Assessment of the ASSP (*Accès aux Soins de Santé Primaires*) Project's Community Health Endowment Strategy in the Democratic Republic of Congo

A mixed methods analysis

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Executive Summary

Background:

The health system in the Democratic Republic of Congo (DRC) is chronically under-financed, limiting the availability and quality of health care services. In response to inadequate government health financing, health care providers have increased their reliance on user fees in order to finance the operating costs of facilities and the salaries of staff. Health system decision-makers are concerned that user fees are detrimental to the proper utilization of health care services, particularly for the poor and other vulnerable populations. In an effort to assist the government in strengthening the country's health system, DFID awarded a five-year ASSP (*Accès aux Soins de Santé Primaires*) project to IMA World Health and its implementing partners. ASSP is a health systems strengthening project tasked with working in 56 health zones in six provinces of the DRC. One component of ASSP is the Community Health Endowment (CHE) intervention, which is intended to mobilize additional health financing for health centres through community-based income-generation activities. At the outset of the project, these schemes were expected to be agricultural activities, but communities were free to choose other types of income generation approaches or group participants could make cash contributions without engaging in income generation schemes. Participants were intended to benefit from a reduction in health service user fees.

Study objectives and research questions:

Operations research was carried out to evaluate the ASSP's Community Health Endowment intervention. The following principal research questions were investigated: 1) Are village leaders and households willing to participate in the CHE strategy?; 2) Is the CHE intervention being implemented as planned?; 3) Are the expected changes occurring (i.e. income generated for the health centres, lower user fees, increased use of services)?; and 4) What factors contribute to the success or failure in the initial stages of the CHE program (based on perceptions of community leaders, health zone staff, health care managers and providers, and household members)?

Study design/methodology:

A mixed methods research design was used, involving complementary qualitative and quantitative data collection strategies in health zones where the CHE project was operating. Qualitative data was collected in two phases. The first phase was carried out between June and July 2014 in one peri-urban and in one rural community in the provinces of Kasai Occidental and Maniema in health zones where the CHE intervention had been underway since June 2013. In all participating sites, data collection involved a mix of qualitative methods including key informant interviews with health officials and actors involved in project implementation (5-7), in-depth interviews with male and female CHE participants (7-8), and focus group discussions (1-2) with

separate groups of people who had and had not participated in the intervention. Key informant interviews were also carried out with village leaders in two communities that chose not to participate; these communities were located in proximity to the study communities participating in the CHE intervention. Additional key informant interviews were conducted with implementing partners and government health officials working in the provincial capital.

The second phase of qualitative data collection was carried out between March and May 2015 in order to get input on the initial study findings from key informants involved in project implementation at the provincial, health zone, and community level. In March of 2015, a presidential ordinance was enacted calling for a new administrative configuration of the country's provinces, such that the existing 11 provinces were divided into 26. The former Kasai Occidental was split into 2 provinces, Kasai and Kasai Central, while Maniema remained one province. Thus the follow up data collection took place in Kasai and Kasai Central, as well as Maniema and Kinshasa. This second round of research also aimed to assess the changes that had been made in the original CHE design subsequent to our initial data collection. Data collection included key informant interviews with implementing partners including project supervisors, representatives in the two provincial DPSs, and MCZs and ACs at the health zone level, ITs at the health centre level, and technical guides. For all qualitative data, content analysis was used to identify trends in and across study themes which were identified prior to and emerged during the qualitative study. Data triangulation was used to ensure that the findings are validated across different respondents, and between key informant interviews, in-depth interviews, and group discussions.

For the quantitative component of the study, data from ASSP's routine programme monitoring system were analysed. The indicators were based on data collected in all villages that had agreed to participate in the CHE intervention. Routine ASSP programme data from all villages where the CHE intervention is operating were included in the study. Indicators were measured at the group level, as there were some villages where two or more groups enrolled in the CHE programme.

Results:

Is the CHE intervention being implemented as planned?

The CHE intervention was introduced in the three different provinces of Kasai Occidental, Maniema, and Equator (later Kasai, Kasai Central, Maniema, and North Ubangi) during the study period of the quantitative analysis, September 2013 to February 2015. In total, 1,625 distinct community groups enrolled in the CHE program. Most communities at the time of enrolment indicated that their preferred mode of mobilizing funds was through community-based agricultural activities (71.6 percent), with the rest reporting a preference for direct cash payments (20.1 percent) or no stated preference (8.3 percent).

The qualitative analysis suggests that there was a common perception of a rushed start when the programme began in 2013, and that initial awareness raising activities were not carried out as planned, contributing to misconceptions and misunderstandings held by both key informants and CHE participants regarding the project objectives and organizational structure. Failure of CHE groups to choose effective leaders undermined one of the basic principles of the project. The study also uncovered multiple problems related to the distribution of certified seeds negatively impacting community agricultural activities. Many respondents commented that on-going supervision and support was not adequately being carried out by health zone staff due to lack of motivation, absence of CHE as a priority in the health zone work plan, and inadequate resources.

Are village leaders and households willing to participate in the CHE strategy?

That the total number of active CHE groups continued to grow over the study period suggests that there is strong interest at the community level in the CHE strategy. As reported above, over 1,600 distinct community groups had enrolled in the CHE program as of February 2015, and the ASSP Project reports that, as of June 2015, over 1,250 groups had participated in CHE activities at some point during the third year of the project. However, once community groups decide to enrol in the program, the quantitative results suggest that the overall percentage of households that participate in the CHE program is low. According to the ASSP Project, only 17 percent of all households living in communities where CHE is active participated in the CHE program, and the program has only reached 2 percent of households living in the 26 health zones where CHE has been introduced. In addition, a high percentage of CHE groups dropped out of the program. Of the total number of CHE groups enrolling in the first year, only 51.7 remained active during the second year, as measured by routine programme data on agricultural planting and contributions to the health centre. This suggests some degree of dissatisfaction with CHE program.

The qualitative results provided a number of insights regarding the willingness of village leaders and households to participate in the program. Village leaders or their family members in the sites in Kasai and Kasai Central played an active role in project activities, while in Maniema the involvement of influential leaders was related to endorsing the project. For community members, participation appeared to be primarily guided by the promised reduction in health care costs, with those who enrolled also motivated by the involvement of well-respected NGOs, the assumption that the project would involve income-generating activities, the expectation that material goods would be distributed, and the endorsement of village leaders. However, concerns about the authenticity of the project, whether the IT would respect health care fee reductions, and perceptions of poor quality of care due to the limited availability of medicines were mentioned as reasons for the limited enrolment of community participants. The research also identified certain basic concepts that people were unable to grasp, such as paying for health care prior to falling sick or restricting fee reductions to a specific time period, which directly coincides with monthly payments of fees, which may also affect participation.

Are the expected changes occurring (i.e. income generated for the health centres, lower user fees, increased use of health services)?

According to the ASSP Project management team, CHE revenues are considered by health centre staff as income and are held and managed like all other revenues of the health centre. Unfortunately, the project's routine program monitoring system did not collect data from health care facilities user fees charged to CHE participants, and the utilization of health services for CHE members vs. non-CHE members. As such, this research question could not be investigated using quantitative data.

However, the initial qualitative study generated a number of insights related to whether the expected changes were occurring. While in three sites a portion of the harvest was transferred to the local health centre, none of the participants from the community received a reduction in health care costs. A common explanation given by the ITs was that they had not received authorization by government health officials to reduce fees. In the only site where there were many participants, the IT also claimed that the monetary sum received for the harvest transferred from group members was insignificant in relation to the cost that would be involved in reducing treatment fees for participants and their family members. According to the study respondents, the official conditions for reduced fees were not met by community groups in two of the three sites where a portion of the harvest was given to the health centre.

During the follow up study, ITs shared other instances whereby the harvest contributed was not enough to cover the CHE group contribution for health care fee reductions. There were also reports that when the CHE group's contribution involved crop yields rather than cash payments the IT faced problems selling the harvest and in some cases was forced to refuse to honour fee reductions. Overall, delays in receiving the fee reduction and shortages of medications were reported to be causing discontent.

What factors contribute to the success or failure in the initial stages of the CHE program?

A number of factors were mentioned in the initial qualitative interviews and focus group discussions as reasons why the CHE strategy had yet to achieve the intended aims in the initial stages of the program. Lack of trust in community group representatives and poor leadership were two reasons mentioned by many participants. The findings showed that many group leaders did not share the same vision as participants or envisioned in the project design, focusing on personal monetary gain. Problems tracking the produce harvested—whether it involved participants, group leaders, or the health workers—plagued CHE efforts, fomenting suspicion and demotivating participation. Respondents highlighted that deception and unaccountability on the part of the group leaders, the lack of technical support and guidance, and the minimal benefits rendered led to loss of motivation and consequent attrition.

The findings also suggest that certain social and contextual factors impact the cooperation, trust, and transparency needed for communal activities. For instance, the social differences between

villagers and health care workers, who are frequently from outside the area, are better educated, and from a higher socioeconomic status, can foment sociocultural barriers and foster distrust. In addition, perceptions of leadership and positions of power may differ between the organizers in Kinshasa and people directing project activities in the village setting, who often disregarded the rights of participants and felt justified in applying an authoritarian, and non-transparent, approach. Our key informants indicated that villages who are better educated or have experience participating in project activities and influential community members have a tendency to take charge, which is likely to impact participant ownership and decision making. Customs requiring involvement of, or remuneration to, the village chief is likely expected in many village contexts and should be taken into consideration when introducing activities. Differences in sociocultural norms and structures that may affect acceptance of a new program, such as the more rigid adherence to traditional social structures or the tendency for men in the Kasais to be authoritarian, should be taken into account. Due to culturally specific gender roles, the majority of fieldwork was relegated to women participants; paradoxically, because most of the project leaders were male, and the bulk of the harvest was controlled by men.

Recommendations:

The CHE strategy is an ambitious and complex intervention in that a) it involves the concept of voluntary pooling health contributions for the purposes of pre-payment of health services, which is a novel concept for many households and health service providers in ASSP health zones, b) it has been designed to achieve multiple goals inside and outside the health system, c) it involves a long chain of steps, some of which can easily be undermined by the financial and political interests of community leaders, government officials and health service providers, and d) it calls for the creation of a new type of community-based organization – the CHE group – which depends on the degree of organizational leadership and managerial capacity.

ASSP's project management team has been closely monitoring the programme and is aware that enrolments rates are low. As a result, the project is considering making a number of changes to the CHE strategy based on planned consultations with CHE subscribers, community leaders, health service providers, and CODESA members. Among the changes under consideration are the following:

- Improving the program's communication strategy, including the development of improved CHE promotional messages and a communication campaign that better explains the benefits of CHE participation to both the community and health service providers
- Discontinuing technical support for community-based agricultural income-generation activities, including the distribution of seeds and recommendations on best practices – the withdrawal of which may encourage community groups to opt to pay CHE subscriptions directly to the health centre

- Improving the quality of health services offered at the health centre by strengthening health centre management and supervision, improving the training of health workers, and addressing the persistent and pervasive problem of medicine stock-outs, and the lack of essential medical equipment

Based on the complex nature of the CHE strategy, the study's research findings, and the existing evidence-base on the effectiveness of community health financing schemes, it is recommended that the next phase of the CHE project be approached very carefully and methodically. Although it is recognized that the CHE strategy is a critical element of ASSP's strategy to improve health systems sustainability, it's important to proceed slowly over the course of the final two years of the project and not to be too ambitious. We recommend treating the strategy as a pilot project, to continue to strengthen the project's system to track the CHE implementation process, and to review and to utilize the existing research literature to learn from experiences in other contexts in sub-Saharan Africa.

Other recommendations are as follows:

- Continue as planned with the process of re-assessing the CHE project design, by reassessing the necessary preconditions and capacities that need to be in place in order for the strategy to be effective
- Intensify technical assistance provided to groups already enrolled in the CHE strategy
- Strengthen the project's routine programme monitoring system
- Continue to use CHE monitoring data and operations research to modify and improve the CHE approach
- Recognize cultural differences and adapt approaches according to the local cultural and economic context and traditional social systems

More specific recommendations are offered in the report.

Limitations:

There are a number of limitations to the study. First, the initial qualitative component of the study was carried out in only four CHE sites, and as such, the results are not generalizable. While the selection criteria and purposive sampling approach followed very neutral sampling criteria and should not have negatively biased the choice of research sites, the four sites selected for the study included groups that had not been renewed and thus highlighted problems and project risks, failing to uncover much positive experience. Also, the initial qualitative study examined activities carried out at the outset of the project, thus highlighting some problems that the programme has attempted to address. Second, no empirical data was available from health centres on how these CHE monies and in-kind contributions were used, the user fees that were charged to CHE members, and the number and types of services provided to CHE members. This prevented us from empirically investigating whether the expected changes at the health facility level were occurring. Third, the study does not include empirical information on the technical

assistance provided by the project and supervisory visits. While data on these issues was reported through the routine programme monitoring system, it was not reported in a way that was conducive to quantitative data analysis. Fourth, we suspect that under-reporting affected the quality of data used for many of the indicators analysed, including whether CHE groups chose to engage in income-generating activities or contribute directly to the health centre and the amount of revenue received through CHE income-generating activities. The availability of data on the number of households and individuals participating in the group over time was also very limited.

Conclusions:

Overall, the study results suggest that the CHE strategy has not yet led to the anticipated changes in the mobilization of community health care financing, financial protection against out of pocket spending, and improved use of services by community members. The disappointing results thus far appear to be due to problems related to the rapid scale up of the project, limited capacity at the community level to properly lead and manage CHE groups, social and contextual factors influencing the governance of the CHE groups, and the perception of poor quality of care due to medicines not being adequately available. These factors are likely to be contributing to the relatively low levels of household participation in the project. While some of these barriers may be rectified, the major challenges mentioned by community participants concern trust and accountability and are particularly challenging in a context where poverty is rampant and corruption is prevalent at all levels.

In moving forward with the project, it is important to recognize that the CHE strategy is continually evolving and that there is a need for further experimentation in order to determine the most effective approach for mobilizing community resources for the health system. Regardless of the outcome of the on-going process to redesign the CHE strategy, it is recommended that the project intensify technical assistance provided to stakeholders involved in the CHE strategy, strengthen the project's routine programme monitoring system, and continue to use CHE monitoring data and targeted operations research to track and improve the strategy.

Ethics:

Ethical approval of the study and data collection procedures was obtained from the Institutional Review Boards of Tulane University and the Kinshasa School of Public Health prior to data collection. Oral informed consent was obtained from all participants in the qualitative study prior to interviews.

Abbreviations used in the document

AC	Animateur Communitaire (Community Animator)
ASSP	Accès Aux Soins de Santé Primaire (Access to Primary Health Care)
BCZ	Bureau Central de Zone de Santé (Health Zone Central Office)
CAC	Cellule d'animation communautaire (Community Extension Unit)
CBHF	Community-based financing schemes
CHE	Community Health Endowment
CF	Congolese Franc
CODESA	Comité de Développement de l'aire de Santé (Development Committee for the Health Area)
DFID	Department for International Development
DPS	Division Provincial de la Santé (Provincial Division Health Office)
DRC	Democratic Republic of Congo
IP	Implementing Partner
IT	Infirmièr Titulaire (Head Nurse)
MCZ	Médecin Chef de Zone de Santé (Health Zone Chief Medical Officer)
NGO	Non-Governmental Organisation
PRODEK	Project de Development du Kasai (Kasai Development Project)
SANRU	Santé Rurale (Rural Health Project)
WASH	Water, sanitation, and hygiene
WFP	World Food Programme

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1. Introduction

Due to instability that the Democratic Republic of Congo (DRC) has experienced over the past twenty years, the health system remains chronically under-financed, limiting the availability and quality of health care services. In response to inadequate government health financing, health care providers have increased their reliance on user fees in order to finance the operating costs of facilities and the salaries of staff. However, health system decision-makers are concerned that user fees are detrimental to the proper utilization of health care services, particularly for the poor and other vulnerable populations. In addition, there is concern that, despite the critical role that households play in health care financing, health care providers are not held accountable to the communities they are supposed to serve.

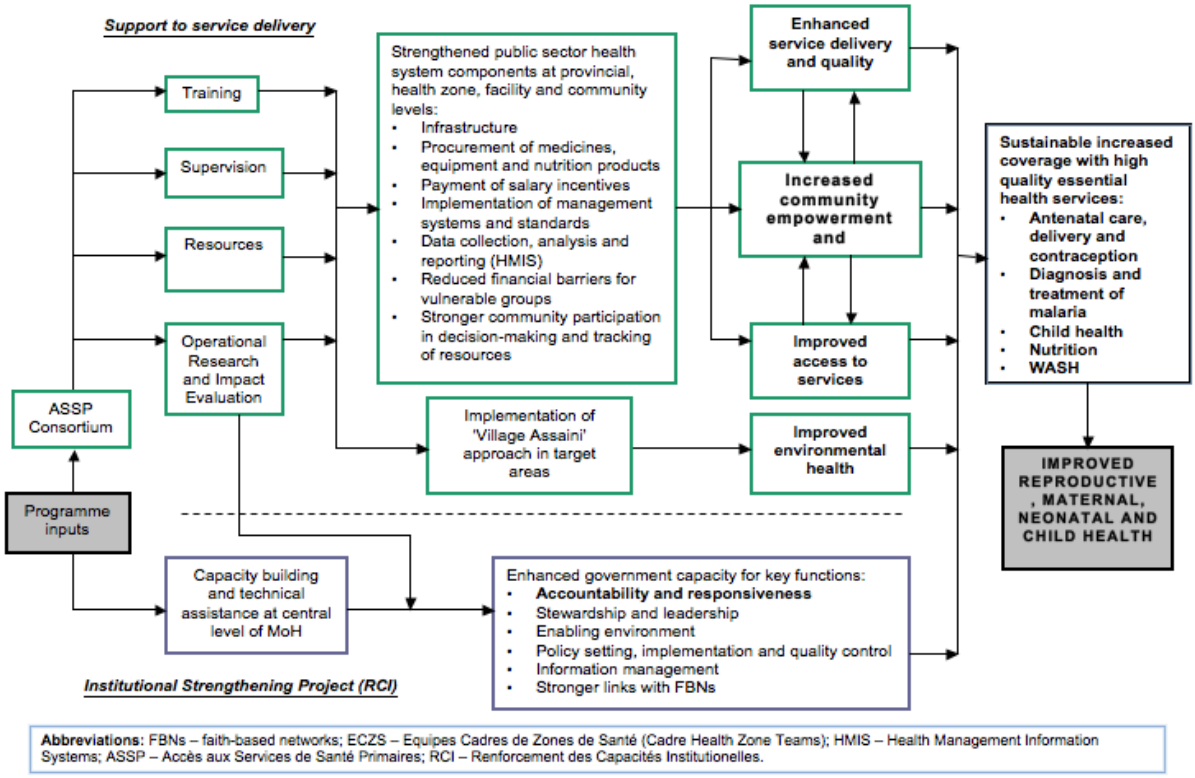
In an effort to strengthen the health care delivery system and increase service utilization, the DRC's Ministry of Health has developed a five-year health development plan, which is being implemented with support from a number of international health partners, including the United Kingdom's Department for International Development (DFID) (Ministère de la Santé Publique, 2010). The DRC government's National Health Development Plan for the period 2011-2015 defines eight priority pillars: governance, human resources for health, medicines and specific inputs, health financing, health information management system, infrastructure and equipment, health service delivery, and collaboration with related sectors (Ministère de la Santé Publique, 2010).

As part of its programme to assist the government in strengthening the country's health system, DFID awarded the five-year ASSP (*Accès aux Soins de Santé Primaires*[1]) project to IMA World Health and its implementing partners and subcontractors in the fall of 2012. ASSP is a health systems strengthening project tasked with working in 56 *health zones* in the North Ubangi (formally Equateur), Orientale, Kasai and Kasai Central (formally Kasai Occidental), Maniema, and South Kivu provinces of the DRC. As shown in the Theory of Change (Figure 1), ASSP consists of a broad range of facility- and community-based health interventions designed to:

1. Strengthen the public health sector at the provincial, health zone, facility, and community level though improved availability of infrastructure, equipment, and supplies, and improved financial and managerial practices
2. Improve environmental health in targeted areas via the introduction of "Village Assaini," a water, sanitation, and hygiene (WASH) approach
3. Broaden key governance functions, including accountability, governance, stewardship, and leadership

[1] Access to Primary Health Care

Figure 1. ASSP Project's Theory of Change.



As part of its broader strategy to improve health care financing, the ASSP Project began introducing the Community Health Endowment (CHE) intervention in June 2013. The original aim of the intervention was to encourage the development of income generation schemes through associations of households in the same villages in order to mobilize additional resources for health centres. For the most part, these schemes were expected to be agricultural activities, but communities were free to choose other types of income generation approaches. In addition, group participants could make cash contributions without engaging in income generation schemes.

The CHE approach assumes that the initiative starts with and is directed by the local group, with membership guided by pre-existing social bonds and mutual trust, members electing their own leaders and groups maintaining oversight and accountability of the leadership and on-going activities. In the context of the ASSP theory of change, inputs by ASSP and implementing partners, including training, supervision, and technical assistance, are designed to lead to community decision making related to health services, greater access to health care, and improved service delivery and quality.

The CHE model initially stipulated a 50-50 split, with fifty percent of the net income generated by the agricultural activities or other types of schemes contributed to the local health centre in exchange for a reduction in user fees. Since January 2014, the project has emphasized a fixed monthly per household contribution adopted by each DPS (Division Provincial de la Santé[2]). The decision as to whether the community participates in the CHE programme is made at the village level. If households in a village choose to participate, they receive support from the ASSP Project, including training on how the CHE programme is supposed to work, and for groups that opted to engage in agricultural activities, training on basic agricultural practices, provision of certified seed for groups willing to conduct a demonstration field of new, highly productive varieties, assistance in connecting to an agricultural extension structure (if it exists), and assistance identifying potential buyers for produce. In these villages, community members are invited to form a CHE group, establish an agreement with the local health centre, and thus benefit from a reduction in health service user fees.

The intervention's intended effect is that individuals in communities participating in CHEs will pay lower user fees and, in turn, increase utilization of health care services. In addition to its health care financing objectives, the CHE model is also a key component of the ASSP Project's broader strategy to encourage community participation in health system decision-making. Another expectation was that if successful, the technical support the CHE strategy provided to groups would lead to increased adoption by households of new highly productive crop varieties and innovative agricultural techniques, which were expected to positively affect household income, and as a result, increase household food consumption and nutritional status of mothers and children.

In addition to the expected benefits of the CHE strategy, there may be unintended negative and positive consequences. For example, it is possible that a disproportionate share of the CHE work burden will fall on vulnerable members of the community (i.e. women and the poor). It is also possible that the CHE will lead to conflict between a) those households who participate in the CHE and those that do not, b) leaders of the project and project participants, c) the head of the household and his spouse, and d) the villages that participate and those that do not. Other concerns relate to the local capacity to organize the project, the management of funds generated through the project by the CHE and given to the health centre, and project sustainability, due to the fact that both villages and households may decide to participate, but then later decide to "opt out." There is also the possibility that improved planting materials and certified seed may be too attractive as an incentive and serve to confound the decision to participate, which may detract from the primary project goals. There may also be unanticipated benefits, such as investments in schooling for young children or capital to invest in other income-generating projects.

[2] Provincial Division Health Office

ASSP's CHE programme began in June 2013 with the designation of 17 pilot health zones in Kasai Occidental and Maniema. At the time, there were three major training or orientation milestones in the CHE programme: a) training of health zone ACs (Animateurs Communautaires[3]); b) orientation of CODESA (Comité de Développement et Santé[4]) members for the information campaign that is used to explain the programme to village groups; and c) training of technical guides (relais communautaires[5] or another qualified village member) for channelling agricultural advice to community groups.

1.1 Previous research on community-based health financing mechanisms

In the health systems policy and research peer-reviewed literature, community-based health financing (CBHF) schemes are described as offering the possibility of mobilizing additional revenues for the health sector from communities while at the same time reducing financial barriers to service access and providing some financial protection to community participants by pooling resources (Bennett, 2004; Rao et al, 2009). Community-based health financing schemes can be defined as any scheme that is managed and operated by an organization, other than the government or private for-profit company that provides risk pooling to cover all or part of the costs of health care services (Bennett, 2004). CBHF schemes are always not-for-profit and depend on their members to contribute to the development and management of the scheme.

Within this broad definition, a wide range of community-based financing schemes exists in sub-Saharan Africa and elsewhere. These include schemes that have developed around geographic entities such as villages or districts, trade of professional groupings such as agricultural cooperatives, or health care facilities including health centres and hospitals. The aims and objectives of CBHF schemes can also be diverse. For example, CBHF schemes that are initiated by private non-profit providers seek to secure their revenue base, while others have emerged from micro-credit schemes or the "mutuelle" movement in West Africa (Bennett 2004). CBHF schemes can also vary in terms of their level of participation, whether they operate as formal or informal entities, as well as a number of design features, including the process of enrolment, the basic benefits package, and provider payment mechanisms (Bennett et al, 2004).

The evidence on the effectiveness of CBHF schemes is somewhat limited. While CBHF schemes have been found to be effective in providing some degree of financial protection to its members, there is limited evidence that CBHF schemes improve the quality and utilization of health care services (Ekman, 2004). Moreover, the literature also suggests that CBHF, if operating as voluntary schemes, generally achieves relatively limited population coverage and also tends to cover a relatively limited package of services. Overall, the CBHF schemes are viewed as, at best,

[3] Community Animator
[4] Development Committee for the Health Area
[5] Community health workers

complementary to other more effective schemes of health financing, such as taxed-based and social health insurance mechanisms.

ASSP Project's CHE intervention is a type of CBHF scheme, as it intends to achieve financial protection and improved financial access to services through the formation of a community-based fund while at the same time incorporating a community-based income generation component. In that sense, CHE is also a type of cooperative. There has been considerable attention to the role of agricultural or other types of cooperatives in combatting poverty in low-income countries (Birchall, 2003; Birchall, 2004). Moreover, the potential for community-based organizations to be effective in improving the ability to pay for health services has been recognized in the literature (Molyneux et al, 2007). However, we are not aware of any previous studies that have evaluated the type of community-based intervention being implemented by ASSP.

1.2 Operations Research and Impact Evaluation of ASSP

Tulane University has been sub-contracted by IMA World Health as an independent evaluator to conduct the Operations Research and Impact Evaluation (ORIE) component of ASSP. As specified in Tulane's Terms of Reference with IMA World Health (see Appendix 1: Tulane's Terms of Reference), the objectives of the ORIE component are as follows:

- Provide a baseline assessment of health status and health services in the ASSP Project areas.
- Evaluate the overall impact of the ASSP Project.
- Conduct a mid-point process evaluation aimed at providing information to strengthen the management and interventions of the ASSP Project.
- Conduct a series of operations research studies that focus on specific ASSP interventions to provide information for DFID and implementing partners on what works in supporting health service delivery in the DRC.
- Participate in implementing the monitoring plan by tracking and monitoring indicators requiring surveys in the log-frame that will be measured with data from baseline and follow up household and health facility surveys.
- Disseminate evaluation and operational research findings to ASSP implementing partners, DFID and the Government of DRC/other donors to inform programme implementation decisions, demonstrate programme impact (both positive and unintended negative effects), and share good practice and lessons learned.

This report constitutes on of the operations research studies outlined in the TOR. For this and the other ORIE studies, Tulane University ensured that academic impartiality was maintained as much as possible by recruiting its own faculty and staff for survey design, data collection and

analysis, and report production. The protocol for this study was reviewed and approved by DFID (see Appendix 2: Research Protocol Executive Summary).

1.3 Study Objectives

As the CHE intervention is a new health financing strategy, research is needed to assess the CHE programme by tracking the implementation process, identifying implementation successes and failures, determining what the effects are, and documenting unintended consequences. The objectives of this study were to 1) assess to what extent the intervention is being implemented as planned 2) identify barriers and facilitators to the implementation of the project and 3) develop recommendations for improving the design, implementation and possible scale-up of the CHE strategy. The following are the principal research questions that were investigated (a more detailed list of questions is provided in Appendix 3):

1) Are village leaders and households willing to participate in the CHE strategy?
2) Is the CHE intervention being implemented as planned? Who takes part in the intervention?
3) Are the expected changes occurring (i.e. income generated for the health centres, lower user fees, increased use of services)?
4) What factors contribute to the success or failure in the initial stages of the CHE programme (based on perceptions of community leaders, health zone staff, health care managers and providers, household members)?

2. Research Methods

The original research design included a mixed methods approach involving complementary qualitative and quantitative data collection strategies in health zones where the CHE project was operating. The goal was to use a combination of data results from both qualitative and quantitative studies to examine different aspects of the project, including community perceptions and actual project inputs and outputs. A mixed method approach would also strengthen data triangulation to ensure that the findings are validated.

2.1 Qualitative methods

Initial data collection

Qualitative research was carried out between June and July 2014 in one peri-urban and in one rural community in the provinces of Kasai Occidental and Maniema in health zones where the CHE intervention had been underway since June 2013. The mix of peri-urban and rural areas was designed to enable us to examine differences between the two contexts, particularly in terms of access to land and non-agricultural income-earning opportunities and how these factors affect

preferred group strategies to raise user fee contributions for health centres. The sites were selected purposively from routine tracking data; selection criteria were designed to be neutral and not in any way bias the choice of sites. Selection criteria included: 1) adequate female and male participants to meet our sample needs, 2) cooperative field size was less than one hectare as indicated in the project design, and 3) communities that were accessible by motorcycle. In Kasai Occidental, the peri-urban community was Tshikaji, situated four kilometres from the BCZ (Bureau Central de la Zone de Santé[6]) de Tshikaji, and the rural site was Mweka, located three kilometres from the health zone offices. In Maniema the peri-urban site was adjacent to the capital Kindu and six kilometres from the BCZ of Kindu, and the rural site was Kintimbuka, 36 kilometres from the BCZ of Kalima. In all participating sites, data collection involved a mix of qualitative methods including key informant interviews, in-depth interviews, and focus group discussions.

While the initial aim was also to collect data in neighbouring communities that decided not to participate in the CHE intervention, we were told by implementing partners that Tshikaji and Mweka were considered pilot areas and that the project was functioning in all of the villages targeted in the vicinity. Therefore, only non-participating villages in Maniema were attempted to be identified. In these villages, key informant interviews were carried out with community leaders. We also carried out key informant interviews with implementing partners (IP) and representatives of the DPS working in the provincial capitals.

Two lecturers from the University of Kinshasa who have training in medical anthropology and extensive experience in qualitative research performed the qualitative data collection. All formal interviews and group discussions were audio recorded; hand written notes of information that gave additional insights into the data were also taken. A more detailed description of the study sampling and data collection is provided below.

Participating Villages

Key informant interview respondents were selected purposively based on their involvement in the intervention. To understand how the project was introduced and the decision making processes related to the acceptance of the intervention and participation by community members, interviews were carried out with community leaders such as the community chief, the Infirmièr Titulaire[7] (IT) of the health centre, the president of the CODESA, the CHE group technical guide, and the president of the CHE group, as well as people overseeing the CHE intervention such as representatives of the implementing partner organizations and the Animateur Communitaire, Chargé d'Eau et Assianissement[8], and Medicin Chef de Zone[9] (MCZ) representatives at the health zone level. With key informants, we also explored community

[6] Health Zone Central Office
[7] Head Nurse
[8] Water and Sanitation Technician
[9] Health Zone Chief Medical Officer

perceptions of the CHE intervention, including benefits and limitations, plans regarding future activities, suggestions for improvements, and issues around project sustainability. We collected data on the harvest, including crops produced and how the harvest was distributed or sold, and reductions in health care fees. Key informants also shared information on the project management and reporting systems, as well as their individual involvement in the CHE intervention. Key informants were typically interviewed on more than one occasion.

In-depth interviews were conducted with male and female participants identified through lists of active participants that the research assistants developed with the project organizers at the village level. While the initial aim was to carry out interviews with four men and four women, in two sites of four sites there were not enough active participants to reach this goal. Respondents were asked about their reason for choosing to participate in the project, the nature of their involvement, the time involved and whether the time commitment was perceived to be appropriate, benefits and limitations to the project intervention, overall satisfaction with the project, whether they intended to continue to participate and why, and how the project activities could be improved. Adoption by participants of new productive crop varieties and innovative agricultural techniques introduced by the project was explored. We also collected information on the project organization and management from the initial stages up to the time of the harvest and distribution or selling of the produce. Information on the use of the produce or money generated and to what extent participation helped to reduce health care costs was also collected.

Focus group discussions were carried out with separate groups of people who had and had not participated in the intervention. Participants were once again selected through participant lists developed with the CHE project organizers; non-participants were identified randomly. Group discussions were designed to collect information on the reasons for participation and non-participation, and for those who were participating, satisfaction with the intervention and recommendations for how it could be improved. In Kindu, there were not enough eligible CHE members to carry out the focus group discussion with participants. Table 1 presents data collected in the participating communities studied.

Table 1. Qualitative study data collection methods and the number of respondents in participating communities in Kasai Occidental and Maniema Provinces.

Methods	Provincial Capitals		Participating Sites			
	Maniema	Kasai Occidental	Kasai Occidental		Maniema	
			Peri-Urban Tshikaji	Rural Mweka	Peri-Urban Kindu	Rural Kintimbuka
Key Informant Interviews	2	2	7	5	5	5
In-depth Interviews						
- Male Participants	-	-	4	4	3	3
- Female Participants	-	-	4	4	4*	4
Focus Group Discussions						
- Participants	-	-	1	1	-#	1
- Non-participants	-	-	1	1	1	1

*One of the four interviews was carried out with a woman who had left the project.
#All participants took part in the in-depth interviews and therefore there were not enough participants to carry out a group discussion.

Non-Participating Villages

In both of the non-participating sites in the Maniema Province, data collection was carried out with four key informants involved in the decision not to participate in the CHE approach including the IT, the president of CODESA, a relais communautaire who participated in the CHE training for technical guides, and the village chief. We explored what initial CHE activities had taken place and what if any factors might encourage them to reconsider partaking in the intervention in the future.

Follow up data collection

In order to get input on the initial study findings from key informant implementing partners, government officials working in the DPS and other key actors involved in project implementation at the health zone and community level, additional qualitative data collection was carried out. In March of 2015 a presidential ordinance was enacted calling for a new administrative configuration of the country's provinces, such that the existing 11 provinces were divided into 26. The former Kasai Occidental was split into 2 provinces, Kasai and Kasai Central, while Maniema remained one province. Thus the follow up data collection took place in Kasai and Kasai Central, as well as Maniema and Kinshasa. Data was collected between March and May 2015. This second round of research also aimed to assess the changes that had been made in the original CHE design subsequent to our initial data collection. Data collection included key informant interviews with implementing partner supervisors, representatives in two provincial DPS, MCZ and AC at the health zone level, and the IT and technical guides at the health area level. While the aim was to carry out interviews with key informants who had previously participated in the study, in some cases this was not possible because the CHE project was no longer active where the initial data collection took place or the respondent was not available. In such cases, new key informants involved in CHE activities at the time of the follow

up study were identified and interviewed. New informants included two DPS members, three MCZs, two Its, and two community group representatives. In total, eight key informant interviews in Kasai and Kasai Central and seven key informant interviews in Maniema were conducted as part of the follow up study. In addition, focus group discussions were carried out with CHE participants in Katoka (Kasai) and Kindu (Maniema); because the CHE groups located in sites in proximity to the provincial capitals had abandoned the project, we carried out focus group discussions with members of different, more recently established groups during the follow up research. Finally, in September 2015 we carried out interviews with the IMA CHE coordinator and principal supervisor in Kinshasa.

2.2 Quantitative methods

For the quantitative component of the study, data from IMA World Health's ASSP Project tracking system were analysed. The indicators were based on data collected in all villages that had agreed to participate in the CHE intervention. In order to facilitate the data collection, IMA World Health developed data collection forms and trained programme participants, including health zone AC, the technical guides, and implementing partner support staff, on data collection and reporting procedures. The implementing partner technical support agents were responsible for supervising data collection and reporting. The data was reported to the IMA World Health headquarters in Kinshasa and then entered into an ACCESS database. The data was then reviewed to identify potential errors, which were then followed up with assistance of implementing partner agents.

Routine ASSP programme data from all villages where the CHE intervention is operating were included in the study. Indicators measured through the quantitative analysis were calculated at the group level, as there were some villages where two or more groups enrolled in the CHE programme. Indicators were calculated using the village group and the agricultural production cycle as the units of analysis.

The following indicators were generated using the group as the unit of analysis:

- Participation in CHE programme, based on dichotomous variable of whether group ever agreed to participate
- Date of enrolment
- Renewal in programme, based on indicator of whether enrolled groups continued to participate in the programme in subsequent agricultural seasons
- Number of households participating in the group
- Demographic characteristics of group members
- Binary indicator of whether the village group has been able to start an income generation activity

- Type of income generation activity chosen by the group for the CHE activity (agricultural-activity based contributions or direct cash contributions)
- Technical support visit information (number of visits and type of support provided)
- Number of agricultural production cycles completed by the village group

For those groups that chose to engage on community-based agricultural activities, the following variables were generated for each agricultural production cycles:

- Field size
- Type of crops planted
- Whether the village group has carried out planting, harvesting, marketing, and sales activities
- Revenue per harvest
- Amount of revenue transferred to the health facility

There are a number of limitations to the data that were collected and made available to the research team. First, the data comes only from village groups that agreed to participate in the programme. No information was available on the number of villages that were exposed to the programme but did not agree to participate. Second, data was collected on technical support provided to the groups, but this data was alphanumeric in form and was not conducive to empirical analysis. Third, while data on agricultural yields was collected, this information was not analysed due to the suspicions that that the yields were underreported. In addition, no information on marketing and sales of crops was collected. Thus, it was not possible to estimate the potential revenue that was made available through community-based agricultural activities. Fourth, while data was available on whether contributions were received by the health centre, and the amount of these contributions, data were not available on how these monies were used, and whether and how programme participants benefitted from the programme via reduced user fees. IMA World Health is aware of these data limitations and is in the process of improving the routine data collection system.

3. Data analysis

3.1 Qualitative

Audio recordings from interviews carried out in local language were translated from the local language into French; all interviews and group discussions were transcribed and transcriptions were written up in a Microsoft Word document. Researchers reviewed the transcripts and developed a coding system derived from the initial research themes and questions, as well as key concepts that emerged during data collection. Coding of the interview transcripts was done on ATLAS.ti, a text-organizing software. Content analysis was used to identify trends of concepts in

and across individual codes. Data triangulation was used to ensure that the findings are validated across different respondents, and between key informant interviews, in-depth interviews, and group discussions.

3.2 Quantitative

Routine programme data was analysed for CHE activities in Kasai Occidental, Maniema, and Equateur provinces of the Democratic Republic of the Congo during the period September 2013 to February 2015. As the database was constructed before the new administrative configuration, the quantitative data analysis will use the former provincial classification of Kasai Occidental and Equateur. Because the analysis period included three planting seasons, this period was divided into 6-month agriculture cycles based on reported planting dates in order to follow participation in the strategy over time.

The majority of indicators described above were calculated using the CHE community group as the unit of analysis. Community groups were defined at enrolment as a collection of participating households within the same village seeking reduced fees for health care services as a result of CHE group payments made to local health facilities. Throughout the period of analysis, groups reported engaging in agriculture production (i.e., planting crops) and/or contributing funds to a local health facility, as part of the programme model. A group was classified as "ever-active" if it reported engaging in any of these activities during this period. The results reported are based on an analysis of indicators only among ever-active groups, or a subset thereof.

3.3 Ethics

Ethical approval of the study and data collection procedures was obtained from the Institutional Review Boards of Tulane University and the Kinshasa School of Public Health before data collection commenced. Oral informed consent was obtained from all participants in the qualitative study prior to the interviews.

4. Qualitative Results – Initial Study

Results from participating villages are first presented, including information on project preparation and implementation, perceptions of the intervention, satisfaction with the project, and recommendations to improve the intervention. This is followed by findings collected in the non-participating villages. Questions asked of respondents in the initial round of data collection are included in Appendix 4.

4.1 Participating Villages

Project preparations

Exploratory talks were carried out in April and May 2013 with IMA and potential NGO partners in Kasai Occidental and Maniema. Characteristics important to IMA in selecting partners included that they had established relationships with community groups in the target zones, had experience with the promotion of agricultural innovations and were able to provide basic extension advice on best agricultural practices for their region, and were committed to helping communities become more active stakeholders in their local health centre. The implementing partners selected in Kasai Occidental was CARITAS Development Kananga, responsible for the CHE supervision and technical support in three zones close to Kananga, two rural zones to the northwest of Kananga, and two rural zones 200 kilometres to the north of Kananga, while PRODEK (Project de Development du Kasai[10]) was selected to follow activities in Mweka, Luebo, Tshikaji, and Mutoto. CARITAS Congo was responsible for overseeing project activities in both of the Maniema sites. A five-day training for those involved in guiding project implementation was held in Demba, about 47 kilometres north of Kananga, and in Kindu in late June/early July. Key informants indicated that participants included the Medicin Chef de Zone, ACs, and the Chargé d'Eau et Assianissement of health zones, as well as representatives of the implementing partner organizations. The training was reported to be led by one or two health experts and one agronomist.

The IMA plan was that community members were invited to form a CHE group consisting of interested households and to establish an agreement with the local health centre. The design also called for each participating community group to nominate a member to participate in an orientation on agricultural practices and subsequently to fill the role of technical guide, which involves overseeing the CHE group agricultural activities. While it was never stipulated that the technical guide had to be a relais communautaire, it was assumed by project organizers that in that first round that it would be easiest to work with relais communautaires.

In May 2013, the programme faced a difficult choice. For the CHE agricultural activities to follow the agricultural calendar, preliminary activities including identifying groups, orienting the informal advisors (technical guides) of the groups, distributing the seeds, and preparing fields, all had to take place before September 1, the opening of the main agricultural season in both Kasai Occidental and Maniema. If the date was missed, CHE would not be launched until May 2014 and the first contributions would not start to come in to health centres until March 2015 at the earliest. IMA chose a quick start, recognizing that groups would not be fully informed about the approach. The NGO implementing partners understood the need to identify cohesive, well-organized groups with prior experience mobilizing support for their local health centre, and they indicated that they already had working relationships with certain community groups that could

[10] Kasai Development Project

meet the criteria. Therefore, it was decided that during the first round groups would be identified by the NGO implementing partners and health zone personnel as entities that functioned well and were predisposed to support the health centre. We were told that IMA emphasized that numbers were unimportant compared to the assurance that groups could make an informed and free choice to participate.

Exposure to the project, training, and community involvement

Key informants confirmed that communities included in the study were selected by the IP and health zone partners. In Kasai Occidental, the ITs that were interviewed indicated that a few weeks before the formal introduction to the project took place at the community level, they were contacted by the Bureau Central de la Zone de Santé and requested to identify relais communitaires to participate in a training, with all ITs interviewed indicating that the only selection criterion was that the relais communitaire had previously been part of an association or project. In Maniema, we were told that the technical guides to be trained were selected by CARITAS, the implementing partner. The project stipulates that, before receiving training on the project activities and best agricultural practices, the technical guide be selected by community members. However in the communities studied this did not take place, thus contradicting the CHE design which envisioned that the technical guide represents and serves the interests of the community group. It should also be noted that the CHE approach includes an information campaign that, according to the design, should have oriented the ITs on the project prior to its onset; nevertheless, the ITs claimed that they were not informed about the purpose of the training or the details of the project, once again reflecting the fact that the project got off to a quick start and, as a result, activities were not implemented as planned. In general, ITs complained about the fact that they were not invited to participate in the training and not properly involved in project activities. Since the initial study, this was recognized by IMA as a weakness in the project and was subsequently addressed by routinely including ITs in the CHE information campaign orientations for CODESA members.

In Tshikaji, two relais communitaire were identified and in the other research sites one relais was selected to participate in the training of technical guides. While in two research sites the choice of relais communitaire was perceived to be well received by the population, in Mweka, the IT selected his brother-in-law who had never worked as a relais communitaire or even been associated with a project. Villagers subsequently referred to him as the “faux relais,” or the fake relay. In Kintimbuka, CHE participants stated that the relais communitaire selected was always privileged to participate in projects, and the community members contested the selection. This relais, who also became the president of the CHE group, was highly criticized by CHE participants, who suggested that she restricted CHE membership to villagers with whom she had previously worked so that she could conceal sensitive information such as the quantity of seeds received and crops harvested, and reap personal benefits from the project activities.

After being selected to oversee CHE project activities, the relais communitaire indicated that

they participated in a 1-2 day training held at the zonal level in July. The training was reported to be led by health experts and an agronomist. Reported topics covered during the training were varied, with the relais communitaire from Kindu indicating that the focus was on basic farming techniques, emphasizing that the training was too short to retain all the project-related information shared. In Tshikaji and Mweka, informants reported learning that project participants must contribute some of the harvest to the health centre in return for a reduction in the cost of health treatment and that improved seeds would be distributed for planting. One of the relais communitaire from Tshikaji, who reported to have attended a one-day training, said that the session was more like a briefing than a training, explaining that the main purpose was to encourage the relais communitaire to start the CHE field work immediately, with the organizers apparently suggesting that they did not have sufficient time to gradually solicit community support for the project.

Respondents' accounts contrast with the formal schedule IMA has developed to train the technical guide, which lasts for two days and is comprised of six modules including an overview of the CHE project, roles and responsibilities of the technical guides, and simple recommendations of farming practices to improve agricultural production. According to IMA, the main intent of the training is to inform the technical guides representing the groups about nine simple farming practices that can improve crop yields.

Subsequent to the training and upon return to their respective communities, we were told that the relais communitaire serving the role of community group technical guide informed the village chief about the project and requested his involvement in convoking community members to participate in a village meeting intended to raise awareness about the project.

Introduction to the project

In the two peri-urban sites of Kindu and Tshikaji, the project was introduced to communities by government officials, specifically by the AC or by the AC and the Chargé d'Eau et Assianissement of the health zone. In both cases, the recently trained technical guides were also present during these sessions. Subsequent to the community meeting, the technical guide from Kindu also went house to house to introduce the project to community members. Key informants from both Kindu and Tshikaji mentioned that the ACs were counting on these communities as exemplary or pilot sites; the AC from the zone of Tshikaji was a relative of the village chief and was therefore motivated to ensure that the project succeeded. Because the project required a portion of the harvest be given to the health centre, it was reported that some community members from these sites initially questioned the integrity of the project, particularly since it was associated with reputable NGOs that typically provide free services. Therefore, the presence of the AC was viewed as essential, giving the project credibility and helping to convince some community members to participate. In the two rural sites, Mweka and Kintimbuka, the technical guide led the sessions designed to introduce the project to community members.

These meetings were all convened in July of 2013 and held in such central locations in the village as the front of a Catholic Church, the residence of the village chief, or the home of a relais communitaire, which was a common meeting venue. The village chief was involved in convoking community members to participate in the session designed to orient villagers about the project, and in three cases, it was mentioned that the chief participated in these sessions. In Tshikaji and Mweka, respondents confirmed that the majority of the community members, including principal village leaders, were present during the orientation session. In Mweka, respondents recounted that shortly after the orientation session, the president of CODESA, accompanied by a foreigner, visited the village to see how activities were going and to encourage CHE participants. Our study respondents surmised that the expatriate worked for one of the implementing NGOs, and based on prior experiences, they believed that the project would offer farming materials once activities got underway.

Messages understood regarding the project

The general understanding of the CHE participants was that community members who chose to participate must form a group and work collaboratively in a community agricultural field. Respondents reported that improved seeds would be provided by the implementing agency or the health zone. While the project stipulated that improved seeds would only be distributed for the initial planting season, in Kindu, many participants understood that improved seeds would subsequently be distributed prior to each farming season, and in both Kindu and Kintimbuka participants reported that an international organization (PAM was mentioned) would purchase the harvest at a higher price than that usually received in the market for produce yielded from local seeds. Kintimbuka participants added that, since the introduction of the project up to the time of the qualitative study, none of the project organizers had visited to inform them when the harvest would be purchased. In Tshikaji and Mweka, the AC and Chargé d'Eau et Assainisssement who had participated in the preliminary training mentioned that the project recommended that 10 x 10 meters field space be available for each participating household. Project participants from Mweka—a group that originally started with close to 100 people--understood that the communal field should measure 100 x 100 meters. In Tshikaji participants could not remember the recommended field size. It was also reported that community members were told that the field must be within 5 kilometres of the village, but they did not comprehend why. There was a general understanding that participants would receive agricultural tools to carry out the work; however, this was not included in the project plan. Although the project expectation was for participants to provide and cultivate half of the cooperative field with local seeds, this was not mentioned by participants.

Overall, there was a lot of confusion about the size of the field, the distribution of improved seed, the distribution of farming materials, the link between the community work and the health centre, and the role of the IT. While many participants had understood that they would receive farming materials, key informants overseeing project implementation denied making any promises. One CHE participant from Mweka said,

It is the CODESA president and the head nurse (IT) of the health centre who told us to cultivate the field. They told us that we would receive money and materials such as boots, machetes, hoes, and clothing for work in the forest (referring to the fact that the field is located in the forest).

ACs claimed that villagers were given different options with regard to their participation and contribution to a health mutuelle; specifically, they could either work in a community field, work in their private fields and contribute individually, or contribute Congolese francs (CF) on a monthly basis to benefit from a reduction in health service fees. In all sites, villagers chose a community field as the best option. While there was a general understanding that a portion of the harvest would be given to the health centre in exchange for a reduction in health care fees, there was a wide range of responses regarding the amount the community group must contribute and the subsequent reduction in the cost of health services. Participants did not recall the AC mentioning the 500 CF reduction in fees for each consultation as recommended by the project organizers, although we did not explore this further with the AC to understand to what extent this information was shared. In Kindu and Kintimbuka, participants understood that they must give 40-50% of the harvest to the health centre and the cooperative would keep 50-60%. In Kindu, participants had understood that they and their family members would receive a reduction in health treatment fees, but were unclear about the degree of the reduction, and in Kintimbuka many participants understood that care would be free. In Tshikaji and Mweka, participants were unable to report the portion of the harvest to be given to the health centre; respondents from these sites understood that they and their family members would be eligible to receive a 50% reduction in fees relating to health services, with some participants from Tshikaji believing that this included surgical interventions.

In Kintimbuka, where communities affected by the longstanding war had been receiving free medical care, some respondents assumed that the project coincided with the transition from NGOs offering free, emergency assistance, to a development phase, involving community participation. This may have been the way CARITAS Congo presented the CHE project and is an objective of the overall approach.

Concerns about the project

In all the communities studied, respondents reported that the vast majority of community members chose not to participate in the project. In both of the sites in Maniema, respondents stated that many villagers were sceptical about the authenticity of the project, explaining that in their experience, CARITAS had never requested that community members make a contribution when organizing an activity or in return for services. In Kintimbuka, some respondents suspected that the relais communitaire selected as technical guide was using the name of CARITAS, which had a positive reputation, to deceive them.

In Tshikaji, there were concerns about the quality of their soil and whether the improved seed varieties distributed would be productive, with many respondents mentioning that they had had

poor prior success with high yielding varieties distributed by an NGO because they were not adapted for the local conditions and rendered poor results. It is important to note that the project offered improved seed as an option to groups to use, and it was up to the implementing partner to explain to the CHE groups that they were not obligated to use the improved varieties available through the project. In this instance, there may have been a miscommunication between the implementing partner and the CHE group regarding what the options were. Community members also questioned the project requirement that the field be within 5 kilometres of the village, stating that land in proximity to the village is not fertile, increasing the likelihood of low yields and also the invasion of domestic animals. Concerns were also raised about transferring produce or money to the IT, who they claimed was far wealthier than the villagers, thus creating a greater socioeconomic gap between the IT and community members. In Mweka, the majority of villagers did not participate because an illegitimate relais communitaire, the brother-in-law of the IT, was selected to oversee community group activities.

In general, questions were also raised about whether the ITs would respect the fee reduction. Some participants suggested that, in order to make participation worthwhile, the fee reduction should be significant, with some recommending at least half of the health service costs.

Perceived advantages

In all of the sites, most participants interviewed cited a reduction in health care costs or free care as a primary reason for deciding to join the project. In three sites, the fact that participants would receive hybrid seeds was also cited as a motivator, with participants asserting that improved seeds produce a much more abundant harvest. Respondents from Kindu and Kintimbuka mentioned that they anticipated increasing their overall revenue and household consumption, and in Kintimbuka some participants believed the project could help reduce the prevailing problem of malnutrition. Participants in these sites also highlighted the advantages of communal farming, indicating that communal activities are both more profitable and sustainable. In Kintimbuka, where participants explained that the war and economic crises had caused divisions in the community, the CHE project was seen as a mechanism to form alliances among community members. Respondents from Kindu and Kintimbuka also mentioned that villagers generally perceive development projects to be beneficial, providing opportunities for poor populations to advance.

Participants from Tshikaji indicated that the involvement of the AC, who was originally from the village and well respected, influenced their decision. Some mentioned that despite previous negative experiences with the productivity of improved seeds, the innovative nature of this project, linking agricultural production to reductions in health care fees, inspired them to participate. Others mentioned that they are agriculturalists and therefore it seemed logical to enrol in the project. Participants from Mweka also added that as farmers, the activities coincided with their expertise and interest, and that they wanted to be involved in a project aimed to improve conditions in the village.

In general, male respondents decided independently to participate, while married women consulted their husbands before committing to the project, explaining that they could face negative consequences by making a decision without spousal authorization. One woman from Kintimbuka explained,

> *Even if the decision that you make is good, it is not certain that your husband will be in agreement.*

Another female participant from Kintimbuka said,

> *Here in Maniema the men are very difficult. To avoid disagreement, you must always wait for their approval.*

The relais communitaires acting as technical guides cited the per diems they gained and the recognition received for leaving the village and participating in training sponsored by an NGO for a few days. Key informants, such as ITs and personnel at the zonal government offices, mentioned that the nature of their work predisposed them to participating in the project.

Project implementation

Preparations

Key informants explained that the seeds were purchased by the implementing partners and subsequently given to the zonal health offices. The zonal offices were responsible for delivering the seeds to the ITs in the health centres who distributed the seeds to participating villages.

At the community level, an initial meeting was held anywhere from a few days to a few weeks after the community was introduced to the project. The purpose of the meeting was to identify villagers who chose to participate and the group committee members. While the designers of the community groups envisioned less formal groups based on friendship, trust, shared values, and mutual interests, in Kindu and Tshikaji participants elected posts, comprised of a president, vice president, secretary, and treasurer (Kindu also had posts of assistant treasurer and mobilizer), to play leadership roles. During this meeting, the work schedule may have also been elaborated.

In Kindu, participants received improved maize seeds; while most respondents were unable to report the quantity, a few estimated 10 – 15 kilos. In Tshikaji, where both improved peanut seeds and manioc cuttings were available, participants were also unable to estimate the quantity distributed. Because the manioc cuttings arrived late according to the agricultural calendar, and most of the cuttings were reported to be dead, participants stated that they did not have adequate time or cuttings to plant a communal manioc field and so chose to plant any viable cuttings in their own private fields. In Kintimbuka, participants indicated that they were promised to receive improved maize seeds, but subsequently received rice, raising many doubts about the integrity of

the project and whether CARITAS, an NGO perceived to be highly reliable, was truly involved. In the final site of Mweka, participants reported that the promised improved seeds were never received. The IT indicated that, at the time of distribution, he realized that all of the seeds he had received for his health area had been distributed, and no seeds remained for the village of Mweka. The Mweka village chief subsequently requested that all community members contribute to the purchase of improved maize seeds sold locally by an agronomist. Respondents indicated that they purchased 23-25 kilos of improved maize seeds, costing 12,000 CF, which was collected amongst participants.

Participants from all sites mentioned that they followed the project recommendation of cultivating a field close to the village; in two sites, the field was within 5 kilometres of the village. Across all sites, many participants indicated that prior to the start, they were not well informed by the technical guides, group leaders, and local authorities about the chronology or details of the project activities.

Activities

Kindu

In Kindu, two days after the elections for the community group posts were held, election results were shared, a work schedule was developed, and association rules were formalized. We were told that because the community is located in a peri-urban area, the association had problems identifying an appropriate field. The group decided to rent a field at 10,000 CF, with each member contributing 500 CF. However, shortly after making the contribution, a villager who had been absent during the meeting offered a field, which was already cleared and ready for planting, for free. Respondents reported that the money gathered to rent the field disappeared, causing members to question the honesty of those in charge of the community group.

Our informants indicated that the dimensions of the selected field was approximately 50 by 50 meters, with some estimating that five sacks of maize could be yielded from a field this size. The agreed upon schedule required that participants work in the fields two times per week, Wednesday and Friday. Several respondents indicated that in total they only worked four times, two Wednesdays and two Fridays, explaining that as the field had already been cleared of trees and bushes, the more arduous work was already completed. We were told that participants planted seeds the first Wednesday and the other three days were devoted to weeding. We learned that agricultural work is gender specific, with men responsible for the more physically intensive activities involved in cutting trees and clearing the fields, and women involved in planting, weeding and harvesting. Given these roles, male participants did not contribute to field activities, and because the field was small, they did not feel that the women needed assistance to carry out the typically female-oriented work. Locally obtained seeds to compare yields to the distributed seeds were not planted.

At the outset, respondents indicated that several group meetings were held, during which the group's president shared information regarding the project. Some informants mentioned that the president boasted about the per diem that he gained by attending project-related meetings convened by CARITAS. Starting in October, when there were severe rains and flooding, the president stopped convening meetings, with some assuming that he wanted to avoid questions regarding the disappearance of the money collected to rent the field. Over time, members became discouraged and gradually abandoned the project, with most respondents stating that they started with 20 members, but at the time of the interviews, only three men and three women remained.

Most of the six participants remaining in the project at the time of the study indicated that the project organizers and participants were capable of carrying out the project as planned, and the majority said that, despite many problems, they would continue to participate in order to benefit from the reduced health care fees. Several complained about the lack of follow-up by organizers, and one participant criticized the president for poor leadership. In addition, all participants condemned the fact that the seeds arrived late and therefore the project did not follow the agricultural calendar, with respondents describing two farming seasons, the first going from August to December and a second season lasting from January to June. The project was introduced in July and the maize seeds arrived in September at a time when the fields should have already been planted. In addition, when the project was introduced, villagers were already engaged in their family agricultural activities, preventing many villagers from committing.

Tshikaji

In Tshikaji, three days after the community meeting introducing the project, the village chief showed community members an area, apparently owned by his clan, where participants could carry out the field work without conditions attached. When the chief presented the land area, he apparently invoked the village ancestors, requesting their blessings for a good agricultural season and asking that the group members mobilize to ensure the success of the project. As indicated, elections were held to identify who would play the roles of cooperative president, vice president, secretary, and treasurer, as well as advisors. Two relais communitaires, who had previous project experience, were nominated as president and vice-president. Community group leaders, as well as members, were predominantly from the chief's family, including his two wives.

We were told that the field size was one hectare, but that the entire field was not planted because the peanut seeds received were insufficient. As indicated, the viable manioc cuttings were not planted in the communal field with some respondents indicating that manioc requires extremely fertile land. Local seeds were not planted.

At the outset, there were 40 participants, including 28 women and 12 men, but at the time of our study only eight women and four men remained in the project, with some removing themselves from the project even before the distribution of the seeds. We were told that all of the work, including planting, weeding, and harvesting the peanuts was carried out by women, once again reflecting traditional gender responsibilities. Initially, the work was done on four Saturday

mornings, but as people dropped out, women were required to work two Mondays and Saturday mornings consecutively. The harvest was completed during three mornings over the course of one week. Work was conducted from early in the morning, and we were told that it did not interfere with the women's personal activities.

Several group members had participated in another project, and due to this former experience, these participants tried to take control of the CHE intervention, causing conflict with members perceived to be less experienced. Moreover, it was reported that the president mistreated certain members, particularly participants who had not worked with her previously, making them feel uncomfortable and provoking them to resign. When one person quit the project, their family members typically followed suit. Several of the participants who remained in the project indicated that they did not want the project to fail and to cause the AC, a respected member of their community, embarrassment.

The vast majority of respondents indicated that the seeds arrived in September, which is late according to the agricultural calendar. Once again, respondents insisted that to have a productive harvest, it is critical to respect the agricultural calendar. Also, we were told that the project was introduced rapidly and, as a result, the respondents felt that they were not adequately informed about the project and terms of participation; respondents also indicated that the rapid start did not allow groups to have adequate time to prepare the agricultural activities. These factors were reported to undermine the project's success.

Kintimbuka

In Kintimbuka, several respondents indicated that the only meeting that was held was the introductory session in late July 2013, which was led by the relais communitaire acting as the technical guide, who was also the self-appointed president of the CHE group. No elections were held to nominate other members of the group and the president remained the only leader. Because she had been involved in other project activities, she was perceived to receive special recognition from NGO representatives and other outsiders. However, members questioned why she was the sole leader, with some, including the village chief, suggesting that she was filtering and transforming information she received from the CHE organizers so that the strategy resembled previous projects in which she had participated. Respondents indicated that no formal work schedule was developed by the group and that there was no follow-up by the AC or any other people representing the project.

A field near the forest was offered free of charge by a school teacher; his wife was a member of the community group. Participants indicated that the field dimensions were 100 by 100 meters, and they estimated that the field could produce five sacks of rice. Because the rice seeds received could not cover the entire field, participants also planted local maize seeds. It should be noted that the village was located over five kilometres from the health centre. Participants indicated that they only used the health centre when health conditions were perceived to be serious, and

due to the limited contact, did not have a strong relationship with the IT, raising doubts about the wisdom of transferring money or a portion of the harvest to the health facility.

We were told that the community group started with 23 members, of which 16 were women and seven were men. When joining, many members had anticipated some sort of compensation similar to what was given through other projects involving NGOs. Because they did not receive any incentive, such as money or tools for their participation, over time people dropped out of the project, with 12 members (eight women and four men) remaining at the time of the qualitative data collection.

Most respondents indicated that the first activity involved clearing the field, which was primarily done by male participants over a two-day period. The rest of the work, entailing tilling the soil, planting, and weeding was carried out by the female participants one time a week for several hours over a few weeks' time. The harvest, which was also the responsibility of female participants identified by the president, was done on different days. Several respondents contended that the president selected different women to harvest the rice at divergent times so that nobody would be able to estimate the overall rice yield.

After the harvest more participants left the project, explaining that they were unwilling to continue because they had not been informed about the harvest and also because of the general lack of accountability of the president who, as indicated, had been self-appointed. Non-participants stated that they were happy with their decision, claiming that those who participated had not reaped any benefits.

Mweka

In Mweka, respondents reported that the introduction to the project was held in late July, and project activities began in early August. Two days after the village meeting, a community member offered a piece of his land located in the forest to be used for CHE activities, indicating that the project was for the betterment of the village.

Elections for group posts did not take place in Mweka. Rather, the chiefdom structure was used to lead the group, with the local chief and his assistant, who was traditionally in charge of communication and public relations, assuming leadership roles. All of the project decisions related to the work schedule and the different activities to be carried out were designated by the chief, with project-related information also shared with the IT and president of CODESA. The chief appointed two project supervisors, including his assistant and the technical guide, who was also his brother-in-law. Respondents indicated that the IT and president of CODESA were active in the CHE intervention, frequently visiting the field, interacting with participants, and providing encouragement by buying participants local alcoholic drinks.

The size of the field was estimated to be 100 by 100 meters. Because the improved seeds purchased by the community were not sufficient to plant the entire field, participants also

purchased local maize seeds for planting. The improved seeds were planted in a larger portion of the field. While most respondents were unable to estimate the harvest that the maize seeds could potentially yield, some suggested 30-40 Meka, a local measure, which the research assistants were told is approximately equivalent to 3-4 50 kg sacks of maize.

Our respondents did not know the total number of participants, with one respondent estimating 95 members. Project organizers kept a notebook, which upon review suggested that 45 households were participating; names of participants also included boys and girls ages 10-15 years. We were told that the group leaders decided that the work would be carried out two days a week, selecting Wednesday and Friday, which apparently are culturally important days when villagers celebrate their ancestors and pray to their gods. The belief was that working these days could bring good fortune to the project. As the field was close to the village and the work communal, it was decided that only half days of work were needed.

Initial field work involved cutting the trees and clearing the land; because the land was fallow with few trees, and as there were many men involved, this work only took two days. Women and girls took on most of the rest of the work, tilling the land for two days, planting for two days, and weeding for three days. To ease the workload, the village chief decided that the harvest, which occurred over a two day period, be carried out by all members.

Harvest

In Kindu, our respondents indicated that because the harvest was insignificant, the group did not sell the produce. While key informants were unable to report the crop yields, participants stated that they harvested three basins of maize, with one basin divided among participants, one basin kept for planting and one basin given to the president of the group who was responsible for transferring the maize to the health centre. They attributed the poor harvest to three factors, including 1) the late arrival of the seeds; 2) severe rains between October and December, which caused water inundation; and 3) the stealing of maize, with some explaining that their crops were vulnerable because members stopped attending to the field. Many of the participants were unclear whether the group president had given the IT the portion reserved for the health centre. When we interviewed the president, he admitted that he had not given any of the harvest to the health centre, citing two reasons. First, the harvest was small and therefore he felt it was prudent to complete the next harvest before giving the promised produce (he mentioned 40% of the overall harvest) to the health centre. Second, the fee reduction had not been authorized by health officials at the provincial level, and therefore it did not make sense to give the health personnel a portion of the harvest at a time when they could not apply it to a reduction in health service costs. When asked why members were not properly informed about the harvest, he claimed that as president, he has the right to make decisions without informing participants. The IT also confirmed that he had not received a portion of the harvest.

In Tshikaji, male participants claimed that the harvest yielded four basins, with one basin given to the health centre and the other three divided amongst members. Women reported harvesting two or three basins, and the village chief stated that they had harvested five basins. Many participants suggested that the harvest would have been bigger if the seeds had arrived on time and been sufficient so that the entire field had been planted. Others explained that fertilizer recently introduced by a Belgium project had reduced the field productivity. Based on the information collected, our research assistants estimated that the harvest was more than participants claimed. We were told that participants kept a portion for their own consumption and sold the rest to buy soap, maize flour, salt, and oil, and that all of the female participants purchased a pagne for 2500 CF. The IT and CODESA president confirmed receiving one basin of peanuts, which was sold for 10,000 CF, explaining that the money would be used to make chairs/benches for patients. Participants noted that the proportion of the overall harvest given to the IT was less than recommended by the AC (50% according to respondents) at the outset of the project. The IT and president of CODESA also indicated that they were unable to give a reduction in health care costs until receiving an official note from the DPS. It was also reported that a portion of the harvest was given to the village chief in recognition of his authority, indicating that it is customary to compensate the chief. Manioc was planted in private fields and it was therefore impossible to know the yield; participants planned to keep the manioc harvest for their personal use.

In Kintimbuka, several respondents reported that the harvest was between 1 ½ and 2 sacks of rice. Other participants gave varying estimates, with many claiming that there was a lack of transparency on the part of the community group president, who organized the harvest so that the participants were unaware of the total yield. Based on the information collected, the research assistants determined that they harvested approximately five sacks of rice. Many respondents indicated that the harvest was less than expected because the rice seeds were planted in a field appropriate for maize cultivation. As the seeds arrived late, it wasn't possible for villagers to change the field site. Participants reported that the rice seeds were of high quality, which was confirmed by the fact that, despite the constraints faced, the production was big compared to that of local seeds. Several participants interviewed stated that the rice harvest was being kept by the president; some believed that she was waiting for confirmation regarding the amount of produce that should be given to the IT of the health centre and others said that she was waiting for CARITAS to purchase the rice. Other participants claimed that the harvest had already been sold and the president retained the money received. There was also confusion whether or not a portion of the harvest had been transferred to the health centre. According to the president, the rice harvest had been distributed amongst participant members; during the interview, she expressed surprise that the participants were expecting something from her. Respondents in the focus group for non-CHE participants maintained that the project had become a private endeavour for the president and her family and friends. One former member said,

I am the oldest of the family line of the husband of the president. I left the group because it was being privately run by one family. Why treat others like objects? It is the underhandedness of the president that pushed me to leave the project.

During the study, the research assistants learned that the rice had not been sold but was stocked in the president's home, presumably for her personal use. Participants in the community did not receive any compensation for their work.

Finally, in Mweka most informants were unable to report the quantity of maize given to the health centre, stating that the harvest was still on the cob and therefore difficult to measure. Participants assumed that the president did not want them to hull the corn from a concern that it would then be easier to confiscate some of the produce. Participants and key informants, including the IT and president of CODESA, confirmed that the entire harvest of both improved and local seeds was given to health centre personnel as the CHE contribution, stating that because the production was small it did not make sense to distribute it among members of the CHE group.

The IT claimed that the improved seeds produced two 50 kilo sacks and the local seeds produced one 50 kilo sack of maize, indicating that he sold the harvest for 16,000 CF. He stated that the monetary sum received was insignificant in relation to the cost that would be involved in reducing treatment fees for all of the CHE participants and their family members. He also indicated that he was awaiting authorization from the health authorities, mentioning the Medicin Inspector Provincial[11] and personnel of the health zone, to provide treatment at a reduced cost. Once again, participants claimed that the harvest did not meet their expectations because the seeds, which had to be purchased, were planted late, reducing the possibility of cultivating a big harvest.

Overall, it was difficult to get accurate reports on the harvest, with many key informants and participants reluctant to disclose the information. During our interviews, we also learned that in three sites, participants frequently went to the fields and helped themselves to the produce. It should also be noted that the initial CHE design called for local groups to take full responsibility for post-harvest handling and sale of the crop; the health centre IT was only supposed to become involved when the group was ready to make its monetary contribution. The practice of giving the crop harvest to the IT occurred in more than one site and appeared to reflect a misunderstanding on the part of the group leadership regarding how the harvest should be handled.

Perceptions of the Project

[11] Chief provincial medical officer

Work requirements

Overall, respondents indicated that due to the shared nature of the work, the time commitment was minimal, having no effect on their household or other work. One woman from Kindu said,

> *This work does not bother us. Communal work does not require much time. You can work for a few days and then it is finished.*

All female respondents indicated that, due to the fact that the field was near the village and the work requirements and time commitment were limited, the project work had no negative consequences on their children. They explained that, if appropriate caregivers (e.g. older siblings or a co-wife) were not available at home, younger children less than 5 years of age were typically carried to the fields where they were seated on a piece of cloth under the shade of a tree. If the child cried, mothers claimed that they stopped work and responded to the child's needs or requested another woman taking a break to provide care for the young child. Respondents insisted that childcare presented no difficulties and was not modified in any way.

Benefits

Across all sites, participants suggested that there were no or limited benefits to participation. In the two sites where groups had made a contribution in the form of crops to the health centre, respondents were disillusioned by the fact the health care costs were not reduced. The few participants from Kindu and Tshikaji who mentioned benefits cited the fact that they received a small quantity of the harvest for consumption, with several respondents emphasizing that this was not the main objective or reason they agreed to participate, which had been related to the reduced health care costs. Interestingly, female respondents in these sites generally attributed more value to the project, stating that they had received something in return for their work, particularly in Tshikaji where the women sold some of the harvest to purchase new pagnes. Participants from Kintimbuka and Mweka, who did not even receive a portion of the harvest, were unable to cite advantages to participating. One respondent from Mweka reported,

> *All work deserves a salary. But us, we have worked for nothing in return, even not the health care (reduce fees) that was promised, nothing was done.*

Weaknesses

In all sites, the participants indicated that the project had many limitations, beginning with the fact that it was introduced in a hurried fashion, restricting the time available to raise awareness about the objectives and conditions for participation, solicit the commitment of villagers, and prepare properly for project implementation. In addition, the project was introduced at a time when villagers were already busy working their own fields and therefore started under the assumption that villagers would assume CHE activities at the risk of jeopardizing their own work. While the project assumed that the group effort would be modest and not have a significant impact on household's normal seasonal work, the fact that villagers were recruited

rapidly and at the last minute could have created the sort of time and labor competition alluded to here. Some participants suggested that they were not consulted and that the project was imposed on villagers. Participants claimed that community leaders, who presumably accepted the conditions under which the project would be implemented, did not carry out the necessary measures to ensure proper execution. The haste by which the project was introduced was believed to cause many misconceptions about the project goals and activities, roles of the participants, contributions by the organizers, and outcomes, causing general lack of understanding between the village level organizers and participants.

Respondents claimed that the promises made at the outset were not met (e.g. health care fee reductions, receipt of improved seeds (Mweka)). The fact that they did not receive agricultural tools, which was commonly assumed to be a project benefit, was also cited as a weakness. Participants cited specific project failures as follows: the agricultural calendar was not taken into account; the seeds arrived late and in some cases seed distribution to villages was not carried out equitably; seeds were not received (Mweka), seeds were insufficient to plant a large field and manioc cuttings were dead (Tshijaki), or the crop was different than expected, such as rice rather than maize (Kintimbuka); farming materials were not distributed, forcing participants to use their own tools which were described as rudimentary; the local leadership was authoritarian and self-serving; health personnel were suspected of keeping some of the seeds or harvest for their personal use; and reductions in health care costs were not instituted, with several participants indicating that they had taken sick family members to the health centre, but had to pay the normal consultation fee even after the group had given all or part of the harvest to the health personnel. In actuality, only the IT in Mweka had a list of participants, and it wasn't clear how the health personnel would even know who was or was not participating in the group.

In Mweka, the village chief and his advisors believed that the IT did not want to provide care for reduced costs. A conflict arose between the village chief and the participants, who claimed that the chief had made them contribute to the purchase of seeds and to work in the field for nothing in return. Anger was also expressed by participants towards the IT for not providing reduced user fees.

In addition, many respondents had expected compensation in the form of materials, clothes, or money. Other problems cited related to the lack of supervision, forcing the participants to carry out activities and attempt to resolve on-going problems without guidance from implementing partners. When talking to the research assistants, a female respondent from Kindu said,

> *After a long period, you are the only ones with whom we have spoken regarding the project. Since the representative from CARITAS came here, he has never come back to know where we are with his project. One year later your team comes to speak about this project, which a lot of people have already forgotten about.*

Respondents from Tshikaji also believed that the research assistants had been sent by the project organizers to reinforce project activities, noting that there had not been any follow-up since the start of the project in July 2013 and the visit by the researchers in June 2014. When talking to the research assistants, one participant from Tshikaji said,

> *We consider you to be representatives of the project organizers, and it is up to you to tell the head nurse (IT) to apply the reduced fees for the project participants. It is a promise that they made to us; we already gave a portion of the harvest to the head nurse (IT).*

In Kintimbuka, respondents indicated that the lack of outside supervision allowed the group president to take complete charge, apparently hiding the quantity of seeds received and appropriating the harvest, without any accountability. Only in Mweka did participants claim that the project was closely supervised, in this case by the IT and CODESA president. However, participants suggested that these two were not in a position to address the many challenges faced (e.g. the selection of the chief's brother-in-law as technical guide, no seeds received, etc.) during the project.

Several participants mentioned that there was no designated person to notify in case of technical or programmatic difficulties. They were not aware that the CHE approach designates the AC and implementing partner supervisors as point people to contact to resolve on-going problems. Another reported problem was that the project relied too much on the transparency and honesty of the group leadership and the IT or health personnel. All of these factors served to discourage participants and contributed to the fact that the majority left the project.

When we asked about supervision, the ACs from Tshikaji and Kintimbuka and the Chargé d'Eau et Assainissement from Mweka responsible for project supervision explained that the motorcycle at the zonal level was not available, and the budget for the project made no provision for the cost of gas, which prevented them from supervising activities. According to the project design, they were expected to visit groups participating in the CHE intervention at least once every three months. The ACs also admitted that, due to the fact that their salary premium was low, they lacked motivation to carry out additional work. Another major weakness related to the fact that the CHE project was not on the list of performance indicators of the health zone offices. It was also reported that Medicin Chefs de Zone claimed that they were not adequately informed about or implicated in the project and therefore reluctant to authorize staff in the health zone offices to provide project support.

The research focused on the planting season between August 2013 and January 2014, mostly because the groups appeared to disintegrate after the first planting season. However, we learned that during the second season, which lasts from January to June, in Kindu a small group continued communal farming and, in Mweka participants also farmed, but refused to share information or engage health centre personnel in their activities. In Tshikaji, activities came to a

halt, with participants suggesting that they were waiting to receive additional seeds and because the benefits were minimal, they were not motivated to pursue the project.

Satisfaction

Participants were asked a separate question regarding their overall satisfaction with the project and, subsequently, requested to explain their response. The majority of participants in Kintimbuka and Mweka indicated that they were not at all satisfied, once again emphasizing that the project was poorly organized, promises were not met and there were no tangible benefits. In Kintimbuka, participants were extremely disappointed by the behaviour of the technical guide who was also their president, who was accused of lacking transparency and favouring certain members and suspected of confiscating the harvest. In Mweka, respondents suggested that the project activities were imposed on them, once again highlighting the fact that they were required to purchase the seeds. While male respondents from Kindu also cited the lack of benefits and poor project organization as reasons for their dissatisfaction, female participants stated that they received high quality seeds that they could use for future cultivation. Participants from Tshikaji who were initially sceptical about the seed and tuber varieties being distributed were somewhat more positive, indicating that they had received improved seeds and harvested, although in a small quantity, peanuts. Several women also mentioned that the manioc cuttings planted in their personal fields were of high quality.

Recommendations

When asked for recommendations to improve the project, key informants and participants suggested the following:

- Keep promises regarding project inputs and activities (Kindu, Tshikaji, Kintimbuka, Mweka).
- Distribute agricultural tools (e.g. machetes, hoes) (Kindu, Tshikaji, Kintimbuka, Mweka).
- Carry out supervision/follow-up so that implementing partners can understand and evaluate field level activities and assist in resolving problems (Kindu, Tshikaji, Kintimbuka).
- Implicate the entire health hierarchy to ensure appropriate implementation and follow-up (Kindu, Tshikaji).
- Make seeds available on time in order to have good harvest results (Kindu, Tshikaji).
- Give the crop yields/money received from the harvest to somebody who is trustworthy (not the IT) (Kindu).
- Change the leadership of the community group (Kintimbuka).
- Change the way local people are selected to oversee project activities (Mweka).
- Improve the organization structure of the local CHE groups so that participants are respected and their opinions are taken into consideration (Kindu).
-

We also asked for suggestions for alternative income-generating projects, which elicited the following:

- Animal husbandry (pigs, goats) (4)
- Poultry raising (chicken, ducks) (4)
- Fisheries (3)
- Soap making (3)
- Bakery (3)
- Brickmaking (3)

As the CHE project does not provide financing for income-generating activities, the list reflects the false expectation that the project has funding for more capital-intensive activities.

In three sites, all of the respondents preferred farming as a group, stating that it decreases the workload. While all respondents were not asked about the concept of health mutuelles, participants from Kindu appeared to value the approach, with one participant explaining that, due to lack of money, people often do not seek facility-based health care when they or family members are sick. In Tshikaji, there was some scepticism about group activities and the concept of mutuelles in health, with several respondents suggesting that their officials are untrustworthy and therefore they would be reluctant to make advance payments for health care.

Reporting

The initial project approach required that during monthly meetings, the technical guide would provide information regarding the on-going CHE intervention to the point person at the zonal level. Subsequently, the information would be sent to representatives of the implementing partner, who would forward the data to IMA. However, CHE participants and most key informants claimed to be inadequately informed about routine reporting requirements. While it is understandable that participants were not aware of the formal reporting system, the technical guides and ACs should have been trained on reporting procedures and thus the expectation is that they would have been better informed. Since early 2014, IMA has attempted to improve routine data collection by making revisions on the forms and providing detailed instructions on reporting. In addition, during supervisory visits and meetings between CHE coordinators and implementing partners, data collection and monthly reporting, which is mandated between IMA and the implementing partners, has become more of a focus.

In each site, informal mechanisms were set up between key actors to share information on the seeds received, on-going activities and the harvest. However, the systems set up by the local community groups generally appeared to be flawed, fostering unaccountability and conflict. The exception was Mweka, where the village chief, who was also the community group president, carried out on-going supervision, and there was regular verbal reporting and strong collaboration between the president, IT, and president of CODESA. In the other three sites, many questions

were raised about the integrity of the internal reporting carried out between those leading the project and the participants, which was said to lack transparency and cause distrust. The mixed reports given by participants regarding harvest yields also points to the attempt to hide information and deception amongst group members. In regard to the reporting requirements to the zonal or provincial authorities, only a few respondents, including the president of the group in Kindu, and the IT and the technical guide in Mweka, appeared to be aware that a report must be submitted to the health zone offices, but the details and requirements were unclear. The technical guide, who also served as president of Kintimbuka, claimed to be uninformed of any reporting requirements.

4.2 Non-participating Villages

In the health zone of Kindu, a village was identified 25 kilometres from Kindu in conjunction with personnel working in the health zone. When the research assistants reached the village, they learned that, while a relais had been identified and participated in the CHE training for technical guides, shortly after introducing the project and identifying community group members, the relais moved to Kisangani. Around the time of his move, the CHE participants learned that the relais, who was also the owner of the project agricultural field, had sold the field. Identified participants lost interest in continuing with the project. In retrospect, this village constitutes a failed group. In a second village, which was located 46 kilometres from the health zone offices of Kailo, the relais communautaire was not accepted by the villagers to lead the project. The village chief also rejected the selection of the relais communautaire because he was not Mayi Mayi, a community-based militia group active in the area. As a result, the CHE intervention never got underway.

5. Qualitative Results – Follow-Up Study

Introduction

Findings from the initial qualitative study highlighted many discrepancies between the CHE design and how the project was executed. In conjunction with IMA, it was decided that it would be useful to share aspects of the initial research findings with the implementing partners and other stakeholders involved in project implementation. Objectives of the follow up interviews were to understand why different components of the strategy were not being implemented as planned, to attempt to determine sources of the problems and to elicit input regarding ways to address some of the weaknesses identified. Another goal was to identify additional changes in the project design and implementation that had occurred since the initial study was conducted. Follow up interviews were conducted with a range of project stakeholders working at various levels and in different capacities, including the IMA CHE coordinator and primary project supervisor, representatives of the DPS, NGO implementing partners, health zone office

personnel (MCZ and AC) where CHE activities are on-going, ITs working in health centres where CHE activities were being executed, and technical guides representing community groups engaging in agricultural activities. IMA respondents were based in Kinshasa and the other interviews were carried out with stakeholders working in Kasai and Kasai Central (formally Kasai Occidental) and Maniema. This mix of respondents facilitated the triangulation necessary to verify and validate the information collected.

Based on a review by the IMA of the initial report, and input from Tulane colleagues, we identified research topics that required additional exploration with key informants. Topics were related to three broad categories: the CHE community groups, health centre activities, and project management. Specifically, we examined the following: the formation of CHE groups; the agricultural approach (e.g. field location, seed distribution, selling of harvest); the selection and role of the technical guide; group contributions; user fee reductions; utilization of contributions by health centres; training of CHE personnel; raising awareness and other communication activities; supervision of activities; and project reporting. Questions asked of respondents during this follow up phase are included in Appendix 5.

Community Groups

Formation and leadership

The CHE vision is that community members form groups based on prior affiliation and mutual trust and that group members lead and guide decisions related to CHE activities. The fact that the envisioned bottom up approach was not adhered to during the initial research period appears in part to be linked to the rapid project start and perceived need of those involved in project implementation to target health areas where community groups were already established. Some respondents pointed out that these groups were formed under very different circumstances and that their composition did not necessarily coincide with the CHE mandate. Our key informants described those villagers who more readily understood the approach and were willing to embrace an innovative initiative as better educated, having greater exposure to events outside the village, and having been previously involved in other projects, emphasizing that they did not necessarily belong in the same category as the subsistence farmers who constitute the broad base of the population. One IP stated,

> *It is often those who have been exposed to new ideas who are the first to accept initiatives introduced in the village. Don't think that if you come with a new initiative that people who have never been exposed to new information will opt to join. It is those who have prior experience that accept new ideas.*

When talking about the bottom up approach, an AC said,

> *Because most villagers have not had contact with people coming in from outside, they become frustrated when meetings are held with other villagers who have a broader vision*

and prefer leaving decision making to those with more outside contact and who are more influential. That has been our experience in Kasai, where people who had not previously participated in activities are reluctant to get involved and to make decisions. They are reserved, leaving others (with more exposure, better educated) to speak out and take charge.

As decisions regarding how to organize groups were left to the communities, influential members often took charge. In addition, our key informants clearly stated that at the outset, people at all levels, from those overseeing project activities, to village leaders, to community members, held different views regarding the composition of groups and the overall project objectives, with many failing to understand that the project aimed to engage communities in supporting the local health care system. While those involved in the implementation of activities were initially told that it was a pilot project and therefore it was important to proceed slowly, there was a sudden push from project organizers to expand the approach rapidly. One government official stated that it would have been better to have taken more time to allow the community members to comprehend the approach, organize themselves, and express their needs, and for those who were overseeing activities to have had a longer time period to understand the problems and see how they could best assist.

When we asked key informants about the feasibility of implementing the approach as initially planned, many contended that typical community members are not accustomed to taking charge. Moreover, they stressed the importance of taking into account local social structures, stating that imposing a different system contradicts the realities of village life. It was emphasized that, particularly when money is involved, working with people who have had previous experience participating in project activities is essential.

The predisposition of village leaders to take charge, which was especially evident in the Kasais, is a reality that our informants highlighted as needing to be taken into consideration. Respondents generally agreed that, in order for the project to succeed, it is critical for the village chief to understand, believe in and endorse the project, and that the chief can play a very important role in encouraging community participation and ensuring that the project functions as planned. In contrast, if chiefs feel excluded or do not understand, they can have a negative influence and the project will fail. Several key informants also affirmed that village chiefs are individuals with varying personalities, and that some will play positive roles and others may have a negative influence. Examples given included a positive example from Mwuna Kusu, Maniema where the chief provided much support to engage community participation; several negative examples came from the Kasais, where village chiefs from different villages threatened the IT or group members to give a percentage of the CHE funds or took portions of the harvest. In some of these cases, the chief's involvement caused some participants to become discouraged and abandon project activities with the result that groups stopped functioning. Some explained that it can be a tricky balance to ensure that the village chief is involved in a way in which he can

demonstrate his power. In addition, those accorded positive recognition by the village chief aim to maintain their status. An AC from Kasai Central stated,

> *When raising awareness in communities about the CHE project, you must go through the chief. If the chief accepts, he tells the population that they can go work. When the population pressures the chief, he says no, whoever does not follow my directives, will be disciplined. To avoid problems, people do not implement the initiative.*

He later said,

> *When someone gains respect from the village chief, he must maintain that relationship. Therefore, he must follow what the chief tells him to do. This way the chief feels valued. When what the chief says is not respected, the chief is losing his power. He says I would like for you to work with X, you say X is okay, but can we also work with Y? You have undermined his ideas. You have undermined him. The chief will say, as you have undermined me, this is your village, go ahead and start the work. We depend on the chief. People are leaders because the chief gives them that recognition.*

Our key informants highlighted other sociocultural differences between the Kasais and Maniema that should be taken into account when implementing community-based activities. For instance, we were told that in the Kasais traditional social structures are more rigidly followed, making populations perhaps less willing to accept new initiatives or approaches, particularly those that involve behavioural change. Men have a tendency to demonstrate their power and to be authoritarian, particularly with women. One key informant from Kasai Central said,

> *You must understand that we are in communities comprised purely of Kasaien where you find that when in the presence of women, men have the tendency to want to dictate to women. They may also behave inappropriately with other people. Even if someone is chosen by the community, he can change his behaviour and behave badly to those who chose him. These are purely behavioural problems and cannot be corrected through training.*

Others pointed out that the recent history in Maniema, which has involved conflict and humanitarian assistance over a prolonged period, may predispose populations to be more accepting of initiatives that require behavioural change.

Respondents stressed the importance of on-going sensitization to ensure a better understanding of the project objectives and the need for a bottom up approach and to diminish the expectation of material or other types of outside assistance. There was general consensus that more time and effort is needed to explain that group composition, that leadership should be determined by members, and that choices regarding project implementation are the right and responsibility of the community group. There was also agreement that the involvement of local leaders in raising

community awareness is critical. One IP representative in Maniema pointed out that the conflict and economic emergency that has plagued the country has fomented an expectation of on-going handouts, and there is a need to renew the spirit of community cooperation and mutual assistance. Key informants emphasized the need to proceed slowly and methodically, so that the project can assess what works and learn from experience. They also stressed that the approach, as well as its reception by community members, is constantly evolving. Therefore, the refining of messages should be an iterative process and communication on-going.

Technical Guides

The initial report highlighted many problems with the technical guide, some of which were related to the fact that the group participants did not select the guides, and their participation was often driven by greed and self-interest. Failure to elect the guides appeared to be based on several factors including the rapid start of the project, which did not allow organizers to ensure that the guides were chosen by community groups, the convenience of designating existing relay who respondents indicated met the selection criteria and had linkages with the health centre, and miscomprehensions held by both implementing staff and village leaders regarding the role and selection criteria of the technical guide.

Key informants were aware of the myriad of problems raised in the initial report associated with the technical guides, and we learned that efforts had been made to modify their selection. For instance, we were told that "briefings" were carried out with the IPs and the AC to share the problems identified and discuss the need to improve the training of guides. Those technical guides who did not perform well during year one, demonstrated by the fact that the crop yield was poor and contributions to the health centre were not made, were replaced. Our respondents maintained that systems have been set up to ensure that the guides are selected by group members and that they are able and interested in assisting groups as mandated by the project. For example, members of the CODESA including the IT, as well as local authorities, are supposed to be present during elections. Local authorities witnessing the process are required to sign a document affirming that elections were carried out appropriately.

Despite this, during our follow up interviews we found that some misconceptions regarding the selection of technical guides still exist. For instance, one AC from Kasai Central insisted that the project mandates that the guide have a background in agriculture, claiming that, if the criterion had changed, he had never been informed. The AC interviewed in Maniema described a different process for identifying the guides. He explained that relays attending a briefing at the zonal level were presented information on the CHE project and subsequently asked whether they wanted to fill the role of technical guide in their communities. Those who expressed interest were presented to the community groups as the technical guide. While this AC appeared to understand that the project mandated that group members in the presence of CODESA and other community leaders select the guides, he justified the modification by stating that elections are time consuming. Other justifications for including the relay were that they are natives of the area, understand

community needs, have already demonstrated a willingness to do volunteer work in the community, and can read and write in French. During a group discussion in Kasai Central carried out with a CHE group that was established in the fall of 2014, we also learned that the technical guide had been nominated by the IT.

Key informants indicated that during the second year, technical guides participated in several trainings, lasting 3-4 days, which focused on both theoretical approaches related to good farming techniques and practical exercises in the field. Unfortunately, they were unable to explain why the training was reported to be shorter the first year. Technical guides were generally positive about what they learned during the training, citing some of the basic recommendations (e.g. selection of an appropriate field, the fact that seeds must be planted in a timely fashion and in a straight line, crops should be rotated, and the green grass in the field should be buried under the soil to make it more fertile) which were included in the CHE training. We were also told that during the training, technical guide participants were asked pointed questions by the training facilitators aimed to ensure that they understood the approach, had the capacity to fulfil the role as technical guide and were committed to the CHE project, and that training organizers had emphasized that the role of the guide was to assist community groups in applying CHE activities, but not to acquire financial gains. Despite these measures, key informants from Kasai Central reported that some guides continued to be selected by the IT, with the understanding that the IT would get a percentage of the training per diem.

Other mechanisms were set up to try to ensure that the guides were committed and worked in the best interest of the groups. Measures included that CODESA members were trained and encouraged to oversee group activities, sensitization efforts were carried out to inform communities better about the approach and role of the technical guide and, in addition, in order to prevent under reporting, a member of the health zone was supposed to visit the community field to make an estimation of the potential crop yield. In addition, CODESA members and the AC are supposed to be present during the harvest.

Selection of the community fields

We tried to determine why, during our initial data collection, many respondents understood that the community field should be five kilometres from the village. During follow up interviews, most respondents stated that the project recommendation was for the field to be a minimum size of one hectare, accessible both to the group members and project supervisors, fertile, and in a location where domestic animals did not have access, and that a specific distance from the village was not indicated. However, some respondents held different interpretations, with one IP and two ACs continuing to maintain that the project directive is for the field to be within 30 minutes or five kilometres of the village. One AC said,

> *I do not believe in the recommendation because it is not practical. People do not have easy access to land 5 kilometres from the village. But this is the information that was given and continues to be given, and it has not changed.*

Two explanations were given regarding the varying interpretations of the field location. One was that, as the project recommends that there should be five meters between the plots in the demonstration fields, the information got misinterpreted. Another explanation was that there were many misunderstandings during the first two years of the project, which are gradually being corrected.

Most key informants insisted that the location of the field from the village is contextually specific, with several noting that fields located near populated areas have been overused, forcing participants to select more distant fields. Another factor relates to the type of crop planted (e.g. manioc requires more space and therefore is planted farther from the village centre) and whether domestic animals in the area are confined. Key informants generally reported that fields are three to 15 kilometres from the village site. However, an IP in Maniema maintained that groups located in peri-urban locations are sometimes required to farm fields 40-50 kilometres from their residence, making accessibility and post harvest transport extremely difficult. This, among other difficulties, has influenced groups in Maniema to opt for direct cash payments.

Seed distribution

During the first cultivation cycle we uncovered many problems with seed distribution, including that the seeds arrived late, groups did not receive the seeds, or groups did not receive the seeds they had requested, influencing the timing of planting and negatively impacting crop yields. According to our respondents, the seeds arrived late in part due to the quick start, which did not permit enough time to purchase and distribute the seeds in a timely manner. One IP from Maniema said,

> *The first year the agricultural season took us by surprise, so we had to move fast to find seeds locally. Even to acquire seeds at the local level is a process that takes time.*

The IPs did not always have adequate seeds to meet all of the group requests, and as a result, sometimes the group simply did not receive the improved variety or the requested seeds had to be replaced by another crop variety. While key informants claimed to have explained that groups did not have to accept the improved seed varieties, they indicated that it is cultural practice not to refuse a free handout. One key informant from Kasai Central said,

> *Here, in Kasai, it is rare that, if someone gives you something, you refuse. When something is given, often the tendency of people is to say, hey they gave me something, better yet something for free, even if I do not need it, I will take it, I do not see a problem. But there was no obligation on the part of the project to accept the seeds.*

In addition, we were told about former projects that had distributed improved seeds and subsequently purchased the harvest yields at a higher price. Community members believed that

CHE would follow the same strategy and were unable to refuse the seeds.

Due to the problems with seed distribution, and the fact that many groups under-reported results or did not contribute to the health centre, after the second planting season a decision was made to distribute improved seeds only to groups that were contributing CHE subscriptions to the health center as envisioned by the project. These groups were still expected to set up demonstration fields, which involved comparing fields planted with local seeds to fields planted with the improved varieties. We were told that new CHE groups opting to have community fields were requested to use their own local seeds during the first planting season, and if they practiced the recommended farming techniques and generally performed well, they would be recognized as a functioning group and eligible to receive seeds of improved varieties on the subsequent farming season.

During the second phase of research, many key informants indicated that late distribution of seeds continued to be a problem during both seasons A (fall 2014) and B (spring 2015). Explanations included the late distribution of funds to IPs allocated for seed purchase, a problem of getting project funds from one IP to the other (the Kasais), late submission of the request to buy seeds by IPs, a last minute change in the strategy to provide seeds produced by the community groups rather than purchased from government seed producers, and the logistics involved in distribution, which entails getting the seeds from the provincial capital to health areas and can be very time consuming. In general, we were informed that inadequate planning was a problem.

One AC said,

> *The seeds arrived late, always late. Season A was terrible because people received the seeds a month late. They received the seeds in October. They planted the field to produce what they could produce. During season B, the seeds again arrived somewhat late, but abruptly. Everything was rushed. The seed requests that people made were not what they received. Sorry to say, but the project imposed on community groups the type of seeds to plant. Someone asks for soy beans, and you get beans.*

Due to the late arrival of seeds and the fact that it would delay planting, one IT in Kasai Central decided to use money contributions groups had made to the health centre to purchase seeds.

Respondents highlighted other problems related to the improved seed varieties that have continued during subsequent planting cycles. For instance, groups do not always receive the seeds they had requested, do not receive adequate seeds or do not receive seeds at all. The AC claimed that the seeds received at the zonal level are often not sufficient in quantity to meet the group requests. A point of confusion is that some groups request varieties that are not appropriate for the farming season, thus forcing the IP to change the variety. In Maniema, several informants described complaints that the seeds were of poor quality, indicated by the fact that there were

holes in the seeds, they were too small (this seems to reflect a local perception) or the seeds did not yield well. We also learned of groups that did not plant the received seed variety (soya bean) because the field space was inadequate or instances where the seeds were left for a prolonged period and subsequently rotted. One IP concluded that it would be easier for the project to decide what seed varieties to distribute, rather than allow community groups to make requests. An IP key informant in Kasai Central also mentioned that the AC does not always respect the list of eligible recipients, distributing to non-eligible or to new groups.

When talking about seed distribution, one IP said,

> *We understand that the ACs work in environments where community members can apply a lot of pressure. Sometimes they must succumb to the pressure applied by these communities (in other words, give them seeds even if they are not eligible).*

While seed distribution is supposed to take place in the health areas, groups located in less accessible areas are often required to travel to the zonal offices to obtain the seeds from the AC. This practice occurs especially when seeds arrive late and the remaining time to plant is abbreviated.

When asked about the demonstration fields, informants explained that, while local seeds were planted on time, due to the late arrival of the improved varieties it was not possible to cultivate the demonstration fields in the first year as recommended by the project.

An IP in Kasai said,

> *The demonstration fields were not activated due to the delays in the seed distributions.*

Another IP from Maniema said,

> *As there were problems distributing the seeds in the first year, the local seeds were already planted while people waited for the improved seed varieties. When the improved varieties arrived late, they planted them anyway*.

Another respondent from Kasai explained that people assumed that the project would continue to distribute improved seeds and therefore felt there was no point in planting local seeds. An IP indicated that project implementers tried to raise awareness by informing groups that seed distribution was not necessarily going to continue. While the project envisioned that groups would keep improved varieties to use for planting during subsequent seasons, and key informants claimed that groups were encouraged to conserve a portion of the harvest as seed, in Kasai the AC explained that the yields were relatively small and therefore participants preferred to use them for consumption. Also, groups maintained that that they were unable to ensure appropriate conditions for good seed conservation.

During the second year, one AC in Maniema reported that about half of the groups in the zone were working on putting demonstration fields in place. He maintained that some technical guides still did not understand the purpose of the demonstration fields, which is the reason that they were not being consistently planted. This AC claimed that many of the farming techniques recommended by the project were not being followed, particularly that of planting in a straight line, which was perceived to require more seeds and to be time intensive. Community groups maintained that, especially if the seeds arrived late, it was impossible to carry out this technique, which would delay planting even further. In Kasai, the AC reported that the community groups did not understand and therefore often failed to apply the farming techniques recommended by the project.

Selling of the harvest

In both provinces, we found that many CHE groups were unable to take full responsibility for post-harvest handling and sale of the crop as envisioned by the project. Explanations given by key informants were that fields are often located in isolated areas far from commercial markets and members have limited ability to contact buyers. While those overseeing project activities have encouraged community groups to plant near roads to ensure access by both community participants and project supervisors and to facilitate transport of produce, transport continues to be difficult and costly.

IPs in both provinces have provided assistance with the sale of crops. In Kasai Central, an IP purchased the harvest of some community groups to facilitate timely seed distribution for the subsequent cultivation season. In Maniema, the IP intervened both by providing information on commercial centres and buyers, and transporting or purchasing the harvest.

Due to the on-going difficulties selling the harvest, sacks of agricultural produce are still being given to the health centres as the group contribution. However, ITs are faced with the same dilemma, with some unable to sell the crop yields that groups have contributed. To decrease potential corruption related to the sale of the harvest by the ITs, ITs are supposed to sell sacks in the presence of the AC or at least to inform the zone staff of the selling price before making any transactions.

Expectations regarding project assistance

The initial research revealed the common expectation that community participants would receive materials and other assistance from the project. Key informants explained that, at the outset of the project, some relays tried to motivate participation by promising villagers materials and other rewards. In addition, community members formulated assumptions based on past experiences. As indicated, in both Kasai/Kasai Central and Maniema, projects had previously been implemented involving the distribution of improved seed varieties, with the same organizations purchasing crop yields at an increased price. Based on this precedent, when improved variety seeds were distributed, groups assumed the approach would be the same.

One IP representative from Maniema stated,

> *There was the expectation that the harvest would be purchased by the NGOs. In the past, WFP gave seeds and tools and purchased the harvest, and people thought that this project would do the same. But when it was explained that people should use their own equipment, some people got discouraged. Some people demanded the same sort of assistance that they had received in the past (with WFP), but we told them that it was not part of the project activities.*

Another IP in Kasai Central explained,

> *In fact, it is a question of what people are used to in Congo. When people see that a new approach is going to be initiated, they assume that for the duration of the project the donor will continue to provide assistance. People are not accustomed to projects where at the beginning there is an investment, and over time as the project evolves, participants are expected to take over. It's a matter of what people are used to. That is why people are still waiting to receive seeds.*

Another reported source of confusion related to the fact that there are questions concerning agricultural materials in the reporting forms CODESA are required to complete and submit to the health zone each month. An AC from Kasai Central maintained that the local assumption is that the materials are for participants involved in the CHE agricultural fields. He said,

> *There is a form that the CODESA members must complete and send to the health zone offices. Somewhere there is a question asking whether they have received manual tools. On the form are the words "hoe, machete, and shovels." People say, "See, they sent us machetes, hoes and shovels, here they ask whether the farming materials have been received or not, but they have been hiding these materials from us." I think that if we can eliminate problems like this, we will avoid future confusion. We continue to tell them that the materials are not for the CHE project, and there are those who believe us, but unfortunately others who do not.*

Many key informants also indicated that community members' expectations were raised with the introduction of the ASSP nutrition project that focuses on home gardening, which distributes gardening materials to certain community members living in the same health areas and villages where the CHE project is being implemented.

Direct Payments

In light of the multiple problems with the community fields, including difficulty identifying fertile fields, particularly near peri-urban settings, together with transporting and selling the harvest, implementing good supervision and monitoring systems, and ensuring on-going

participation of group members, in Maniema there has been a big shift in the approach, with more groups opting for direct payments to health centers. A key informant from Maniema explained,

> *People prefer to farm their individual fields and pay the 500 CF (Congolese franc). For the community fields, it was not the entire group that participated; many people joined at the beginning but only a minority continued up to the time of the harvest. However, at the end it was the entire group that tried to profit.*

We were told that groups contributing direct payments are comprised of 10-15 households living in proximity and consisting of already established groups. Because relais are trained by the formal health system, are recognized and elected by the local population, are responsible for conveying health-related information, have links to the health centre, and are members of the CAC (cellule d'animation communautaire[12]), they are often selected as the group representative.

The same AC we interviewed in Maniema during the first year described a sharp increase in the number of participating CHE villages and households with monthly contributions in his zone, indicating that 90 of 215 participating households are giving direct contributions three months in advance. The IP in Maniema shared information from the first trimester report, which showed the following contributions from the six health zones implementing CHE: Kailo 1,464,000 CF; Kindu 273,000 CF; Kalima 916,000 CF; Pangi 751,000 CF; Kampene 1,584,000 CF; and Alunguli 183,000 CF.

Health Centre Activities

Fee reductions

The initial report revealed much confusion among both community participants and local project managers (e.g. IT, technical guides, AC) regarding the group contribution and fee reduction, as well as the underlining project goals. Key informants agreed that there were different interpretations and many misunderstandings by those implementing the project at the field level, indicating that the confusion was likely linked to the rapid project start and how the information was communicated. As a result, messages conveyed to group participants were often divergent and contradictory. In addition, the fact that the project involved agricultural activities led participants to understand that it was an income-generating initiative. Even during the second round of data collection we found that key informants, particularly the technical guides and AC in Kasai Central, held varying conceptions regarding the amount of the harvest contributions.

Reduced consultation fees were not instituted the first year in part due to the fact that the DPS took time to officially approve the reduction. The delay in the approval was partly caused by a change of the DPS staff at the provincial level, necessitating that the new staff be convinced that

[12] Community Extension Unit

the approach would be beneficial and the fee reduction appropriate. Key informants indicated that it took time to explain the project and negotiate with the new DPS on aspects of the approach and for staff at all levels to subscribe to the novel initiative. In addition, we were told that, even after a verbal agreement was granted from the DPS to proceed with fee reductions, the health zone staff did not agree to implement it without receiving an official government document. Respondents indicated that between August and September 2014 an official directive from the DPS authorizing the fee reduction was circulated to all of the health zones involved in the CHE project. Additional time was taken to apply the reductions, and this varied according to the health zones and centres. Key informants were aware that participants of groups that had made a contribution would go to health centres, only to find that the reduced fees were not honoured. Sometimes failure to apply the fee reductions were related to difficulties health centres faced selling the harvest. While ITs were told to provide health consultations on credit, many were unwilling to take the risk.

In an effort to address these problems, in early 2015 the DPS included a performance indicator at the health zone level to assess work related to the CHE initiative and other ASSP activities on a monthly basis. If the zonal staff achieves certain indicators related to ASSP such as supervisory visits and timely reporting, an incentive (we were told $1,300) is given to the health zone office. During our research, we found that many MCZs are not subscribing to the performance indicator, claiming that it is not applied on a national level and, in addition, does not include a "prime." We were told that the refusal of MCZs to recognize the performance indicator affects the willingness of ITs working in the same zone to apply the fee reduction.

At the beginning of the project, group members engaging in agricultural activities were provided the choice of giving either money or a portion of the harvest as a contribution. According to IMA, this is still the approach. However, ITs in both zones shared instances whereby the harvest contributed was not enough to cover the group contribution; in these cases, groups were told that before receiving a fee reduction, the group must give an additional contribution the following season. As indicated, there were also reports that the IT faced problems selling the harvest and therefore was forced to refuse to honour the reduction when people came to the centre. Overall, delays in receiving the fee reduction have caused much discontent. Our key informants claimed that due to various misconceptions regarding the harvest contribution, difficulties selling the harvest and/or providing sufficient crop yields, and problems related to corruption, the IPs have tried to encourage groups engaged in community fields to contribute fixed money payments per household each month. Key informants confirmed that with this change, contributions and reduction fees are clearer. We were told that in Kasai Central the official contribution per month per family is 400 CF or $6 per year; consultation fees before the reduction vary from 1,250-1,350 CF for adults and are 1,000 CF for children. In Maniema, contributions are 500 CF per family per month; official consultation fees for children are 600 and for adults 1,350. CHE participants should receive a 500 CF reduction during each consultation visit. To better ensure that people

understand the reduction scheme, an effort is being made to post the consultation fees for CHE contributors and regular patients in the health centres.

During the initial data collection, we also found that the health centres did not keep active lists of CHE community participants. In the second year, new systems were put in place. Specifically, the health centre now signs a contract with each group delineating the period and conditions of the fee reduction. Names of contributors and their family members are delivered to the IT by the technical guide or representative of the groups involved in direct payment, and group contributions are supposed to be given to the IT in the presence of a CODESA member. The IT provides a receipt to the group representative, and the money (if the contribution is cash) is kept in the CHE account. We were also told that the IT keeps lists of active members of the different groups in a notebook; a list of active members is also kept by the group representative, and if the IT faces confusion regarding an individual's eligibility for fee reductions, the IT confers with the group representative. In Maniema, each contributing participant is given a coupon indicating that the participant is an active member. While these changes have helped, one IP indicated that lists of active participants, particularly involved in direct payments, are fluid, and it is therefore difficult to keep them up-to-date. He recommended that, in order to keep lists current, and to make certain that the money is not misused, group contributions should be deposited within 48 hours.

A major problem cited by key informants at all levels relates to medication stock outs or shortages in the health centres. Many underscored that the project can only succeed if medications are regularly available. One government official said,

> *With the frequent shortages of medications, people have concluded that there is fraud, pure and simple. They come to a health centre to get care, they arrive there and are handed a prescription to buy drugs elsewhere. That is why they believe they have been cheated…. If we guarantee the availability of all drugs there will not be any problem. If they find the drugs are available, they will continue to contribute.*

A technical guide said,

> *If there is no medication, they will receive a prescription to buy medication in the pharmacy. That discourages those people who have contributed.*

An IP said,

> *The biggest obstacle is at the health centre level where those who have contributed do not find that the promised benefits are honoured. When this happens, it becomes difficult to convince people about the approach; people become ready to engage in a campaign opposing the project. Somebody who has paid 500 FC is told that he will receive a fee reduction and all the necessary health care services when visiting the health centre, only to find problems with medication in the health centres and that he must obtain*

medications elsewhere. Actually, he should find all medications are available in the health centres. Those who have contributed will say what we promised them (regarding health services and fee reductions) is not true.

During the second round of interviews, key informants were of the general opinion that many community members are still unclear about certain aspects of the project benefits related to health care. Specific examples of confusion at the community level related to the idea of contributing to health care prior to getting sick, the duration of eligibility (for instance, if you pay for a long period, but only get sick after the contribution period is over), the fact that groups that had contributed a portion of the harvest were not given the reduction because the health centre was unable to sell the harvest, and lack of availability of medications. Amongst those overseeing project activities, we continued to uncover divergent and sometimes contradictory interpretations of the contributions, including whether groups should give the harvest or cash contributions and the actual amounts to be contributed, which explains the on-going confusion at the community level. We also found a lack of uniformity at the health centres in applying the fee reductions, leading to confusion and discontent among participants and causing people to abandon the project. In Kasai Central, one IP reported that when health centres do not follow the fee reduction, it is perceived as an indication that the MCZ has not authorized the reductions in the zone.

On a positive note, key informants were convinced that comprehension is improving, indicating that the project is trying to address the divergent understandings and misinterpretations by improving communication. Some highlighted the inherent difficulties in implementing a new approach, particularly involving money. They emphasized that it is critical that stakeholders at all levels have the same understanding and that the messages conveyed are consistent.

As indicated, focus group discussions were carried out with active groups in both provinces. When asked about the fee reductions, participants from Kasai Central stated that since the start of the project, none of the eight households or their family members had been sick. In Maniema, participants had used the health services, stating that the reduction was being applied. Respondents from both groups agreed that the reduction of 500 CF was significant. However, one participant pointed out that if the health condition is serious and costly to treat, the reduction is inconsequential. Participants from Maniema insisted that the reduction is only appropriate if medications are available, stating that medicines are expensive, and pharmacies are far from the village.

Use of funds

Respondents indicated that the IT is responsible for keeping records of the group deposits and the way contributions are used; at the end of each month, CODESA members review the records. When zonal and IP staff carry out visits, they also review the accounting system. While we were told that there is an official government recommendation regarding the way money should be

used by health centres, the proposed division of health centre funds differed in each province. In Maniema, the IP suggested the following:

- 40% health personnel salaries
- 20% medicines and other medical supplies
- 20% functioning of health structure (electricity, water, transport)
- 20% maintenance of health centre (purchase of chairs, construction, and painting of building)

In Kasai Central, respondents suggested that health centre funds can be used as follows:

- 50% medications
- 30% health personnel salaries
- 20% maintenance of health centre

Decisions regarding how to use the funds involve health centre staff and CODESA members, and one Médecin Chef de Zone maintained that the community group members can also give their opinion. One IP mentioned that the zonal team can also give guidance regarding how to invest the money. Due to the fact that health workers frequently do not have salaries, there was general agreement that the CHE money serves as a motivation for health care staff. Other examples of the way funds are used included purchase of seeds for the next planting season, purchase of medications, and construction of showers and latrines. In one case, a health centre was making bricks for the construction of a maternity ward.

Despite the fact that better systems have been set up to control and monitor CHE contributions, we continued to find problems regarding the accountability of funds. As indicated, key informants shared information on two cases in Kasai whereby the IT stole CHE money, in one instance $700 of group deposits. In the second case, the IT, who was not from the area, was threatened by the village chief to give a portion of the CHE contribution. When the IT refused, the village chief requested that the IT be replaced. The IT vacated the health post with all of the CHE funds, which included 50,000 CF.

One IP confirmed that a major challenge involves ensuring that big sums of money are safely kept in the health centre over a long time period. An AC from Kasai Central suggested that, to avoid the misuse of funds, it is important to make the distinction that the funds are being given to the health centre and not to the IT, stating,

> *The money should not be given to the IT, it should be given to the health centre. The money should be given in the presence of everyone in the health centre. That way, if the IT leaves the centre, the money does not become a problem. But when people treat the IT as the responsible person, when the IT is given the money by the CODESA, it is under his to control. When the IT departs, he or she will take the money.*

It is also important to report on a health area in Maniema, which was hugely successful in large part due to the initiative and integrity of the IT. In this instance, when the IT learned about the CHE project, he personally took the initiative to inform different village leaders and CODESA members about the approach, and subsequently mobilized villagers to form groups, with some groups farming community fields (8 groups) and others giving direct cash payments (13 groups). A significant amount of money was raised and used for a range of health centre needs, including work towards the construction of a maternity ward. Remarkably, between August 2014 and April 2015, this health area raised 2,423,000 CF.

Project Management and Monitoring

Training

Since we carried out the initial research, much additional training has taken place. Specifically, we were told that several trainings targeting the technical guides and IT were conducted between August 2014 and March 2015 at the health area and zonal levels, with the most recent series of trainings carried out between December 2014 and March 2015. Trainings focused on the philosophy and general objectives of the CHE project, project activities including the revitalization of the CODESA, on-going communication and awareness-raising in communities, contributions by participants to the health centres, and the fee reductions. Also, the IT and technical guides participated in trainings dedicated to the revitalization of the CODESA, which were led by AC, DPS, and IP staff. Our key informants also described "briefings" carried out by DPS members and IP representatives with health zone staff aimed to strengthen understandings of the CHE approach and to share specific information regarding CHE activities such as reporting. Overall, information on training shared by key informants was somewhat vague.

Communication and awareness raising

Initial awareness-raising efforts involved informing politicians, government administrators, and health authorities about the project goals and activities. Because of the rapid start, all of the key informant respondents, including the project organizers, indicated that at the outset of the project there was not adequate time to raise widespread awareness in communities about the project objectives and activities. As previously indicated, a decision was made to target an established network of communities and groups with whom the IPs and health zone staff had worked with previously; these groups were identified as predisposed to a health mutuelle initiative contributing to their local health centre. While the CHE organizers envisioned working with faith-based groups, the IPs and ACs targeted a network of groups that had previously participated in NGO projects. ASSP CHE programme managers admit to have overestimated the level of understanding and commitment to supporting their local health centre of most community groups in the NGO partners' existing networks.

At the community level, the project was initially introduced by the AC, IT, and local leaders to village members. Key informants indicated that the original project introduction in communities

was done rapidly and lacked details, leading to many misconceptions and misunderstandings regarding the project goals and activities. They also reported that they did not reach adequate numbers of people. After the preliminary introduction, the IT and technical guide were responsible for continuing to inform community members about the project.

As the project evolved, it became clear that participating groups and different stakeholders involved in implementing the activities held varying notions regarding the project. Our respondents reported that, because local leaders did not fully understand the project mandate, some told their village constituents not to participate.

Officially, the CHE design calls for a 4-6 month information campaign led by CODESA members in each targeted health centre area before formal launch of the programme in the health centre area. This campaign consists of a series of village meetings that includes community discussions on the merits of the proto-health mutuelle. Community members have a chance to ask questions and consider alternatives. The information campaigns were launched in 17 health zones in January 2014. A big shift during the second year involved the revitalization of the CODESA, with the objective being for CODESA members to play a major role in awareness-raising activities at the community level. New CODESA members were elected and trained on the project, including training on messages they are expected to convey to raise community awareness. Work plans delineating communication activities were developed in health areas. We were told that other responsibilities of the CODESA involve assisting with the formation of community groups and working with village chiefs and influential leaders to ensure that they have a clear comprehension of the approach and can assist with community awareness-raising activities.

Over time the project has acknowledged that, in order to enhance comprehension, messages must be repeated more regularly. The need to better integrate leaders and local decision makers, since they are in a prime position to influence the population and facilitate community participation, was also recognized. When talking about village leaders, one IP in Maniema explained,

> *They can explain, influence village members…. If they do not get involved, or do not give their perspective regarding the project, you cannot get a positive reaction from community members or encourage widespread participation.*

More recently, it has been decided to strengthen and diversify outreach by using a mix of communication channels, including group representatives, church leaders, in addition to CODESA members, to convey messages, as well as to increase the number of awareness-raising sessions and contacts. In Maniema, partners have employed a combination of approaches including interpersonal communication, visual and written materials (e.g. streamer) and mass media.

Due to multiple problems and difficulties that have been identified at the zonal level, more recent efforts are being made to provide better information to the zonal health team, including the

MCZ, about the project goals and activities and to ensure that all partners have a unified vision and approach.

Monitoring and supervision

A major barrier to project implementation discovered through the initial research related to the lack of regular supervision and monitoring. This is despite the fact that the project has officially developed an extensive supervision schedule to be executed by a variety of responsible partners. More specifically, the CHE design designates the AC and the IP CHE supervisors as the primary contacts with the CHE groups. The project expects monthly, face-to-face contact between the AC and technical guides for first year CHE groups and also expects that the AC visit every CHE group once every three months. Key informants explained that, as the focal point at the zonal level, the AC is in charge of overseeing group activities, helping technical guides and group representatives resolve problems, ensuring that the IT is recording contributions and honouring fee reductions, and sharing project information with the IP working in the zone and the CHE focal point in the DPS. The ACs are supposed to carry out 10 supervisory visits per month. In regard to IP supervisions, the project mandates eight visits per month in each zone, with the goal of verifying information reported by groups and resolving on-going problems.

We also learned that the CHE focal point in the DPS is supposed to provide support to the BCZ by working with the AC in developing an operational monitoring and supervision plan and overseeing the AC to ensure that activities are carried out as planned. The focal point is expected to carry out supervision of project activities every trimester, and this includes field visits to community fields and meetings with group participants. As part of on-going monitoring, we were told that at the provincial level DPS members hold meetings with IP representatives to discuss project activities. In addition, the IMA has a project supervisor who is expected to visit provinces implementing the CHE approach every trimester to carry out supervisory visits at the capital and zonal levels.

At the health area level, we were told that more engaged ITs carry out supervision of community activities, but this appears to vary according to the involvement and interest of the IT and is not a formal component of the supervision approach. Technical guides try to hold weekly meetings with community group members to discuss CHE activities. While the technical guides are supposed to participate in monthly monitoring meetings carried out in the health centre with the IT and CODESA members, there was consensus that their participation in these meetings is irregular. The IT meet every month in the health zone with the BCZ staff to report on health centre activities, including those related to the CHE project.

During follow up studies, we found that several measures have been implemented to address problems related to supervision. First of all, health zones are required to develop monthly supervision plans, which include activities related to the CHE project. In addition, supervisions are supposed to be integrated with other ASSP zonal activities; therefore, when carrying out

supervisions, other zonal supervisors, who may or may not be trained on the CHE approach, are allowed to take on activities related to the CHE project. Informants also reported that the performance indicator for ASSP should encourage supervision by health zone personnel. We were also informed that the MCZ is responsible for reporting on CHE during monthly meetings with the DPS. In Kasai Central, one of the NGO implementing partners divided supervision responsibilities among staff in an effort to make the arduous supervision schedule more manageable.

Despite these changes, there was general consensus that supervision, which key informants agreed is critical to the success of the project, continues to pose major challenges. They maintained that, due to the fact that the ACs have many other work responsibilities, share office motorcycles with other staff, and do not have access to a specific budget for fuel and other costs related to CHE activities, they are unable to carry out supervisory visits as the project mandates. We were told that the supervision schedule and overall ASSP budget do not take into account the added requirements of CHE supervision, including environmental realities related to distances, poor roads, and the time involved in reaching destinations, particularly the CHE group agricultural fields. We were also informed that during the second year, the budget for fuel was decreased from 150 to 50 litres, making it even more difficult for the AC to fulfil CHE supervisory duties. Paradoxically, during the second year, supervision requirements increased, with the AC expected to visit community group fields at the outset of planting to estimate potential production and to be present during the harvest. In addition, key informants stated that lack of adequate incentives related to "primes" negatively influence the willingness of the AC and MCZ to follow what was described as a demanding supervision schedule. As a result, the monthly supervision schedule of zonal staff is not being carried out as planned. One IP said,

> *Supervision is a real problem, especially at the zonal level because the AC must make 10 visits each month. The health zone offices thought they would receive a specific budget for these supervisions. From the project standpoint, the zone must integrate supervision of CHE groups with other ASSP activities. However, at the zonal level they do not follow the project recommendation. The AC can carry out 4-5 visits at the most, instead of the recommended 10. The project wants the AC to visit the field before the harvest, to motivate and encourage people participating in community fields, but this is not happening.*

Another IP indicated that the AC often only conduct project supervisions when the implementing partner is carrying out monitoring activities in the zone, stating,

> *The ACs do not oversee community groups as they should according to the project. They do supervision only when the IP staff visit the zone. That is what I have found. They do not do supervisions as expected. Sometimes they are restricted by the MCZ because of the budget. Because CHE supervision does not involve solely visiting the health centres, they must also visit the community groups and go to the agricultural fields. Only occasionally*

does the health zone provide the means for the AC to do these types of visits.

One AC respondent admitted to carrying out only three visits during the farming season A (2014) and one visit during season B (2015). ACs claimed that when they are unable to meet with the technical guide or CHE group leaders, they use credit provided by the project to call them by telephone and review project activities. When we asked whether other zonal staff assist with CHE supervision, the AC indicated that colleagues are often not in a position to carry out the work. They claimed that this is because CHE supervision requires additional time, and their colleagues may not be able to include it in their schedules. They also indicated that other zonal staff are not adequately trained on CHE project activities. One MCZ recommended that other zonal staff be trained so that the larger team comprehends the project approach and can assist with supervision and other CHE activities. Due to the on-going difficulties related to supervision, one AC suggested that visits be reduced from 10 to 5 visits per month, but we were told that ASSP rejected the recommendation.

During our interviews, IP representatives confirmed that the CHE supervision schedule is difficult to integrate into the routine zonal supervision programme; they generally felt that, due to the time and financial implications, the CHE schedule is too ambitious and not feasible. The IPs appreciated why zones are requesting more funds to complete the supervision schedule, confirming that more money is needed to conduct the schedule as planned. One IP said,

> *The CHE project is a new idea, which requires continual oversight. At the zonal level the project requires 10 visits a month, which goes beyond their routine schedule. Supervisors have to go to the field; they require a budget that takes into account the additional project demands. I feel that a revision of the supervision budget is needed.*

He later said,

> *In some zones we find that they (the health zone staff) do not engage at the level we expect of them. For them, not only is the means to carry out supervisions not available, but also CHE is a vertical activity. In Congo, when a project is vertical, it provides a supplementary salary or special support for people who are very involved, like the MCZ or AC. That is not the case for CHE. Since the project does not give health zone staff a supplementary salary, they do not commit at the level we would expect.*

While the IPs try to assist by providing the AC with transport, they reported that they do not have the funds to pay the AC "frais de sejours" or per diem, which poses a problem.

Government officials at the provincial level also indicated that supervision is difficult to follow. When talking about supervision, one official said,

> *It is among the difficulties .... That is the conclusion that we made during our quarterly*

supervisions, we realized that supervisions (by health zone staff) are not carried out regularly, only a few visits are made. As it is a new approach, the number of supervisors and the supervisions should be increased to ensure that activities are executed properly.

A DPS focal point maintained that the problems related to supervision must be addressed or the AC will become discouraged and focus on other activities that provide better incentives.

> *There are those ACs who are discouraged because of the problems with supervision, and there are also those who, in spite of the conditions, continue to try to improve the situation. These ACs recommended that a small budget be available for the management team in the central office, a purely CHE budget that cannot be confused with the operating budget for the central office. With such a budget, they will not be able to say that there is no budget to organize this, to organize supervisory visits, etc. This is a real problem. The problem was shared by all of the ACs whom we met (during supervisory visits)….. You know that the ACs have many other activities. They are responsible for communication in the zone, they are responsible for the communication of many projects. If the situation does not improve, they will focus on other activities that have more money than CHE. That is a possible consequence.*

Overall, key informants emphasized that modifications are needed so that supervisions by health zone staff can be carried out as planned.

While our IP informants indicated that IP supervision is being implemented as mandated by the project, which involves holding monthly meetings with health zone leaders and conducting six visits in health zones implementing CHE activities each month, we learned that a GPS system introduced by the project to monitor supervision shows that IP supervisory visits are actually fewer than reported. Key informants also stated that the GPS system has encountered many glitches, with IPs facing difficulties forwarding the data to the project coordinators. Another challenge mentioned by one IP is that the project funds for supervision often arrive several months late, preventing the IP staff from carrying out monitoring activities on time.

Several key informants described the inadequate involvement of the MCZ, who are officially in charge of delegating work activities to BCZ staff and making decisions regarding the use of funds, as a continued weakness of the project. Explanations for their limited involvement were related to the fact that the MCZ do not understand the project or gain personal benefits, and therefore do not endorse the approach. One DPS member explained that other projects give incentives to motivate the MCZ, but CHE does not. He stated,

> *We find that only the ACs benefit from the CHE project and that the chief medical officials are not taken into account, which makes them disinterested in project activities. When the MCZ is not interested in the project, the project has little chance of succeeding. If the MCZ were taken into account, as the AC has been, that could get him interested. He*

> *will take ownership by ensuring that the AC is in contact with the community members all the time, and the work will move forward, the bottleneck will be cleared up. But now, as it is only the AC who receives salary supplements from the project, the chief health care official will say, "You, you have your salary supplement, take care of your business. For me, I do not receive any benefits from this project." He will not support the project. When the supervisor does not support a subordinate to carry out an activity, the worker will not have the needed support to accomplish the work.*

Another government official said,

> *It is true that the MCZ does not want to get involved. It is not that they are not involved, but they do not want to get involved. They do not want to get involved because, according to the way they perceive the project, they find that it requires a lot of work, a lot of energy, and in return they gain nothing.*

Many recommendations were made by key informants to improve supervision by health zone staff, which included an increase in the budget, a specific budget for CHE activities, and modifications in the supervisory plan so that it is feasible and allows the AC to coordinate visits with other ASSP activities. Several respondents highlighted that the most important person at the zonal level is the MCZ, underscoring that it is critical to ensure that the MCZ is adequately trained on project goals and activities and provides the necessary support for zonal staff to implement supervision.

Interestingly, during the focus group discussions, participants in the group from Kasai Central, who lived in a community located near the provincial capital Kananga, stated that they had received many supervisory visits since September 2014. In contrast, participants in Maniema, who resided in a rural area, stated that project organizers living outside of their immediate community had never visited their group.

Reporting

The first round of research identified many problems with the reporting system, including under-reporting causing inaccuracies in the data related to group contributions, information gaps, and the fact that reports were not being transmitted on a routine basis. During follow up interviews, we were provided more details regarding the reporting system, which involves the technical guide or group representative submitting a monthly activity report to the IT; the IT is supposed to submit all of the health area community group reports to the AC during monthly zonal meetings. If the technical guide meets with the AC or other BCZ staff during the month, the report is delivered directly to the AC. Some mentioned that the AC reviews the report, makes corrections and gives recommendations when problems are identified. Subsequently, the zonal staff is responsible for compiling the information and submitting a report to the IP. Monthly community reports include information on the number of households involved in CHE activities, the monthly contributions received and the way the money has been used to support the CS.

Explanations for under-reporting of crop production identified during the initial research were consistently related to the rampant poverty and economic crisis the country has experienced. When describing why there were problems with accountability, one technical guide key informant said,

> *It varies from one group to another. Not everybody is honest. You can find dishonest people. … This is related to the situation we are experiencing. People do not have the means to allow them to live like regular citizens. They have to pay for illness and have other financial obligations … People are not paid or do not have jobs, for example here in Kananga, there are no jobs, many people are unemployed.*

One MCZ indicated that the extreme poverty has led to a diminishing of people's values and the overall sociocultural system.

We were told that groups that under-reported the crops harvested were motivated by an incentive to keep more of the harvest for themselves. Some informants highlighted that it was the group heads or representatives who introduced the idea of hiding a portion of the harvest. Furthermore, groups found that there was no mechanism to crosscheck the amount harvested, encouraging them to continue the practice. One MCZ stated,

> *In one of my health areas, we were with a partner who had come for a visit. We visited a household where a group was keeping the harvest they had produced. We found that the group's harvest was placed just next to the domestic harvest of the farmer. This made us feel a little uncomfortable, wondering as we did about what would prevent him from taking part of the group harvest and putting it with this own family harvest.*

Another MCZ said,

> *It is an on-going difficulty, instead of working with groups, you have to deal with individuals. You know that our people are poor, and when a person finds himself with a big harvest, it presents an opportunity for him or her to benefit. There are some people who flatly refused to give the group contributions to the health structure.*

An AC said,

> *People do not declare all they have produced, people tend to hide a part, which forces them to under-report the overall harvest. This is what I have found.*

Failure to report the entire crop yield obviously causes inaccuracies in the overall CHE data on group contributions.

To try to resolve the problem of under-reporting crop production, the project mandated that the AC must visit the field at the outset to estimate the potential production and be present during the harvest. Also, when the IT receives sacks of crops as the group contribution, project implementers insisted that the IT first get permission from health zone staff before selling the sack at the suggested price. Some key informants also indicated that renewed efforts have been made to raise awareness regarding the goals and objectives of the project in an effort to try to decrease the tendency to hide produce.

In regard to repeated information gaps in routine reporting, the most common explanation was that the technical guide or group representative does not attend the monthly monitoring meeting in the health centre and/or fails to transmit the information to the IT in a timely manner. One IP said,

> *We want all of the technical guides to meet with the IT at the end of each month, but the group representatives are dispersed. Therefore, a meeting requires an additional effort to ensure the guide gets to the health centre. Ideally, the guide should meet with the IT before the IT submits the report to the BCZ.*

It was also mentioned that when there is a problem of leadership at the zonal level, and if the zone does not consider the CHE project important, the AC may not submit reports regularly. Some key informants maintained that the inclusion of ASSP performance indicators at the zonal level, which we were told were introduced in 2015, should resolve some of these problems and ensure more timely transmission of the routine reporting data.

To facilitate reporting, in Maniema they developed an innovative system whereby a "coach" is engaged to collect all of the monthly reports from community representatives working in the health areas and to submit the reports to the IT. Another modification is that any zonal staff can collect the reports during their supervision visits. To improve reporting, it was recommended that formal monthly meetings with the group representative be set up with the IT, and the approach of appointing someone to collect all of the community group reports in the health areas on a monthly basis be formalized.

It is important to note that ASSP has attempted to improve routine data collection by revising the forms so that less detailed information needs to be collected, but the data is transmitted more frequently and providing detailed instructions on the reporting requirements. In addition, during supervisory visits and meetings between CHE coordinators and implementing partners, data collection and monthly reporting, which is mandated between IMA and the implementing partners, has been a major focus.

Future of Project

When asked about the various project challenges, our key informants underscored that it takes time to introduce a new approach, particularly involving behavioural change, and emphasized

that local acceptance and commitment is an evolving process. Particularly in Maniema, where groups have increasingly opted for direct cash payments, it was mentioned that communities are beginning to understand and appreciate the benefits. Group discussion respondents were also generally positive about the project concept and objectives but expressed concerns about the sustainability of individual contributions.

Key informants emphasized that the project still faces many challenges, and they underscored the importance of recognizing and addressing the weaknesses. Problems respondents highlighted included:

1) Lack of belief in the project and weak implementation at the zonal level
    - Inadequate involvement of both the AC and MCZ
    - Supervision and monitoring not carried out regularly
    - Inadequate funds for supervisory activities
    - Lack of incentives for the MCZ
    - Work schedule for the AC is too demanding
    - Lack of separate line item/specific budget for the AC supervisions and other CHE activities
    - No "frais de sejours" for supervision visits
    - Overall low priority for zonal staff

2) ITs, who often do not have a positive perception, endorse the project or get adequately involved
    - Many IT do not believe in or recognize the potential benefits the project can offer
    - Those IT who are not engaged think the approach requires too much time and effort
    - Negative perceptions of the project and insufficient involvement of the zonal staff, particularly the MCZ, affects the performance of the IT
    - Some ITs continue to take or misuse project money

3) Inadequate awareness raising and communication on project goals and activities
    - Lack of adequate outreach/failure to reach the masses
    - Inadequate involvement of community leaders in communication activities
    - Message content not consistent
    - Messaging fails to take into account level of understanding and change according to the needs of communities

4) Local leaders do not adequately understand the project, sometimes undermining community level activities

5) Lack of mechanisms to obtain project-related information from community participants involving both positive and negative experiences, which is perceived as preventing the

project from adequately learning from on-going experiences in order to improve the approach

6) Project leadership does not take into consideration recommendations provided by IPs or other partners

7) Health centres are at different levels of implementation, project benefits are not uniformly applied
   - Lack of uniformity in applying the fee reduction, even in the same health zone

8) Medications not available; regular stock outs, affecting the motivation of community members to participate in the CHE project

9) Coverage does not include hospital services, which are much more costly to households than primary services. This was mentioned as affecting the motivation of community members to participate in the CHE project.

10) Reporting is not regular and commonly lacks information
   - The reporting system is complicated, involving many layers and people
   - Difficult to adapt and improve the approach when the project does not have access to all of the field level data

11) Project does not take adequate account of local social systems and cultural variations

12) Approach is not adequately guided by research and situation based evidence
   - Need for research to understand and guide changes in the approach as it evolves
   - Need to study whether the fee reduction is appropriate and has a positive impact on the health centre activities

13) Meetings between responsible parties (BCZ and IP, IP and DPS, IT, and group representative) irregular

14) Late distribution of funds by SANRU to PRODEK, causing delays in project activities and forcing PRODEK to carry out activities in an abbreviated time period

15) Inadequate funds for PRODEK to function properly

16) Continued problems with agricultural components of the CHE approach
   - Late distribution of seeds
   - Difficulties transporting seeds to the health areas

- Community members abandon activities during the agricultural season, but still claim the project benefits
- Deception in reporting of the harvest
- Difficulties in identifying buyers and selling the harvest
- Poor seed quality; local perceptions of the seed quality differ from the project organizers
- Harvest delivered to the health centre perceived to be insufficient to support fee reductions to all participating members
- Unable to create appropriate conditions for seed conservation

6. Quantitative Results

This section provides a summary of results of an analysis of quantitative data collected for the ASSP Community Health Endowment intervention. Results focus on participant activities in Kasai Occidental, Maniema, and Equateur provinces of the Democratic Republic of the Congo during the period September 2013 to February 2015. As noted above, the project's database was created before the new administrative configuration, thus data will be presented using the former provincial name of Kasai Occidental and Equateur.

Enrolment of Community Groups

In total, 1,625 distinct groups enrolled in the CHE intervention between the earliest reported enrolment date in September 2013 and February 2015. Of these community groups, 1,004 (61.8 percent) either engaged in an agriculture project, contributed money to a health facility to subsidize service fees, or both. Table 2 provides a distribution of ever-active groups and households by province and health zone. The majority of households, 63.0 percent, reporting participation in the programme were based in Kasai Occidental, compared to 35.0 percent from Maniema and 2.0 percent from Equateur.

Table 2. Groups and Households Ever Active by Province and Health Zone.
Percent distribution of groups and households by health zone

		Groups		Households	
Province	**Health Zone**	**N**	**%**	**N**	**%**
Equateur	Businga	4	0.4	37	0.1
	Karawa	13	1.3	202	0.6
	Loko	24	2.4	391	1.2
	Province Sub-Total	41	4.1	630	2.0
Kasai Occidental	Bena Leka	62	6.2	2,813	9.0
	Bena Tshiadi	73	7.3	1,858	5.9
	Demba	70	7.0	2,333	7.5
	Kamuesha	3	0.3	39	0.1
	Katoka	36	3.6	689	2.2
	Kitangwa	12	1.2	184	0.6
	Luebo	51	5.1	2,298	7.3
	Lukonga	44	4.4	1,684	5.4
	Mutoto	44	4.4	1,184	3.8
	Mweka	50	5.0	2,196	7.0
	Mwetshi	94	9.4	2,950	9.4
	Ndesha	22	2.2	1,046	3.3
	Tshikaji	29	2.9	403	1.3
	Tshikapa	3	0.3	52	0.2
	Province Sub-Total	593	59.1	19,729	63.0
Maniema	Alunguli	20	2.0	735	2.3
	Kailo	120	12.0	3,552	11.3

Province	Health Zone	Groups		Households	
		N	%	N	%
	Kalima	59	5.9	1,717	5.5
	Kampene	74	7.4	2,234	7.1
	Kindu	60	6.0	1,346	4.3
	Pangi	37	3.7	1,365	4.4
	Province Sub-Total	370	36.9	10,949	35.0
	Total	1,004	100	31,308	100

Table 3 presents selected characteristics of ever-active groups at the time of enrolment. During enrolment, groups reported their preferred method for sourcing payments to local health facilities. Groups stated whether they preferred to use earnings from crops sales to fund contributions or simply give cash directly to a health facility in lieu of conducting a fundraising activity—referred to as "agriculture" and "cash" contributions, respectively. Groups reported subsequent planting and contribution activities throughout the intervention.

Group size, as measured by number of participating households at the time of enrolment, varied widely across groups with an average of 31.4 households per group (SD 26.7). Though the number of individuals per group was not reported as part of ASSP's routine reporting system, we estimated this value by multiplying the number of households in the group by the province-specific average household size (based on data from the ASSP baseline survey that was carried out in ASSP areas in 2014).[13] The estimated number of people per group ranged from 5 to 1,686, with an average of 166.1 people per group (Std 141.6). Given that households in areas where CHEs were implemented may differ from households in non-CHE areas, these results should be interpreted with caution.

The largest percentages of ever-active groups enrolled during cycle I (42.4 percent of groups) and cycle III (44.2 percent of groups). A much smaller percentage of ever-active groups enrolled during cycle II (5.5 percent). A possible reason for the result is that many households may view the second planting season as less favourable, and as a result, some groups may have avoided enrolling in the programme during this time of year.

[13] The rates used were 4.97, 5.31, and 5.37 people per household for Equateur, Kasai Occidental, and Maniema, respectively.

Table 3. Ever-Active CHE Community Groups.
Characteristics at enrolment of groups ever active in CHE intervention

		N	%	Mean	Std	Min	Max
Households per group		-	-	31.4	26.7	1	320
*People per group**		-	-	166.1	141.6	5	1686
Percent distribution by group contribution preference at enrolment							
	Agriculture	719	71.6	-	-	-	-
	Cash	202	20.1	-	-	-	-
	Not stated	83	8.3	-	-	-	-
Percent distribution by time of enrolment (cycle)†							
	Cycle I	426	42.4	-	-	-	-
	Cycle II	55	5.5	-	-	-	-
	Cycle III	444	44.2	-	-	-	-
	(missing)	79	7.9	-	-	-	-
Total ever active groups		1008		-	-	-	-

*Estimated based on average household size for respective province
†Cycles (based on planting dates)
I: 1/9/2013 - 28/2/2014
II: 1/3/2014 - 31/8/2014
III: 1/9/2014 - 28/2/2015

Group size was also reported throughout the programme at the time of each contribution. Table 4 presents results of an analysis examining changes in group size over time. Change is measured by the average percent difference in group size between enrolment and the first contribution, the first contribution and the second contribution, and so on. In computing changes, the data was weighted by group size. Since group size varied substantially between contributions – both positively and negatively – further analysis used average group size across all contributions when reporting indicators at the household level.

Table 4. Change in Group Size throughout Intervention.
Groups reported number of households per group with each contribution. Change in group size is measured as percent change from previous contribution or enrolment (1st contribution). Negative values represent a decrease in group size.

	Change Enrolment to 1st	1st to 2nd	2nd to 3rd	3rd to 4th	4th to 5th
Average percent change from previous contribution	12.7%	87.4%	36.1%	-3.0%	46.4%
Average number of households per group	20.5	23.9	24.5	16.7	20.5

Table 5 compares group preference at enrolment with actual activities reported. At the time of enrolment, the majority of groups (71.6 percent) were reported to have a preference for financing contributions to the health facility through agriculture. Approximately one in five groups preferred to contribute cash directly to the health facility rather than raising it through agricultural activities. Of the 719 groups preferring to source payments through agriculture projects, 92.3 percent reported planting at least one field and 30.5 percent reported making a contribution using agriculture-sourced funds (not shown in table). Whereas fewer groups made agriculture-sourced contributions than initially intended, a higher proportion of groups ultimately opted for direct cash contributions than reported at enrolment. While only 20.1 percent (202) of all ever active groups reported initial interest in direct cash contributions, in practice 29.7 percent (298) overall elected to follow this option.

Table 5. Percent Distribution of Groups by Activity and Contribution Preference.
Comparison of contribution preference to actual activities reported

	All Groups (N=1,004)		Preferred to Plant (N=719; 71.6%)		Preferred Cash Only (N=202; 20.1%)		No Preference Stated (N=83; 8.3%)	
Group Activity	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
Planted only	446	44.4	446	62.0	0	0.0	0	0.0
Contributed cash only	298	29.7	24	3.3	197	97.5	77	92.8
Planted and Contributed	221	22.0	218	30.3	1	0.5	2	2.4
(missing)*	39	3.9	31	4.3	4	2.0	4	4.8

*Groups contributed money from agriculture production but did not report planting fields

Group Agriculture Activity

A CHE group was considered ever agriculturally active (or "ever planting") if reporting to have planted at least one field during the analysis period. Table 6 summarizes planting activity for these groups over three 6-month agriculture cycles. A total of 667 groups (66.2 percent of ever-active groups) reported some level of agriculture activity related to the CHE programme. Among these groups, approximately 56 percent and 61 percent planted fields during cycles I and III, respectively. The period between March 1, 2014 and August 31, 2014 (cycle II) saw comparatively less agriculture activity, with fewer groups planting and smaller plots on average. Only 17.5 percent of these groups planted during cycle II, as this seemed to be a secondary planting season in these regions.

Notice from Table 6 that no agricultural activities were reported for Equateur, as the first main planting season after the initial promotional period was not until early 2015, nor do we have any information on whether the contributions made to the health facility were a result of agricultural sales or direct contributions, due to problems in reporting in Equator.

Table 6. Groups Active in Agricultural Production.

Distribution of groups reporting having planted at least one field as part of the CHE intervention.

	All Areas		**Kasai Occidental**		**Maniema**		**Equateur**	
	N	**%**	**N**	**%**	**N**	**%**	**N**	**%**
*Ever-planting groups**								
at least one field	667	66.4	548	92.4	119	32.2	0	0.0
(missing)†	39	3.9	12	2.0	27	7.3	0	0.0
Ever-planting groups, per cycle (of all ever-planting groups)								
Cycle I	373	55.9	257	46.9	116	97.5	-	-
Cycle II	117	17.5	112	20.4	5	4.2	-	-
Cycle III	405	60.7	405	73.9	0	0.0	-	-
Groups re-planting in second year^ (of groups planting during first year)	146	39.1	146	56.8	0	0.0	-	-

* Ever-active groups reporting agriculture activity

†Groups reported contributions from crop sales but did not report any agriculture activity; not included in further indicator calculations

^Groups planted during both cycle I and cycle III

Table 7 provides average hectares planted by crop, province, and seven crops types reported—cassava, cowpeas, maize, peanuts, rice, soybean, and watermelon. Across all cycles and areas, groups reported planting on average a larger area (0.46 Ha) for maize than other crops, followed by peanuts (0.36 Ha), and rice (0.32 Ha). The relative area planted per crop differed between provinces, however, with groups in Maniema having planted larger areas for rice and cassava on average compared to groups in other provinces.

Table 7. Average Area Planted by Crop, Province and Cycle.

Average fields planted per group, and average area planted (hectares) among groups planting at least one field, stratified by crop type, province, and agriculture cycle. No planting data was reported for Equateur province, as the first planning season was only in early 2015.

		All Areas*				**Kasai Occidental**				**Maniema**			
		Mean	**Std**	**Min**	**Max**	**Mean**	**Std**	**Min**	**Max**	**Mean**	**Std**	**Min**	**Max**
Fields planted per group													
	All cycles*	1.78	1.04	1.0	8.0	1.90	1.09	1.0	8.0	1.21	0.45	1.0	3.0
	Cycle I	1.46	0.67	1.0	6.0	1.58	0.72	1.0	6.0	1.20	0.44	1.0	3.0
	Cycle II	1.03	0.18	1.0	2.0	1.04	0.19	1.0	2.0	1.00	0.00	1.0	1.0
	Cycle III	1.27	0.45	1.0	2.0	1.27	0.45	1.0	2.0	-	-	-	-
Total area planted per group, all crops													
	All cycles*	1.58	1.32	0.1	15.0	1.46	1.04	0.2	7.0	2.15	2.10	0.1	15.0
	Cycle I	1.31	1.41	0.1	15.0	0.92	0.63	0.2	5.0	2.19	2.10	0.1	15.0
	Cycle II	0.67	0.49	0.2	3.0	0.68	0.50	0.2	3.0	0.30	0.11	0.3	0.5
	Cycle III	1.19	0.58	0.3	4.0	1.19	0.58	0.3	4.0	-	-	-	-
Total area planted per group, peanut													
	All cycles*	0.36	0.52	0.0	3.0	0.44	0.54	0.0	3.0	0.00	0.02	0.0	0.3
	Cycle I	0.16	0.33	0.0	2.0	0.23	0.38	0.0	2.0	0.00	0.00	0.0	0.0
	Cycle II	0.03	0.13	0.0	1.0	0.03	0.13	0.0	1.0	0.05	0.11	0.0	0.3

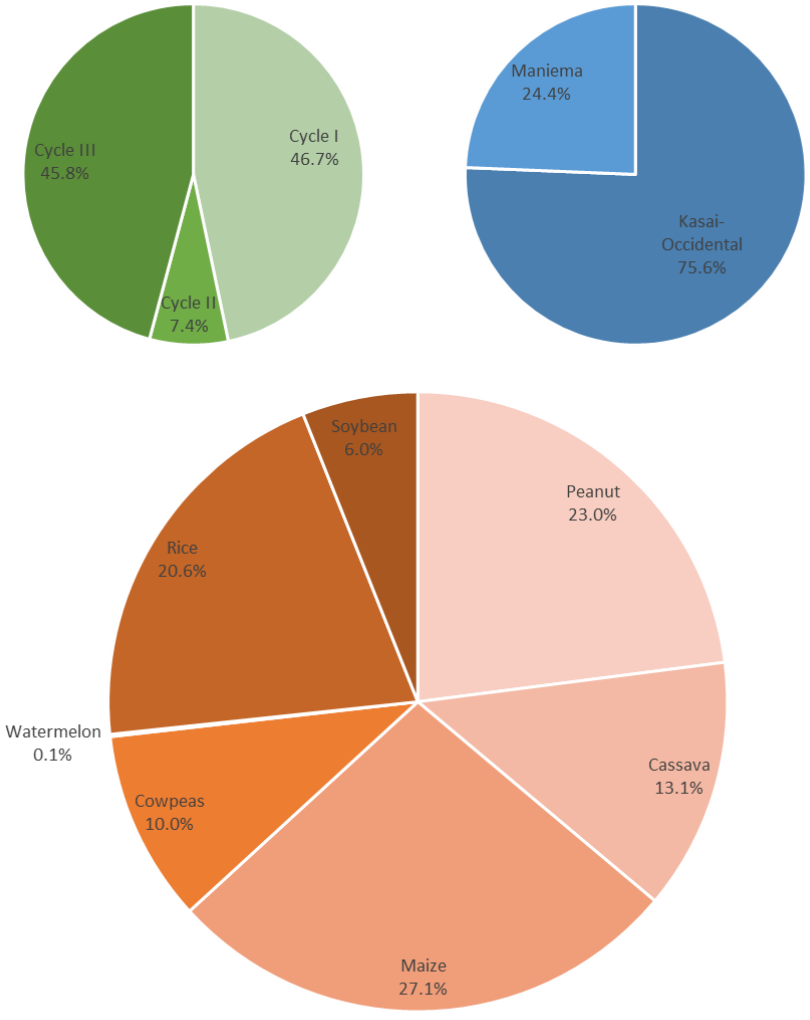
		All Areas*				Kasai Occidental				Maniema			
		Mean	Std	Min	Max	Mean	Std	Min	Max	Mean	Std	Min	Max
	Cycle III	0.44	0.50	0.0	2.0	0.44	0.50	0.0	2.0	-	-	-	-
Total area planted per group, cassava													
	All cycles*	0.21	0.64	0.0	6.0	0.16	0.40	0.0	2.7	0.44	1.23	0.0	6.0
	Cycle I	0.28	0.77	0.0	6.0	0.20	0.39	0.0	2.7	0.45	1.24	0.0	6.0
	Cycle II	0.00	0.00	0.0	0.0	0.00	0.00	0.0	0.0	0.00	0.00	0.0	0.0
	Cycle III	0.08	0.32	0.0	2.0	0.08	0.32	0.0	2.0	-	-	-	-
Total area planted per group, maize													
	All cycles*	0.43	0.62	0.0	4.0	0.46	0.64	0.0	4.0	0.29	0.50	0.0	2.0
	Cycle I	0.22	0.41	0.0	2.0	0.19	0.36	0.0	2.0	0.29	0.50	0.0	2.0
	Cycle II	0.37	0.56	0.0	3.0	0.38	0.57	0.0	3.0	0.20	0.21	0.0	0.5
	Cycle III	0.39	0.54	0.0	2.0	0.39	0.54	0.0	2.0	-	-	-	-
Total area planted per group, cowpeas													
	All cycles*	0.16	0.37	0.0	2.5	0.19	0.40	0.0	2.5	0.00	0.02	0.0	0.3
	Cycle I	0.09	0.24	0.0	1.5	0.13	0.28	0.0	1.5	0.00	0.00	0.0	0.0
	Cycle II	0.24	0.35	0.0	2.0	0.24	0.36	0.0	2.0	0.05	0.11	0.0	0.3
	Cycle III	0.11	0.32	0.0	2.0	0.11	0.32	0.0	2.0	-	-	-	-
Total area planted per group, watermelon													
	All cycles*	0.00	0.05	0.0	1.3	0.00	0.06	0.0	1.3	0.00	0.00	0.0	0.0

		All Areas*				Kasai Occidental				Maniema			
		Mean	**Std**	**Min**	**Max**	**Mean**	**Std**	**Min**	**Max**	**Mean**	**Std**	**Min**	**Max**
	Cycle I	0.00	0.00	0.0	0.0	0.00	0.00	0.0	0.0	0.00	0.00	0.0	0.0
	Cycle II	0.01	0.12	0.0	1.3	0.01	0.12	0.0	1.3	0.00	0.00	0.0	0.0
	Cycle III	0.00	0.00	0.0	0.0	0.00	0.00	0.0	0.0	-	-	-	-
Total area planted per group, rice													
	All cycles*	0.32	1.05	0.0	15.0	0.09	0.27	0.0	2.0	1.42	2.09	0.0	15.0
	Cycle I	0.47	1.35	0.0	15.0	0.02	0.09	0.0	0.6	1.45	2.10	0.0	15.0
	Cycle II	0.00	0.00	0.0	0.0	0.00	0.00	0.0	0.0	0.00	0.00	0.0	0.0
	Cycle III	0.11	0.30	0.0	2.0	0.11	0.30	0.0	2.0	-	-	-	-
Total area planted per group, soybean													
	All cycles*	0.10	0.30	0.0	4.0	0.12	0.33	0.0	4.0	0.00	0.00	0.0	0.0
	Cycle I	0.10	0.28	0.0	3.0	0.14	0.33	0.0	3.0	0.00	0.00	0.0	0.0
	Cycle II	0.02	0.07	0.0	0.5	0.02	0.07	0.0	0.5	0.00	0.00	0.0	0.0
	Cycle III	0.06	0.24	0.0	2.0	0.06	0.24	0.0	2.0	-	-	-	-

*Cumulative group total across all cycles

During the period of analysis, groups reported planting 1,049 hectares of crops across all cycles. This total was derived by summing plot sizes reported for each planted culture. As it was possible for groups to plant mixed culture fields in which multiple crops shared a portion of the same plot, this may be an overestimation of the total area planted. However, only 2.8 percent of fields were reported as being mixed culture plots. Figure 2 illustrates how this area is distributed by crop type, province, and planting cycle. The distribution of planting area is roughly proportional to the number of groups active in each cycle (green) and province (blue).

Figure 2. Distribution of Total Area Planted by Cycle, Province, and Crop.
1,049 hectares of crops were reported by groups ever active in agricultural production. This area is shown below as distributed by agriculture cycle, province, and crop type.



Continuation/Disenrollment

To assess continuation and dropout rates at the community group level, we explored the percent of groups active in the first year of the intervention that also planted at any point during the second year or made any contributions to the health centre during the second year. These results are presented in Table 8. Of the 373 groups active during cycle I, 51.7 percent continued to remain active in the following programme year (cycle III). It should be noted that in Maniema, where only 35.3 percent of groups remained active, there was a shift away from agricultural-based contributions to direct contributions after the first year. In Kasai Occidental, 56.8 percent of groups agriculturally active in year one continued to be active in year two.

Table 8. Group Continuation and Disenrollment Rates.

Percent of groups active in the first year of the CHE programme that continued to be active in the second year.

Type of activity in Year 2	All Areas		Kasai Occidental		Maniema	
	N	%	N	%	N	%
Re-planting	146	39.1	146	56.8	0	0.0
Contributing but not re-planting	47	12.6	6	2.3	41	35.3
Either contributing or re-planting	193	51.7	152	59.1	41	35.3

Group Contributions to Health Facilities

Groups' contributions to local health facilities, as measured by reported health facility revenue, included both the amount received by health facilities (in Congolese francs) as well as the source for money contributed. Sources fell into one of two categories: direct cash contributions or contributions sourced from agriculture activities. Table 9 characterizes the type and amount of contributions made by groups. Overall, 55.6 percent of ever-active groups made at least one contribution to a local health facility. Of the 667 groups reporting having planted at least one field, 33.1 percent made a contribution to a health facility (not shown in table).

The majority of ever-contributing groups (76.7 percent) made a single contribution to a health facility. Overall, only one quarter made additional contributions past the first. By province, a higher proportion of groups in Maniema made multiple contributions (32.4 percent) compared with other areas. Groups seemed to remain consistent in their choice of contribution type over time, as only 7.7 percent of groups made both cash and agriculture-sourced payments, despite 23.3 percent of groups reporting multiple contributions. The largest percentage of groups (48.0 percent) only made contributions of cash, rather than contributions from agriculture.

Direct cash contributions were the most frequent type of revenue, comprising 55.6 percent of all revenue reported. Broad ranges in the monetary value of contributions make it difficult to

determine any substantial difference between the average amount of cash and agriculture-sourced contributions per group, though.

Reports of health facilities receiving contributions from CHE groups and the distribution of contribution type differed substantially by province. A greater proportion (84.3 percent vs. 35.0 percent) of active groups in Maniema made payments to a local health facility compared to groups in Kasai Occidental. This is consistent with the qualitative results, which indicates that there was a greater emphasis in Maniema on direct cash contributions. Among groups in Kasai Occidental, agriculture-sourced payments were reported in greater frequency than cash. Conversely, Maniema groups reported a higher proportion of direct cash contributions, consistent with a lower frequency of agriculture activity in later cycles. On average, groups in Kasai Occidental contributed more money per household compared with other provinces.

As groups enrolling earlier in the analysis period were more likely to have contributed a greater total amount to a local health facility, Table 10 stratifies contribution characteristics by group enrolment cycle. Groups enrolling earlier in the analysis period reported a greater proportion of agriculture-sourced contributions. However, the total number of contributions made among groups enrolling during cycle I did not differ substantially from those enrolling during cycle III (276 vs. 248, respectively), despite having an additional year to make contributions. Along with a relatively low proportion of groups remaining agriculturally active throughout the full analysis period and a small re-contributing population, this suggests that groups shared a similar, limited time period of engagement with the programme. Though the number of contributions made by groups enrolled in cycles I and II were similar, the average amount contributed per household was smaller for groups enrolled in cycle III.

Table 9. Contributions to Health Facilities.

Number and percent distribution of groups ever making payments to health facilities (as measured by CHE revenue) by contribution source reported and by frequency of contributions.

		All Areas		Kasai Occidental		Maniema		Equateur	
		N	%	N	%	N	%	N	%
*Ever-contributing groups**		558	55.6	205	34.6	312	84.3	41	100.0
Percent distribution of ever-contributing groups, by contribution source									
	Agriculture only	187	33.5	154	75.1	33	10.6	0	0.0
	Cash only	266	47.7	23	11.2	243	77.9	0	0.0
	Both	43	7.7	7	3.4	36	11.5	0	0.0
	Not Stated[†]	62	11.1	21	10.2	0	0.0	41	100.0
Percent distribution of ever-contributing groups, by contribution frequency									
	1	427	76.5	180	87.8	211	67.6	36	87.8
	2	102	18.3	24	11.7	73	23.4	5	12.2
	3	19	3.4	1	0.5	18	5.8	0	0.0
	4	8	1.4	0	0.0	8	2.6	0	0.0
	5	2	0.4	0	0.0	2	0.6	0	0.0
Percent distribution of contributions, by source									
	Agriculture	259	35.5	180	77.9	79	17.4	0	0.0
	Cash	404	55.3	30	13.0	374	82.6	46	100.0

		All Areas		Kasai Occidental		Maniema		Equateur	
		N	%	N	%	N	%	N	%
	Not stated†	67	9.2	21	9.1	0	0.0	0	0.0
Amount contributed per household^ (FC), by source		**Mean**	**Std**	**Mean**	**Std**	**Mean**	**Std**	**Mean**	**Std**
	All Sources	1513	1826	1836	2354	1392	1468	687	580
	Agriculture	1599	2038	1858	2410	1222	1229	0	0
	Cash	1197	1283	984	981	1211	1299	0	0
	Not stated†	985	1413	1462	2071	0	0	687	580

*Ever-active groups making at least one contribution

†Group stated monetary amount but not source of contribution

^Group size (households) averaged across all group contributions

Table 10. Contributions to Health Facilities by Time of Enrolment.
Number and percent distribution of groups ever making payments to health facilities by contribution source reported and by frequency of contributions.

		Enrolled Cycle I		Enrolled Cycle II		Enrolled Cycle III	
		N	**%**	**N**	**%**	**N**	**%**
*Ever-contributing groups**		209	49.1	55	100.0	215	48.4
Percent distribution of ever-contributing groups, by contribution source							
	Agriculture only	154	73.7	20	36.4	12	5.6
	Cash only	24	11.5	24	43.6	157	73.0
	Both	27	12.9	11	20.0	5	2.3
	Not Stated†	4	1.9	0	0.0	41	19.1
Percent distribution of ever-contributing groups, by contribution frequency							
	1	153	73.2	27	49.1	190	88.4
	2	47	22.5	15	27.3	19	8.8
	3	7	3.3	7	12.7	4	1.9
	4	2	1.0	4	7.3	2	0.9
	5	0	0.0	2	3.6	0	0.0
Percent distribution of contributions, by source							
	Agriculture	205	74.3	35	33.7	18	7.3
	Cash	67	24.3	69	66.3	184	74.2
	Not stated†	4	1.4	0	0.0	46	18.5
Amount contributed per household^ (FC), by source		**Mean**	**Std**	**Mean**	**Std**	**Mean**	**Std**
	All Sources	1766	2037	3186	2791	842	759
	Agriculture	1618	2022	2405	2754	737	587

		Enrolled Cycle I		Enrolled Cycle II		Enrolled Cycle III	
		N	%	N	%	N	%
	Cash	1112	990	2857	2393	863	793
	Not stated†	2616	3442	0	0	687	580

*Ever-active groups making at least one contribution
†Group stated monetary amount but not source of contribution
^Group size (households) averaged across all group contributions

7. Discussion

Summary of findings

This report provides an in-depth assessment of ASSP's CHE strategy during the first two years of implementation. The CHE strategy involves the formation of community groups to engage in community-based income-generating activities in order to mobilize funds for the local health centre. In exchange for the payment of subscriptions (premiums) to the local health centre, CHE participants receive discounts when they use specified primary health care services. The research is based on an analysis of quantitative data from the ASSP's routine program monitoring system as well as two rounds of qualitative data collection. The first round of qualitative research was carried out in two provincial capitals with key informants and in two peri-urban and two rural sites with key informants and study participants one year after initial project implementation, and the second round was conducted with some of the same as well as newly identified key informants, as well as project participants in two CHE communities that had not been part of the first qualitative study.

The analysis provides detailed insights into the organizational structure, on-going activities, outcomes, perceived benefits, and limitations of the project. While the goals of the intervention are laudable, particularly in the DRC context – where the government's contribution to health care is negligible, the health structure relies on an unsustainable system of NGO and donor support, and populations struggle to pay for formal health care services – the study illuminated multiple challenges to project implementation, which helps explain why the intended aims have not yet been realized. The analysis also highlights weaknesses in the CHE model and assumptions in the overall ASSP theory of change that failed to take into consideration local political and sociocultural realities and undermined the initiative from meeting project expectations during the implementation phase.

Below, we discuss the results with respect to the four research questions investigated in the study.

Is the CHE intervention being implemented as planned?

The CHE intervention was introduced in the three different provinces of Kasai Occidental, Maniema, and Equator (later Kasai, Kasai Central, Maniema, and Equator) during the study period of the quantitative analysis, September 2013 to February 2015. In total, 1,625 distinct community groups enrolled in the CHE program. Most communities at the time of enrolment indicated that their preferred mode of mobilizing funds for the health centre was through community-based agricultural activities (71.6 percent), with the rest reporting a preference for direct cash payments (20.1 percent) or no stated preference (8.3 percent).

The initial qualitative results showed that across all four sites studied, a local organizational structure to oversee project activities was established and communal farming was carried out in the fall agricultural season (August to December 2013). The study illuminated many commonalities across the four sites regarding challenges to implementing a community-based agricultural strategy to reduce health care costs, including those related to the selection of the technical guide, training, communication of project objectives, managerial oversight, and supervision. In regard to project preparation, there was a common perception that the technical guides were not chosen fairly, and in two sites respondents indicated that nepotism guided the selection of the technical guide. Key informants reported that the technical guides and other group leaders were not adequately trained to explain and oversee activities. The ITs, who in Kasai Occidental played a critical role in identifying the technical guides, claimed that they did not participate in any of the project trainings and were not properly informed about project activities. Overall, the training and orientation appeared to be inadequate, contributing to the many misconceptions held by both community members and leaders regarding the project objectives, the community group organizational structure, inputs to be provided by the NGO implementing partners, and the handling and transfer of produce to the health centre in return for a reduction in health care fees, thus undermining activities from inception.

We also uncovered the common perception that the project began in haste and coincided with household farming activities, which in these communities constitute local livelihoods and are prioritized. Key informants acknowledged that a rapid start did not allow for adequate time to prepare for project implementation. All participating communities experienced problems related to seed distribution, particularly late receipt of seeds, negatively impacting the planting schedule. During the second round of data collection, key informants indicated that seed distribution continued to be a major problem and was related to the late transfer of project funds, the failure of project staff to order seeds on a timely basis, and the logistical challenges of transport in DRC. While the assumption is that agricultural groups can manage activities on their own, study findings illuminated that the agricultural activities require a lot of organization, with the key steps of transporting, marketing, and selling the produce presenting challenges to rural populations living in isolated locations. These problems have at least in part perpetuated a shift in the approach in Maniema, where more groups are opting for direct payment to health centres.

While from the outset a routine data collection system had been established by the project, those responsible at the field level appeared to lack clarity on their respective roles, the timing of reporting, and the transfer of data to project personnel. There were also indications that the routine data collected at the time of the study were of poor quality. For example, with the exception of one site, there were far fewer participants than indicated in the routine tracking data that we used when selecting sites prior to the initial qualitative study. These findings are consistent with the problems identified with the completeness and accuracy of the routine program data during our initial attempts to carry out the empirical analysis. However, data reporting improved during the course of the study period.

Lack of supervision by the implementing partners and health zone staff responsible for maintaining on-going contact with community groups contributed to the fact that the on-going problems and misunderstandings confronted by the CHE groups went unaddressed. Many of the findings collected during the first round of qualitative research, which reflected the perceptions of respondents and activities during initial CHE implementation, are in sharp contrast to the CHE vision. The CHE design promotes a bottom up approach based on the assumption that the initiative starts with and is directed by the local group, with membership guided by mutual trust, members electing their own leaders, and groups maintaining oversight of the leadership and on-going activities. In reality, the relais communautaire had no program mandate to lead the CHE group, and their involvement, which in some cases was clearly guided by egocentric purposes and monetary ambitions, generally had negative consequences due to the tendency to lead with an authoritarian approach.

The first round of qualitative research also showed that in Kasai Occidental, traditional leaders played prominent roles in directing project activities, perhaps reflecting important cultural differences between Maniema and the Kasais, which should be considered when implementing activities. In general, our results suggested that group leadership often undermined fundamental principles of the CHE approach, with group leaders typically failing to share project information or to engage members in decision making or to involve participants in the management activities. This included the marketing and selling of the harvest, thus fomenting distrust between the leaders and participants and generally derailing CHE activities However, the research also showed that even when group members were involved in selecting leaders, this did not guarantee that the elected leaders were highly ethical or always worked in the best interest of, or were accountable to, the group. Another problem was that participants were not adequately informed about the project's organizational structure, including their role in overseeing leadership to ensure accountability. During subsequent interviews with key informants we learned that certain systems have been set up in an attempt to better ensure that group leaders are selected by CHE participants and committed to group activities.

While the project design assumes that CHE groups consist of households with established mutual trust and shared interest in the benefits CHE offers, we identified groups with members who did not trust one another and appeared to work at cross purposes, once again undermining the

application of the CHE scheme. Some participants indicated that they were forced to join the project, once again contradicting the fundamental CHE principle that participants choose to participate. Lack of a clear understanding of the project objectives, diverging objectives at the outset of the project, poor leadership that deceived participants and often instilled suspicion and discontent, and very limited supervision undoubtedly contributed to the distrust identified.

Another finding relates to the fact that some people appeared to join the group because they understood it to be an agricultural project that could potentially render a monetary or material benefit rather than a health mutuelle, thus causing a major divergence in individuals' reasons for participating and the actual CHE mandate. According to the CHE approach, the income-generating activity is a strategy to mobilize resources needed for group members to subscribe to the reduced user fee benefit plan. The focus on agricultural production by participants may also explain a general preoccupation with the improved seed varieties and failure to plant local seeds. Follow up interviews with key informants confirmed that the involvement of the NGOs led to assumptions that CHE was an income-generating initiative involving agricultural assistance in the form of materials, once again contradicting the CHE design, which makes no provision for inputs. It is not clear to what extent these misconceptions reflected a general misinterpretation of the project goals or simply the natural desire for people living in very challenging conditions to glean a tangible benefit from "project" activities. Moreover, it is possible that participants had multiple objectives or redefined their primary objectives over the course of their participation, particularly since initially they did not benefit from a reduced cost of health care and therefore may have lost sight of that goal. The distribution of gardening materials by the ASSP nutrition project seems to have further raised expectations regarding the distribution of materials.

Accounts of training in the report also contrasted with the schedule IMA has developed to train the technical guide, which lasts for two days and is comprised of six modules, including an overview of the CHE project, roles and responsibilities of the technical guides, simple recommendations on farming techniques to improve agricultural production, marketing and selling of produce, and recommendations regarding ways to transmit the technical information to community participants. While the research team did not have the opportunity to observe a training session and therefore cannot define where the breakdown in communication happened, technical guides did not appear to come away from the training with the level of information the organizers had envisioned. The current hope is that the training schedules, which were revised in early 2014 to include additional training aimed to improve understandings of the project philosophy, objectives and activities, and to lead to more effective communication and awareness raising in communities, will be adequate to prepare the technical guides, Its, and CODESA members for their respective roles in the project.

Due to the rushed start in 2013, initial awareness-raising activities were not carried out as envisioned in the project plan, contributing to the misconceptions and misunderstandings held by both key informants and CHE participants in the study. A big shift during the second year of the

project entailed the revitalization of CODESA, with the objective that CODESA members will play a major role in awareness raising activities in each targeted health centre area before formal launch of the CHE programme. This involves working with influential leaders to ensure they have a clear comprehension of the approach and can assist with community awareness raising, which according to our key informants, is critical to ensuring that the project functions as planned. In an effort to strengthen the involvement of other key project actors, since early 2014 CHE information campaign orientation meetings now include the MCZ, AC, and ITs. In general, project management has recognized the need to strengthen and diversify outreach by using a mix of communication channels.

Another variation in the first round of research findings and the project design relates to on-going supervision and the assurance of support systems, which according to our respondents, were not adequately implemented by health zone staff due to lack of motivation, absence of CHE as a priority in the health zone work plan, and inadequate health zone resources needed for CHE supervision visits. Another problem cited was that the Medicin Chef de Zone, the lead decision makers in the zonal offices, were not adequately implicated in the project. The CHE design designates the AC and implementing partner supervisors as responsible for maintaining on-going contact and addressing problems and misunderstandings confronted by the CHE groups. For every first year CHE group, the project coordinators expect that there will be monthly meetings between the AC and technical guides. The AC is also expected to visit every CHE group once every three months, with the overall goal of carrying out 10 supervisory visits per month. The CHE design also assumes that the implementing partner supervisor will have monthly contact with health zone leaders and accompany the health zone CHE point person on eight support visits to CHE groups each month. While some of these supervisory activities may have occurred, none were mentioned by project participants during the initial round of qualitative data collection. While the follow up study illuminated that certain measures have been implemented to address problems related to supervision, including the institution of ASSP performance indicators at the health zone level, there was a general consensus among key informants that the schedule is too ambitious and that monthly supervision is not being implemented as planned. The ASSP Project's theory of change assumes that change relies on key inputs to service delivery; this includes supervision, which is positioned in the overall strategy as a primary input for strengthening the public health systems. The qualitative findings consistently show that supervision, particularly by the zonal level government staff, is irregular and poses a major constraint to CHE implementation.

It should also be noted that, since the start of the project in 2013, changes have been made in the reporting system. Specifically, data collection forms have been revised and detailed instructions have been communicated to the implementing partner supervisors and the ACs. Tools, including data collection check sheets designed to remind the ACs and CHE supervisors to collect data during supervision visits, have been developed and distributed. During quarterly monitoring meetings between the IMA CHE coordinators and implementing partners, data collection has been an important focus of discussion. Despite these changes, information gaps in routine

reporting continue to be a problem. This may be in part due to the fact that the reporting system is cumbersome, relying on multiple project staff working at different levels to fill out paper forms and complete and deliver the forms on a timely basis.

Are village leaders and households willing to participate in the CHE strategy?

That the total number of active CHE groups continued to grow over the study period suggests that there is strong interest at the community level in the CHE goals and strategy. As reported above, over 1,600 distinct community groups had enrolled in the CHE program as of February 2015, and the ASSP Project reports that, as of June 2015, over 1,250 groups had participated in CHE activities at some point during the third year of the project.

However, though a sizable number of community groups may have decided to enrol in the program, the quantitative results suggest that the overall percentage of households that participate in the CHE program is low. According to the ASSP Project, only 17 percent of all households living in communities where CHE is active participated in the CHE program, and the program has only reached 2 percent of households living in the 26 health zones where CHE has been introduced. As reported above, the average number of households per active CHE group was found to be 31.7 households. Unfortunately, the percentage of individuals, as opposed to households, covered by the CHE strategy could not be determined, as individual-level data was not reported in ASSP's routine programme monitoring system. An additional cause for concern is the high percentage of CHE groups that drop out of the program. Of the total number of CHE groups enrolling in the first year, only 51.7 percent remained active during the second year, as measured by routine programme data on agricultural planting and contributions to the health centre. This suggests some degree of dissatisfaction with CHE program.

The initial qualitative results provided a number of insights regarding the willingness of village leaders and households to participate in the program. Village leaders or their family members in the sites in Kasai Occidental played an active role in project activities, while in Maniema the involvement of influential leaders was related to endorsing the project. For community members participation appeared to be primarily guided by the promised reduction in health care costs, with those who enrolled also motivated by the involvement of well-respected NGOs, the assumption that the project would involve income-generating activities, the expectation that material goods would be distributed, and the endorsement of village leaders. However, in three villages, concerns about the authenticity of the project and whether the IT would respect health care fee reductions were mentioned as reasons for the limited enrolment of community participants. Those who chose to participate appeared to lack a common understanding of the project, thus preventing them from embracing activities as needed. Moreover, as the perceived project promises and anticipated benefits were not met, the organizational structure failed to convene and oversee activities, and there was no supervision by zonal level health authorities or NGO staff, participants began to lose their motivation, with the vast majority in three of the four sites abandoning the project.

If groups had followed the CHE design—establishing membership based on trust, electing and providing oversight to leaders, and allowing participants to be part of decision making regarding income-generating activities and fiscal issues—they may have been in a better position to establish durable bonds, meet the project objectives, and continue functioning. In theory, electing the CHE group leaders should better ensure that participants have some oversight over the group activities and enhance accountability and group sustainability. However, our research findings suggest that certain fundamental premises of the CHE approach may be unrealistic in the context of social and political realities in rural DRC. For instance, it is not clear how the project can guarantee that the formation of groups is based on trust and shared interests. The bottom up approach may also oppose certain local social hierarchies. Our studies show that community groups are not insular and are prone to other villagers, particularly those in positions of power, to get involved for reasons related to self-interest.

In addition, the approach can only succeed if other actors, including the ACs, other representatives at the health zone level and the implementing partners fulfil their roles of on-going supervision and problem solving and reporting, identified as a weaknesses in the approach. There must also be a mechanism to ensure that the IT adheres to the provision of reduced user fees to members, and that supplies, particularly medications, are available. Key informants at all levels cite medication stock outs or shortages in the health centres as an on-going problem that is undermining participant's confidence in the approach. While the CHE project has established a contractual agreement with the health centres, it is not clear to what extent this can ensure that the money transferred to the health centres will be appropriately used; during follow up studies we identified several instances of health worker misuse of CHE funds. The research also identified certain basic concepts that people were unable to grasp, such as paying for health care prior to falling sick or restricting fee reductions to a specific time period which directly coincides with monthly payments of fees, all of which may also affect participation.

One of the potential unintended consequences discussed during the process of designing the strategy is that a disproportionate share of the CHE work burden might fall on vulnerable members of the community. Because agricultural activities are gender specific, female participants appeared to have carried out the bulk of fieldwork. However, due to the communal nature of the project, the time devoted to CHE-related activities seemed to be minimal, causing no real changes in the time devoted to childcare. In one site, children were enrolled in the project and working in the field. Another unintended consequence related to conflict that ensued between CHE participants and community leaders. The findings also raised concerns about the mismanagement by group or community leaders of crop yields or funds generated and project sustainability.

Are the expected changes occurring (i.e. income generated for the health centres, lower user fees, increased use of health services)?

According the ASSP Project management team, CHE revenues are considered by health centre staff as income and are held and managed like all other revenues of the health centre. At the time

the group transfers monies to the IT, a contract is signed that specifies the period of eligibility and the IT is supposed to keep track of coverage expiration dates. While data on health facility revenue from CHE contributions were available, the project's routine program monitoring system did not collect data of the user fees charged to CHE participants, or the utilization of health services for CHE members vs. non-CHE members. As such, we were not able to address this research question using quantitative data.

However, the initial qualitative study generated a number of insights related to whether the expected changes were occurring. While in three sites a portion of the harvest was transferred to the local health centre, none of the participants from the community received a reduction in health care costs. A common explanation given by the ITs was that they had not received authorization by government health officials to reduce fees. When we consulted the DPS at the provincial level, they indicated that during the initial phase, the Ministry of Health at the national and provincial levels were not adequately informed about the project activities and therefore did not authorize the fee reduction. The delay in the approval may also have been caused by a change of the DPS staff at the provincial level. We later learned that an official government directive to authorize the reduction of fees was granted in August and September 2014, but that additional time was taken to apply the fee reductions, with some zones still refusing to recognize the project. In the only site where there were many participants, the IT also claimed that the monetary sum he received for the harvest transferred from the group members was insignificant in relation to the cost that would be involved in reducing treatment fees for participants and their family members. According to the study respondents, the official conditions for reduced fees were not met by community groups in two of the three sites where a portion of the harvest was given to the health centre. Due to the high attrition rate of project participants during the cultivation season, and a lack of perceived advantages, only one of the sites studied during the initial research phase appeared to continue with the intervention during the subsequent agricultural season. Therefore, 1 in 4 communities remained active during the second year, which is less than the 51.7 percent reported through the quantitative assessment.

Participants in the initial qualitative study indicated that they became disillusioned by the failure of the project to adhere to the multiple promises they had understood at the time of enrolment, particularly that the main project goals involving reduced health care costs were not met. This affected other intended project outcomes related to an increase in utilization of health services and community participation in health decision-making. The only perceived benefits mentioned involved the small quantity of produce that participants in two research sites had received, the improved seed, and, in one site, women also cited purchases of cloth and food items. Overall, female participants appeared to be more positive, highlighting that communal farming is beneficial due to a reduction in workload.

During the follow up study, ITs shared other instances whereby the harvest contributed was not enough to cover the CHE group contribution for health care fee reductions. There were also reports that when the CHE group contribution involved crop yields rather than money payments

the IT faced problems selling the harvest and in some cases was forced to refuse to honour fee reductions. Overall, delays in receiving the fee reduction and shortages of medications were reported to cause discontent.

What factors contribute to the success or failure in the initial stages of the CHE program?

A number of factors were mentioned in the initial qualitative interviews and focus group discussions as reasons why the CHE strategy had yet to achieve the intended aims in the initial stages of the program. A lack of trust in community leaders was one reason mentioned by many participants. As indicated, failure of groups to choose effective leaders undermined one of the basic principles of the project. Many group leaders did not share the same vision as participants or envisioned in the project design, focusing on monetary gain and thus influencing the common tendency to conceal the real amount of produce harvested. Problems tracking the produce harvested—whether it involved participants, group leaders or the health workers—plagued CHE efforts, fomenting suspicion and demotivating participation. Respondents highlighted that deception and unaccountability on the part of the group leaders, the lack of technical support and guidance, and the minimal benefits rendered, led to loss of motivation and consequent attrition.

A clear weakness of the implementation during the initial project phase was the decision to invite groups recognized by NGO partners and identified as predisposed to a health mutuelle initiative. The decision was guided by the need to make a quick start, which impacted other project preparations and aspects of implementation. Results from this study suggested an overestimation of the mutual trust already established by these groups and their commitment to supporting the local health centre. The findings also underscored the need to establish regular supervision and oversight by both the health zone staff and implementing partners in order to provide on-going technical support, ascertain that project activities are understood and implemented as planned, resolve conflict and ensure appropriate management of group assets. As indicated, data collected with key informants during the follow up study suggest that supervision continues to fail to meet the project mandate and poses a major obstacle to the overall project implementation.

The findings also suggest that certain social and contextual factors impact the cooperation, trust, and transparency needed for communal activities. For instance, the social differences between villagers and health care workers, who are frequently from outside the area, are better educated and from a higher socioeconomic status, can foment sociocultural barriers and foster distrust. In addition, perceptions of leadership and positions of power may differ between the organizers in Kinshasa and people directing project activities in the village setting, who often disregarded the rights of participants and felt justified in applying an authoritarian and non-transparent approach. Our key informants indicated that villages who are better educated or have experience participating in project activities and influential community members have a tendency to take charge, which is likely to impact participant ownership and decision making. Customs requiring involvement of, or remuneration to, the village chief is likely expected in many village contexts and should be taken into consideration when introducing activities. Differences in sociocultural

norms and structures that may affect acceptance of a new program, such as the more rigid adherence to traditional social structures or the tendency for men in the Kasais to be authoritarian, should be taken into account. Due to culturally specific gender roles, the majority of fieldwork was relegated to women participants; paradoxically, because most of the project leaders were male, and the bulk of the harvest was controlled by men.

In summary, certain assumptions in the CHE approach failed to take into account aspects of the political structure, sociocultural system, and realities of village life, which negatively impacted implementation of the strategy as planned, Our results consistently highlight an inability of community groups to follow key CHE approaches such as to establish partnerships based on social bonds and trust, have participants guide decision making, and ensure accountability of CHE leadership and health centre personnel. Financial and political interests of community leaders, government officials, and health service providers conflicted with the design and weakened the approach. These factors, combined with the ineffective implementation of fundamental project inputs involving supervision, training and technical assistance, undermined basic CHE principles that constituted key requisites to the CHE theory of change.

The rushed start and immediate widespread implementation also contributed to the project failings. A slower start and the piloting of the approach would have allowed partners to assess and identify problems implicit to the design and make corrections during the course of initial implementation before broader scale up took place.

Update on the current situation and future directions for the CHE strategy

ASSP's project management team has been closely monitoring the enrolment rates in the CHE program and is aware that enrolment rates are low. Consistent with the findings reported in this study, five factors were mentioned in the ASSP's Quarter One Year Three Report (April-June 2015) as being responsible for these low enrolment rates: 1) dissatisfaction with the quality and reliability of health centre services; 2) limited understanding of the benefits of CHE participation; 3) inability of some community members to pay for CHE subscriptions among groups that have elected to pay through direct contributions; 4) a largely undeveloped sense of community ownership; and 5) selected cases in which CHE has been intentionally neglected or blocked by DPS and health zone personnel.

As a result, ASSP's project management team is considering making a number of changes to the CHE strategy based on planned consultations with CHE subscribers, community leaders, health service providers, and CODESA members. Among the changes under consideration include the following:

- Improving the program's communication strategy, including the development of improved CHE promotional messages and a communication campaign that better explains the benefits of CHE participation to both the community and health service providers

- Discontinuing technical support for community-based agricultural income-generation activities, including the distribution of seeds and recommendations on best practices – the withdrawal of which may encourage community groups to opt to pay CHE subscriptions directly to the health centre
- Improving the quality of health services offered at the health centre by strengthening health centre management and supervision, improving the training of health workers, and addressing the persistent and pervasive problem of medicine stock-outs, and the lack of essential medical equipment

However, a number of features of the CHE strategy are not expected to change, including the following:

- ASSP will continue to recommend that groups will be formed based on extended family or friendship ties, and informally organized based on the expected benefits – improved financial access to health services. The design of the strategy is based on the assumption that group leaders will be held accountable as a result of pre-existing close social bonds.
- Benefits will continue to be limited to reduced user fees at health centres, with the hope that benefits can later be extended to hospital care if participation rates grow over time
- Benefits of CHE subscriptions will be a simple fee reduction for health centre services, either a fixed amount of a fixed co-insurance rate. However, there is hope that as participation rates increase, CHE groups will negotiate with health centres about a more specified basic benefits package.
- CHE groups will continue to have the ability to choose the approach for generating monies for subscriptions, including cooperative agricultural production, other types of income generation schemes, direct payments through group subscription, and direct payments for individual subscriptions.

8. Recommendations

Like all community-based health financing schemes that aim to mobilize additional resources for the health systems and provide increased financial protection to its members, the CHE strategy is an ambitious and complex health systems intervention. As originally designed, the strategy is complex in a number of ways.

First, it involves the concept of voluntary pooling health contributions for the purpose of pre-payment of health services. This is likely to be a novel concept for many households and health service providers in ASSP health zones. Moreover, it assumes that there exists a demand for health insurance based on the ability and willingness of household members to pay CHE subscriptions in order to receive CHE benefits.

Second, the strategy to date has been designed to achieve multiple goals inside and outside the health system. Not only is it designed to make progress towards health systems goals (i.e. improving financial access to service through the mobilization and pooling of health resources), it also aims to improve household livelihoods through the promotion of community-based income generation activities. This is understandable as a large proportion of households CHE areas are poor, which limits their ability to pay for insurance.

Third, the success of the CHE program involves a long chain of steps, some of which can easily be undermined by the financial and political interests of community leaders, government officials, and health service providers. As such, its success depends on a deep understanding the local contextual and political factors that can potentially influence its success.

Fourth, the strategy calls for the creation of a new type of community-based organization – the CHE group. The viability of the CHE group depends on the degree of organizational leadership and managerial capacity, which in turn, depends on sustained technical assistance from the project and others to improve organizational leadership and management skills.

Fifth, the CHE strategy is not only a health systems financing strategy, it is also a health systems accountability strategy in that it aims to empower communities – through the formation of CHE groups – to hold health service providers more accountable for the care they deliver to the community. As such, it can potentially influence the relationships and power dynamics between key stakeholders involved in the health systems governance process at the local level – which includes the government, health service providers, and the community. Moreover, there may be tensions between health service provider objectives and CHE group objectives. For example, health service providers may view the CHE strategy as an opportunity to enhance health worker incomes, which can potentially conflict with the CHE groups' goal of providing financial protection to its members.

Previous research suggests that community-based health schemes can improve financial protection, but that contextual and operational factors, including may of the factors discussed above, can hamper its successful development. In addition, it takes time for community-based financing organizations to be self-sustainable in the short and medium term. Sustained investments from governments and international health actors are needed in order to build financial and managerial capacity. Also important is the political commitment of the government to support community-based schemes. In the cases of Rwanda and Guinea, political commitment has fostered cooperation across schemes and promoted foreign investments to enhance technical support for community health financing schemes (De Allergi, Sauerborn, Kouyate & Flessa, 2009).

Based on the complex nature of the CHE strategy, the study's research findings, and the existing evidence-base on the effectiveness of community health financing schemes, we recommend that the next phase of the CHE project be approached very carefully and methodically. Although it is

recognized that the CHE intervention is a critical element of ASSP's strategy to improve health systems sustainability, it's important to proceed slowly over the course of the final two years of the project and not to be too ambitious. We recommend treating the strategy as a pilot project, to continue to strengthen the project's system for tracking the CHE implementation process, and to review and to utilize the existing research literature to learn from experiences in other contexts in sub-Saharan Africa.

Specific recommendations are as follows:

a. Continue as planned with the process of re-assessing the CHE project design
   - Engage a health financing expert to review the design of the strategy, including the benefits, monthly subscription rates, recommended number of participants per group, and other features of the health insurance approach.
   - Determine the capacities needed for health centres to play their role in the overall approach – such as a system that better protects CHE contributions against theft, an accounting system capable of tracking revenues, mechanisms to determine which members of the community are entitled to user fee reductions, and on-going collaboration with CHE groups and influential community members.
   - Engage an organization development expert to assist in strengthening the capacity of CHE stakeholders at various levels, including CHE groups, health centres, health zones, and those in managerial positions to carry out key roles and responsibilities.
   - Engage a communication expert to assist with improving the information campaign in regard to developing messages about the CHE strategy, the benefits of enrolling, roles and responsibilities, designing a mixed approach to reach different audiences, and adapting the messages as the approach evolves.

b. Intensify technical assistance provided to groups already enrolled in the CHE strategy
   - Support and build the capacity of CHE groups in carrying out key responsibilities
   - Address problems health zone staff face with supervision, including limited capacity, resources and incentives for the AC; identify ways to better engage the MCZ.
   - Strengthen communication processes at all levels. Recognize that various stakeholders, including the community, health centre staff, and health zone office staff still have divergent understandings of the project. Ensure that community group members have a clear understanding of the project before committing.
   - Develop measures aimed to strengthen collaboration between the health centre staff, community leaders, and CHE group representatives.

c. Strengthen the project's routine programme monitoring system
   - Collect health centre data on revenues received from community groups, the number of households and individuals covered, user fees charged to CHE members and non-members, and the use of revenues by health centre staff.

- Continue to strengthen the approach to ensure data timeliness and completeness. This should involve reviewing the data collection forms and making modifications according to the changed approach, simplifying the reporting system to decrease the layers of people involved, and considering use of the telephone for monthly reporting.
- Develop guidelines to encourage the use of programme data and project-related experiences by health centre staff, CHE groups, and other partners through routine meetings in health zones. The guidelines should be aligned with the project's CODESA strengthening and community scorecard approaches.

d. Use CHE monitoring data and operations research to modify and improve the CHE approach
   - Based on the monitoring system, identify health areas which function well and do not function well in respect to the direct contribution approach and determine why they differ.
   - Carry out studies to examine CHE group and health centre capacities needed to participate successfully in the CHE strategy.
   - Assess how health centre revenues are being used; assess whether ASSP's on-going efforts to reduce medication shortages and stock-outs are leading to increased interest and participation in the CHE strategy.

e. Recognize cultural differences and adapt approaches according to the local cultural and economic context and traditional social systems
   - For instance, recognize that in Kasai and Kasai Central,
     - People may be more reluctant to accept innovations involving behaviour change and require more intensive communication efforts.
     - Systems of traditional leadership may be more rigid and require more attention given to local leader.
   - Engage local leaders in a way that can positively impact the project.
   - Recognize that community group leaders and members will likely adhere to local power systems and find a way to incorporate these systems into the CHE strategy.

9. Limitations

There are a number of limitations to the study. First, the initial qualitative component of the study was carried out in only four CHE sites, and as such, the results are not generalized. While the selection criteria and purposive sampling approach followed very neutral sampling criteria and should not have negatively biased the choice of research sites, the four sites selected for the study included groups that did not renew their participation in the CHE intervention and thus highlighted problems and project risks, failing to uncover much positive experience. We recognize that it would have been informative to include CHE groups that had been better

managed. Also, the initial qualitative study examined activities carried out at the outset of the project, thus highlighting some problems that the programme has attempted to address. Despite this, the follow up key informant interviews confirmed that many of the project challenges initially identified continue to persist.

Second, the data on revenues received from health facilities may be under-reported, and no empirical data was available from health centres on how these monies and in-kind contributions were used, the user fees that were charged to CHE members, nor the number and types of services provided to CHE members. This prevented us from empirically investigating whether the expected changes at the health facility level were occurring.

Third, the study does not include empirical information on the technical assistance provided by the project and supervisory visits. While data on these issues was reported through the routine programme monitoring system, it was not reported in a way that was conducive to quantitative data analysis.

Fourth, we suspect that under-reporting affected the quality of data used for many of the indicators analysed, including whether CHE groups chose to engage in income-generating activities or contribute directly to the health centre and the amount of revenue generated through income-generating activities. The availability of data on the number of households and individuals participating in the group over time was also very limited.

10. Conclusions

Overall, the study results suggest that the CHE strategy has not yet led to the anticipated changes in the mobilization of community health care financing, financial protection against out of pocket spending, and improved use of services by community members. The disappointing results thus far appear to be due to problems related to the rapid scale up of the project, limited capacity at the community level to properly lead and manage CHE groups, social and contextual factors influencing the governance of the CHE groups, and the perception of poor quality of care due to inadequate availability of medicines. These factors likely contribute to the relatively low levels of household participation in the project. While some of these barriers may be rectified, the major challenges mentioned by community participants concern trust and accountability and are particularly challenging in a context where poverty is rampant and corruption is prevalent at all levels.

In moving forward with the project, it is important to recognize that the CHE strategy continues to evolve and there is a need for further experimentation in order to determine the most effective approach for mobilizing community resources for the health system. Regardless of the outcome of the on-going process to redesign the CHE strategy, it is recommended that the project intensify technical assistance provided to stakeholders involved in the CHE strategy, strengthen

the project's routine programme monitoring system, and continue to use CHE monitoring data and targeted operations research to track and improve the strategy.

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Appendix 1: Tulane's Terms of Reference

See the folder attached to this submission

Appendix 2: Research Protocol Executive Summary

Study objectives and research questions: This operational research study is an evaluation of the ASSP's Community Health Endowment intervention, which is intended to mobilize health financing through income-generation activities. The following are the principal research questions that will be investigated: 1) Are village leaders and households willing to participate in the CHE strategy?; 2) Is the CHE intervention being implemented as planned?; 3) Are the expected changes occurring (i.e. income generated for the health centres, lower user fees, increased use of services)?; and 4) What factors contribute to the success or failure in the initial stages of the CHE program (based on perceptions of community leaders, health zone staff, health care managers and providers, household members)?

Study design/methodology: A mixed methods approach involving complementary qualitative and quantitative data collection strategies will be carried out in health zones where the CHE project is operating. For the qualitative study, in each province one village located in a health zone in a peri-urban area and one village situated in a health zone in a rural area where community members are participating in the CHE strategy will be selected randomly. Data will also be gathered in nearby villages that decided not to participate in CHE activities. The qualitative study component will be based on key informant and in-depth interviews and group discussions. The quantitative study component will be based on routine project data from all participating villages.

Target population: The target population consists of individuals participating in the CHE intervention in the provinces of Kasai Occidental and Maniema where the CHE intervention has been underway since April 2013. The qualitative study population also includes community leaders from villages that decided not to participate. Additionally, the members of the technical team from the implementing agency, IMA will be interviewed.

Sampling method and sample size: For the qualitative study component, purposive sampling will be used to identify community leaders (3-6 per village) who will act as key informants in participating and non-participating villages. Based on lists of male and female participants in CHE activities, systematic sampling will be used to identify respondents for the in-depth interviews participants (8) and the focus group discussions (2) in each participating village. Key informant interviews will also be carried out with implementing partners working in the provincial capital. Data collection will continue until we reach data saturation.

Statistical and analytic plan: For the qualitative component, content analysis will be used to identify trends of concepts in and across individual codes identified through the qualitative study. Data triangulation will be used to ensure that the findings are validated. For the quantitative study component, descriptive analysis (means and frequency distributions) of key indicators collected at the village- and health care facility-levels will be carried out.

Limitations: Investigating the sustainability of the intervention is beyond the scope of the study. The study design relies on reported qualitative information and on data collected and reported by ASSP Project staff.

Ethics: Ethical approval of the study and data collection procedures will be obtained from the Institutional Review Boards of Tulane and the Kinshasa School of Public Health before data collection commences. Oral informed consent will first be obtained from all participants in the qualitative study.

Appendix 3: Detailed List of Research Questions to be Investigated

1) Are village leaders and households willing to participate in the CHE strategy?
    a. How is the CHE strategy introduced at the village and household level? Are there modifications that need to be made to improve the introduction of the project?
    b. How do villages decide to participate in the CHE program?
    c. Among community leaders, what factors are important in the decision to participate, or not participate, in the program?
    d. Among community leaders, how was the organizational structure of the CHE established? How does it work (or how is it supposed to work)?
    e. Among community leaders, what are the perceived advantages and disadvantages of participating in the CHE program?
    f. Among households, what factors contribute to household participation in the CHE program? Who is involved and how does decision making take place?
    g. Among households, what are the perceived advantages and disadvantages of participating in the CHE program? Do the perceptions of women differ from those of men?
    h. Among households, do households prefer a more individualized method of contribution (i.e. using personal money to set aside for health care by monthly or quarterly contributions) instead of the CHE strategy?

2) Is the CHE intervention being implemented as planned?
    a. Were the necessary inputs supplied by the project, health zone (technical advice, delivery of seeds, managerial and marketing support), and village groups?
    b. Was active household participation in the CHE program at the anticipated level?
    c. Were there any notable differences in the level of participation between men and women, and in how men and women participated in the program?
    d. Were the expected processes carried out by communities:
        i. To organize and manage the CHE?
        ii. To establish linkages between the CHE, the health center, and the Comité de Santé (CODESA)?
        iii. To engage households to participate?
        iv. To transport, market, and sell the agricultural produce for cash?

3) Are the expected changes occurring?
    a. Increased community income generated by the CHE
    b. Increased income for the health centre
    c. Lower user fees charged by the health centre for those participating in the CHE
    d. Adoption of new varieties and improved agricultural techniques among households engaged in agricultural production

4) What factors contributed to the success or failure of the CHE program (based on perceptions of community leaders, health zone staff, health care managers and providers, households)?
    a. Perceived costs of the program (time and financial costs at the village and household level).

b. Perceived consequences of the program (intended and unintended consequences at the village and household level)
c. Capacity of villages to properly organize and manage the CHE
d. Capacity of health care providers to manage and appropriately utilize the funds generated through the CHE.

Appendix 4: Initial Qualitative Study Interview and Focus Group Guides

Key Informant Interview Guide

Participating Villages

- Introduction of the CHE strategy
    - What do you know about the CHE strategy?
    - How was the strategy initially introduced at the village level? What information was presented? How and to whom was the information presented?
    - Who was involved in introducing the strategy?
    - What, if any, promises were made regarding inputs (e.g. technical advice, delivery of seeds, training, marketing support) supplied for the project?
    - How did your village decide to participate in the CHE strategy?
        - Who was involved in making the decision?
        - What factors were important in deciding to participate in the project?
        - How long did it take for your village to decide to participate?
        - What needed to be done to officially accept implementation of the strategy?
    - What was your understanding of the potential benefits? What was your understanding of the potential risks?
    - Given what you now know about the project, are there modifications that need to be made to improve the introduction of the project?

- Project preparation
    - What activities needed to be carried out before project implementation?
    - How were decisions made about where the agricultural activities would take place? What arrangements were made regarding use of the agricultural fields?
    - What inputs were supplied (technical advice, delivery of seeds, etc.) initially?
    - Among community leaders, how was the organizational structure of the CHE established? What were some of the key decisions made? Who were the key actors involved?
    - According to the project plan, how was the CHE strategy supposed to work?
        - How much time were participants supposed to contribute per week?
        - What types of activities were participants supposed to be involved in? How did this vary according to male and female participants?
        - Who was supposed to oversee daily activities?
        - How were activities supposed to be monitored?
        - Was there some sort of reporting system set up?
    - How was the strategy initially introduced to eligible village participants?
        - Who was involved?
        - How and what type of information was presented?
    - How did villagers respond to the proposed strategy?
    - How was it decided who would participate?
        - How would you characterize those villagers who decided/were selected to participate?
        - Why do you think these people were selected to participate?

- Implementation of the project
    - What occurred when the project was initially implemented?
        - When was the project implemented?
        - What community leaders were involved?
        - How many beneficiaries were involved?
        - What were some of the activities that initially took place?
    - Since initial implementation, what activities have taken place thus far?
        - Probe for activities that have occurred since the start of the program, including preparing the fields, planting, harvesting, and selling the produce?
    - How is the project working?
        - How many villagers are participating? How many men and women are participating?
        - How much time are participants contributing per week?
        - What types of activities are they involved in? How does this change according to the agricultural season?
        - Who is overseeing daily activities?
        - How are activities being monitored? Is there some sort of reporting system?
    - What community leaders are presently involved in the CHE strategy? What is their role?
    - How are health workers, including facility- and community-based, involved in the project?
    - What is the role of the CODESA?
    - What is your role in the project?

- CHE intervention being implemented as planned
    - Were the necessary inputs supplied by the project, health zone (technical advice, delivery of seeds, managerial and marketing support), and village groups?
    - Was active household participation in the CHE program at the anticipated level?
    - Were there any notable differences in the level of participation between men and women, and in how men and women participated in the program?
    - Are the community leaders participating in the project as initially planned? Are you participating as initially planned?
    - Were the expected processes carried out by communities:
        - To organize and manage the CHE?
        - To establish linkages between the CHE, the health centre, and the Comité de Santé (CODESA)?
        - To engage households to participate?
        - To transport, market, and sell the agricultural produce for cash?

- Expected outcomes associated with the CHE project
    - Has there been an increase in income among participants?
    - Has the health centre experienced an increase in revenue? If so, who is managing this additional money? How is the money being used?
    - Are lower user fees being charged by the health centre for those participating in the CHE?

- To what extent are participants adopting new varieties and improved agricultural techniques?

- Perceived successes or failures of the CHE program
  - Are you satisfied with the CHE program? Please explain
  - Are the time and costs put into the project as you expected?
  - Have the project organizers and participants been able to organize and manage the CHE project as planned? Why or why not?
  - Have the health care providers been able to manage and appropriately utilize the funds generated through the CHE? Please explain.
  - To what extent has the project impacted on participation by the community in health care decision-making?
  - Apart from the expected outcomes, are there any other positive consequences that have occurred as a result of the project?
  - Overall, what are some of the limitations of the project?
  - Are there any unintended negative consequences as result of the project (e.g. conflict among villagers who are and are not participating, misuse of funds, unequal distribution of work, etc.?)

- Future plans
  - What CHE activities are planned for the future? Have any modifications been made in the project approach? If so, please explain?
  - How long do you think that your village will pursue the CHE project?
  - What will be needed to ensure that CHE activities are sustainable in the future?
  - Do you have any suggestions regarding ways to improve the project design or activities?
  - Are there community-based projects other than agricultural projects that might be considered in the future?

Non-participating Villages

- Introduction of the CHE strategy
  - What do you know about the CHE strategy?
  - How was the strategy initially introduced at the village level? What information was presented? How and to whom was the information presented?
  - Who was involved in introducing the strategy?
  - What, if any, promises were made regarding inputs (e.g. technical advice, delivery of seeds, training, marketing support) supplied for the project?
  - Why did your village decide not to participate in the CHE program?
    - Who was involved in making the decision?
    - What factors were important in deciding not to participate?
    - How long did it take for your village to decide not to participate?
  - What was your understanding of the potential benefits? What was your understanding of the potential risks?

- CHE activities in participating villages,

- Do you know of any nearby villages that are participating in the CHE project? If so,
    - Where are these villages located?
    - What have you heard about CHE activities in these villages in regard to participation? Benefits? Limitations?

- Future plans
    - What factors might encourage your village members to reconsider partaking in CHE activities in the future?
    - Are you in favour or opposed to participating in CHE activities in the future? Why?

In-depth Interview Guide

Participants

- Participation
    - How long have you been participating in CHE activities?
    - How was the project introduced to you? Who initially introduced the project activities and expectations regarding participation?
    - What were you initially told about the project?
    - What were you told regarding the benefits for participants?
    - What factors contributed to your decision to participate?
    - Who was involved and how did decision making to participate take place?

- CHE activities
    - What CHE activities have been implemented thus far in your village?
    - How does the CHE project function in your village? Probe for project organization, number of participants, activities depending upon the season, etc.
    - Have the project organizers and participants been able to implement the CHE project as planned? Why or why not?
    - At present, what activities are you involved in? How much time are you contributing to the project?
    - How does your involvement vary according to the time of year? What other activities have you participated in at different times of the year? Does the activity and time of year impact on the amount of time you are contributing to the project?
    - Does your involvement, including the time and type of work you are doing, meet your expectations? Why or why not?
    - How, if at all, has the time and work you devote to the CHE project affected your other income-generating or household activities?
    - For mothers of young children five years or younger, has your involvement in the CHE affected the way you care for your children? If so, how? Who supervises your children when you are engaged in CHE activities?

- Perceived outcomes associated with the CHE project

- To what extent has your participation in the CHE project affected your income? If the respondent indicates that their income has increased, how has this impacted on you and your family members?
- To what extent has participation in the CHE project affected user fees being charged by the health centre? If there appears to be a reduction in user fees, probe for the percentage of the reduction and whether the reduction occurs during each visit to the health centre. The respondent can be asked to give an example of how this works.
- To what extent are you adopting new seed varieties and improved agricultural techniques as introduced by the CHE project? What are the benefits of using these new approaches? Are other members of your family also using these approaches?

- Other perceived advantages and disadvantages
  - Are you satisfied with the CHE program? Please explain
  - Do the benefits outweigh the time you have put into the project?
  - Apart from the expected outcomes, are there any other benefits to participating in the project?
  - What are some of the limitations or weaknesses of the project?
  - Are there any unintended negative consequences as result of your participating in the project (probe for time away from household, ability to carry out chores and other work, childcare, overall workload, etc.)

- Future plans and recommendations
  - How long do you think that you will continue to participate in CHE activities?
  - Do you have any suggestions regarding ways to improve the project activities?
  - Are there other types of income-generating community projects that the community could implement?
  - Do you prefer a community approach to contribute to reduction of health care costs or would you prefer a more individualized method of contribution (i.e. using personal money to set aside for health care by monthly or quarterly contributions)?

Focus Group Discussion Guide

<u>Participating Villages</u>

Participants

- Participation
  - How long have you been participating in CHE activities?
  - How was the project introduced to you? Who initially introduced the project activities and expectations regarding participants?
  - What were you told about the project?
  - What were you told regarding the benefits for participants?
  - What factors contributed to your decision to participate?
  - Who was involved and how did decision making take place?

- CHE activities

- What CHE activities have been implemented thus far in your village?
- Have the project organizers and participants been able to organize the CHE project as planned? Why or why not?
- What activities have you been involved in? How much time are you contributing to the project?
- What other activities have you participated in at different times?
- Does your involvement including the time and type of work you are doing meet your expectations? Why or why not?

- Perceived advantages and disadvantages of participating
  - Are you satisfied with the CHE program? Please explain
  - What are some of the advantages to participating?
  - Do the benefits outweigh the time you have put into the project?
  - Apart from the expected outcomes related to increased income and reduced health care costs, are there any other benefits to participating in the project?
  - What are some of the disadvantages to participating in the project?
  - Do the advantages outweigh the disadvantages to participation?
  - What are the overall limitations or weaknesses of the project?
  - Are there any unintended negative consequences as result of participating in the project?

- Future plans and recommendations
  - How long do you think that you will continue to participate in CHE activities?
  - Do you have any suggestions regarding ways to improve the project activities?
  - Do you think that CHE activities can be sustainable over the long-term?
  - Are there other types of community income-generating projects that villagers could implement?
  - Do you prefer a community approach to contribute to reduction of health care costs or would you prefer a more individualized method of contribution (i.e. using personal money to set aside for health care by monthly or quarterly contributions)?
  - Would you recommend that other villages implement CHE activities?

Non-participants

- Participation
  - Were you ever introduced to the CHE activities? If so, how was the project introduced to you? Who initially introduced the project activities and expectations regarding participants?
  - What were you told about the project?
  - What were you told regarding the benefits for participants?
  - What factors contributed to your decision not to participate?

- CHE activities
  - What do you know about CHE activities?
  - What do you know about CHE activities that have been implemented thus far in your village?

- Perceived advantages and disadvantages of participating

    - What are some of the advantages to participating in CHE activities?
    - What are some of the disadvantages to participating in the CHE project?
    - What are the overall benefits of the project?
    - What are the overall limitations or weaknesses of the project?
    - Do you know of any unintended negative consequences resulting from the project?

- Future plans
    - What factors might encourage you to reconsider partaking in CHE activities in the future?
    - Do you think that you will participate in CHE activities in the future?
    - Are there other types of community income-generating projects that might also be beneficial for villagers to implement?
    - Do you prefer a community approach to contribute to reduction of health care costs or would you prefer a more individualized method of contribution (i.e. using personal money to set aside for health care by monthly or quarterly contributions)?

Appendix 5: Follow up Qualitative Study Interview and Focus Group Guides (French)

Interview Médecin Chef de Zone

1. Que savez- vous du projet APC ?
2. Etes-vous impliqué dans le projet APC ?
3. Depuis quand êtes-vous impliquer dans ce projet?
4. Quel rôle jouez-vous dans ce projet ?
5. Etes-vous satisfait du rôle que vous jouez. ? Pourquoi ou pourquoi pas ?
6. Avez-vous suivi une formation ? où et pendant combien des jours ?
7. De quoi a-t-on parlé dans cette formation ?
8. Qui a assuré cette formation ?
9. Quelle relation y a-t-il entre vous, l'IP (SANRU/ CARITAS) ?
10. Combien d'Aires de Santé participent à ce projet ? Comment le nombre d'Aires a changé depuis le commencement ?
11. Comment la supervision du projet est faite ? qui de votre personnel est impliqué dans la supervision du projet ? Y a-t-il des problèmes portant sur les supervisions ? Si oui, lesquels ?
12. Comment le rapportage marche ? Avez-vous des problèmes avec le rapportage ?
13. Pensez-vous que ce projet sera-t-il un succès ? Pourquoi ou pourquoi pas ?
14. Comment le projet peut être amélioré?

Interview Animateur Communautaire de la Zone/ IP

1. Quel rôle jouez-vous dans ce projet ?
2. Avez-vous suivi une nouvelle formation dans le cadre d'APC ? Où et pendant combien des jours ?
3. De quoi a-t-on parlé dans cette formation ?
4. Qui a assuré cette formation ? Est-ce que la formation était adéquate pour faire le travail d'AC dans le projet ?
5. Combien d'Aires de Santé et combien de villages participent à ce projet dans votre Zone de Santé ?
6. Depuis le commencement du projet, pouvez-vous expliquer ce que vous avez fait comme sensibilisation et comment l'avez-vous fait ?
7. Le projet s'est-il appuyé sur les anciennes associations ou les nouvelles et comment les avez-vous reformées ?
8. Pouvez-vous parler des guides techniques, leur formation et leurs attributions ?
9. Comment les partenaires chargés de l'implémentation du projet peuvent-ils mieux s'assurer que le guide technique est choisi selon ce que le projet propose ?
10. Comment le projet peut-il s'assurer qu'un candidat guide technique vient à l'orientation pour récolter l'information concernant le projet plutôt que chercher un revenu supplémentaire ou le prestige ?
11. Cela a-t-il changé depuis le début du projet ?
12. Les partenaires chargés de l'implémentation ont- ils expliqué aux groupes APC qu'ils n'étaient pas obligés d'accepter les variétés des semences améliorées ?

13. Que pouvez-vous dire sur la qualité de semences et les boutures fournies par le projet ? A quel moment les semences arrivent aux villages ?
14. A quelle distance se trouvent les champs APC par rapport aux villages et pourquoi ?
15. Quelle information les IP ont-ils donné concernant la localisation des champs communautaires?
16. Comment ces champs ont-ils été cultivés ?
17. Les participants ont-ils pris leur pleine responsabilité pour l'après récolte, le transport et la vente de la récolte au lieu de donner la récolte à l'infirmier du centre de santé ? Pourquoi ou pourquoi pas ?
18. Les participants s'attendent à ce que la distribution des semences améliorées puisse continuer? Pourquoi ou pourquoi pas ?
19. A quel moment a-t-on distribué les semences améliorées cette nouvelle année ?
20. Combien des visites des groupes de ménages avez-vous faire par mois ?
21. Depuis la distribution des semences améliorées à ce jour, combien des visites des groupes APC avez-vous réellement fait ?
22. Avant pourquoi les groupes suivent une approche qui parte du haut vers le bas plutôt que une approche orientée vers la communauté ?
23. Est-ce que l'approche a changé ? Si oui, comment ? Êtes-vous d'accord avec cette approche/l'approche peux marcher? Est-elle pratiquée dans les villages?
24. Est-ce que les partenaires chargés de l'implémentation et les leaders au niveau local comprennent correctement que l'initiative devrait commencer avec les groupes locaux ? Soutiennent-ils cette approche ? A-t-on besoin de plus de temps et d'efforts pour expliquer que la composition et le leadership devraient être déterminés par le groupe et que les choix concernant l'implémentation du projet sont correctes et ressortent de la responsabilité du groupe de la communauté ?
25. Entretenez-vous des contacts mensuels avec les superviseurs du partenaire chargé de l'implémentation de l'APC et le médecin chef des zones de santé ?
26. Vous est-il arrivé de faire les visites conjointes avec l'IP et combien de fois l'avez-vous fait ?
27. Quels sont les défis que vous avez à réaliser les supervisions ? Avec le temps, comment est-ce que ces défis ont changes ?
28. Les groupes APC ont –ils reçu une assistance en marketing pour les produits qu'ils ont récoltés? De qui l'ont-ils reçu ?
29. Pourquoi les participants de l'APC ont-ils des compréhensions qui varient et qui sont souvent incorrectes concernant le système de paiement du au centre de santé, les frais de traitement et le traitement qu'ils ont droit de recevoir ? Comment est-ce que ces divergences peuvent-elles être traitées/résolues ?
30. La réduction des frais a-t- été autorisée par les autorités en charge de la santé au niveau provincial? Depuis quand cela a-t-il eu lieu ?
31. Comment les participants au projet ont-ils formé un groupe APC ? Les participants ont-ils été suffisamment / convenablement consulté avant de commencer le projet ? pourquoi ou pourquoi pas ?
32. Les partenaires chargés de l'implémentation sont-ils au courant que certains participants ont sentis qu'ils n'étaient pas suffisamment / convenablement consulté avant de commencer le projet ? Comment et quand l'ont-ils su ?
33. Est-ce que la « compensation » attendue reportée par les participants reflète les hypothèses ou se rapportent-elles aux promesses faites par le programme des implémentateurs ou des leaders locaux? Comment les partenaires chargés de

l'implémentation peuvent-ils mieux communiquer les intentions du projet et aborder la perception selon laquelle les participants recevront gratuitement les marchandises sur base des expériences antérieures avec les ONGs ?

34. Y a-t-il moyen d'obtenir les informations des participants à l'APC sans vous rendre en personne ? Comment ou pourquoi pas ?
35. Comment le rapportage marche? Avez-vous des problèmes avec le rapportage?
36. Pensez-vous ce projet sera un succès ? Quels sont les problèmes ?
37. Comment le projet peut être amélioré?

Interview guide technique

1. Que savez- vous du projet APC ?
2. Etes-vous impliqué dans le projet APC ?
3. Depuis quand êtes-vous impliquer dans ce projet?
4. Quel rôle jouez-vous dans ce projet ?
5. Avez-vous suivi une formation ? Où et pendant combien des jours ?
6. De quoi a-t-on parlé dans cette formation ?
7. Qui a assuré cette formation ? Est-ce que la formation était adéquate pour faire le travail de guide technique?
8. Quelle relation y a-t-il entre vous, le médecin chef, l'AC de la Zone de Santé, l'IP (SANRU/ CARITAS) et l'IT de votre Aire de Santé ?
9. Quelle relation y a-t-il entre vous et les participants? Combien de fois vous avez les réunions avec les participants ?
10. Combien d'Aires de santé et des villages sont-ils sous votre responsabilité ? Comment est-ce que ca changé depuis le commencement?
11. Comment le rapportage marche? Avez-vous des problèmes avec le rapportage?
12. Quelles sont les bénéfices/motivation pour vous de participer dans le projet ?
13. Qu'est-ce que vous pensez de l'approche ? Est-ce tu penses c'est possible d'avoir une approche qui marche bas-haut. Pourquoi et pourquoi pas ?
14. Pensez-vous que ce projet sera-t-il un succès ? Quels sont les défis ?
15. Comment le projet peut être amélioré?

Interview avec l'Infirmier Titulaire

1. Que savez- vous du projet APC ?
2. Etes-vous impliqué dans le projet APC ?
3. Depuis quand êtes-vous impliquer dans ce projet?
4. Quel rôle jouez-vous dans ce projet ?
5. Avez-vous suivi une formation ? où et pendant combien des jours ?
6. De quoi a-t-on parlé dans cette formation ?
7. Qui a assuré cette formation ? Est-ce que la formation était adéquate pour faire le travail d'infirmier de projet APC?
8. Dans le cadre du projet APC, quelle relation y a-t-il entre vous, le médecin chef, l'AC de la Zone de Santé, l'IP (SANRU/ CARITAS) et le (s) guide (s) technique de votre Aire de Santé ou des associations ? Combien de fois vous avez les réunions ensemble qui concerne le projet ? Qu'est-ce que vous faites pendant ces réunions ?
9. Combien des villages/associations APC sont-ils sous votre responsabilité ?
10. Combien de fois le (s) groupe (s) APC vous a (ont) -t-il (s) déjà déposé leur

contribution ?

11. Ont-ils déposé de l'argent ou la récolte en nature ? Est-ce que la contribution a changé depuis le commencement de projet ?
12. Que faites-vous avec l'argent ou de la récolte? Comment les responsables de projets s'assurer que l'argent / la récolte est bien utilisé?
13. La réduction du tarif est-elle appliquée pour les membres les participants au projet APC ? Comment suivez-vous qui est et qui ne participe pas au projet? Gardez-vous une liste des participants?
14. Depuis quand appliquez-vous la réduction de la tarification ?
15. Quelle différence faites-vous dans vos recettes depuis l'appui APC.
16. Pensez-vous que ce projet sera-t-il un succès ? Quels sont les problèmes/défis ? Comment le projet peut être amélioré?

Guide de Focus-Group (participants)

1. Depuis quand êtes-vous membres de ce projet ?
2. Comment vous a-t-on choisi pour participer à ce projet ? Comment est-ce que le groupe était formé ?
3. Etiez-vous libres de refuser de participer à ce projet ?
4. Votre groupe a combien de membres ?
5. Quel est le message qui vous a été donné pour ce projet.
6. Qui vous a donné ce message ?
7. Est-ce qu'on vous avait promis les matériaux /bénéfices ?
8. Pourriez-vous nous parler du rôle du Guide Technique.
9. Pourriez-vous nous parler du rôle de l'AC ?
10. Comment a-t-on choisi votre guide technique ?
11. Comment les partenaires chargés de l'implémentation du projet peuvent-ils mieux assurer que le guide technique est choisi selon ce que le projet propose ?
12. Comment le projet peut-il assurer qu'un candidat guide technique vient à l'orientation pour récolter l'information concernant le projet plutôt que chercher un revenu supplémentaire ou le prestige ?
13. Depuis le début du projet, combien de fois le guide technique, l'AC ou les partenaires d'implémentation vous ont-ils rendu visite ?
14. Qu'ont-ils fait comme travail ? Comment vous organiser le travail ? Qui fait le travail ?
15. Quel type de semence avez-vous reçu du projet ? Et quel type de semence locale aviez disposée pour comparer ? A quel moment les semences étaient distribuées ?
16. Pourriez-vous nous parler des nombres de champ que vous avez déjà fait ? Et quel était le résultat à la récolte ?
17. Est-ce que vous avez eu l'assistance avec le marketing/vendre de récolte?
18. Avez-vous déjà déposé votre contribution au Centre de Santé ? Si oui, depuis combien de temps ? Si non, pourquoi ?
19. Etait-elle en argent ou en nature (produit de la récolte) ?
20. La réduction du tarif de soin au Centre de Santé est-elle appliquée pour les membres les participants au projet APC ?
21. Depuis quand a-t-elle commencée?
22. Combien des vos membres ont-ils bénéficié de cette réduction ? Comment la réduction marche ? Est-ce que vous penser que le réduction est appropriée ? Pourquoi ou pourquoi

pas ?

23. Qu’est-ce que le IT a fait avec l’argent/la récolte ?
24. Pensez-vous que ce projet sera-t-il un succès ? Quels sont les problèmes ?
25. Quels sont les problèmes avec le projet ? Comment le projet peut être amélioré?