audiotapes from the focus group discussions were transcribed and then analyzed to identify specific themes that reflected staff responses to the broad categories of issues discussed in the focus groups. We examined the data to identify theme-based statements that reflected ideas, concepts, values, feelings, or emotional states. The presentation of the results in this chapter discusses each of the themes identified under the broad categories of (1) staff perceptions related to their responsibilities; (2) motivation and perceived value of the program; (3) constraints to job satisfaction; (4) supervision; and (5) coordination between health and commodity sectors.

6.3 Perception of responsibilities of World Vision staff

The three major themes that emerged from interviews with health and commodity staff in relation to their current responsibilities were: (1) the feeling that their jobs entailed serious responsibility; (2) their sense of increasing confidence in their abilities to handle their responsibilities; and (3) their role in contributing to behavior change of both individuals and communities. In Table 6.1, an X indicates that the theme was present in the focus group transcript. The results indicate that feelings of serious responsibility as well as confidence in their ability to do the job were seen across all focus groups, while sentiments about changing lives of the communities they worked with were primarily seen in discussions with health staff.

Table 6.1. Themes with respect to current responsibilities

Focus groups:	**Themes**		
	Work entails serious responsibility	Perception of changing lives and communities	Confidence with their ability to fulfill their responsibilities
Colvols	X	X	X
Colvols	X		X
Health agents	X	X	X
Health agents	X		X
MCH supervisors	X	X	X
Food monitors	X		X
Commodity supervisors	X		X

Serious responsibility and changing lives and communities. In all seven focus groups, the discussants voiced the view that they were engaged in serious activities and perceived their responsibilities as large. In addition, the members of the health teams, and specifically the *colvols* and MCH supervisors, expressed the view that they were contributing to changing peoples' lives and pointed this out with pride. They also expressed their felt need or obligation to help mothers obtain more knowledge and thus have healthier children. Finally, the sense that the program had changed from the way it was implemented in the past was also expressed, particularly with the view that the current implementation was more effective. The following statements illustrate some of the ways in which the health staff have internalized the goals of the program:

- "Facing my responsibilities in the program, I feel proud. I have the information on how a child develops, how the child should eat, and what a pregnant woman should do." (*colvol*)

- "I am feeling obliged, although the work is difficult. When one realizes that there are a number of mothers who introduced in the past foods very early to their children and who know now how to feed their children, e.g., when to introduce foods." (*colvol*)

- "The program is not a game; it is a program that targets young children and pregnant women; the program combats infant mortality, risk pregnancies, and malnutrition." (*colvol*)

- "For us, it is a mission. In the past, mothers lost their children because of lack of education, because they were ignorant." (*colvol*)

- "Our responsibility is not small, it is big; we help mothers to keep their children healthy so that they develop adequately; this is especially true for the MCs, we help the mothers and they also help each other." (*colvol*)

- "Looking at how the work is done currently compared to the past, one can see that there is a big difference; today people learn better." (health agent)

- "When the implementation of the program started, the work was a little bit difficult. But today, with the testimonies I receive from mothers and beneficiaries, I feel that we play a role in the changes in the communities that are about to happen. That motivates me even more to continue so that we reach what we are looking for." (MCH supervisor)

- "The program has a component of recuperation of malnourished children, which is of utmost importance but which adds stress to the work and makes our responsibilities heavier, but, given the engagement of the staff, the way we are motivated to do the work and seek perfection, although our responsibilities are big, but our love for our work helps us to ignore them, this is what makes me say that everything works well." (MCH supervisor)

Another theme in relation to responsibilities that emerged in the discussions concerned increased workload. In response to a question about changes in their responsibilities compared to the previous year, all of the groups identified an increased workload in connection with their increased responsibilities, but many of them did not make negative references to their workload. The discussion in both *colvols*' and health agents' focus groups described this workload increase in relation to the larger number of MCs they needed to organize, and also in relation to the increase in the number of caregivers coming to the RPs. *Colvols* expressed clearly their views that they now have as much work as the health agents. For the MCH supervisors, the increased workload was described in relation to an extension of their supervision areas. Below are some examples of the ways in which this theme was expressed:

- "In the past, *colvols* did not have much work; now, this is different. We have as much work as the health agents, if not even more. As they can hold a session of a MC, we can do it now as well, thanks to the training recently received." (*colvol*)

- "The work time has nearly doubled since last year. Last year, one could have between 2 and 3 MCs; now it's between 8 and 10. Today, we have more people coming to the RPs. For this year, I feel that we have to invest more time in each of the services." (health agent)

The health staff also expressed their views about the value of the recent training sessions for achieving project goals and changes in the communities. The members of the health team described the training as informative and practical and highlighted the idea that they had gained not only a lot of knowledge but also new communication skills, which they felt they needed in order to do community work. Overall, a positive attitude toward the program emerged in the discussions about current responsibilities and training. This was particularly true for the health staff, who were also much more open to talking about perceptions and feelings.

The following quotes from the data provide insights into how the staff perceived the training sessions and the positive implications for their work:

- "If we had an idea about health, the training helped us to become good; we are professors now, the first time I felt like someone misplaced, abandoned, but after that I said to myself that it is through practicing that one improves." (*colvol*)

- "This year the training was not a theoretical training, it was an applied training, and topics were different. We have listened, we have seen, and we have applied." (*colvol*)

- "After the training received, today, there is no longer a monologue but a dialogue between the mothers and us others when we animate a MC, which is very much appreciated by the mothers." (*colvol*)

- "When we transmit the training received to the mothers, if they could apply things as we teach them, the objective of USAID and WV would be achieved." (*colvol*)

- "Thanks to the training, we have more knowledge; there is one thing that we were taught related to adult learning, that is named respect, we can't find it though with the managers." (health agent)

- "The training made us more dynamic in our work; it allows us to play a role in the development of the community." (health agent)

- "The way the training was done put us in front of ourselves; it made us think about our own knowledge; it showed us that we too know some things." (MCH supervisor)

- "I am for nearly 10 years with WV. This training that I have received in November and December, it is the first time that we have received such a training. I was used to talk about behavior change; with the training I know now what this is." (MCH supervisor)

- "One can talk about changes since we have received the two training sessions, because before we were like abandoned in the field. One worked with what one knew; now, after the training received, we notice that there are big changes that occurred at our level, at the health agents level, and also at the beneficiaries level." (MCH supervisor)

Confidence. The theme of confidence in their preparation and capacity to meet their responsibilities was also present in all seven focus groups. Health agents and *colvols* voiced the perceptions that they had the necessary information on child development and feeding and special needs of pregnant women in a number of ways. They also mentioned the importance of the recent training sessions in giving them confidence. The following examples provide insights into how they perceived their own competence (self-efficacy):

- "The workload increases from day to day. Luckily we have more training now, what makes me strong enough to do the work. In my opinion, the program is a gift offered by WV to the mothers. Thus, the supervisors and trainers train us." (*colvol*)

- "We feel prepared for the responsibilities that we have now in the program, especially after the training we have received recently." (*colvol*)

- "We have already answered, we feel comfortable with our current responsibilities in the program, once we have given our word, we don't think again about problems." (health agent)

- "Compared to the way the program had started, we feel that there is an evolution. I think the program will attend its objectives because we got it on the right track. In addition, with all the support we receive and will continue to receive, although the work is huge, we will keep on going." (MCH supervisor)

- "Our personal satisfaction is that we like our work; we feel confident with our work." (Commodity supervisor)

6.4 Motivation and perceived value of the program

From the previous section, it is evident that, in general, the health staff have a positive attitude about their responsibilities in the program. In this section, which describes the themes related to job motivation and perceived value of the program, we also see the predominance of positive views. Some of the themes related to job motivation that emerged from the data were (1) enjoyment of work, (2) the contribution to the development of the community, and (3) the contribution to behavior change in the community. Less frequently, the discussants voiced that their professional status or the training they received was a motivating factor for them. A final theme of motivation relates to the perceived value of the program by the health staff. In Table 6.2, an X indicates that the theme was present in the focus group transcript.

Table 6.2. Themes with respect to job motivation

Focus groups:	Themes					
	Enjoyment of work	Community development	Behavior change	Professional status	Training	Perceived value of the program
Colvols	X	X	X		X	X
Colvols	X	X	X		X	
Health agents	X	X	X	X		
Health agents	X	X		X		
MCH supervisors	X		X	X		X

Enjoyment of work. Enjoyment of the work is an important dimension of job motivation, and this was a theme that was reflected across all the focus groups with health staff. All the health staff group discussants voiced positive sentiments about enjoying their work. Their statements related to the positive aspects of their work included features such as enjoying working with people, getting to know other communities, or receiving training. MCH supervisors noted that community work was very demanding and required a strong commitment from their side. Below are some examples of the ways they expressed these views:

- "Yes, we enjoy our work a lot. Thanks to the program, there are a lot of areas and people that I did not know before, and that I know now." (*colvol*)

- "If we would not enjoy our work, we would not have reached our current level in the program." (health agent)

- "When I say that I am fine, this is because I enjoy my work, although my zone is a very difficult one. It is not the money that motivates me, but the people." (MCH supervisor)

- "In general, this is not a work that one can do without enjoying it, because community work is not limited to time; there is no specific time to start or to stop; one comes back from the office and has to continue working at home in the evening. I repeat, if I am here today, this is because I enjoy my work." (MCH supervisor)

- "I think there are several things that go together; one needs engagement, good will, and love in order to be able to do community work because it's not an easy task. If you don't like it, if you don't enjoy your work, when people understand only with difficulties, if you don't be patient with them, you will never have a positive result, and you will fail. In order to succeed, you need to enjoy what you are doing." (MCH supervisor)

Community development and behavior change. The focus groups revealed that the contributions they made with their work to the communities and to individual behavior change were substantial motivating factors for the staff. In addition, this source of motivation provides us with a sense of the commitment of the health staff to the well-being of the communities that they are involved with, and is a very positive sign for the program. The following quotes from

the data illustrate some of the ways in which the contribution of community development and behavior change to job motivation were expressed:

- "Our motivation is the community development." (*colvol*)
- "When we see that malnutrition rates decrease, then this is extremely motivating for us to do our work." (*colvol*)
- "Help the people in my community changing their behaviors, their mentality, this is my motivation." (health agent)
- "We like our community and it is our task to develop it." (health agent)
- "The children are the future of the community and it's for them that we work." (health agent)
- "The fact that I start observing changes in the behavior of people is a motivation source for me." (MCH supervisor)

Professional status. In the focus group discussions with health agents and MCH supervisors, professional status was revealed as another factor for job motivation. The health agents specifically voiced that their own conscience and their commitment motivated them to be correct and honest in their work. Below are some examples of the ways this theme was expressed:

- "It's my professional conscience that motivates me." (health agent)
- "What motivates me are my will and my conscience. My conscience tells me that one should not lie to people, that one should not give false information. If I give an appointment, I must be the first to respect it." (health agent)

Training. This theme appeared as a motivating factor in the discussions with the two *colvols*' focus groups. The following quotes illustrate the ways in which the contribution of the received training to job motivation was voiced:

- "It is the training that we have received that motivates us." (*colvol*)
- "The fact that we have received training motivates us to do our job in order to achieve a behavior change of the people in the community." (*colvol*)

These and other statements, quoted earlier in this section, convey high levels of work motivation of health staff, primarily derived from their desire to help others, their sense of making a difference through their work, and their enjoyment of the job.

Perceived value of the program. A final theme that also should be highlighted relates to the perceptions of the health staff concerning the value of the program for the community. Some of the views about the benefits of the program for the communities describe the satisfaction that the health staff got from seeing behavior change in their communities as well as improvement in

malnourished children. The following excerpts from focus group discussions provide illustrations of their views that their work and the program are worthwhile and beneficial for participants and the community:

- "These past years, we were sad seeing certain mothers who had behind them malnourished children. Today, we can't say any longer that this is the case; I only can love the work I do because we played an important role in these changes." (*colvol*)

- "Given the responsibilities we have now in the program, we can say that a lot of efforts are undertaken; there are changes in the community compared to how things were before; one step forward has been made. That gives us energy; it motivates and stimulates us to do the work because we feel that it is not for nothing that we work; we will be able to find the expected results. I am investing myself voluntarily, given my observations because before, more precisely in January when I just had started with the program, I felt an enormous need of the people. Now I see changes; I understand that the work I do is not for nothing; I am satisfied even if it is not at 100 percent, because I feel that things move." (MCH supervisor)

- "When the program makes one step, I have to do two, because when I arrived in my area, I realized that the mothers [in the program] didn't want to do exclusive breastfeeding; today, these mothers are encouraging other mothers in practicing exclusive breastfeeding. They compliment us because their children don't get sick any more. In one word, the program has done a lot and I am happy and proud because thanks to our work in the communities, one can feel a huge engagement of the mothers to exclusive breastfeeding. In one word, the program works well." (MCH supervisor)

The significance of these views should not be underestimated. It has been shown in another context that when first-level workers perceive the program they are working for to be of value in their communities, they are more highly motivated and gain more satisfaction from their work (Dickin 2003).

6.5 Constraints to job satisfaction

The picture we draw of the WV staff based on the operations research data presented in the two previous sections is the following: the staff in general, and especially the health staff, are well motivated, have a positive attitude toward the program, and take their responsibilities seriously. However, the research also identified some features that have negative influences on general satisfaction, and in this section of the report we will outline these findings.

In the transcripts of discussions with *colvols* and MCH supervisors, a theme of occasional feelings of discouragement and dissatisfaction appeared. The following statements are examples:

- "Sometimes I feel discouraged; I don't find any more the power to do the work. From the moment you work for WV, it is inevitable that a moment comes when you want to leave. You do the work with passion, but sometimes it is just too much." (MCH supervisor)

- "When you do work that you are not supposed to do, and you then realize that no effort is made to facilitate your tasks, this is frustrating." (*colvol*)

- "When we started with the work, our supervisors gave us the guarantee that work conditions will change, that things will become much easier; so far, nothing has happened." (*colvol*)

- "We work at least as much as the health agents; why do they always benefit when there is a little improvement." (*colvol*)

The themes we identified that led to this type of discouragement or dissatisfaction can be characterized under six headings: (1) lack of respect from supervisors and higher management levels; (2) low salaries and problems with payment arrangements; (3) lack of transport and supplies to facilitate their work; (4) responsibility for too many activities; (5) weak planning and coordination between the different levels in the program; and (6) problems due to poor roads and transport. In Table 6.3, an X indicates that the theme was present in the focus group transcripts. Another theme related to discouragement appeared only in the discussions with the MCH and commodity supervisors and higher management level staff. These are concerned issues of administration and the constraints to planning that administrative problems presented.

Table 6.3. Themes with respect of external constraints to satisfaction

Focus groups:	**Themes**					
	Lack of respect	Low salary and problems with payment arrangements	Lack of transport/ supplies	Too many activities/ workload	Weak planning and coordination	Roads and transport problems
Colvols	X	X	X	X	X	
Colvols	X	X	X	X		
Health agents	X	X	X	X	X	
Health agents	X	X	X			
MCH supervisors			X	X		
Food monitors						X
Commodity supervisors			X			X

Lack of respect. In the discussions in both health agents' and *colvols'* focus groups, it emerged that the staff often felt that they were not respected by the WV management, including supervisors. This theme was voiced especially in one of the *colvols*' focus group discussions and one of the health agents' focus groups. The feeling that they were not adequately respected even led to occasional thoughts about leaving their jobs. The following statements illustrate the ways in which the health agents and *colvols* expressed their frustrations related to respect:

- "Each time a *colvol* leaves the program, you ask yourself why you don't do the same, since you are not considered." (*colvol*)

- "Lack of respect—the other day we had to go to Hinche and the office had sent a dirty car to pick us up, and we had to sit on the ground." (*colvol*)

- "When we consider the way we are treated, as WV employees this upsets us. For instance, when a WV employee passes in a WV car, finds us on his way and does not take us, then this is really frustrating." (health agent)

- "We like our work and this is true, but when we consider the way we are treated, it is frustrating. Educating people is an enormous work; nevertheless, we are considered less important than employees at higher levels." (health agent)

Low salary and problems with payment. Adequate compensation for work done is a key component of job satisfaction, and as shown in Table 6.3, the theme of low salary and problems with payment appeared in all the transcripts of sessions with health agents and *colvols*. Overall, it appears that this group of staff, in particular, feels under-compensated for their efforts. In addition to the low salary, however, a lack of timeliness in payments was also an issue that emerged as a source of dissatisfaction among these staff members. Some examples of their frustrations related to their salaries are provided below:

- "The salary is too low. I have a family with 3 children and I don't manage to fulfill all my responsibilities; that's my biggest problem." (*colvol*)

- "There is no fixed day for the payment of our salary, but we have the dates of all activities in our agenda." (*colvol*)

- "My problem is that I was working in the commercial sector and things were not too difficult economically; since I am working as *colvol*, I don't manage any longer to satisfy the needs of my family; the amount that we receive as salary is clearly way below our expenditures and the worst is that we are not paid in a timely manner. There can be differences up to 15 days in the payment dates and sometimes even one month. Sometimes I feel very discouraged; I even consider to quit the work." (*colvol*)

- "When I see that I have to pay about $40 in order to come and pick up the small salary, then this is hard. There will be only $100 left; you can't do anything with this amount." (*colvol*)

- "The work increases from day to day, but the salary is not adjusted accordingly." (health agent)

- "The work takes all our time and we are nearly not paid for it." (health agent)

- "When you work for an organization and you don't have a contract, this is like you were not working, because you never know exactly for how long you are going to be there." (health agent)

Lack of transport and supplies. The theme of problems with transportation and facilities emerged in six of the seven focus groups. Only food monitors did not express this concern.

Health agents and *colvols* mentioned the transport problem, especially in relation to the distances between the areas they were covering, the organization of RPs when they need to pick up vaccines at the WV office or at a dispensary before starting the RP, and the home visits in remote areas. The MCH and commodity supervisors expressed their concerns about the limited number of cars available that constrained their supervision activities. Below are some examples of ways the transport constraints were described:

- "The problem that bothers us most is when you have to organize a RP in a very remote area compared to the area where you live and you have to walk the whole day with the thermos on your back before you arrive. It is indispensable to have transport facility (mule)." (*colvol*)

- "We don't have transport facilities and the areas are very distant from each other; it happens that we leave our house at 5:00 a.m. and come back late in the evening." (health agent)

- "Our major problem is the lack of transport facilities. We have three cars and sometimes all three break down the same day, which paralyses all activities that day." (MCH supervisor)

- "There are also logistical problems. You want to supervise a food monitor and you have to go in the same car with him to the distribution point; you can't find a car and you are supposed to be at all the distribution points." (Commodity supervisor)

In the discussions with the members of the health and commodity teams, the problem of supplies was also a theme. Some supplies were not available at all or in insufficient amounts. The supplies that were mentioned as insufficient in amount included: ice for conservation of vaccines, health cards, vaccines, scales, material for pre- and post-natal consultations, and electricity. Supplies that were identified as not available at all were bags for documents, raincoats, megaphones, and communication equipment for the cars.

Workload. Another theme related to constraints to satisfaction was workload. As described above in Section 6.3, high workload, in and of itself, was not necessarily viewed negatively. However, ways in which workload had negative effects also emerged in the analysis of the transcripts. Health agents and MCH supervisors complained about being responsible for too many areas and too many activities. The MCH supervisors were concerned that their supervision responsibilities with health agents and *colvols* was suffering because of their many other activities, particularly for mobile clinics and pre- and post-natal consultations.

The negative sentiments related to staff workload can be characterized as discouragement due to the increased workload, mainly because the increase left no time for personal activities. Initially, *colvols* as community volunteers were only supposed to help the program for 15 working days per month. They were compensated with a small remuneration for these services, attaining 30 percent of the salary of a health agent. Typically, they had other income-generating activities during the remaining days of the months. The following statements testify to their

view that they are currently working full-time for the program and no longer see themselves as volunteers:

- "Now we sacrifice all our time to the work; we don't have time any longer for our families, our agricultural activities, and our animals. Because of that, we suffer a lot; this is true for several people. We only have the Saturday for us, Sunday is for God." (*colvol*)

- "Last year, *colvols* were asked to be available only for 12 working days per month. I attended MCs meetings but just to listen; now, it is rare that I have one day per month for my personal activities, given my full agenda. I have two communities under my responsibility; there a MCs to organize, home visits, I have four vaccination posts." (*colvol*)

- "The *colvol* works as much as the health agent; if yesterday one could talk about community volunteers, I think that today one has to change wording, given the amount of work that we have. The supervisors don't even think that we could get sick one day; even the Sunday we work sometimes. One cannot talk about volunteers today; we have too much work." (*colvol*)

Health agents also complained about less time for their own activities:

- "The work has become much harder, but also more interesting, especially with the new methods. We now have more responsibilities and less time for our own activities." (health agent)

- "Work has become so demanding that we don't find time for our personal activities." (health agent)

Planning and coordination. Problems in planning and coordination between levels in the program emerged as a theme in two focus groups. The health agents and *colvols* felt that supervisors and higher management levels were not considerate of their own planning of activities in the field, even though they routinely submitted their work calendars to their supervisors. A further problem was that the regional office often planned activities for days on which they already had a fixed agenda. They felt that there were weaknesses in program planning due to improvised meetings and frequent changes in the MCH program itself. The following examples illustrate these concerns:

- "This happened to me once. I had a meeting with the mothers in order to cook one recipe; the mothers had brought all the ingredients and in the moment we wanted to start with the cooking, the office in Hinche asked me to come. I was embarrassed and didn't know what to do. Finally, I decided to go to Hinche." (*colvol*)

- "Many say that there are always improvised meetings; this proves that there is no planning." (*colvol*)

- ❖ "We have submitted our monthly calendar to the office in Hinche, but it is not respected." (health agent)

- ❖ "We can have a MC scheduled for a certain day and the office calls in order to give us another work to do. That puts us sometimes in a difficult situation in front of the mothers; we then have to go later and apologize to the mothers about that." (health agent)

- ❖ "The program changes from day to day; it seems that even the people who designed the program don't understand what they do." (health agent)

Roads and transport problems. In contrast to other staff, the themes described above did not emerge from the interviews with food monitors. Their concerns related primarily to late arrival of food or non-availability of food at the distribution points, due to the general road and transport conditions. Their description of these supply problems was sometimes accompanied by expressions of discouragement, as in the following statement:

- ❖ "The problem that we have is a problem which does not depend on us—natural disaster and road infrastructure (rain, the state of the road); sometimes the truck can break down, stick in mud, but we always create means to solve this kind of problem. One can be ready to go to work and not be able to go there because of the bad road." (Food monitor)

6.5.1 Suggestions from staff for ways to increase support

In all of the focus groups there was discussion about what could be done to increase support and address problems they had identified. The following ideas and suggestions are presented with the source of suggestion indicated in brackets:

- ➢ *Ensure respect from World Vision management:*
  - o Official recognition of field staff as WV staff: badges, contract (health agent).
  - o More respect in general for staff in the field (*colvols*).
- ➢ *Provide adequate salaries and payment arrangements:* Higher salaries paid on time (health agents, *colvols*).
- ➢ *Provide transport facilities and supplies:*
  - o Provision of transport facilities: mule, bicycle (health agents and *colvols*); motorbikes, cars (MCH supervisors); trucks (food monitors).
  - o Provision of supplies: bags, megaphones, raincoats, communication equipment, refrigerator for vaccines, scales, tensiometer, thermos, etc. (health agents, *colvols*, MCH supervisors, food monitors).
- ➢ *Reduce workload:* More staff (MCH supervisors).

- *Improve planning and coordination:*

  - Better coordination and information flow between different levels in the program; more respect for field calendars (health agents, MCH supervisors).

  - Good administration supporting program operations (Commodity supervisors).

- *Provide more technical support*: More supervision, exchange with other organizations implementing similar programs (MCH supervisors).

- *Provide more training and ongoing training on:*

  1. Job responsibilities: reporting (health agents, *colvols*); organization of RPs (*colvols*); organization of MC: (a) modules on infant and young child feeding (health agents, *colvols*), (b) animation style (*colvols*), and (c) elaboration of learning sessions (MCH supervisors); animation of community meetings (health agents); organization of pre- and postnatal consultations (health agents, MCH supervisors).

  2. Technical issues: nutrition (health agents, *colvols*, MCH supervisors); immunization (health agents, *colvols*); family planning (health agents, *colvols*, MCH supervisors); risk pregnancies/techniques of childbirth (MCH supervisors); HIV/AIDS (MCH supervisors); use of *Moringa olifeira* (MCH supervisors).

6.6 Supervision

The themes we identified in the interviews with health and commodity staff in relation to supervision by direct superiors were very diverse and ranged from very positive comments to a rather negative view of supervision. We classified the comments into several specific themes. The first two reflect general features of supervision: (1) the feeling that supervision is stimulating and motivating; and (2) the view that one received adequate technical guidance for problem-solving, planning, and other technical issues. Descriptions of perceived level of support were classified into (a) moderate (the feeling that one received some support from supervisors but not to the extent expected), (b) the perception that no support was forthcoming from one's direct supervisor, and (c) the view that supervision was negative. In Table 6.4, an X indicates that the specific theme or value was expressed in the transcript.

Motivating supervision: In all seven focus groups, some of the discussants voiced the view that supervision and the supervisors' attitude were stimulating and motivating for them to take their work more serious and thus, to do a better job. In addition, the health agents and *colvols* expressed the feeling that their work was valued when they received supervision visits. Another aspect was the effect that supervision visits had on the beneficiaries. Health agents and *colvols* mentioned that supervision encouraged the participating mothers and noted that this resulted in a higher participation in the program activities. The following statements

Table 6.4. Themes with respect to supervision

Focus groups:	Themes				
	Motivating	Adequate technical guidance	Moderate support	Non-support	Demoralizing
Colvols	X	X		X	
Colvols	X	X	X	X	X
Health agents	X	X	X		
Health agents	X	X		X	
MCH supervisors	X			X	
Food monitors	X	X			
Commodity supervisors	X	X	X	X	

illustrate the ways in which the staff perceived the stimulating and motivating character of supervision:

- "I feel safe when there is supervision; this allows me to take the work more serious; I feel more responsible. When there is no supervision, one is tempted to let oneself go and to look for easy ways, but if there is supervision, one feels more motivated." (*colvol*)

- "Our work is valued; the supervisors come to the field to visit us; they don't stay in their offices. That makes work important." (*colvol*)

- "The supervision does not only motivate us; it also motivates the mothers, because they understand that what we do is not an isolated effort, but that there is a whole organization behind our efforts to work for a better community." (*colvol*)

- "The supervision allows us to make more efforts; the supervision motivates us. When there is supervision, in case of a mistake, one knows it immediately and can correct it." (health agent)

- "The way in which one makes the supervision is very good; one respects the principles. The supervision is like a serum." (health agent)

- "The supervision is always a good thing, because it motivates us to do a better job." (health agent)

- "The supervisors act with us like brothers." (health agent)

- "If I know that I will be supervised, I will prepare myself consequently." (MCH supervisor)

- "For our part the supervision is very good; we feel at ease when one comes to supervise us." (food monitor)

- "Without puffing ourselves up, we feel good with the methodology applied for the supervision." (Commodity supervisor)

Adequate technical guidance. Discussants in all groups except for the MCH supervisors brought up the value of the technical support features of supervision. Health agents and *colvols* expressed the view that the feedback provided during supervision helped them to improve their performance. The staff expressed their appreciation for such supervisory support as helping them when they forgot something in the education sessions, help in planning their work, spending enough time with them, organizing meetings for all staff if they felt that a problem experienced by one person was relevant to the whole group, etc. Below are quotes from the data that reflect the ways in which this theme was expressed:

- "Yes, I find enough support. Sometimes, one can forget something and then the supervisor helps us; I think that this is a good thing." (*colvol*)

- "Yes, I receive support of the supervisor when I have a problem, because at each time I am visited by the supervisor, he stays always very long with me in order to give me advice in case I would have done a mistake." (*colvol*)

- "Yes, we receive support when we need to plan. When we need to plan, we contact our supervisor, and together we do the planning." (*colvol*)

- "We receive support for the technical advice because when we receive the visit of a supervisor, this one asks us a lot of questions and if we did not know some of the things, the supervisor explains them to us." (health agent)

- "I feel always at ease when there is supervision because it helps me to make progress in my work." (health agent)

- "When there is supervision, we receive feedback on our mistakes." (health agent)

- "When we are facing difficulties, the supervisor can organize individual meetings or group meetings if these concern the whole group; in these meetings one finds useful advice being able to help us to accomplish our tasks, because one expects from us an effective work; as soon as one needs an advice, one obtains it." (food monitor)

- "Concerning the support when one needs to plan or needs technical advice, we find enough of it, even from the more senior food monitors. The support is not only provided by supervisors, but also by mentor food monitors." (food monitor)

- "Yes, when we have problems, we receive enough support. For instance, I was at a food distribution in Saltadere and I suddenly saw a car with my supervisor in it. As the beneficiaries were not in order, the supervisor came and helped me to arrange them carefully. I had difficulties to start with the distribution but with his arrival, everything was solved." (food monitor)

- "I can say that in 99 percent of the cases, we find all support expected; sometimes he [the supervisor] receives us even at his house." (Commodity supervisor)

- "The supervisor is a guide, a compass. I can also say that the supervisors are here to give us technical guidance, to correct what is not correct. The supervisor knows our weaknesses; he knows also our strengths. Although we function as friends, we respect the hierarchy." (Commodity supervisor)

Moderate support. Some statements were less positive about the support received from supervisors. These statements indicated that individuals felt they were receiving some support but not always when they needed it most. However, there was also recognition of circumstances that interfered with the ability of supervisors to provide the level of support that individuals desired:

- "One has to say that it is not always possible to have the support from the supervisor when one needs to plan, despite of the goodwill of this last because one can want to prepare a learning session for a MC meeting and one solicits the assistance of the supervisor, this one can give us an appointment for one day and this day coincides with another planning." (*colvol*)

- "No, sometimes we pose the problem ourselves; we do not always find the support when we need it most, but one has to recognize that sometimes we do find it." (*colvol*)

- "We receive support from supervision; we do not say much, but, nevertheless, we receive some." (health agent)

- "The supervisor is limited, he has not the final decision. Example: The supervisor can allocate transport facilities to each Commodity supervisor, but we have only three cars, he cannot satisfy everyone." (Commodity supervisor)

Nonsupport and demoralizing supervision. A positive appreciation of supervisory support is implicit the preceding comments. In contrast, some of the comments clearly had a negative dimension. This dimension was described as lack of support in case of problems, when staff needed to plan, needed technical advice or wanted to have constructive feedback on their performance. In one of the two *colvols'* focus groups frustration was expressed about the supervisor's behavior, and supervision was described as demoralizing. The following examples are illustrative:

- "When one is sick one cannot say that one finds enough support because there are times, as sick as one can be it is necessary to go to work." (colvol)

- "According to me, when a supervisor does a supervision visit, then this is in the intention to demolish us, for only criticizing and degrading us, but not to correct our mistakes." (colvol)

- "No, we do not find any support from the supervisors when we need to plan. If we do not find any support when we need to plan, one should not even speak about technical advice. We do not find any support when we need technical advice." (health agent)

- ❖ "I do not feel at ease because since I am working in the field I cannot remember having received the visit of a supervisor who would have given me feedback, which would have enabled me to know in what I have to improve." (MCH supervisor)

- ❖ "I feel that there is a deficit at the level of supervision." (MCH supervisor)

- ❖ "I am with WV since 1 year and 6 months, I received supervision visits when I was working in the ADP, but since I am with the MCH program, I never received any supervision." (MCH supervisor)

- ❖ "I never receive any support. Even if I receive a supervision visit, I never receive any feedback. By lack of time, even when one needs technical support one does not find it." (MCH supervisor)

6.6.1 Suggestions from staff on ways to improve supervision

In all seven focus groups a number of suggestions were made about how to improve supervision. Their suggestions are listed below. The focus groups in which the suggestion was present are indicated in brackets:

- ➢ *Improve technical support*:
  (a) initiate monthly planning together with supervisor (health agents, *colvols*),
  (b) initiative planning and preparation of MC activities as joint or collaborative effort with supervisor or with other health agents (health agents, *colvols*), (c) designate a permanent person assigned to give advice in their working areas (health agents, *colvols*), (d) institute on-going, recurrent training activities (health agents, MCH supervisors, food monitors, Commodity supervisors);

- ➢ *Strengthen coordination and collaboration between different levels in the program*:
  (a) institute more dialogue and joint planning among *colvols*, health agents, and supervisors (*colvols*, health agents), (b) create an atmosphere of respect for planning (health agents, MCH supervisors), (c) assign two days in monthly calendars for unforeseen activities (health agents), (d) initiate regular meetings of the health team (MCH supervisors);

- ➢ *Increase administrative support and logistics:*
  (a) insure that fuel is provided in a timely fashion (Commodity supervisors),
  (b) provide laptop computers for report writing (Commodity supervisors), (c) obtain more trucks/cars for the program (food monitors, Commodity supervisors);

- ➢ *Reduce workload that interferes with supervision or establish a special team that is dedicated exclusively to supervision* (MCH supervisors).

6.7 Coordination between the health and food components of the program

In the discussions with the health and commodity staff, issues of coordination and collaboration were raised. A number of statements emphasized the need for the two teams to

work together for the well-being of the beneficiaries. The addition of the food component was particularly singled out as a development that was positive for the beneficiaries and had the additional effect of encouraging participation in other program components. Both health and commodity staff pointed out that the health and the food components of the program were complementary. Some members of the commodity staff felt that there was perfect collaboration between the two groups. However, this sentiment was not echoed by the health staff, who felt that the coordination between the two groups was, in fact, quite poor.

Below are a few examples of the ways these views were expressed:

- "It is necessary to work together for the wellbeing of the beneficiaries." (*colvol)*
- "It is necessary for the two teams to work in close collaboration because they are complementary." (health agent)
- "I find that it [food distribution] is a good thing, because when there was no food program people were less interested." (health agent)
- "The [food] monitors need to know that they have to work in collaboration with us." (health agent)
- "There is a lack of collaboration between the two groups." (health agent)
- "MCH cannot do the work without acting in concert with Commodity." (MCH supervisor)
- "There is no coordination between the [food] monitors and the health agents, between the monitors and the beneficiaries." (MCH supervisor)
- "Everything is good, I think that one [team] cannot work without the other, it is as if one asks me which part in my body is the best?" (food monitor)
- "These two components go together, one supplements the other." (Commodity supervisor)
- "The work is based on both teams, without the health team, the commodity team cannot make any progress, one cannot function without the other. We could consider WV as a tree, and we (Commodity and MCH) are the branches." (Commodity supervisor)
- "I think that we are in perfect collaboration, because we find our objective in MCH." (Commodity supervisor)

The more specific themes we identified in the interviews concerned both positive aspects of the coordination and those negative aspects that, in fact, constrained good coordination. We categorized the positive statements into three groups: (1) the value of exchange of ideas, (2) joint preparation of the food distribution, and (3) joint transportation of staff. The themes representing aspects of the coordination that were seen as negatively affecting the program were:

(1) insufficient communication and dialogue between the two teams, and (2) insufficient collaboration in preparing the food distribution and during the distribution process. Finally, an overarching theme that emerged in all interviews with health staff in relation to their work with the commodity staff related to a perceived lack of respect from the food team for the health staff and also for the beneficiaries. In Table 6.5, an X indicates in which focus group transcripts each of these themes was present.

Table 6.5. Themes related to coordination and interactions between health and food staff

Focus groups:	**Themes**					
	Positive aspects of the coordination			Constraints to good coordination		
	Exchange of ideas	Joint preparation of food distribution	Joint transport	Insufficient communication/ dialogue	Insufficient collaboration in distribution preparation and process	Lack of respect
Colvols				X		X
Colvols			X			X
Health agents	X				X	X
Health agents		X				X
MCH supervisors		X	X	X		X
Food monitors					X	
Commodity supervisors					X	

Positive aspects of coordination. Expressions of positive themes related to coordination were exclusively voiced by members of the health team. The members of the food team did not note any specific positive aspects of the coordination. Health agents expressed the view that the exchange of ideas between the health and the food team was positive for the program. Members of two focus groups (health agents and MCH supervisors) mentioned collaboration in preparing the beneficiary lists for the food distribution and the joint planning of the distribution dates as positive points of the coordination. In addition, *colvols* and MCH supervisors noted collaboration between the two teams in helping each other out with transportation. The following statements illustrate the ways the health staff expressed positive aspects of the coordination between the health and food team:

- "What is good for the program is the exchange of ideas that exists sometimes between the MCH and commodity staff." (health agent)
- "The fact that it is MCH which prepare the lists and which Commodity is obliged to respect." (health agent)
- "The fact that MCH and Commodity sit together to prepare the [distribution] calendars." (MCH supervisor)
- "There is an improvement in coordination because now we can sit down with the people of Commodity to plan the [distribution] calendars." (MCH supervisor)

- "The collaboration that exists between the Commodity and MCH staff is for example if one must go somewhere, the [food] monitors can transport us to this place and bring us back later." (*colvol*)

- "When there is a transport problem, one or the other [team] is always ready to help." (MCH supervisor)

Negative aspects of coordination. In all seven focus groups, at least one of the specific negative themes concerning coordination surfaced during the discussion. *Colvols* and MCH supervisors expressed views that a lack in communication and dialogue between the two teams had negative effects on the program. Health agents and commodity staff both mentioned insufficient collaboration during preparation for the food distribution and during the distribution process as a problem. Health agents were concerned that there was insufficient collaboration in planning the distribution dates. Commodity staff suggested that the health team often did not prepare the beneficiary cards correctly, i.e., that they sometimes did not indicate the entry and exit dates of beneficiaries on the cards, which is a mandatory prerequisite for receiving the food ration. Other issues mentioned by the members of the commodity team in relation to insufficient collaboration during the food distribution concerned absent beneficiaries, which sometimes meant that the commodity team had to return large food quantities to the warehouse at the end of a distribution day, and lack of understanding from the health staff when beneficiaries arrived late at the distribution site, after the distribution is finished, and did not receive their ration. Below are some examples of the ways in which these themes were expressed:

- "There is no communication in this coordination, there should be a meeting between the two groups so that they get to know each other better, one should know the other, if the person does not know us, she/he can say anything to us, it is a business of big chief and small chief, and I know that the small chiefs work in the same way than the big chiefs." (*colvol*)

- "There is no communication between MCH and Commodity." (MCH supervisor)

- "I don't feel that there is enough collaboration, the [food] monitors don't ask us when they are in the field and when they need an advice and when we are there." (MCH supervisor)

- "Commodity does not sit together with MCH for the planning of the distribution dates." (health agent)

- "I have a doubt, I have the impression that these two groups do not get along too much, like if there was no coordination. For example, we have an appointment for the food distribution each second Tuesday of a month, everyone met and waited for the arrival of the food—in vain—it is only the following morning while I was organizing a RP, without informing us, the monitors arrive in order to distribute the food without even explaining us why they did not come the day before; the beneficiaries were very unhappy." (health agent)

- "It is when a beneficiary should receive his ration, and then, on her/his [beneficiary] card neither the entry nor the exit dates are marked." (food monitor)

- "It is also when a smaller number [of beneficiaries] was served than what was planned, and one has to return with an important food quantity." (food monitor)

- "Administrative problems, the information on the [beneficiary] cards are incomplete (entry date, exit date), cases of absence." (Commodity supervisor)

- "Sometimes, one can finish with the report, be in the process of packing everything together when a person of the health staff comes with a beneficiary and asks to serve this person, if one refuses, both call you a black animal." (Commodity supervisor)

Lack of respect. A key theme that that emerged in the discussions with the health team concerned lack of respect. In contrast to Section 6.5, where lack of respect from the WV management side was described, lack of respect in this section refers to the food team and specifically to the food monitors. It should be noted that this theme was apparent in all the focus group interviews, and was discussed at some length by the health staff, suggesting that it is, in fact, a substantial source of distress. Some members of the health team openly expressed their feelings related to the food monitors' behavior and the lack of respect they exhibited in their treatment of health agents and *colvols*. In addition, health agents suggested that the food team did not handle foods hygienically, which they saw as a sign of lack of respect for the beneficiaries. The following statements illustrate these sentiments:

- "The *colvols* are there to serve the beneficiaries, and it is similar for the food monitors. However, the monitors consider the *colvols* like dogs." (*colvol*)

- "No respect, we do not help the [food] monitors with unloading the food nor with arranging the food because we feel that there is no respect. They are not all the same, some are nice." (*colvol*)

- "There is sometimes a lack of respect from certain [food] monitors for health agents and colvols, certain monitors believe that they are lords." (*colvol*)

- "The [food] monitors are gangsters, people who simply do a 'job' in order to make money." (health agent)

- "People of Commodity behave like chiefs in front of the MCH people." (health agent)

- "Nowadays, the [food] monitors show slightly more respect for the health agents than in former times." (health agent)

- "The way they [the food monitors] do the distribution, they put their hands in the flour when distributing it, this is a health program, there needs to be a little bit more hygiene." (health agent)

- "If one takes into account the way people of Commodity behave, one would not be there, because they do not have any consideration for the beneficiaries. They deposit the food on very dirty covers. In addition, we know the beneficiaries

better than they do, if there is a beneficiary who forgets her card, it is completely normal that one presents oneself to explain to them that the latter meets the requirements and that she only has forgotten her card, but that she can receive her ration; they always think that we do all this so that we can share the food with the beneficiary." (health agent)

- ❖ "The [food] monitors behave very badly towards the health agents." (MCH supervisor)

6.7.1 Suggestions for improving coordination between the health and food components of the program

In all seven focus groups, a number of suggestions were made on how to alleviate the constraints for good coordination between the health and the food team. These suggestions are listed below. The focus groups in which the suggestion was present are indicated in brackets:

- *Increase dialogue between the two teams*:
  (a) schedule regular meetings between the two teams (health agents); (b) hold meetings/workshops on activities, roles, and responsibilities to acquaint members of each team with the work of the other component (health agents, MCH supervisors, food monitors, Commodity supervisors); (c) hold meetings between the two teams after each food distribution (Commodity supervisor), (d) communicate the information on the quantity of food that is planned for each area in advance of the distribution (health agents); (e) institute joint planning sessions (health agents, food monitors); (f) establish a system of verification of the distribution lists by food monitors, *colvols*, and health agents on site before distribution starts (*colvols*);

- *Encourage the two teams to make greater efforts to collaborate and appreciate their complementarity* (*colvols*, health agents, MCH supervisors, food monitors);

- *Establish a method for the food monitors to meet the beneficiaries more than once a month* (MCH supervisors);

- *Improve the organization of food distribution*:
  (a) establish separate distribution points for beneficiaries of different communities (health agents, *colvols*), (b) construct small warehouses closer to the distribution sites (health agents), (c) start distribution earlier in the morning (health agents), (d) provide the two direct rations for one household at the same time to avoid long waiting times for certain beneficiaries (health agents), (e) request help of the community for the unloading of trucks (Commodity supervisors), (f) increase motivation of beneficiaries in order to minimize absent cases (Commodity supervisor), (g) harmonize the distribution procedures between different WV intervention areas (Commodity supervisor);

- *Encourage the teams to place program interests above the interests of their own respective units* (MCH supervisor);

- *Support the development of greater respect between the two teams*:
  (a) encourage greater respect on the part of the food monitors for health agents and *colvols* (*colvols,* health agents), (b) institute training in adult learning for food monitors with a focus on respect (*colvols,* MCH supervisors), (c) create badges for the health team (*colvols*, health agents).

6.8 Summary of issues related to program organization and management

This section summarizes the findings with respect to organization and management of the program.

Staff perceptions related to their responsibilities. A paramount finding of the operations research on program organization and management is that, at all levels, staff feel that they are engaged in important activities that are leading to improvement in the lives of the people the program serves. They believe that their jobs entail serious responsibilities, and they express confidence in their preparation and ability to meet these responsibilities.

Motivation and perceived value of the program. The conviction that they are contributing to the development of the communities in which they work, and facilitating behavior change in individuals and families, are important sources of motivation. Many also find the work itself enjoyable. The acquisition of professional status and the value of training are also highlighted by community-level staff as a source of job satisfaction and a factor in the development of their capacities to carry out their jobs. Some of the respondents contrasted the current training orientation with their previous experiences, emphasizing not only the new technical knowledge they have acquired, but also that they have developed improved modes of interacting with their clients (e.g., using adult learning principles in the design of their education activities).

At every level of the program delivery system, staff called attention to expansion in their workloads. Various perspectives were expressed concerning the significance of this fact. While some felt it to be a source of discouragement, this was not universally the case. One consequence is that expanded work time puts greater pressure on the availability and management of time for other personal obligations (e.g., in agriculture and other domestic activities). For community volunteers (*colvols*), a significant source of tension vis-à-vis health agents is that they see themselves as working as hard as the agents without appropriate financial compensation.

Constraints to job satisfaction. The operations research identified five issues that negatively affect the satisfaction people experience in their jobs. For health agents and community volunteers (*colvols*), these are: (1) lack of respect from supervisors and higher management levels; (2) low salaries and problems with payment arrangements; (3) lack of transport and supplies to facilitate their work; (4) responsibility for too many activities; and (5) weak planning and coordination between the different levels in the program. MCH supervisors expressed concern only about lack of transport and supplies to facilitate their work and responsibility for too many activities. Commodity supervisors noted only lack of transport and supplies to facilitate their work as a problem that affects their job satisfaction.

Supervision. At each level, staff were asked to reflect on their relationships with their direct supervisors. At every level, from *colvols* to supervisors, positive comments on supervision reflected two general features: (1) the feeling that supervision is stimulating and motivating; and (2) the view that they received adequate technical guidance for problem-solving, planning, and other technical issues. The value of technical guidance and appreciation for it was articulated in all the focus groups, with the exception of the MCH supervisors, where this perception was not brought up in discussion. On the other hand, some concerns were expressed about how supportive supervisors were. At the opposite extreme from "stimulating and motivating" was the view that supervision was demoralizing (expressed in one of the *colvol* focus group discussions). "Moderate support" and "nonsupport," intermediate positions on this dimension, were also expressed.

Coordination between health and commodity sectors. With respect to coordination between the health and commodity sectors, positive features of the relationship noted by respondents emphasized the value of exchange of ideas, and the fact that there is joint preparation of the food distribution, and joint transportation of staff. The themes representing aspects of the coordination that were seen as negatively affecting the program were: (1) insufficient communication and dialogue between the two teams, (2) insufficient collaboration in preparing the food distribution and during the distribution process, and (3) lack of respect from the food team for the health staff and also for the beneficiaries.

Staff suggestions to improve program support and supervision. In all of the focus groups, respondents were asked to provide their ideas about how to increase support and address problems. Section 6.5.1 (above) lists a variety of suggestions, ranging from providing field staff with WV badges and transportation facilities to more training on job responsibilities and technical health and nutrition issues.

In all of the focus groups, a number of suggestions were made about how to improve supervision. As detailed in Section 6.6.1 (above), suggestions covered a range of matters under the general topics of: (1) improving technical support, (2) strengthening coordination and collaboration between different levels in the program, (3) improving logistics and administrative support, and (4) shifting workloads to provide increased opportunities for supervision.

Finally, in all seven focus groups, a number of suggestions were made about how to alleviate the constraints for good coordination between the health and the food team. As detailed in Section 6.7.1 (above), these range from activities to increase dialogue and collaboration between the two teams to suggestions about how to improve mutual understanding and respect.

7. FEEDBACK TO PROGRAM MANAGEMENT AND PLAN OF ACTION DEVELOPED BY WORLD VISION TO IMPROVE SELECTED ASPECTS OF PROGRAM OPERATIONS AND SERVICE DELIVERY

The results of this first round of operations research were presented by the IFPRI-CU team in Haiti in February 2004. The general presentation of the results to PVOs and USAID staff was followed by a 1.5 day meeting of the IFPRI-CU team and the WV-Haiti management staff. The main objectives of the meeting were:

1. To review and discuss the findings of the operations research;

2. To discuss the constraints to implementation that were identified in our assessment and to identify potential solutions to address these constraints and to strengthen program operations and quality of service delivery;

3. To prioritize the constraints to be addressed and the potential solutions to be implemented, and to develop an "action plan" for implementing the selected actions to strengthen the program.

A matrix was used to guide the discussions and to facilitate prioritization of the constraints to be addressed by the program in the short term (see Table 7.1). The matrix consists of five columns; starting from the left-hand side, the first two columns list the operational constraints identified at the different service delivery points and for different activities; the next column lists the potential solutions identified by the management staff present at the meeting to address the different constraints; the fourth column summarizes discussions regarding the feasibility of adopting the proposed solution(s) in the short-term; and the fifth column provides an assessment of the potential impact of addressing the different constraints identified on program operations as well as on the overall impact of the program on its targeted beneficiaries.

The matrix summarizes the process utilized by the IFPRI-CU-WV team to review and prioritize potential solutions to the constraints identified and to develop an action plan to implement future corrective actions. The three criteria used for the prioritization of constraints to be addressed were the following: (1) the possibility of identifying a solution (corrective measure) that was within the scope of current program activities; (2) the feasibility of implementing these corrective measures, given the program's current financial and human resources; and (3) the estimated impact of implementing these corrective measures to strengthen a particular aspect of program operations on the overall program's effectiveness and impact. This latter criterion is important because it may be that for some aspects of the program, very simple and low-cost solutions exist, which if implemented could have a major impact on operations and on the effectiveness of the program. By contrast, efforts to improve other aspects may not warrant the level of investment necessary to implement corrective actions because their overall potential to improve the programs' effectiveness is small. These aspects were carefully gauged in the discussions held in Haiti.

A summary of agreements on the corrective actions to be implemented by the program at the different delivery points is provided below and summarized in Table 7.1.

7.1 At the Rally Posts

The logistical constraints related to crowding, high participant/staff ratio, and time involvement for both staff and participants at the RPs were discussed in length, but few solutions were identified to solve these problems in the short term. Given that the program is already perceived as having a large number of health agents and *colvols*, it was not considered feasible to increase the number of staff at this time. It was also considered inappropriate to recommend a major effort to split existing RPs into smaller ones, because the staff is already stretched to their maximum, with health agents being responsible for up to nine RPs per month. It was agreed, however, that the management would continue to examine the situation on a case-by-case basis and that RPs that are clearly unmanageably large would be re-examined and split if deemed possible.

A suggestion was made by some of the health agents interviewed during the operations research to improve the training of *colvols* in order to increase the support they provide to the program. The management staff indicated that this measure had already been implemented and that *colvols* were now being included in all field staff training. The *colvols* had also recently been "promoted" and their salary was raised from 30 percent of the health agents' salary to 50 percent. This change was accompanied by a change in title, whereby the *colvols* are now referred to as "agents promoteurs de santé," or health promoter agents.

It was suggested that improving the venue of the RPs with some basic furniture, such as chairs, benches, and tables, could facilitate the logistics and organization of the RPs. The management staff agreed to follow up on this aspect and felt that it was feasible to mobilize community resources to improve the venue of the RPs.

Finally, the group revisited the program's proposed sequence of activities at the RPs, which, according to our operations research, was not particularly effective in preventing bottlenecks at registration and long waiting times for participants. The group agreed on a revised sequence of activities to be tested and implemented if effective (see Table S2, second row, third column, for the new sequence). The main changes in the proposed sequence of activities included: (1) giving a number to each participant as they arrive at the RP, (2) weighing the children before they are registered, (3) evaluating the nutritional status and individual counseling of the mother along with registration rather than with weighing, and (4) providing the deworming, vitamin A, and ORS tablets as the last activity for participants (along with immunization), rather than providing these at the time of registration.

It is hoped that these relatively simple modifications in the RP operations will help improve the flow of participants through the different activities, and reduce the time burden for both health staff and participants, making the RP generally more efficient and pleasant. Avoiding bottlenecks may also help improve the quality of services if it allows the health staff to dedicate slightly more time to each participant and if the overall environment is less crowded.

Education. The group agreed that it was worth pursuing efforts to increase the coverage of the education sessions by offering more than one education session at the RPs. It was felt that this could easily be achieved by ensuring that supervisors reinforce the importance of providing additional education sessions to accommodate late arriving participants. There was a general

consensus, however, that the RPs were not the most suitable venue for effective education, given the generally crowded, busy, and noisy environment and the number of activities taking place simultaneously. It was therefore agreed that the education sessions at the RPs should be used to deliver simple messages on topics of general interest, such as hygiene, immunization, or family planning. The RPs were to be considered as a complementary opportunity to cover additional topics and to reinforce some of the messages provided at the MCs (the main venue for the education and BCC strategy). The team also agreed that supervisors needed to be more active in promoting the use of the 12-month calendar of education topics to ensure that participants were exposed to the complete set of topics planned by the program, which ultimately should help increase their general knowledge of health, nutrition, and hygiene.

Supplies. The lack of supply of vitamins, ORS, deworming tablets, and vaccines at the RPs appeared to be mostly due to a problem with the main providers (Ministry of Health, UNICEF, etc.). It was therefore considered important that the program management continues to pursue every effort to ensure constant supply of these important preventive health services, but no action was recommended for field staff, because it was considered to be outside of their control. High coverage of these preventive services is extremely important in the context of MCH programs as they are key complementary strategies to improve child growth, health, and survival, and should therefore continue to be prioritized by the program management.

Growth monitoring and promotion. Growth monitoring and promotion in the context of the WV MCH program has two main purposes: (1) to identify malnourished children in the recuperative program communities; and (2) to communicate with mothers (from both preventive and recuperative groups) about their child's nutritional status and growth and provide individual counseling. For the first purpose, it is important to minimize measurement error in order to reduce misclassification of children during the screening process. For the second purpose, i.e., to communicate with the mother, it is important that the health staff spend some time with the mother to inform her of the results of the weighing and nutritional status assessment, and to provide her with specific advice regarding her child's progress. Problems with both of these aspects were identified through our operations research and the solutions proposed at the meeting to address them are summarized below.

With respect to the measurement problems, again the group agreed that given the environment at the RPs and the equipment used to measure children, a certain level of error is to be expected. It was agreed, however, that retraining and increased supervision of the health staff will be used to reduce measurement errors and misclassification problems. One simple recommendation, which, according to the results of our operations research, could significantly reduce measurement error, is to make sure that the child's weight is recorded when the needle of the scale is stable (as opposed to when it is moving significantly). Plans to retrain and improve supervision of the plotting of children's weight on the growth card were also agreed upon.

The discussions on process of GMP and the communication with mothers led to an agreement that all mothers should be informed about the child's weight, nutritional status, progress since last weighing, and that a brief individual advice should be provided. The group was very clear about the limitations of conducting GMP in the context of the RPs, and especially with regards to the time that the health staff can allocate to individually counseling each mother about her child's growth. Given the crowded and noisy environment and the severe time

constraints faced by the health staff, it was agreed that the brief advice would consist of praising and encouraging the mother if her child is growing well. If her child was not growing well, the advice would consist primarily of a recommendation to follow up with other program activities and to adopt the recommended practices discussed at the MCs (e.g., exclusive breastfeeding, use of enriched porridges, etc.).

7.2 At the Mothers' Clubs

Implementation of the new BCC strategy in 2003 required significant reorganization of the MCs, especially in the preventive program group. This is because the strategy emphasizes the importance of the timely delivery of education messages to mothers, based on the specific age and developmental stage of their child. This approach is based on the premise that a much greater impact on behavior change is expected if the intervention reaches the beneficiaries at their best learning moment. Our findings showed that there were still some problems with the reorganization of the clubs and that some mothers were in the wrong groups relative to the age of their child, and thus likely to receive education messages that were not particularly timely and relevant. Management staff agreed that improving this aspect of the MCs was feasible, since so much had been achieved already, but that it would require strengthening supervision in the field. The management staff emphasized the need to strengthen the training of the supervisors themselves in both the rationale for the recommended structure of the clubs and how to operationalize it. It was also agreed that one modification to the current system would be made in the preventive group, which now uses two age groupings for the MCs for beneficiary children: mothers of children 6-8 months and mothers of children 9-23 months. The change recommended was to replace these two groups with the two groups that were originally planned: 6-11 months and 12-23 months. These two groups are better balanced and include children with more similar needs relative to child feeding practices. It was also agreed that the MCs with children 6-11 months would emphasize the differences in recommended practices for children 6-8 and 9-11 months of age regarding the number of meals, and the consistency and quantity of food.

Remarkable improvements in the quality of education delivered at the MCs were achieved since health staff were trained in the implementation of the new BCC strategy in 2003. The importance of effective supervision and feedback were emphasized during the meetings as being key to maintaining the quality of the intervention, and even more importantly, to maintaining the enthusiasm and motivation of the staff, and the interest of the beneficiaries.

7.3 At the Food Distribution Points

The logistical problems related to the distribution of the food, and especially the transport of food and staff to the point of distribution, and the time burden of this activity for staff and beneficiaries were discussed at length in the meeting. The commodity team is fully aware of the problems highlighted by our operations research and many of the constraints identified have already been addressed since our data were collected. The commodity staff have been actively working on improving the logistics of the food distribution, including taking measures to improve local storage facilities. Transport and other logistical problems, however, can never be fully overcome in areas such as the Central Plateau, where road conditions are so bad and the availability of fuel continues to be a major constraint. These problems are systemic to the context in which this program operates. It is worth pursuing efforts to try to improve the

situation, but flexibility and patience will always be required by staff at all levels and by the beneficiaries themselves.

Errors in the amount of food received by the beneficiaries are also difficult to avoid, but the management staff recommended that the existing supervision system be strengthened. This system consists of having the supervisors systematically verify the ration received by a subsample of beneficiaries as they leave the RP. This system is clearly worth reinforcing to minimize errors in food allocation, and consequently improve beneficiary satisfaction.

The communication difficulties that had been reported between the commodity staff and the health staff and beneficiaries, respectively, were also well understood by the management staff, who indicated that these cases had been addressed individually by the supervisors or regional coordinators on a case-by-case basis. Continued supervision will be required to maintain good communication among all staff and with the beneficiaries.

Finally, the problems of hygiene in the distribution of food commodities, which had been raised in our operations research, had also been addressed in part by the program. Plastic sheets are now being used and the suggestion to provide gloves to food handlers was perceived as feasible. An additional suggestion was to provide a small compensation to the food handlers to motivate them to do their work more carefully and more hygienically. The possibility of acquiring larger containers with a tap to distribute the oil more hygienically was also discussed. It is important to recognize that these proposed approaches to increasing hygiene in the food distribution process will require identifying the financial means to acquire the materials proposed.

7.4 Final comments

The action plan described above to address some of the operational constraints identified through our operations research relies almost entirely on a strong and effective supervision system. At the time of the meeting, the management staff indicated that they had already been taking steps to strengthen the supervision of the program at all levels, and the health team presented their newly developed supervision plan for the region.

Our next round of operations research will be conducted in 2004, starting in June. This will allow some time for the WV team to experiment with the implementation of the corrective measures agreed upon. Our operations research will focus on assessing the effectiveness of implementation of these corrective measures and on studying the supervision structure. An additional objective of the next round of operations research will be to assess differences in implementation between the two program intervention groups; understanding differences will facilitate interpretation of the final impact evaluation findings.

Table 7.1. Summary of discussions held in Haiti with World Vision staff on the operations research findings and follow-up actions

A - RALLY POSTS (RPs)

Aspects/activities	Constraint(s) identified	Potential corrective action(s)	Feasibility of implementing corrective action(s)	Potential impact of improving this aspect on effectiveness and impact of program
Organization	Too crowded, too many beneficiaries; ratio of participants/staff is too high	Increase number of RPs	Not possible at this point; health agents already have too many RPs/month	- Will reduce staff and participants time burden and frustrations - May increase participation at RPs, which, in turn, may increase impact of program - May increase quality of services at RPs
		Increase staff (AS/*colvols*)	Not feasible in short-term because of program criteria and lack of resources	
		Continue to work on a case-by-case basis to split the RPs that are really too big and can be split	Feasible; already being done; should be continued	
		Train *colvols* better so that they can help the health agents more	This is already being done; *colvols* have been included in all recent training; salary has also been increased and they are now referred to as "health promoter agents"	Will increase assistance that health agents receive and reduce their time burden
		Improve venue of the RPs by providing basic furniture (chairs, benches, tables, etc.)	This will be done through mobilization of community resources	Could make the RPs more efficient and more pleasant for staff and participants

Aspects/activities	Constraint(s) identified	Potential corrective action(s)	Feasibility of implementing corrective action(s)	Potential impact of improving this aspect on effectiveness and impact of program
	Registration is a major bottleneck; sequence of activities varies a lot between RPs and does not usually follow the implementation plan	The following sequence was recommended for the future: 1) give a number to each participant 2) provide general education session 3) weigh child, plot weight on growth chart in health card 4) do general registration (including register weight in registry) 5) evaluate nutritional status; 6) inform and advise mother (see below in GMP) 7) give required immunization, deworming, Vitamin A, and ORS	Feasible; the team has discussed several possible sequences and concluded that this one was probably the best choice; supervisors will assist health agents/ *colvols* in implementing and testing this sequence	See above
Specific activities (organization and quality)				
1. Education	Still mostly one session, first thing in the morning and therefore many participants miss the session	Give at least two education sessions and if needed, up to three	Feasible; was done in some of the RPs observed; the supervisors will be key in motivating the health staff to comply with this recommendation	Greater coverage of participating mothers; this may increase maternal knowledge and reinforce certain topics discussed at the MCs, thereby strengthening the BCC strategy

Aspects/activities	Constraint(s) identified	Potential corrective action(s)	Feasibility of implementing corrective action(s)	Potential impact of improving this aspect on effectiveness and impact of program
	Quality of education is non-optimal (messages tend to be vague, little use of visual materials, limited interaction between staff and participants)	May be difficult to improve, given crowded, busy, noisy environment; may be best to focus on simple topics and messages of general interest (e.g., ORS, immunization, family planning, etc.)	Feasible to focus on simple topics, ensuring that information is accurate and messages are clear and simple; supervisors will have to monitor this.	Following the 12-month calendar of education topic will allow mothers to receive education on the full set of topics considered important and of general interest to mothers by the program. This can increase their general knowledge of health, nutrition and hygiene.
	Monthly education topics recommended by the program are rarely used	Ensure that the calendar of topics is distributed to all supervisors; also ensure that supervisors work closely with health staff during their monthly meetings to reinforce adherence to monthly schedule of topics.	Feasible; requires greater communication between health staff and their supervisors and monitoring of implementation of the calendar of topics	
2. Vitamin A/deworming/ORS	Many participants do not receive the services and this seems to be due largely to a lack of supply of the products	This problem is due to lack of availability from the main providers (Ministry of Health, UNICEF, etc.)	This problem is outside of the program's control, but efforts should be pursued to ensure a constant supply	These preventive health services are very important for child's health, growth, development and survival. Therefore it is important to achieve high coverage.

Aspects/activities	Constraint(s) identified	Potential corrective action(s)	Feasibility of implementing corrective action(s)	Potential impact of improving this aspect on effectiveness and impact of program
3. Growth monitoring and promotion	Children are weighed, their weight is recorded, and their nutritional status assessed, but there is little use of the information to communicate with the mother and to give her tailored individual advice regarding her child's growth and progress	Retrain personnel to ensure that each mother receives the following information: 1) Child's weight 2) Child's nutritional status 3) Child's progress (gained or lost weight) 4) Brief message of encouragement (if child is growing well) and recommendations for follow-up with other program activities (e.g., MCs) if child is not growing well. If child is M3, make sure s/he is scheduled for a home visit.	Feasible; will require that supervisors motivate staff and monitor that these actions are implemented	The information provided to mothers about their child's nutritional status and growth can help raise awareness among mothers and motivate them to engage more actively in the BCC activities and to adopt the recommended practices.
	The quality of the weighing and plotting varies; errors result in the misclassification of some children into the different Gomez categories, and thus in errors in screening beneficiary children (true only for the recuperative group, which uses children's nutritional status as a screening criteria)	Retrain health staff to improve the quality of the weighing (making sure that needle of the hanging scale is still before recording the weight will help). Retrain staff to improve their skills in plotting the child's weight in the growth chart.	Very feasible; can be achieved through good training and supervision	Improving the weighing and plotting of the weights in the growth chart will reduce misclassification errors, thereby improving the cost-effectiveness of the program.
4. Immunization	Lack of supplies (similar to the problems of vitamin A, ORS, and deworming tablets)	See above (vitamin A, ORS, and deworming)	See above (vitamin A, ORS, and deworming)	See above (vitamin A, ORS, and deworming)

B- MOTHERS' CLUBS (MCs)

Aspects/activities	Constraint(s) identified	Potential corrective action(s)	Feasibility of implementing corrective action(s)	Potential impact of improving this aspect on effectiveness and impact of program
Organization	Problems with reorganization of MCs for different subgroups of mothers/children (especially in preventive group)	Ensure that supervisors understand the rationale for the reorganization of the clubs, and continue to reinforce importance of implementing this reorganization as planned. Slightly modify current system, which is to form two groups with 6-23 month old (in preventive group): 6-8 and 9-23. Replace with the following two groups: 6-11 and 12-23.	Very feasible, but requires close supervision to ensure that groups are formed as recommended by the program and that mothers attend the groups they are assigned to.	The importance of the timely delivery of the education for the effectiveness of the BCC cannot be overemphasized. A much greater impact on behavior change is expected if the intervention reaches the beneficiaries at their best learning moment. Achievement of behavior change may, in turn, reduce childhood malnutrition.
Quality of the education and BCC intervention	Very good quality overall; marked improvements since development of BCC strategy and training of staff; performance varies, however, and continued improvements can still be achieved	Strengthen supervision and ongoing training of staff; strengthen the communication of concepts and technical content of the sessions, as well as the utilization of the communication material and the adult education techniques. Continue to use the supervision checklists to provide feedback to the staff and to monitor progress.	Very feasible; is already being done; important to continue to strengthen the supervision and feedback provided to the staff. Supervisors also need to monitor that enthusiasm and motivation of the staff, and interest of beneficiaries are maintained over time.	The greater the quality of the BCC in MCs, the greater the potential impact of the program on improved child feeding and care and consequently on children's nutritional status, health, and development.

C - FOOD DISTRIBUTION POINTS (FDPs)

Aspects/activities	Constraint(s) identified	Potential corrective action(s)	Feasibility of implementing corrective action(s)	Potential impact of improving this aspect on effectiveness and impact of program
Organization	Very large number of beneficiaries per distribution point and high beneficiary/staff ratios	Some organizational aspects have already been addressed by the program and some are in the process of being resolved; the staff makes every effort to improve the logistics of the food distribution process, including improving local storage facilities.	Difficult to solve completely, because most logistical problems are inherent to the rough environmental conditions of the area.	Improving the logistics of food distribution could reduce the staff and beneficiary time burden and increase satisfaction.
	Important delays in arrival of food and staff at FDP			
	Very high time burden for beneficiaries (including travel time and time spent at the FDP) and staff			
Quality	Amount of food received by beneficiaries is not always the amount allocated by the program	A system is already in place to verify that the quantity of food received by the beneficiaries corresponds to the amount allocated.	Feasible; system is already in place. Need to ensure that check is done systematically on a sample of beneficiaries as they exit the FDP.	Could increase beneficiary satisfaction and reduce food losses.
	Communication difficulties have been reported between commodity and health staff and commodity staff and beneficiaries	These problems are addressed on an ongoing basis, as they occur, by the supervisors or regional coordinators.	Very possible, already being addressed.	Could improve staff satisfaction with their work and beneficiary satisfaction with the program.
	Certain problems of hygiene in the manipulation of the food during the distribution process have been identified	Suggestions made to provide gloves to food handlers and small compensation to motivate them to adopt more hygienic practices. Use of plastic sheets and cleaning of measurement tools have already been adopted. Possibility of acquiring large containers with a tap for the distribution of oil was also recommended.	Feasible, but requires financial means to acquire the materials proposed.	Would reduce the risk of contamination of the food.

REFERENCES

Cogill, B. *Anthropometric Indicators Measurement Guide*. Food and Nutrition Technical Assistance Project, Academy for Educational Development, Washington, D.C., 2003.

Dickin, K. L. "The Work Context of Community Nutrition Educators: Relevance to Work Attitudes and Program Outcomes." Doctoral dissertation, Faculty of the Graduate School, Cornell University, Ithaca, N.Y., May 2003.

Loechl, C., P. Menon, G. Pelto, and M. Ruel. *Behavior Change Communication to Improve Infant and Young Child Feeding Practices in Rural Haiti: Training and Communication Materials.* A report submitted to the Food and Nutrition Technical Assistance Project, Academy for Educational Development, Washington, D.C., 2003a.

Loechl, C., P. Menon, M. T. Ruel, and G. Pelto. *Process Used for the* D*esign of an Integrated Health and Nutrition Program to Prevent Child Malnutrition in Rural Haiti*. A report submitted to the Food and Nutrition Technical Assistance Project, Academy for Educational Development, Washington, D.C., 2003b.

Menon, P., and M. T. Ruel. *Childcare, Nutrition, and Health in the Central Plateau of Haiti: The Role of Community, Household, and Caregiver Resources. Report of the IFPRI-Cornell World Vision Baseline Survey, Haiti 2002.* A report submitted to the Food and Nutrition Technical Assistance Project, Academy for Educational Development, Washington, D.C., 2003.

Menon, P., M. Ruel, G. Pelto, Y.-F. Pierre, E. Metellus, and A. Ferrus. *A Qualitative Study of the Patterns of Infant Feeding and Care in the Hinche Area of Plateau Central*. A report submitted to the Food and Nutrition Technical Assistance Project, Academy for Educational Development, Washington, D.C., 2002a.

Menon, P., C. Loechl, G. Pelto, and M. Ruel. *Development of a Behavior Change Communications Program to Prevent Malnutrition in the Central Plateau of Haiti: Results and Challenges from a Formative Research Study.* A report submitted to the Food and Nutrition Technical Assistance Project, Academy for Educational Development, Washington, D.C., 2002b.

Ruel, M. T. *The Natural History of Growth Failure: Importance of Intrauterine and Postnatal Periods.* Nestlé Nutrition Workshop Series, Pediatric Program, Vol. 47, edited by R. Martorell and F. Haschke, 123-158. Philadelphia: Nestec Ltd., Vevey/Lippincott Williams & Wilkins, 2001.

WHO (World Health Organization). *Measurement of Nutritional Impact.* Geneva, 1979.

WHO (World Health Organization). *Physical Status: The Use and Interpretation of Anthropometry*. WHO Technical Report Series 854. Geneva, 1995.

ANNEXES

1. **List of clusters**
2. **Protocol for the operations research**
3. **Details of different focus groups**
4. **Schedules of learning sessions and topics at Mothers' Clubs**
5. **Quality of education provided at Mothers' Clubs**
6. **Organizational structure of the health component of the program**
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Annex 1. List of clusters

Cluster #	Zone	Commune	Preventive (P) or Recuperative (R)
1	Marmont	Hinche	R
2	Madame Brun	Hinche	P
3	Bassin Zim	Hinche	P
4	Marialapa	Hinche	R
5	Cherival	Hinche	P
6	Pablocal	Hinche	P
7	Bintourib	Hinche	R
8	Carrefour Ledans	Hinche	R
9	Casse	Thomonde and Lascahobas	P
10	Pareidon I	Lascahobas	R
11	Pareidon II	Lascahobas	P
12	Salmadere	Lascahobas	R
13	Tierra I	Thomonde	R
14	Laloimassouse	Thomonde	P
15	Locaret	Thomonde	R
16	Locorbe	Thomonde	R
17	Tierra II	Thomonde	P
18	Ananas	Thomonde and Lascahobas	P
19	Rode/Beganabe	Hinche	R
20	Wanniqueter/Moruque	Hinche	P

Annex 2. Protocol for the operations research

No.	Sample	Module	Method	PLANNED sample size	ACHIEVED sample size	Sampling
1	Rally Posts (RP)	General Data Collection Form	Observation + Consulting health agents daily reports	20	19	1 RP per health agent in 19 clusters of the evaluation project area
		General Exit Interview	Structured individual interview	2-3 per RP Total: 40-60	59	
		Respondent Tracking Form	Observation + structured individual interview	2 per RP Total: 40	38	
		Interview with Health Agent	Semi-structured individual interview	20	19	
2	Mothers' Clubs (MC)	Observation of Mothers' Club	Observation	20	20	1 Mothers Club per health agent in all 20 clusters: 5 MCs with pregnant women, 5 MCs with lactating mothers, 6 MCs with mothers of 6-24 months old children, 4 MCs with mothers of malnourished children)
		General Exit Interview	Structured individual interview	2-3 per MC Total: 40-60	41	
		Interview with Health Agent	Semi-structured individual interview	20	20	
3	Food distribution points (FDP)	General Data Collection Form	Observation + Structured individual interview of health agents/food monitors	10	10	The 10 distribution points are covering all 20 clusters of the evaluation project area
		General Exit Interview	Structured individual interview	4-5 per FDP Total: 40-50	45	
		Interview with Health Agent	Semi-structured individual interview	20	20	
4	Program beneficiary women	Interviews with program beneficiary women	Semi-structured individual interview	30	Total of 30: 5 pregnant women 10 lactating mothers 9 mothers of 6-23 month children 6 mothers of malnourished children	Selection of women at Mothers' Clubs in 15 clusters
5	*Colvols*/health agents/health supervisors/ food monitors/ commodity supervisors	Focus group discussions with program staff	Focus groups	2 groups with health agents 2 groups with *colvols* 1 group with supervisors 2 groups with food monitors	2 groups with health agents 2 groups with *colvols* 1 group with MCH supervisors 1 group with food monitors 1 group with commodity supervisors	The program staff involved is working in the 20 clusters of the evaluation project area
6	Health coordinators and commodity officer	Interview with the regional and national health coordinators and regional commodity officer	Semi-structured individual interview	3	3	The program staff involved is covering either the Central Plateau (regional) or all World Vision intervention areas in Haiti (national)

Annex 3. Details of the different focus groups

Participants	Location of focus group	Number of participants	Remarks
Health agents	Casse	7	Health agents of the evaluation project area in the communes of Thomonde and Lascahobas
Health agents	Hinche	9	Health agents of the evaluation project area in the commune of Hinche
Colvols	Casse	11	*Colvols* of the evaluation project area in the communes of Thomonde and Lascahobas
Colvols	Hinche	9	*Colvols* of the evaluation project area in the commune of Hinche
MCH supervisors	Hinche	6	MCH supervisor nurses of the evaluation project area and the assistant of the regional health coordinator
Food monitors	Hinche	9	Food monitors covering the evaluation project area
Commodity supervisors	Hinche	6	Commodity field supervisors, warehouse coordinator, CTS coordinator, and assistant of the regional commodity officer

Annex 4. Schedules of learning sessions and topics at Mothers' Clubs

a) Schedule of learning sessions at Mothers' Clubs for pregnant and lactating women (preventive and recuperative program groups)

Month of pregnancy	**Mothers' Clubs for pregnant women**
5	Other topics: Diet for pregnant women
6	Other topics: Dangerous signs during pregnancy
7	Other topics: Preparation of child delivery
8	Session 1 Importance of breastfeeding (initiation of breastfeeding, exclusive breastfeeding, continue breastfeeding until 2 years of age or beyond) Discouragement of bottle use Comparison of recommendations with local beliefs and practices
9	Session 2 Initiation of breastfeeding, importance of colostrum Exclusive breastfeeding until 6 months Position and attachment of the baby during feeding, frequency of breastfeeding
Child age (months)	**Mothers' Clubs for lactating women**
1	Session 3 Sharing experience with exclusive breastfeeding Review of exclusive breastfeeding Review of position and attachment of the child during feeding, frequency of breastfeeding and care of nipples and breasts Expression of breast milk Drinking water while breastfeeding
2	Session 4 Sharing experiences related to drinking water while breastfeeding and expression of breast milk Sharing experience related to exclusive breastfeeding Discussing constraints/problems related to exclusive breastfeeding and offering solutions
3	Session 5 Exclusive breastfeeding and Lactational Amenorrhea Method (LAM)
4	Session 6 Introduction of complementary foods when children are about 6 months old Importance of continued breastfeeding until 2 years of age or beyond
5	Session 7 Overview on child development and feeding chart (for children 6-11 months of age: food consistency, participating in feeding, frequency, quantity of food) Learning how to eat Important information about the first food (in addition to breast milk) given to children Preparation of the next session: preparing nutritious foods
6	Session 8 Preparing nutritious foods/cooking session Tasting and discussion Repetition of learning how to eat Session 7 Preparation of the next session: preparing nutritious foods

b) Schedule of learning sessions at Mothers' Clubs for mothers of 6-23-month-old children (preventive program group)

Month in the program	Mothers of 6-to-23-month-old children
1	Session 8 Preparing nutritious foods/cooking session Tasting and discussion Repetition of learning how to eat
2	Session 9 Repetition on child development and feeding chart (for children 0 to 11 months of age) Helping children to eat Feeding during and after illness Preparation of the next session: variety of food
3	Session 10 Sharing experience with one new feeding practice (related to helping children to eat) Variety of food Sharing experience with preparing nutritious foods at home
4	Session 11 Hygiene in food preparation, handling and storage—Diarrhea prevention Feeding during and after illness
5	Session 12 Child development and feeding chart (for children 12-23 months of age) Discussing food variety issues (special complementary foods, fruits and vegetables, vitamin A-rich foods, animal foods, evening meal) Preparing a creative way to communicate one feeding recommendation of the child development and feeding chart
6	Session 13 Causes of malnutrition Different types of malnutrition Recuperation of moderately malnourished children
7	Other topics: Diarrhea
8	Other topics: Immunization
9	Other topics: Hygiene
10	Other topics: Use of *Moringa olifeira*
11	Other topics: HIV/AIDS
12	Other topics: Family Planning
13	Other topics: Home Gardening
14	Session 12 Child development and feeding chart (for children 12-23 months of age) Discussing food variety issues (special complementary foods, fruits and vegetables, vitamin A-rich foods, animal foods, evening meal) Preparing a creative way to communicate one feeding recommendation of the child development and feeding chart
15	Other topics: HIV/AIDS
16	Other topics: Family Planning
17	Other topics, placement in schedule to be determined
18	Other topics, placement in schedule to be determined

c) Schedule of learning sessions at Mothers' Clubs for mothers of malnourished children 6-to-59 months of age (recuperative program group)

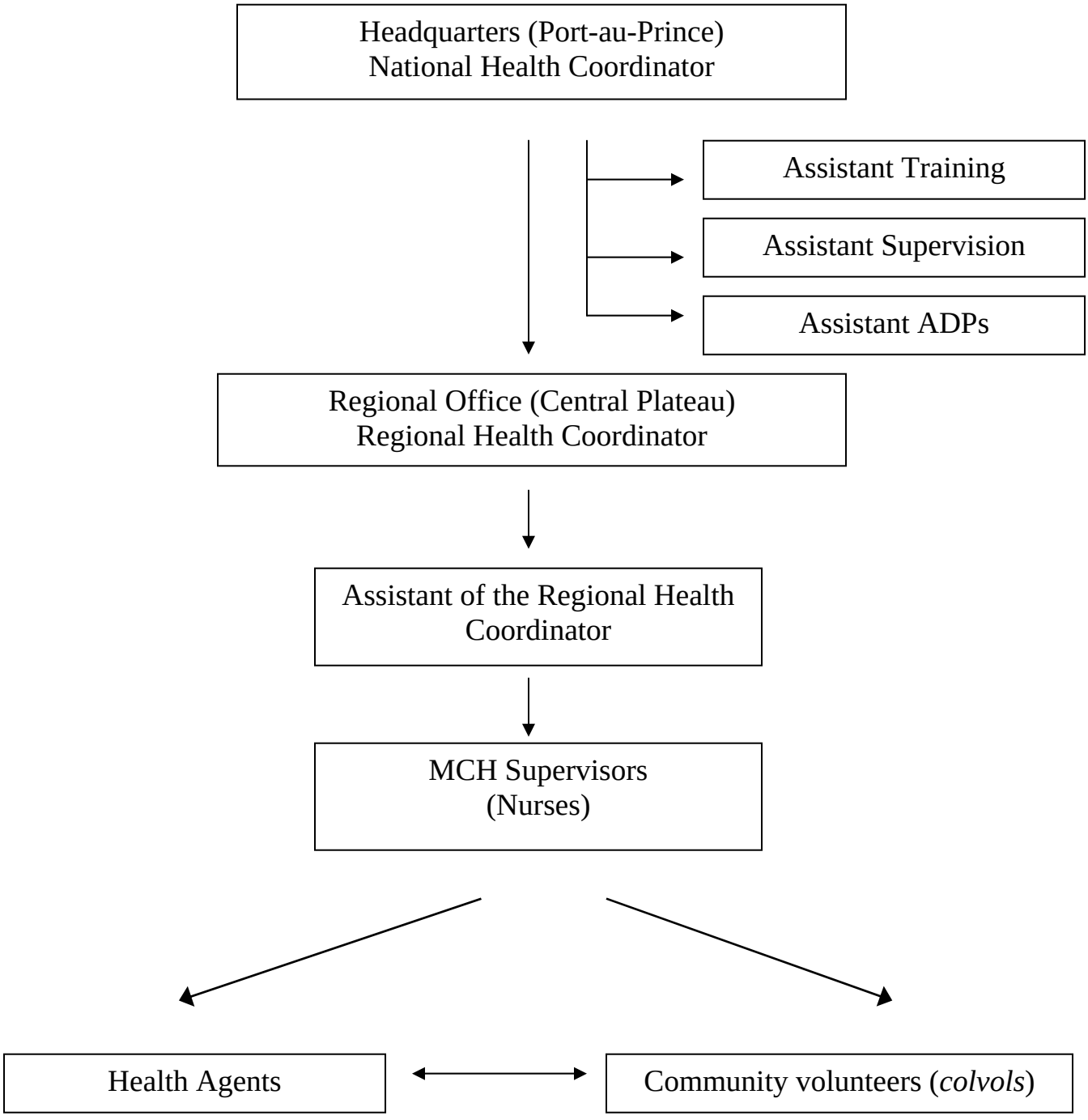
Month in the program	Mothers of malnourished children
1	Session 13 Causes of malnutrition Different types of malnutrition Recuperation of moderately malnourished children Introduction to the child development and feeding chart Preparation for the next session: preparing nutritious foods
2	Session 8 Preparing nutritious foods/cooking session Tasting and discussion Repetition of learning how to eat
3	Session 9 Repetition on child development and feeding chart (for children 0 to 11 months of age) Helping children to eat Feeding during and after illness Preparation of the next session: variety of food
4	Session 10 Sharing experience with one new feeding practice (related to helping children to eat) Variety of food Sharing experience with preparing nutritious foods at home
5	Session 12 Child development and feeding chart (for children 12 months to 5 years of age) Discussing food variety issues (special complementary foods, fruits and vegetables, vitamin A-rich foods, animal foods, evening meal) Preparing a creative way to communicate one feeding recommendation of the child development and feeding chart
6	Session 1 Importance of breastfeeding (initiation of breastfeeding, exclusive breastfeeding, continue breastfeeding until 2 years of age or beyond) Discouraging bottle use Comparison of recommendations with local beliefs and practices Other topics: Immunization
7	Session 11 Hygiene in food preparation, handling and storage—Diarrhea prevention Feeding during and after illness Other topics: Diarrhea
8	Other topics: HIV/AIDS
9	Other topics: Family Planning

Annex 5. Quality of education provided at Mothers' Clubs

Observations of the quality of the education provided at Mothers' Clubs (n = 20)

Variable	*Variable name*	Mean or %/numbers	Range
Technical content			
Communication of accurate technical information	*q609a*		
- Information correct and complete (average %)		83%	64-100%
- 80-100% of information correct and complete		15	
- Information presented but not correct (average %)		14%	7-33%
- No incorrect information		8	
Accurate responses to all/most of the questions from audience (n = 3)	*q609b*	3	
Brought back focus to promoted behavior	*q609c*	8	
Session Management and organization			
Completed all session steps	*q610a*	19	
Completed all session steps in order	*q610b*	20	
Did not read instructions	*q610c*	18	
Had no difficulties in reading the session	*q610d*	19	
Did not complete session in recommended time	*q610e*	19	
Gap between actual and suggested length of session (minutes)	*gapsugge*	10	-20 - +55
Had materials ready and organized	*q610f*	18	
Facilitation and teaching skills			
Used small groups as suggested	*q611a*	16	
- Defined question to be discussed	*q611b*	15	
- Helped arrange participants to face each other	*q611c*	7	
- Circulated around the room to help	*q611d*	10	
- Asked for group reports	*q611e*	13	
Used open-ended questions as in session guide	*q611f*	18	
Used open-ended questions to probe and encourage at other times	*q611g*	13	
Spoke loudly and clearly	*q611h*	20	
Showed all/most of the visuals of the session (n = 16)	*q611i*	14	
Assured that all participants could see visuals (n = 14)	*q611j*	13	
Used other teaching techniques/facilitation skills as indicated in session guide	*q611k*	18	
Attitudes displayed			
Provided praise/affirmation to participants	*q612a*	19	
Demonstrated respect for participants	*q612b*	17	
Helped participants feel at ease with participating	*q612c*	14	
Attempted to create good dialogue and/or limit lecture style	*q612d*	9	
Atmosphere at the learning session			
Any distracting side-conversations during session?	*q613a*	12	
Any disruptive children?	*q613b*	5	
Any other distraction?	*q613c*	14	
Laughter during session?	*q613d*	11	
Did animations with the group	*q613e*	10	
Participants appeared bored	*q613f*	7	

Annex 6. Organizational structure of the health component of the program



Annex 7. Organizational structure of the food component of the program