





Mali: Qualitative Study of the Low Utilization of Essential Community Care

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Abbreviations

ASACO	Association de Santé Communautaire (Community Healthcare Association)
ACT	Artemisinin-Based Combination Therapy
ASC	Agent de Santé Communautaire (Community Health Worker)
CSCom	Centre de Santé Communautaire (Community Health Center
CSRef	Centre de Santé de Référence (Reference Health Center)
DNS	National Directorate of Health
DTC	Directeur Technique de Centre (Center's Technical Director)
MDHS-IV	Mali Demographic and Health Survey, 4th edition
FGD	Focus Group Discussion
FP	Family Planning
EI	Entretien Individuel (One-on-one Interview)
ICH	Amélioration des Soins de Santé (Improving Community Health)
LQAS	Lot Quality Assurance Sampling
MCHIP	Maternal and Child Health Integrated Program
NGO	Nongovernmental Organization
SEC	Soins Essentiels dans la Communauté (Essential Community Care)
RDT	Rapid Diagnostic Test for malaria
USAID	United States Agency for International Development

Summary

Background and justification

In 2009, a national forum recommended strengthening the management of maternal, newborn, and child health problems in the community, in order to accelerate progress to achieve Millennium Development Goals 4 and 5 (MDG 4 and MDG 5). Implementation of a community package of health services called "Essential Community Care" (*Soins Essentiels dans la Communauté*, SEC) by Community Health Workers (ASCs) with a higher level of qualification than that of existing community *relais* should speed up the achievement of these goals.

Quantitative assessment using LQAS (lot quality assurance sampling) and analysis of the SEC implementation process, carried out in late 2012 and early 2013, revealed a substantial number of deficiencies and raised questions that needed to be addressed to ensure that the SEC program improves both maternal and child health. One particularly important deficiency is the low rate of utilization of services.

Methodology

This is an essentially qualitative study. It covers the health districts of Kita, Diéma, Bougouni, and Yorosso. The data collection techniques used were focus group discussions, interviews with small groups (dyad, triad) and individual one-on-one interviews. The discussions were led by two research assistants: one asked the questions while the other took notes. The discussions were recorded but not transcribed. The recordings allowed us to go back over the discussions in order to improve the notes taken. In total, 314 respondents were involved from the four districts. The data collection was carried out from November 12–27, 2013.

Results

- Factors related to the health system and community system
 - The Health Center's Technical Directors (DTCs) understand the importance of their role in accrediting the ASCs. The DTCs act as supervisors for SEC. However, conflict can arise between DTCs and ASCs, resulting in the rejection of the ASCs by their direct supervisor.
 - The ASCs receive material support from the community, yet the lack of involvement of local authorities is one of the main challenges brought up by the study respondents. Their involvement in the implementation of the program is not always satisfactory, which has led in some places to a certain lack of understanding by the communities.
- Factors related to families and their care-seeking behavior
 - The mothers have no power to decide if a sick child should be taken to a health care provider. In general, the father makes that decision, or alternatively, the mother-in-law. However, the danger signs of child illnesses seem to be sufficiently well-known that families often seek care.
 - Use of family planning services offered by the ASCs is influenced mainly by men's objections for religious and traditional reasons as well as for fear of side effects or infertility.
 - For diseases believed to be caused by witchcraft, the villagers generally visit traditional healers or *marabouts* (holy men) for healing. The fact that the ASCs are not able to offer certain essential services often justifies the choice of alternative care providers.
 - Obstacles to care-seeking include financial barriers and, more commonly, social and cultural problems.

- ASC activities are very much appreciated by the persons who used their services. The provider's professionalism and social skills are very important factors in the beneficiaries' perception of the quality of service. Yet, the ASCs do not always feel comfortable with the materials they are given, such as respiratory rate timers instead of stethoscopes, harming their perceived adequacy.
- The beneficiaries have difficulty providing feedback on services, for example, reporting that a health worker is not capable of giving injections or treating adults. Feedback is crucial to identify the needs of a population.
- The best opportunities to increase awareness of community health services seem to be women's community gatherings. Home visits and one-on-one counseling are less common but seem to be very effective in increasing awareness as well.
- Factors related to ASCs
 - Some study respondents believe that a female ASC is not as efficient or qualified as a man. Many felt that it would be advantageous to have two ASCs of different genders on the same site in order to improve the effectiveness of the program.
 - The adjustment of the ASCs is not always easy, given that—unlike the *relais*—they do not necessarily come from the village they work for. Many ASCs are from towns or cities and working conditions were found to be very demotivating for most of them. Furthermore, the low quality of accommodation and food, the lack of means of transport and medical insurance, the lack of financial incentives, and the absence of a telephone network were reported as difficult by several ASCs.
 - It is widely thought that ASCs observe procedures better than DTCs. However, the DTCs take the opposite view. Moreover, some DTCs complain that their status with regard to the ASCs is not clear.
 - It is not uncommon for the female ASCs to suffer psychological and/or sexual harassment from their supervisory DTCs or from villagers or project coordinators.
 - *Relais* often collaborate and help the ASCs in carrying out their activities. On the other hand, traditional healers are often reluctant to reach out and establish a collaborative relationship with the ASCs.
- Factors related to work materials and supplies
 - The instruments for daily work seem to be too complex and difficult to implement.
 - The ASCs are given a bicycle but these are no longer suitable in Mali.
 - Shortages of drugs and supplies are frequent. This may be due to technical problems, to poor estimation of needs or simply to disputes between DTCs and ASCs.

Recommendations

- Firstly, immediate action must be taken to re-establish decent working conditions for the ASCs, to resolve the problem of widely reported sexual harassment, and to re-establish the trust of the community by ensuring the consistent availability of essential commodities.
- In the interim, it is essential to maintain the progress made by implementing a more aggressive demand generation campaign, targeting men and mothers-in-law, as well as by setting up a system of performance recognition to motivate the ASCs.
- Finally, ASCs' incentive process must be reviewed in-depth to establish a fair and durable system. The same should be done for the chronic issue of drug shortage. Broadening the package of services to

better respond to the demands of the beneficiary communities should be considered. Additionally, a gender-based approach must be introduced across the board in the SEC program in order to strengthen women's decision-making power.

Conclusion

For the SEC to achieve reductions in maternal and infant mortality rates, the Ministry of Health must take serious measures to resolve the problems identified in this study.

Introduction

In 2009, the Malian Ministry of Health organized a national forum on improving the quality of care at the community level. This forum recommended reinforcing the management of maternal, newborn and child health problems in the community by involving Community Health Workers (*Agents de Santé Communautaires*, ASCs) with a higher level of qualification than that of existing *relais*. As a result, the new health care package called "Essential Community Care" (*Soins Essentiels dans la Communauté*, SEC) was created (see Box 1 for ASC activities package).

During the first five years, the SEC program was introduced in five regions in the south of Mali. By 2014, nearly 2,200 ASCs were trained to assist an estimated population of almost 3.2 million, which is around 20% of the Malian population. The analysis of routine data, coupled with the results of an LQAS (lot quality assurance sampling) assessment, showed a good level of ASC availability but disappointing rates of service utilization.

Box I. ASC Activities Package as Part of the SEC

- Community management of simple cases
- Diagnosis and treatment:
 - Uncomplicated malaria using artemisinin-based combination therapy (ACT)
 - Diarrhea using oral rehydration solution/zinc
 - Acute respiratory infection using amoxicillin
- Distribution of vitamin A
- Growth promotion and monitoring, including appropriate nutritional counseling
- Treatment of moderate malnutrition
- Adapted postnatal care for the mother and newborn, including simple resuscitation if required
- Umbilical cord hygienic care
- Maintenance of newborn body temperature
- Special care of newborns born underweight
- Integrated Disease Surveillance and Response
- Correct and regular completion of data management tools and timely submission to the Community Health Center (CSCom)
- Referral of severe cases

To identify these weaknesses in the program, the National Directorate of Health (DNS) and the USAID/Maternal and Child Health Integrated Program (MCHIP), in collaboration with other partners, initiated this qualitative study in order to better understand the perception of the key players in the implementation of the SEC, including the ASCs, the *relais* and their supervisors, the representatives of the beneficiary populations, as well as mothers and grandmothers. The information provided by these different target groups should allow the taking of appropriate measures to improve the effectiveness of ongoing activities and lead to adjustments in the overall approach in terms of the future scale-up.

This study received the approval of the ethics committee of the National Institute for Research in Public Health (INRSP) in Mali and of the Institutional Review Board (IRB) of John Snow, Inc., based in the USA (Appendix 1).

I. Context

Mali is one of the Southern Saharan African countries in which maternal, neonatal, and child mortality rates are still very high and constitute a public health problem. Nevertheless, the comparison of the two last Demographic and Health Surveys in 2006 (MDHS-IV) and in 2012–2013 (MDHS-V) shows notable reduction in six years, from 46 to 34/1,000 live births for neonatal mortality, 96 to 56/1,000 for infant mortality, 191 to 95/1,000 for under-five mortality and 464 to 368/100,000 for maternal mortality. The launch of the SEC in 2011 was part of the strategies to accelerate the reduction in maternal, neonatal, and child mortality in Mali, with the aim of achieving Millennium Development Goals 4 and 5.

In accordance with national SEC implementation guidelines, a mid-term evaluation was carried out in two steps. The first step was the quantitative assessment of the supply, demand and quality of the services using the LQAS method. This study was undertaken in late 2012 and in the first trimester of 2013 in the health districts of Kita, Bougouni, Diéma, Koutiala, Kadiolo and Yorosso. Some of the results from the intervention districts of the USAID/MCHIP project are presented in Table 1. Despite there being a good level of ASC availability within a 3 km radius (around 90% with the exception of the Bougouni district), the results highlighted a low utilization rate of the services, with an average of 25–30% for child illnesses, depending on the nature of the complaint, and 5% or nil for family planning (FP) methods (with the exception of the Diéma district).

Indicator		Kita	Diéma	Bougouni	Yorosso				
Geographic accessibility	\prime within a 3 km radius 1	98.8%	93.8%	56.9%	87.4%				
Visits to ASC sites	for fever	30.1%	32.6%	27.5%	31.9%				
among children from	for diarrhea	25.3%	34.7%	32.6	33.7%				
0 to 59 months ²	for suspected pneumonia	25.0%	28.6%	18.0%	25.7%				
	Jse of contraceptive methods received from ASCs mong women of reproductive age ³		18.0%	00.0%	00.0%				

Table 1. Results of the LQAS study in the four intervention districts for the USAID/MCHIP project

The second step of the assessment was carried out by the DNS and by the USAID/MCHIP team, in collaboration with other technical and financial players, which sought to understand the main reasons behind these results. It consists of a qualitative study undertaken in the four health districts supported by MCHIP where the LQAS assessment was carried out: Kita, Diéma, Bougouni and Yorosso.

A number of research questions and hypotheses were developed in order to better understand the factors related to the utilization of services, specifically those related to accessibility, availability and quality of services, and to explore the determining factors behind the demand and the social and policy environment. These questions are presented in Appendix 2.

¹ Percentage of families in the sample living less than 3 kilometres from an ASC site.

² Percentage of children under five years of age in the sample having suffered from a fever, diarrhea, or suspected pneumonia during the two weeks preceding the survey, whose parents reported referring to ASCs for the treatment of illnesses.

³ Percentage of women of reproductive age in the sample who reported having referred to ASCs for family planning methods.

2. Conceptual Framework

The hypotheses behind the design of this study follow the logical reasoning that the utilization of services is conditioned by the three following criteria:

- 1. Families will have to first approach the ASCs to find the services; then
- 2. The ASCs will have to possess the required expertise and motivation; and finally;
- 3. The required materials, work tools and supplies will have to be appropriate and be permanently available.

Further to these criteria, this dynamic will have to be supported by solid health and community systems so that they may function as intended. These essential conditions are outlined in Figure 1, whose elements will be covered later in the presentation of the study results.

Figure 1. Essential conditions for good utilization of the SEC services: Conceptual Framework



3. Study Objectives

The general objective of the study was to determine the causes of the poor utilization of SEC services in the health districts of Kita, Diéma, Bougouni and Yorosso, with the aim of identifying appropriate strategies to reinforce the implementation.

Specifically, the study sought to:

- Explore factors favoring and limiting the utilization of the SEC in general, and the community treatment of sick children in particular.
- Solicit suggestions and solutions from frontline health workers, users and other stakeholders on the best method of using the available resources (time, human and financial resources), on all levels, in order to increase the impact on meeting the needs of the communities and improving the access, quality, demand and social and/or policy support for the SEC.
- Identify innovations, lessons learned and positive results related to the implementation of interventions by certain partners, which could be adapted and scaled up accordingly.
- Formulate recommendations to improve the implementation and utilization of the SEC, in terms of both policy and operations.

4. Methodology

4.1 Study Sites

The study was carried out in the health districts of Kita, Diéma, Bougouni and Yorosso.

- **The Kita health district** is one of the largest in the country with a total area of 35,250 km² and an estimated population of 480,946 in 2012. The district has 330 villages. The district's administrative center, Kita, is located 185 km from Bamako and 650 km from Kayes, the regional administrative center. The district has 80 working ASC sites. The society is characterized by its division into noblemen and caste members, with a large number of *griots* (traditional storytellers and poets).
- The Diéma health district has an area of 12,360 km² with an estimated population of 235,799 in 2012. The district has 146 villages. The district of Diéma has 28 working ASC sites. The administrative center of Diéma is located 360 km from Bamako and 270 km from Kayes, the regional administrative center. The Diéma health district is an area of rural exodus. Many of the district's immigrants are expatriates in France or other European, American or even African countries. The financial contribution of these expatriates is highly important to the economic development of the area.
- The Bougouni health district is another of the country's largest districts with a total area of 20,028 km² and an estimated population of 35,450 in 2012. It is located in the Sikasso region. The administrative center of the Bougouni district is located 175 km from Bamako and 210 km from Sikasso, the regional administrative center. There are 149 working ASC sites. The health district initially set up a community malaria treatment program, which has evolved into the wider SEC package.
- The Yorosso health district covers a total area of around 5,500 km², with 94 villages. There are 38 working ASC sites. The estimated population for 2012 is 235,183, the majority of whom live in farming hamlets in order to be as close as possible to fertile land. The main ethnic groups are the Minianka in the West and the Bobo in the East. The minority groups are the Bambara, the Soninké, the Peulh and the Dogon.



Figure 2. Geographic localization of the four districts in Southern Mali

4.2 Sampling

We used a purposeful sampling process for this qualitative study. The selection criteria of the ASCs, the ASC site villages, the Health Center Technical Directors (DTCs) and the *relais* included performance, the level of utilization of the CSComs (Community Health Centers) and the quality of collaboration. In each of the four districts, the survey teams collected data in the following sites:

- Three high-performing ASC site villages, of which two were the most visited for the treatment of sick children and one village had a good level of ASC/*relais* collaboration
- Four low-performing ASC site villages, of which three were the least-visited villages and one village had a poor level of ASC/*relais* collaboration
- Two satellite villages of high-performing ASC sites; one was the satellite village of another more-used ASC site and one was the satellite village of another ASC site with a good level of ASC/*relais* collaboration
- Two satellite villages of low-performing ASC sites, of which one was a satellite village of another lessused site and one was a satellite village of another ASC site with a poor level of ASC/*relais* collaboration
- The resident villages of two resigned ASCs
- The resident villages of two renowned alternative healers
- Four CSComs: two high-performing and two low-performing

The focus group discussions (FGDs) took place in the district administrative center, with the participation of four high-performing ASCs and four low-performing ASCs.

The selected villages and the interviews carried out in each village are presented in Appendix 3. All the samples included verbatim in this report are followed by a code (Appendix 4) that allows reference to the above characteristics. Table 2 sums up the numbers and types of activities carried out during the study, as compared to those planned.

4.3 Data Collection

Three qualitative data collection methods were used to collect information from several target groups, involving a total of 314 respondents. These consisted of focus groups, triads or dyads, and one-on-one interviews. Data collection took place between November 12 and 27, 2013.

Focus group discussion (FGD)

Discussions were carried out in the intervention area of the USAID/MCHIP project with groups of mothers of children under five years of age, grandmothers, ASCs and community leaders.

Triads/Dyads (DYA)

Members of the ASACO (Community Health Association) offices, the MCHIP coordinators and *relais* participated in these small group discussions.

In-Depth Interview (INT)

A series of in-depth one-on-one interviews were led with ASCs, DTCs, mothers of children under five, head doctors of the CSRefs (Reference Health Centers), SEC focal points and resigning ASCs.

Each participant read a text that outlined the study objective and the benefits, yet also the possible risks. The text also emphasized the confidentiality of all the data collected. Each participant could agree or refuse to participate in the study. Agreement was not an obligation to complete the interview; the participant could abandon the interview at any time without having to provide justification.

The interviews were recorded. These recordings allowed us to listen again to certain parts of the interview, in order to improve the notes taken by the assistants during the discussions.

Data Collection Method and Target		Number of Sessions Carried out/Predicted											
Group			Diéma		Kita			Bougouni			Yorosso		
	ASCs	Ι	/	I	I	1	I	I	/	I	Ι	/	Ι
Es aus ansus	Mothers	2	1	2	2	1	2	2	/	2	2	1	2
Focus group	Grandmothers	2	1	2	2	1	2	2	1	2	2	1	2
	Community leaders	1	1	I	I	1	I	I	/	I	I	1	I
Triad	ASACO	2	/	2	2	/	2	2	/	2	-	/	2
Durad	Relais	3	/	3	2	/	3	I	/	3	Ι	/	3
Dyad	MCHIP coordinators	-	1	I	I	1	I	I	/	I	I	1	I
	Working ASCs	3	1	3	4	/	4	2	/	2	2	/	2
	Resigning ASCs	2	1	2	2	1	2	2	1	2	2	1	2
	Mothers	5	1	5	5	1	5	5	1	5	5	5 / 5	5
In-depth	DTCs	4	1	4	4	1	4	4	1	4	4	1	4
interview	CSRef/Focal point	2	/	2	-	1	-	2	/	2	2	/	2
(INT)	Alternative providers	4	/	4	4	1	4	4	/	4	4	/	4
	ASACO*	-	1	-	-	1	-	-	/	-	I	/	-
	Relais*	-	1	-	I	1	-	2	1	-	2	1	-
	MCHIP coordinators*	I	/	-	-	1	-	-	/	-	-		-

Table 2. Summary of data collection in the four target districts

*Replacement solution due to insufficient participants in the field

4.4 Data Analysis

Each of the discussions was led by a research assistant; a second assistant was responsible for taking detailed notes. The detailed field notes were recorded verbatim as a MS Word document. They were imported to MaxQDA[™] for codification and verbatim account extraction.

Analyzing the notes enabled us to draw up a list of topics and codes, and then the verbatim accounts from different areas or from particular respondents were grouped together. This allowed us to verify whether certain occurrences have been observed in only one respondent, in only one area or universally.

MaxQDA[™] also allowed us to write detailed memos and to analyze thematic information. The full recording transcript was used as a reference for the verbatim accounts.

5. Results

The results presented in the next section follow the reasoning presented in the conceptual framework (Figure 1). They refer back to all of the elements, starting with the factors related to the support of the health system and to the support of the community system, then moving on to those factors related to families and their care-seeking behavior, those related to the ASC and their working conditions, and ending with the availability of tools and supplies.

5.1 Factors Related to the Health System Support and Community System

5.1.1. Health system support for the SEC

• The credibility of the program is dependent on the recognition and support from the health system; the DTCs and ASCs understand this:

DTC visits to the ASC sites influence the utilization of the SEC by the communities. The DTC supervisory activities at the sites certainly reinforce community confidence in the ASCs and can encourage the population to use the services offered by the ASC while also increasing awareness in terms of the SEC. The DTCs are aware of their role in the SEC program:

"The DTC, by getting partly involved in community-based approaches, meaning, increases the people's awareness of SEC; it's about showing who has primary responsibility for the SEC by making the DTC-ASC supervision better. If I set up an ASC and then I disappear for 3 months, 6 months without going to see him, the people will say 'Ah'; but if I turn up whenever I can, they will say 'Ah, it's good to see that the DTC himself makes the effort to travel to see how he [the ASC] works and that he gives the community a briefing at every supervisory visit.' That is what will encourage the people to use the ASC services in the future." INT/DTC/CSC/LPC/Ki

The ASC is also aware of the importance of the DTC's presence in strengthening credibility within the community:

"During supervisory visits, the presence of my DTC influenced the use of my services because his presence gave me great confidence, which encouraged the people to use my services. I saw no negative side to it." INT/ASC/RES/NAP/R1

• Support from the DTCs was provided through supervisory activities:

There are three main aspects to the supervision of ASCs: 1) checking the data-reporting supports in order to ensure the information collected is correct; 2) monitoring the availability of drugs and supplies; and 3) monitoring the ASC's skills and the quality of case management, either through direct observation or by checking the materials used. Supervisory activities also include some interviews of community leaders and beneficiaries.

"Supervisory visits cover individual records of child treatments, register records of newborns, communications and counseling, supplies – in particular their storage conditions, the materials and their functionality, interviews with the ASC, with the mothers who have benefited from the ASC's services and even observation of the ASC on the job." INT/DTC/CSC/LPC/Bo

The ASCs receive technical support from the DTCs in the form of activity monitoring, correction in the case of any shortcomings in their work and verification of all the records with which the ASC works. There are also some ASCs who reported having received financial support from their DTCs to help them in their job.

"There is technical support; after each supervisory visit, we make corrections in any shortcomings in collaboration with the CSRef or with another supervisory team. That's every month. We check the records he has written, observe him on the job in group discussions. We can say that we have helped the ASC to make corrections to certain shortcomings; on each supervisory visit we invite the village to take care of the ASC and his accommodation." INT/DTC/CSC/LPC/Di

"My DTC gives me petrol to go back and forth between satellite villages and if I go to hand in my report, he gives me the money for the journey." INT/ASC/SIT/HPN/Di

• In general, the DTCs fully appreciate the advantages of the SEC services:

Analysis of the strengths and weaknesses of the services offered by the ASCs demonstrates that activities they carry out are very well-appreciated, not only because the service is of high quality and the ASCs are passionate about their work, but also because the services offered respond to some of the perceived needs. It is worth mentioning that the degree to which this appreciation was expressed varies across geographical areas and relates to the climate of understanding between the ASC and his community. According to certain DTCs, the arrival of the ASCs stimulates the demand for services at the CSComs and has positive effects, such as the prompt referral of sick people, and improves the overall data in the catchment area.

"A positive aspect: the ASCs are readily available. Their availability on site has much improved things in terms of the population's health. Problems are detected early, the right referral is given in time and, on returning home, follow-up care is guaranteed by the ASCs; it's something that is really encouraging, really good." INT/DTC/CSC/HPC/Bo

"The strengths of the activities performed by ASCs: the DTC indicators have increased in number, cases of uncomplicated malaria are quickly referred before they worsen. This has enabled us to see many more sick people than when there weren't any ASCs." INT/DTC/CSC/LPC/Yo The DTCs were also trained in the ASC activities package. They were provided with clear descriptions of the role that they were expected to play in terms of supervisory activities of the ASCs. *"I did a training course in the case-management of sick children, malnutrition, pneumonia, diarrhea, family planning, malaria and also the training of trainers to supervise the relais."* INT/ASC/SIT/LPN/Di

"Amongst others, there is a training course in treating children, danger signs among pregnant women, referring sick children and also training on malnutrition." INT/ASC/SIT/HPN/Di

"Since the ASC training we took part in, there have been many meetings. I took a training course in Bamako in monitoring and supervision. The aim of these training courses was to improve the quality of care offered by the ASC." INT/DTC/CSC/LPC/Di

• Conflictual relationships between DTCs and ASCs are not uncommon, with the result being that the ASC is rejected by his direct supervisor:

The results of this study "lifted the veil" on certain unsaid realities about the SEC approach, especially concerning the rivalry among service providers.

"There's no competition between us, but there may be between relais and ASC. And I think that if someone comes to help your people, there shouldn't be any competition." INT/DTC/CSC/LPC/Di

Due to misunderstandings or personal problems, certain DTCs choose to ignore the presence of the ASC. As a result, the ASC is denied technical and financial support. Some ASCs have also been deprived of their rights and other work advantages, including their financial incentive, by their DTC.

"I never had any support from either my DTC or the project. At one point, some solar lamps arrived that were intended for the ASCs, but my DTC blocked everything. My predecessor's old bike that I handed over to my DTC for repair was never returned." INT/ASC/RES/NAP/R2

"The first DTC came to supervise me; the other [successor] never came to supervise me. I only saw him in the village in the vaccination campaign period. Whilst my first DTC came to observe my activities, checked my daily records and my report, if there were any shortcomings he gave me instructions. He even asked people what they thought of my services "INT/ASC/RES/NAP/R2

In one of the interviews, the high cost of contraceptive products, caused by DTC speculation, came up as part of the barriers to accessing family planning:

"There are no obstacles to using the health care services for the people. But the family planning products were sold to me for 1,000 whereas the CSCom sold them for 500F. I spoke to him about it, he wouldn't lower the price so the people didn't come for FP because of the price. The ticket price was 600F. The distance hadn't been a problem for those from satellite villages coming to see me for consultation. There is a shortage of medicines and I don't know the reason why." INT/ASC/RES/NAP/R2

Most of the resigning ASCs felt rejected; they received hardly any or very little support from their DTCs. This is an indication of manifest dysfunction, which was shown to be valid for both Kayes and Sikasso, the two MCHIP regions of intervention.

In certain cases, this lack of support stemmed simply from a lack of training or information on behalf of the DTC. Some DTCs admitted that they had very little information about SEC. As could be expected, not all the DTCs benefited from training on the SEC approach, because some of them arrived at their current position after the various training sessions planned by the health district had been completed.

"I don't know much about SEC, I've never done any training courses on SEC" INT/DTC/CSC/LPC/Di

5.1.2. Community System Support for the SEC

• In some places, the ASCs receive material support from the community: This support usually consists of constructing premises for the ASCs so they may carry out their work in the proper manner.

"The people are very involved, they have built me a room and are currently building a toilet; they are there every time I need them. They are always on hand to help." INT/ASC/SIT/LPN/Di

• Effective involvement by the authorities, at the same time, is one of the main challenges mentioned and is among the priorities identified for the continuation of the program:

The authorities include elected local officials and the village authorities. In addition, the involvement by the ASACO is also perceived as a guarantee of the durability of SEC benefits.

"We still need to deal with the challenge of the approach, the people's perception of SEC. I would like to see increased involvement by the local authorities, such as the Mayor, the president of the ASACO, in terms of their appropriation of the project. Nevertheless, we are currently working towards successfully integrating the ASCs into our society." INT/MGT/DIS/NAP/Di

The population, for their part, has to make SEC their concern, make it their own. The population can even work to motivate the ASCs and *relais*, which is already the case in some villages.

"In order that the people may make it their own, I already had to talk once about the free access ... it's damaging afterwards. When you go to assign an agent to a village and the village isn't part of it, do you see what that means? They are always going to say that the agent belongs to them. They must get involved and be part of it; they must give something, make a contribution, not always have things given to them. Because that is naturally how we are. Getting things for free every time won't resolve problems. A man must stand up and face a problem and only then you come to help him along. And if he is slow to stand up and face it, you help him make it happen.... It's not right to give them everything like that; you have to get the population more involved and increase awareness so that they take their share of the responsibility."INT/DTC/CSC/HPC/Ki

"We saw it the other day during the last training: the experience on an ASC site in Kita towards the Kayes area. There, the inhabitants of the ASC site contribute to their ASC's salary. The NGO [nongovernmental organization] provides the incentive and the people also contribute to it, there's also the ASACO that gives too. If the ASACOs can contribute too, it motivates the ASC... 90% of the ASCs don't want to travel around on bicycles and MCHIP gave them bicycles. Traveling often to the satellite villages is a problem; they have to buy petrol and their incentive is only 30,000F. If they have to take their petrol money out of that, it is really hard. If the village or the ASACO could offer an incentive, I think it would be a good idea." INT/DTC/CSC/LPC/Yo

5.2 Factors related to families and Their Care-Seeking Behavior

5.2.1. The Decision-Making process in searching for healthcare

• The mother has no power to decide if a sick child should be taken to a health care provider it is up to either the husband or the mother-in-law:

The social restrictions that weigh upon the women in the choice of service providers are to a large extent due to the fact that it is the men who take care of the health care costs and, as a result, they decide everything. In fact, they choose the type of care providers to treat both children and women. This observation was made in many mothers' focus groups.

"When a child falls ill you have to take it to the CSCom; it's the father who makes the final decision...." INT/MTH/SAT/XXX/Di

"Respondent A: "Even if the women have understood, if the men aren't involved, the women don't go." DYA/REL/SIT/HPC/Ki

The decision-maker plays an important role in the use of SEC services. In reality, even if some women do have financial means available to take care of their children, they still have to get authorization.

"If a child falls ill, if you have the time and the money and your husband orders to go, you take the child... The problem of money is one thing, but often you need the authorization of the daddy." INT/MTH/SAT/XXX/Di

"It's not because the medicines are expensive, but more escaping responsibility. Because we are in an area where the women are responsible for everything, while the women don't have enough means; otherwise, the medicines aren't that expensive. For as long as the heads of the village won't take responsibility in this subject, it's no good.... The head of the household must be capable of looking after his family. In a large family you will find the older brother is there, the younger brother is there, but since it's the older brother who must decide, and if he doesn't make his decision, the child drags on until it's too late ... it's a real problem in Africa. If not, in reality, it's not a problem of cost." INT/DTC/CSC/LPC/Di

In the literature, however, in certain cases, the mother-in-law is reported as having a dominating role. Several mothers-in-law didn't mention that the decision was up to them but rather that it was up to their sons. However, it is possible that, in the absence of the father, the decision will be up to the mother-in-law.

"It's the man who makes the decisions." FGD/GDM/SIT/HPC/Yo

"If the father is absent, it's the grandmother who decides whether to take the child to the ASC." FGD/GDM/SIT/HPC/Ki

In the following verbatim report, it's the grandmother who decides. Even so, the father is not completely excluded; having made the decision, the grandmother will seek the father's approval. In this scenario, it appears that the grandmother does not ask the child's mother for her opinion. *"As soon as the child falls ill, we take it to the ASC immediately. It's the grandmother who decides whether we take it to the ASC, upon agreement with the father."* FGD/GDM/SIT/HPC/Bo

In other cases, the child's mother first informs her husband, who then is morally obliged to provide his mother with an explanation. Certainly, there are no cases where there is one single figure in the decision-making process.

"The mother-in-law has the final say. It's the mother-in-law who says whether to take the child to a child health worker when he gets ill. I tell the husband and he explains it to his mother and she decides on the treatment. The opinion of the child's mother is not taken into consideration. It's the mother-in-law who decides." INT/MTH/SAT/HPN/Yo



Grandmothers during a focus group session in the village of Dialankoro. Photo by Serge Raharison

• However, it seems that the danger signs of diseases are sufficiently well-known:

Without a doubt, the SEC approach has led to the improvement of the population's understanding of the most common diseases among children under five. Through this improvement, it is easier to combat these diseases both by better prevention methods and the adoption of appropriate treatment.

Furthermore, the communities have a better understanding of the danger signs of the most common diseases among children under five. In reply to the question, "What are the danger signs of diseases?" the mothers brought up the following examples, among others:

"B: The child doesn't eat A: Vomiting C: The child cries a lot, the child doesn't play F: High temperature, insomnia, headache D: If the child has earache" FGD/MTH/SAT/LPN/Di • The utilization of the family planning services offered by the ASCs is influenced primarily once again—by objections from the men, for reasons of tradition and religious motives, as well as for fear of side effects or infertility:

The first barriers encountered were the men's stubborn reactions to services such as FP. In fact, in certain areas, the men are not in favor of using contraceptive methods both because of their wish to have a large number of children and because it is something new. The following statements recount the views of the men of the Diéma district, where this trend featured most strongly.

"D: The men say that people didn't use FP before so why bother now." FGD/MTH/SAT/HPN/Ki

"The men prefer to have lots of children.... The ASCs do their best to talk about FP but even the women don't practise it." FGD/MTH/SAT/LPN/Di

There are also religious constraints; in some localities, the men and even the community leaders are reluctant to accept FP because they think it goes against their religion.

"There are cultural barriers; in Sarakolé society it's very difficult to bring these things up. Culturally, women mustn't make decisions. If we could just get the men more involved; they think that it's something that's not compatible with religion." INT/MGT/SCR/NAP/Di

"The problem is that the head of the village doesn't even like it. It's not part of their religion; it's designed to stop women having children; the men don't like FP. There are some FP supplies that some women don't agree with." FGD/ASC/DIS/NAP/Di

On rare occasions, some women are as hostile toward FP as the men, but mainly through fear of side effects.

"On the contrary, it's the women who refuse FP even with the husband's authorization. Through ignorance; they say that using FP methods could make them infertile. And when I hear about this, I raise awareness among the women by telling them that the injectable method doesn't make you infertile and that it even contains a product called progesterone that helps to strengthen the uterus." INT/ALT/SCR/NAP/Yo [matrone in private practice]

On the other hand, prejudice remains a genuine obstacle to the utilization of contraceptive methods. People continue to believe that contraceptives lead to infertility. In certain localities, even vaccination is often believed to be a hidden form of birth control for women.

"There are other constraints, such as, in one of my sites, they are really against family planning. The villagers do not like FP. These types of behavior mean that my activities are slowed down, especially seeing as some people even refuse the vaccination thinking that it's a form of family planning. These people think that every time the ASC comes it's always about FP." INT/DTC/CSC/LPC/Bo

5.2.2. The Choice in Source of Care by the Target Population

• Villagers generally go to traditional healers or holy men for diseases believed to be caused by witchcraft:

The community's choice of healers can also depend on the specific features of the illness.

"Some people come with illnesses caused by witchcraft; I can give them cures for it. Amongst the women, there are some who are suffering illnesses that cause problems with getting pregnant; there are others whose pregnancy doesn't go to term. Often these illnesses are due to the spirits and in that case the pregnancy doesn't get past a month. If we work together well, we can help one another, but in cases where we don't spend time together it's a real problem." INT/ALT/SCR/NAP/Di

"If witches attack your child, we take it to the old women who can give you certain medicines to use to wash the child. If the child is shaking, we take it to the old woman who recites her incantations on the child's head; for epilepsy or if the child is frightened. But for malaria and other diseases, we take the child to the ASC...."INT/MTH/SIT/LPN/Di

"Respondent D: To the traditional healer if it's not a doctor illness. Respondent E: When a witch attacks a child, she takes it to the traditional healer. Respondent F: If the child is teething, I buy medicine from the traveling salesmen or a Tafo (necklace to attach around the neck or waist.)" FGD/MTH/SIT/HPN/Di

"There are diseases that the ASCs can't treat: Traditional healers The disease is called SALA (swelling of the head). An old woman makes stuff with leaves and that cures the children; the ASCs don't have this medicine." FGD/MTH/SIT/HPN/Ki

• The fact that ASCs aren't able to offer certain essential services often justifies the decision to go to other care providers:

The limitations of the ASC package are a real blessing for some healers; in the case below, for those who give injections and assist in childbirth:

"People go to see the ASC in the case of child malaria. If that doesn't work they come to me and I do injections. But I also have child syrups. For cases of diarrhea, if the pills can't cure the child we take it to Yorosso. Our CSCom is in Minamba and there's a hill between us which makes it very difficult to take a sick person there. That's why we go to Yorosso." INT/ALT/DIS/NAP/Yo [Private care provider]

"I think there are a lot of obstacles: First of all, on a community level, the fact that the ASC intervention package is limited; and then the uncontrolled increase in number of rural maternity wards in the villages. God only knows what they are doing, seeing as these rural matrons know no limits. The people have noted that these nurses not only treat with tablets, like the ASCs, but they also do injections [and] perfusion, even if they don't understand the flowchart. This is an obstacle to ASC services. Another obstacle is the traveling healers; this is another problem but it's hard to control. They are found in certain health care areas -- the traveling healer doesn't live there does he! But there are set days when he passes through with his cheap medicines." DYA/MGT/PRJ/NAP/Bo

• Playing a key role in decision-making, the grandmothers are not consistently against the modern medical system:

They even recognize the advantages of modern medicine over the traditional system. The most important aspect appears to be the classification of diseases into those considered natural and those considered supernatural.

"The mothers-in-law think that modern health care is better than traditional medicine. In my family a lot of us go to the private nurse here or at the CSCom. If the doctor reveals himself to be incompetent, then we take the child to the traditional healer; when it's about diseases such as Saï, chest pains, lifting of the fontanelle." INT/MTH/SAT/HPN/Yo

5.2.3. The Availability and Affordability of ASC Services

• One of the major gains of SEC is bringing health services closer to the people: The women seem content with how easily they can access the health care.

"Respondent D: The simple fact that we don't have to travel to Djidian anymore is an advantage of the ASC; you just pick up your child and you take him on foot to the ASC. Respondent C: Getting the child there in time and the right medicine prescribed by the health worker." FGD/MTH/SIT/HPN/Ki

However, some DTCs reported problems in geographical access to the satellite sites during very specific periods of the year:

"There's also an accessibility problem. A health worker, for example, who is here with me and who has 4 villages to cover.... We know that during the rainy season our areas are not accessible, but the means of transport is a bicycle, so at a certain point during the year she can't reach all the satellite villages to carry out her different activities. And there are complaints of delays in their monthly incentives; our ASCs always come to us with this problem." INT/DTC/CSC/XXX/Bo

• The financial barrier is viewed differently by the various participants but the scale of the problem was discussed to a lesser extent:

On several occasions, the respondents in our study expressed the opinion that consultation costs are not a serious obstacle to ASC care. It is the same for the cost of treatment by the ASC. In fact, all of the health care providers, including the resigning ASCs, find that the cost of the medicines is not a significant obstacle for the population.

"They said themselves that the price of our medicines was affordable and the ACT was free. I don't give any credit, but when some bring me large bank notes, I give them the medicine. When they have the change; they come back to pay." INT/ASC//RES/NAP/R2

"The ticket price is 250F; the people don't complain about the ticket price, or the price of commodities." INT/ASC/RES/NAP/R2

"Certain medicines are free; other medicines are very affordable—consultation is 100F." INT/DTC/CSC/HPC/Di

In the Kayes region, it was clearly established that, as soon as the decision was made to reduce the price of services (subsequent to the first results of the LQAS survey), the rate of utilization of the services directly increased:

"At first, a consultation cost 750F, then 300, but now it's at 100F. People are beginning to come in large numbers..." DYA/REL/SIT/HPC/Ki

The low cost of ASC services is indeed well-appreciated by people in the Kayes region. According to the mothers and grandmothers, the ASC costs are affordable compared to the CSComs, because the ASC is on site. If it is not, finding the means to transfer people into town can be a problem because of the distance.

"Respondent D: Money is not a problem because the ASC isn't expensive—a consultation costs 100F—but if the child has to be transferred to Kita, it isn't easy to find a way to travel." FGD/GDM/SIT/HPC/Ki

Most mothers find that the cost of medicines is not an obstacle for the population.

"The medicine costs cannot be an obstacle to utilizing the ASC services. Some medicines are free, even those that aren't free are made affordable for the people so that they can use them as they like." INT/MTH/SAT/HPN/Di

A few testimonies of mothers and grandmothers of the Sikasso region clearly describe the financial barriers, the scale of which is hard to discern. Certain mothers and grandmothers find the costs to be lower, but others think that they are high. They also have to pay for the vaccination card.

"At the ASC's, there is some distance to travel, but he has some useful medicines such as tablets and injections. I've never been there, but people have told me about it. Apparently, he sometimes runs out of medicines. His products are sometimes expensive. It can be as much as 4,000F. It's not how we expected it to be because he makes us pay for the vaccination card too." INT/MTH/SAT/HPN/Yo

Some mention the *relais* or the matrons as alternative sources, thinking that they are cheaper than the ASC. But in general, the majority of the mothers and grandmothers think that the cost of ASC services is affordable.

The general trend is that social factors are a much greater and more evident obstacle, as compared to financial obstacles. This view is shared by nearly all of the respondents in this study.

5.2.4. Family and Community Satisfaction Regarding ASC Services

• We can confirm with certainty that the ASC activities are greatly appreciated by the population: The beneficiaries of the SEC program are satisfied with the treatment of childhood and maternal illnesses. Numerous testimonies report the perception that cases of disease have decreased since the appearance of the ASCs:

"Respondent B: For me lots of things are better; the children are in good health and there are fewer problems concerning pregnant women." DYA/MGT/PRJ/NAP/Ki

"Respondent A: We are really happy satisfied with the ASC care; there has been a big change since he arrived in the village." FGD/MTH/SIT/LPN/Ki

"Respondent I: The arrival of the ASC has brought peace to everyone." FGD/MTH/SIT/HPN/Ki

"Every week, she comes and talks with the pregnant women and visits those who have just given birth." INT/MTH/SAT/HPN/Di

• The mothers appreciate the ASCs' technical expertise but the ASCs, for their part, do not always feel comfortable with the materials they are given:

In terms of the ASCs' treatment of illnesses, the majority of respondents who have had interaction with the ASCs were satisfied with the services provided:

"The other day, when my child fell ill, my husband went to call the ASC. When we went to see him, he gave the child an injection and then he weighed him. He examined him with a particular instrument before giving him the medicines. The child had diarrhea, was vomiting and had a temperature. My husband paid and the child got better; we were satisfied with how things went." INT/MTH/SIT/HPN/Yo

However, the ASCs themselves think that the materials they use do not win the trust of the community. For example, they demand stethoscopes in the place of respiratory rate timers:

"People don't trust this instrument: if we always use a stethoscope, some people even accuse us of not examining the children properly." INT/ASC/SIT/HPN/Di

In the rare cases of reported dissatisfaction, the points raised were mainly about services promised but not met by the ASC. Mothers of children under five in the satellite villages, where the ASC has to make weekly trips, specifically complained that the planned visits were not executed.

"His services don't meet our expectations because he demands we pay for the vaccination card. He should come here every week, but he doesn't. Also he doesn't give us the foods to fight malnutrition; we have to go as far as ... we only see him here for vaccinations." INT/MTH/SAT/HPN/Yo

• The relational skills of the service provider are a very important factor of the beneficiaries' perception of the quality of service:

For the mothers of children under five years of age, who participated in this study in the four districts, a health worker who provides quality service must always be available to help, attentive, able to listen to his patients and always prescribe effective treatment:

"The essential criteria for good quality health care are: following the correct medicine dosage, the doctor must be attentive and ask questions of the patient and be cheerful too." INT/MTH/SIT/HPN/Di

"He makes himself useful doing many things, like providing care, and he is not arrogant. If he has to travel somewhere and we call him, he comes back as soon as possible to help us out. He also organizes regular discussion sessions...." INT/MTH/SIT/HPN/Yo

"Respondent I: He is patient, he gives good care and he makes referrals to Djidian or Kita." FGD/MTH/SIT/HPN/Ki

• The population has difficulty admitting that a health worker is not capable of giving injections and treating adults:

The ASC is not always seen as a real health care provider because, for the majority of people living in rural areas, every health care worker should be capable of giving injections. Consequently, this limitation in the ASC package is often perceived as incompetence:

"No injections or childbirth. The villagers prefer injections. They told us that we are not doctors and some refused to show me the sick person. As soon as I told them that I'm not authorized to do certain things, they got angry; apart from that, there's nothing else." INT/ASC/RES/NAP/R2

"When he arrived, the first difficulties for the ASC were that the people thought that when the health worker doesn't do injections, it means that he's not good at his job. That's the only problem; otherwise it's not a problem of cost or efficiency, but simply that when alternative healers come, the people go to them and get their injections, and then they think this option is better." INT/DTC/CSC/HPC/Ki

"Respondent D: He doesn't do injections and he doesn't treat old people." FGD/MTH/SIT/HPN/Ki

All the communities benefiting from the SEC approach think that the ASC package should cover adult disease treatments, such as injections, drips, minor surgery and dressings:

"Respondent F: ... but for older people, above all for women. For example, if a woman falls ill in the night, the ASC can't treat her; you have to take her to Djidian or Kita." FGD/MTH/SIT/HPN/Ki

"Respondent C: The treatment of adults is a problem, because the ASC only treats children." FGD/MTH/SIT/HPN/Ki

"The people's worry that we must take into consideration is allowing the ASCs to do injections, even if they don't write the prescription; to authorize him to continue the treatment prescribed by his DTC. Also, if the ASC could get involved [in] the vaccination area too, to increase the population's awareness in advance, so that the people realize how important the event is." INT/DTC/CSC/LPC/Bo

Some testimonies express implicitly the community workers' disappointment about the restrictions in the services offered by the ASCs, which some workers didn't expect:

"Added to that is the problem with the ASC package; if we could extend it, because the community, from the start, hasn't been properly involved. People thought that the ASC could offer all services and health care activities, as in drips, injections. Now, seeing as that doesn't concern the ASCs, it's become a real issue." INT/DTC/CSC/HPC/Bo

Even the alternative healers recognize the importance of the ASCs in community health care. They talked about the merits of a possible future broadening of the services package offered by the SEC:

*"Adults also fall ill. He must be allowed to look after the adults too; but if he's not authorized to do something, he won't be able to do it."*INT/ALT/DIS/NAP/Di (Traditional healer)

• Although uncommon, negative comments about the ASCs by the representatives of the community are sometimes harsh:

Certain members of the community, not the majority, provided negative comments about the ASCs: some reproached them for working only 18 days a month; others for doing very few consultations; others for not being self-sufficient enough. Other criticisms included problems in their lack of

integration within the host population. Some of the following remarks are very harsh:

"Respondent C: The departure of the ASC is due to conflict between him and the villagers to which must be added the ASCs' lack of patience; some of them are intolerant with the villagers." DYA/LDR/DIS/HPC/Ki (ASACO)

"Respondent A: Most things are well done but the weak point is the number days the ASC works: he doesn't work on Friday, Saturday and Sunday. It's MCHIP that has to intervene then but this is not the case. He works 18 days out of 30." DYA/LDR/DIS/xxx/Yo (ASACO Kouri)

"Respondent A: The ASC should look for sick people in the village but that's not the case; they never travel around, which is why the relais are angry with them. Respondent B: Yes because there are several ASCs who don't know why they're here. Respondent A: Like the other guy said the fault lies with the ASCs. Respondent B: What I don't understand is that there are ASCs who never do more than 10 consultations a month." DYA/LDR/DIS/xxx/Yo (ASACO Kouri)

5.2.5. Educational and Communication Activities in Place

• Women's gatherings are the most suitable occasions for the ASCs to share messages and increase awareness:

The ASCs often take advantage of gatherings at their sites in order to increase awareness of the activities for which they are responsible. According to some mothers who took part in this study, the ASC in their region provides information weekly through community gatherings or takes advantage of consultation visits to increase awareness among women.

"It was during our gatherings that he gave us information. It was once a week. The women who came for consultations also got information from the ASC." INT/MTH/SIT/HPN/Yo

Moreover, this study revealed that women's tontines⁴ are also useful opportunities for the ASCs to increase awareness among women in the community about health care and even the services they offer.

"These days, lots of people go to see her, because they believe her to be very capable; she treats illnesses and her care is adapted to the demands of the population. She came to our tontine and gave us information on bygiene, sanitation, the symptoms and prevention of certain diseases such as malaria and others; the women liked it, because the advice she gives is beneficial and enables them to avoid several diseases. I am old so I don't go to see her. I learn things about her activities through other people." INT/ALT/DIS/NAP/Bo (traditional healer)

• Individual counseling sessions during home visits are used less frequently. However, they seem to be very effective:

The ASC, with the help of the relais, provides counseling sessions during home visits to explain further the content and the advantages of the SEC to families.

"I also used my counseling sessions to increase awareness, as well as during home visits, with the support of my relais; it's very effective." INT/ASC/SIT/LPN/Di

⁴ *Tontines* are traditional forms of savings groups, usually working in rotation. On an agreed-upon date, the members meet and pool the money together and one of them takes the total amount.

The ASCs were not the only ones who were interested in informing the population; community members also sought to inform themselves. ASCs' consultations were put to good use by the women so they could obtain information about maternal and child health. Thus, the ASCs are considered as an excellent source of health information for the population.

In their opinion, the ASCs themselves feel the full enthusiasm of the population with regard to the package they offer. The mothers, above all, showed a lot of interest in the follow-up and care offered to newborns, home visits, the treatment of child illnesses, counseling for women, increasing awareness for behavior change and improved hygiene and sanitation.

"Every week she comes and talks to the pregnant women and visits those who have just given birth." INT/MTH/SAT/HPN/DI

"Her counseling has helped the women to understand a lot of things." INT/MTH/SAT/LPN/Yo

"She holds conversations with the women to explain birth spacing. I'm old and I can't say anything about FP. I know that her counseling sessions are effective, because the women now understand FP." INT/ALT/DIS/NAP/Bo (traditional healer)

5.3 Factors related to ASCs and their working conditions 5.3.1. ASC Profiles

• Some respondents believe that a female ASC is not as efficient as a male ASC: This belief results from the analysis that the community pays a lot of attention to the gender of the care provider, and that this judgment is, in the examples below, based on the ASC's frequent absence from the village or shortage of medicines:

"Respondent B: The male ASC is better than the female ASC because the women cause us lots of problems. The man is better because the married woman is always going to see her husband. She is never on her site regularly." DYA/LDR/DIS/XPR/Y0 (ASACO Kouri)

"Respondent C: We would like her to have assistance. Respondent D: A man. It's not easy for a woman to go and get new stock, and there are very often shortages." FGD/MTH/SIT/HPN/Ki

Many women expressed a reluctance to approach male ASCs. Some participants in this study feel that it would be necessary to have two ASCs of different genders on the same site in order to improve communication between the population and the care providers:

"Respondent B: The arrival of the Community Health Worker helped us a great deal in the treatment of malaria. This disease constitutes a major problem and causes us a lot of bother. The ASC is a great help in terms of infant health care. However, we would like to see two workers, that is, a woman in addition to the man we have, in order to enable us to communicate freely between people of the same sex." REF

"They [women] are ashamed to come and see me because I am a man. There is a language problem and we are forced to go through the relais." INT/ASC/SIT/LPN/Di

• The ASCs don't come from the villages they work for, which makes their adjustment difficult:

One problem that emerged during the discussions is that the ASC generally does not come from the area to which he/she is posted, unlike the *relais*. This explains the fact that several ASCs have raised the issue of accommodation, food, transport and medical insurance. Some of them, such as this resigning ASC, are from larger towns:

"Anyone who is used to living in a town will find it very hard to adjust to living in the bush, even more so if there is a food problem. Our parents think that their child has got a job, yet actually the incentives are minimal." INT/ASC/RES/NAP/R2

Many accounts tell of the ASCs' difficult living conditions in the villages, including the absence of medical insurance. The account is no doubt exaggerated; however, the worries surrounding the ASC treatment conditions are real:

"There are several ASCs who have died in the villages because of the diseases. The ASC treatment conditions are very bad." INT/ASC/RES/NAP/R2

Problems with food are also reported, probably explained by the fact that they do not come from their assigned area and therefore they are not involved in the agricultural activities like the other villagers:

"The second time I fell ill and that I came to the CSRef, I was told it was malnutrition." INT/ASC/RES/NAP/R2

Some ASCs have even faced some hostility on the part of the villagers. The people benefiting from the program have not always viewed the project in a positive manner and, in such a climate, it did not take long for difficulties to arise. This negative perception hindered the integration of the ASCs within their respective villages, as predicted in the implementation process. First of all, the lack or poor involvement of community and local authorities during the implementation stage was a hindrance to the integration of some ASCs. In some localities, ASCs were seen more as project agents and, in others, the community had simply refused to accept the ASC, thinking that it was something we imposed on them:

"I would also say that, from the start, even for the installation of the ASCs, the communities weren't involved. They were told that their role was only to accept the ASC. So most of my ASCs had nowhere in which to work and we set them up however we could. It was only afterwards that we increased awareness about ASCs so that they could get somewhere in which to provide their services In my area there was one case: a site totally refused to accept the ASC. The ASC did more than three months in the CSCom. Every morning, he set off on his duties but he didn't have a work premises, because there was a misunderstanding. The people thought that it was something forced on them, a burden."INT/DTC/CSC/HPC/Bo

"Beforehand, these ASCs were seen by the village as Save the Children envoys, it wasn't made clear at the start. They didn't even know themselves that they were part of the CSCom. They didn't care at all about the DTC and ignored him. Put short, things weren't really explained clearly at all." INT/DTC/CSC/HPC/Bo

These reported difficulties suggest that the communication strategy adopted during the program implementation was definitely not efficient. However, it is important to note that the problems mentioned were more frequent in the Bougouni health district than anywhere else.

5.3.2. ASC Competency

• It is a well-known fact that ASCs observe procedures better than DTCs; however, the DTCs think the opposite:

This viewpoint stems mainly from the massive prescription of antimalarial drugs by the service providers without performing rapid diagnostic testing. Without the test, health workers are tempted to prescribe large numbers of antimalarial drugs. However, according to the statement of the CSRef official below, the problem occurs more among DTCs than among ASCs, a trend already highlighted by the LQAS survey:

"There are a lot of DTCs who don't do the rapid diagnostic test; if you don't do the test, you're tempted to prescribe large numbers of antimalarial drugs and antibiotics to cast a wide net. However, with ASCs, generally these medicines are prescribed after the test. These are free products. But antibiotics should be paid for, and then the clients have no say in what we should do." INT/MGT/DIS/NAP/Di

The majority of DTCs claim that the ASCs from their area have not mastered their tasks:

"The challenge was accompanying the ASC in mastering his activity package." INT/DTC/CSC/LPC/Di

5.3.3. ASCs' Working Conditions

• The ASCs' financial incentive is irregular and insufficient:

Many ASCs complain about the irregularity of payment of their financial incentive, which, according to their accounts, can be paid up to three months late. This complaint is backed up by the DTCs who, in addition, confirm that the amount of ASC incentive is very small. The insufficiency and late payment of the financial incentive, unanimously reported by all respondents, is one of the main reasons behind ASC resignations.

"The ASCs leave because they don't get their incentive, because we could go three months without receiving any incentives; all my expenses were included in these payments. Well, they made it clear from the start that the village doesn't owe us anything. They even said not to call our incentive a salary." INT/ASC/RES/NAP/R2

This opinion is largely shared by their supervisors:

"One serious constraint in your project is the massive presence of women, and the incentive is small, it must be said. Given that a man leaves to go and work in the bush and he only has 30,000 CFA francs a month; that doesn't cover his family expenses and allow him to do other things. Really, this famous incentive must be revised and that will also enable the DTC to put some pressure on, because [in this case] the ASC could think that if he doesn't do his job well, he'll lose his pay, which is useful to me. He will behave correctly. It's not so easy to manage the women [but] the men can't work under these conditions. The women are looked after by someone else, outside of their salary. "INT/DTC/CSC/LPC/Bo

ASCs often live in precarious conditions: many affirm that they have just enough to feed and take proper care of themselves. Testimonies show that the ASCs hardly get any assistance in the case of illness. The illustrative accounts are sometimes shocking:

"I have a good relationship with my relais but the DTC is awful; that's why I left my job. I fell ill; my DTC didn't even come to see me. The villagers were kind enough to take me to the CSCom and he wrote me a 20,000F prescription and he didn't even put in a good word for me; the money came from Bamako for me to buy my products, so as soon as I got better I left the job. The DTC refuses to transfer the money for the medicines to the ASACO; that's why we always have shortages of supplies. The people refuse to come to be treated if there aren't any medicines, which is perfectly normal! I used to walk 8 km to visit the area assigned to me due to a lack of transport. The problem between me and my DTC was explained to the head doctor [of CSRef]: he personally gave me 5,000F so that I could eat and get back to my site. The second time I got ill and I came to the CSRef, I was told it was malnutrition. There are some ASCs whose husbands refuse to let them travel very far. Other ASCs suffer dreadful working conditions; there are several ASCs who have died in the villages because of diseases, the ASC treatment conditions are very bad. The DTCs have no sympathy for the ASCs; sometimes when bringing the report to the center, the DTC isn't even willing to share his meal after he has traveled long distances. If better conditions for the ASC could be organized, it would be better, such as better means of travel. I had the advantage of making some useful contacts." INT/ASC/RES/NAP/R2

• It is not uncommon for female ASCs to be the victims of psychological and/or sexual harassment at the hands of their DTCs, the villagers or project coordinators:

This situation has forced some of the women to resign. The results of this study have revealed more than one occasion in which female ASCs who have refused the advances of their superiors, either DTCs or influential members of their village of residence, have subsequently witnessed the sabotage of their activities by these superiors, sometimes with the complicity of the project supervisor. This phenomenon is observed in many of the districts where the program has been implemented.

"All the DTCs and the supervisor are awful; they try to live with the ASCs and if we refuse, it causes bad blood!" INT/ASC/RES/NAP/R2

"Respondent B: Finally, in terms of the ASCs, there is one last hurdle that concerns them, which is the character of the person. There are some ASCs who have problems because they are women in a foreign community; they are often harassed by the men in the village, and if it doesn't work out, bad things are said about her which means that people don't want access to ASC services any more

Respondent A: Yes what I wanted to bring up has already just been said: in our Health District here, 80% of us ASCs are women, young women who aren't married; even those who are married are already facing this problem of harassment. We've even had to change the site of some ASCs to resolve this sort of problem; especially if you are dealing with the son of the head of a village or with a relais: when it works it's OK and if it doesn't work out there are influential people in the community who can move the whole world against you make your life very difficult...." DYA/MGT/PRJ/NAP/Bo

5.3.4. ASC Collaboration with Other Actors

- There is generally a good level of collaboration between *community relais* and ASCs:
 - It has been reported several times that the *relais* help the ASCs a great deal during their awareness campaigns and in the identification of cases to be treated, such as malnourished children. The ASCs themselves have confirmed this, and several other actors were witness to it:

"The relais helps me in the discussion sessions, raising awareness, home visits and the relais go round the village observing the families to see if the children are in good health, and they send those who are not to me for treatment and above all for FP." INT/ASC/SIT/HPN/Di

"It's only the relais that got involved in our work because during training, we were told we would have to work together with the relais. It's them who increase awareness." INT/ASC/RES/NAP/R1

The ASCs aren't the only ones to appreciate this collaboration; the *relais* express their satisfaction very willingly. According to certain *relais*:

"Respondent A: There is a solid working relationship between relais and ASCs because they share information and they keep one another up to date about things in the village. Between the ASC and the CSCom: the ASC gives the sick person a medical card, in the case of complications, to take to the CSCom. It's the ASACO that authorizes placing a relais in the village. Respondent B: The relais are happy with the work they do with the ASC, CSCom and ASACO and they are on good working terms and have a good level of communication with them all." DYA/REL/SIT/LPC/Ki

The absence of any problems in the partnership between the ASC and the *relais* is even confirmed by some resigning ASCs; indeed, one resigning ASC used the following words:

"The relationship that united us was the working partnership; my DTC was my supervisor and intermediary between the ASACO and me for the provision of medicines. The relais were always there to help me. There was never any problem in our collaboration and we got along perfectly." INT/ASC/RES/NAP/R1

Nevertheless, it must be mentioned that some notes of disharmony were detected. The village sample was stratified according to the quality of collaboration between the relais and the ASCs. Generally, where the collaboration between the two operators was judged to be poor, the responses reflect a negative opinion of the attitude of the ASC. In such cases, the ASC is accused of refusing to collaborate, of being incompetent or of not traveling to the satellite villages. Some *relais* don't believe their activities and those of the ASCs to be complementary. They state that people prefer them to the ASCs:

"Respondent A: Here, everyone prefers the relais compared to the ASC because she doesn't know anything about our village.

Respondent B: There is no working relationship between us, the ASC doesn't come to see us and we also prefer to go and get treated at the CSCom in Lattakaf. We don't succeed in resolving the low utilization of the SEC because the ASC and the CSCom have never shown any interest in our village. We don't even know what the ASC looks like. We just know that she is a woman. Respondent B: Here, people have no confidence in her treatment methods; she is inefficient, incompetent. There is a family planning problem here in Madiga Kounta because of her disregard for us. In fact, since her arrival in the village of Kola, this woman ASC has never been to visit us and besides, she doesn't even take us into consideration." DYA/REL/SIT/LPC/Di

• Poor collaboration

In the case of some sites classed in the category of poor collaboration between the ASC and the *relais*, the respondents' remarks appear to describe a very positive situation. In these cases, it is likely that the respondents did not express what they really thought. It could also be an error of judgment of the supervisors who selected the site:

"Respondent B: The relais are happy with the work that they do with the ASCs, CSCom and ASACO and they are on good working terms and have a good level of communication with them." DYA/REL/SIT/LPC/Ki

• The community *relais* are often demotivated:

Unlike the ASCs, the *relais* work as volunteers and do not receive any form of financial reward:

"We have requested to give an incentive to the relais; at least something to help them to improve the cultivation of their fields. But no relais is given an incentive by his village, none at all! If the incentives are limited to two or three days' training and giving them 2,000 or 3,000 francs, then I think there is a problem. We have relais who are really good but, in reality, the problem is that they're not given any incentive!" INT/DTC/CSC/HPC/Ki

Some *relais* have expressed their frustrations. They consider themselves to be less well-respected than the ASCs. They are not paid, whereas the ASCs are:

"I'm not paid; the village doesn't pay us much attention, but that doesn't stop me helping the ASCs." INT/REL/SIT/LPC/Bo

• Traditional healers are not willing to take the first step toward establishing a collaborative relationship with the ASCs:

In fact, these providers believe that, for cultural reasons, they are not well-placed to lay the foundations for collaborative ties between traditional healers and the ASCs. Others, on the other hand, have intentionally tried to avoid establishing a partnership with the ASCs. In general, alternative healers are not interested in the services offered by the ASC and instead they learn about the activities of the ASCs through rumors. However, they confirm that they do refer cases they judge to be too complicated to the ASCs and they ensure the treatment of less serious cases. Consequently, a good collaborative relationship between the ASCs and the alternative healers could contribute to raising the level of use of SEC:

"I don't work with her [ASC], when the women bring their children and I see that the disease is beyond my capabilities, I tell them to go to the ASC. I am delighted to have her here, because she will treat the illnesses I'm not able to treat." INT/ALT/DIS/NAP/Bo [Traditional healer]

"No there is no collaboration between me and these people. Each of us does his own work; there are some collaborative relationships in some localities, but not here. If you have, it's good, but we haven't ... we haven't yet got into that mind-set yet; if not, it would help us a lot. Because there are certain situations you can't resolve so we would be able to help one another out to that extent. I know that on my part, it's not like it's pride or anything, but just that if no one tells you things, you can't just stand up and ask someone to help you out. This guy does the injections, the other guy sees the patients, the other one gathers the plants, this guy writes notes etc. If you are invited, you go, or if you are asked something that you know, obviously you tell them; you help each other." INT/ALT/DIS/NAP/Di [Traditional healer]

The lack of collaboration between the alternative healers and the ASCs dates back to the implementation of the SEC program, which didn't take into consideration the presence of alternative healers in some localities. According to certain healers, the authorities did not involve them in placing the ASCs.

"There was no consideration of our presence during the implementation of the SEC strategy because we don't collaborate. She is here; it's the authorities who brought her here, and therefore we don't collaborate." INT/ALT/DIS/NAP/Yo [Traveling salesman]

5.4 The availability of essential tools and supplies

5.4.1. Availability and Compatibility of Tools and Working Materials

• The data management tools used by the ASCs in their daily work are complex:

Difficulties in filing data using the management tools have been reported, as much by the DTCs as by the ASCs. However, what is clear is that ASC supervision is of fundamental importance and that supervisors must be very patient in setting up the ASC to use the tools. If the DTC does his job as supervisor well, the ASCs will be able to master using the materials:

"If we spot that the ASC has problems, we get organized; we do a little training.... The other one, he's only just arrived, however the one who was here before knew how to write the report, how to correct mistakes in filling out reports. It only lasted one day in December 2012, and I could see the progress the following month. If there are shortcomings, I'll monitor the ASC until he improves." INT/DTC/CSC/HPC/Ki

"Formative supervision: we went to see the methods used to file data, the care given to the children, how the ASC did it; after that, we started with the supervision." INT/DTC/CSC/HPC/Bo

"The strong point is that the form filling is done well. The ASCs have acquired expertise." INT/DTC/CSC/HPC/Yo

"In the projects, I've benefited from a lot of things because I was given training. This also enabled me to correct some mistakes in filing data and using some of the materials." INT/DTC/CSC/XXX/XX Gouele

"At the start, filling out registers wasn't done well, but now there has been some improvement." OI ASC Lekouraga Village

"Respondent E: The people from Save the Children are going to look at your registers, your FP, discussion records, and correct your mistakes.

Respondent H: They correct the mistakes and explain things to us, which are the strong points." FGD/ASC/DIS/NAP/Yo

• When the ASCs have difficulties using the data filing tools, they are sometimes seen to be incompetent:

Some ASCs were not able to fill out their activity files correctly and others also had not mastered the techniques they had been taught. The supervisors describe as follows:

"As weak points, we often notice that the ASCs haven't always mastered the techniques, it really has to be said There are a lot of inadequacies in this area, the registers are not filled in as we say they should be and the child monitoring is not at the desired level. In most cases, the ASC has difficulty filling out the registers. We must think about this aspect and make efforts to improve things." INT/DTC/CSC/LPC/Bo

• The bicycle given to the ASCs as their form of transport is not best suited to the realities of the terrain:

Many believe that the distances they travel are hard to manage by bicycle. More than one ASC makes the complaint that there is a real need for adequate transport:

"The referral problem with the presence of danger signs; the method of transport is not suited to the reality of the terrain; the allocation of medicines; accessibility during the rainy season." INT/DTC/CSC/HPC/Di

It is to be noted that the majority of ASCs are women and, furthermore, they come from towns and cities, which means that they are not at all comfortable with the bicycles:

"The difficulties I have are the methods of transport, if you could replace the bike with a motorbike that would be good, because there are emergencies for which I can't move quickly because I only have a bicycle. The ASC salary is low: 30,000 francs a month. I am not happy. The money is very little relative to the work." INT/ASC/RES/NAP/R2

5.4.2. Availability of Supplies and Medicines

• Stock shortages are a reality, both at the CSCom and ASC site:

While the program envisaged the supply of provisions to the ASC by the CSComs, its implementation did not sufficiently take into account the shortages that the CSComs might face. The result of this situation is that the ASCs suffer the repercussions of CSCom stock shortages. According to many testimonies, shortages in supplies have become a big concern for the population:

"There are often shortages in supplies; the clients are forced to wait while the ASC goes to get medicines." INT/MTH/SIT/HPN/Yo

"Respondent A: the main difficulties are in the shortage of supplies in curing malaria and moderate malnutrition. Put simply, supplies are free because this encourages the communities to go the ASCs, if they suffer shortages too, it becomes a problem." DYA/MGT/PRJ/NAP/Bo

"The worry for the DTCs is the shortage of supplies, to look at it from that point of view. To reduce the shortage in medicines, they must be made available on a DTC level." INT/DTC/CSC/LPC/Di

The treatment of acute malnutrition is officially part of the SEC services package. However, due to a lack of supplies, many ASC sites do not offer this service and they only refer malnourished children to the CSCom:

"The aspects that must be strengthened are the treatment of malnutrition, if we could make available the same number of supplies as there are for malaria, diarrhea, ARIs [acute respiratory infections], so that they could provide full treatment. At the moment, full treatment is at available at the CSCom, so considering the distance between us ... it's fifteen kilometers, and it's not once or twice, it's until the child is back in the green zone; that's a lot of going back and forth and in the end the women give up. The child ends up in the red zone and then death follows." INT/DTC/CSC/LPC/Yo

• Weaknesses in planning were reported to be the primary cause of stock shortages:

It seems that the needs estimation is not always made based on the actual quantity of stock needed, but based on the availability of stock at the CSCom level. Also, the provision of ACT and rapid diagnostic test (RDT) supplies at a national level has not been consistently satisfactory because initial planning relied on Global Fund financing that never came to light. That is why other partners took over, which only served to worsen stock shortages at the start of the implementation of the SEC program.

"Given that it's a new program, we underestimated, on the one hand, the need to integrate the ASCs' demands at CSCom and District levels, and on the other hand, the lack of involvement by local players. Really good levels of communication between the DTC and his ASC [are needed], even in the smallest activities." INT/MGT/DIS/NAP/Di

• When there are insufficient quantities, the CSCom takes priority and the SEC sites come in second place:

Stock shortages at ASC sites when supplies are available at CSComs are usually explained by the fact that the DTCs give priority to the CSComs and believe the ASC sites to be of secondary importance. Certain DTCs do not even want ASCs to treat cases of malnutrition or think that the ASCs' needs are not included in their allocations.

"There was a shortage of stock [at ASC site] and when you made a request, you found out there was a shortage with them [at CSCom] too. Every time I was down to only a little stock, I put in a request, but unfortunately, my manager ignored it and made me go there and back every time. He also often tells me he won't give me anything." INT/ASC/RES/NAP/R2

• Sometimes, the supplies are available at a higher level but there are frequent communication problems:

The supervisors often noted that there were sometimes shortages in stock for ACT, RDTs and supplies for the treatment of acute malnutrition at the ASC sites, while supplies were available at the CSRefs and sometimes at the CSComs. Sometimes, regional managers think that the ASCs say there is a shortage when there is not because, according to the data recorded in the monthly reports, the stock delivered has not all been used.

Many of our study respondents reported a lack of communication between the DTCs, ASACOs and coordinators, and, when there is a stock shortage, nothing is done about it. According to some ASCs, they always put in a request with their manager before their stock finishes/is finished, but often, they get no response.

"In order to minimize medicine shortage I think that it depends on the ASACOs; if they really take into account the ASCs' use, there won't be any shortage." INT/DTC/CSC/XXX/XX EI_DTC_Sandjambougou
6. Discussions and Reflections on Future Direction

6.1 Priority Actions—In the Immediate Term

• Re-establish community confidence

Emergency measures will have to be put in place **to resolve stock shortage problems**. Indeed, the availability of medicines at the point of service delivery is an indispensable condition for a site to be fully functional. Any other advocacy efforts (skill-building and organization) will fail at the moment a mother takes her sick child to the ASC and he/she does not have the medicines to provide treatment. As well as discouraging the beneficiary populations, this problem questions the usefulness of all investments made in the SEC program. The DTCs' lack of interest in supplying free supplies to the ASCs without cost-recovery is one of the priority problems that is fairly easy to resolve.

Given the worries expressed about the competence of the ASCs, **the reinforcement of the DTC's role in supervision and coaching** is imperative. With the widely differing levels of ASC skills, varying from one site to another, the immediate establishment of a tailored coaching system is of great relevance, as well as giving high-performing ASCs the opportunity of providing peer-coaching to their fellow providers.

• Re-establish ASC working conditions:

The problems highlighted in this study regarding the **sexual harassment of the female ASCs** seem to be quite serious and must be resolved with care and professionalism. The administrative authorities must be notified in the appropriate manner, so that they can work in close collaboration with the village health and traditional authorities. This collaboration will help to achieve a fair and acceptable solution, as well as the most effective and durable methods of prevention.

The re-examination of the **other ASC working conditions** must be discussed seriously at a local level with the ASACOs. This includes, for example, problems with accommodation, which was widely reported in this study.

• Facilitate the daily work of the ASCs and *relais*:

The ASC and *relais* work tools must be simplified as much as possible, in order to allow them to focus on the most important aspects of their activities.

6.2 Consolidation of Progress Made—In the Medium Term

• Establish more aggressive strategies to generate demand for services:

Stimulating the demand for ASC services requires the involvement of several groups and individuals. According to our various respondents, it would involve the community *relais*, women's groups and the local authorities, specifically the village leaders and their advisors. A more intense and aggressive approach must be developed. **Better involvement by the traditional village authorities** was indeed suggested by many of the respondents in our study:

"The people involved in the project can go to see the chief of the village so that he tells people to go to see the ASC and the matron." INT/ALT/DIS/NAP/Bo [Private healer]

To benefit from the widespread satisfaction of the village authorities and families who have used the ASC services, the SEC program must develop approaches that allow these **satisfied customers to provide and share positive feedback** about their experiences, in order to encourage other members

of the community to use the ASC services. The health fairs organized by the MCHIP project—shown in Box 2—are one example of a platform that allows the public testimony of satisfied customers. For more sensitive technical areas, such as FP, it wouldn't be too complicated to design specific and inexpensive tools, for example, little invitation cards to be distributed discreetly by the women who use the service to their female neighbors and friends.

Media support by means of local and national radio would be of great benefit in reaching a large audience and supporting the efforts of local players. However, to maximize the impact on behavioral changes, communications through mass media must be consistently accompanied by sustained efforts in close communication. Most of the local partners—MCHIP and ICH [Amélioration des Soins de Santé, or Improving Community Health] Musoka of Save the Children, the Malian Red Cross that supports the implementation of SEC programs—have developed and implemented media programs with local radio stations to increase awareness of SEC.

• Specifically target men and mothers-in-law to promote service demand:

The conclusions drawn from the family decision-making process have revealed the necessity to develop strategies **targeting specifically men and mothers-in-law**. Given that the mothers do not always have the power to make decisions in the search for health care for sick children and for FP services, specific messages must be created, suitable channels of communication must be identified and appropriate tools must be developed to convince fathers and mothers-in-law to give priority to ASC services when seeking health care for mothers and children.

"Respondent A—Men! Even if the women have understood, if the men aren't involved, the women don't go." DYA/REL/SIT/HPC/Ki

• Continue to reinforce the initiatives aimed at reducing financial barriers to SEC services, while taking measures to ensure equity:

Since the LQAS surveys were carried out in the Kayes region (Kita and Diéma), where financial barriers were identified as one of the major barriers to service utilization, the cost of ASC consultations has been reduced, in March–April 2013, to 100 francs. As shown in Figure 3, a second series of LQAS surveys showed that the financial barrier was lowered by the districts' decision to reduce the price of ASC consultation tickets.

These conclusions were confirmed by witness accounts during the qualitative survey:

"Respondent B: At the beginning, a consultation was 750F, then 300, but now it's at 100F. People are starting to go in large numbers...." DYA/REL/SIT/HPC/Ki

Such initiatives are definitely encouraging. However, it must be made **sure that the groups with the most need benefit from the action taken**. On certain sites, the communities were able to set up a solidarity fund called *tontines* to help take care of the poorest children. This is a health insurance scheme set up by the women, enabling them to ensure treatment for their sick children.



Figure 3. Financial barriers reported by families before and after the reduction in price of the ASC consultation ticket, according to the LQAS

Extract of a presentation by Dr. Bogoba Diarra, Health Minister, March 2014

The women give 100 francs each, every Friday, so that those who have no means can draw from these funds. There are children who fall ill whose father isn't present, so it's the fund that sorts it all out. The women really help me out a lot." INT/ASC/SIT/HPN/Di

"The change is that the women don't go elsewhere any more for their health care, because the ASC has come to their village. They have set up a fund The fund helps the women a lot in ASC treatments, and to get enough medicine." INT/MTH/SIT/HPN/Ki

It would also be interesting to facilitate credit access for households that are not able to cover the costs of treating sick children immediately because the women are often financially dependent on the men:

"We are in the bush. People aren't going to leave the treatment because they haven't any money; they take the medicines on credit and they can pay it off over two years in instalments. That's why we refer serious cases to Yorosso, even children." INT/ALT/DIS/NAP/Yo [nurse in private practice]

• Establish a system of recognition for actors and exemplary members of the community: The respondents of our survey expressed varying views on the program in terms of belief, commitment and appropriation. Within this context, a role model capable of inspiring others is important. Such models are created by taking those who adopt good behavior, or who take the correct initiative, and making them feel valued and appreciated by the community. Giving awards and acknowledgments at health fair events to mayors, ASCs, community leaders, and even to families and women benefiting from the MCHIP project, is a promising model (description in Box 2). In many respects, a health fair is a happy event that contributes to the commitment of community actors. The concept of simplified versions of health fairs, integrated and planned in advance within the programming cycle, would be recommended; the main aim being that the acknowledgment ceremonies may mark and celebrate the end of one cycle and the start of another wave of joint efforts.

It is also necessary to develop a simpler and more routine system of transmitting the message of these celebrations, in order to maintain momentum. For example, thank-you cards signed by the DTCs can easily be designed to be given to the villagers who have helped a child or a woman referred by the ASC to reach the CSCom and/or to the CSRef. In the same vein, a little symbolic certificate could be awarded to every child who is fully vaccinated before reaching one year to mark his "first success" in life.

6.3 Reinforcement of the Fundamental Values of the SEC—In the Long Term

• Respond more fully to the needs of the users by expanding the package of services offered through the SEC: The diversification of health services is essential and the beneficiary communities explicitly expressed a desire for services for adults. Our study effectively and clearly demonstrates that the SEC approach is starting to show its limits. A large number of providers are also in favor of broadening the ASC package and have strongly suggested taking into account services such as first aid. It is essential to learn from the ongoing experiences of the Malian Red Cross in the regions of Sikasso and Koulikoro, which combines the SEC program with training in basic community health and first aid. A brief description of the project is shown in Box 3.

Box 2. Health fairs



During an investigation carried out by the MCHIP project in Mali to develop its communication strategy, it was discovered that the women's groups and associations organize, at least once a year, celebrations where they get dressed up and cook huge quantities of food.

In order to take advantage of this situation, the project developed the "health fair" idea as an effective opportunity based on the "Education through Entertainment" approach to boost the indicator levels in maternal, neonatal and infant health.

The health fairs are an opportunity for the exchange of ideas and communication for the promotion of maternal, neonatal and infant health care: preventive services and treatments are offered during the events. The fairs also contribute to the increase in the demand for health care services offered by local providers.

The process of giving awards and acknowledgments to providers and to community members who have become involved in the program can, on the one hand, create a positive dynamic within the community and, on the other hand, reinforce provider and community involvement.

In 2013, MCHIP organized health fairs in five health care areas, which mobilized 7,900 people; 5,922 services were offered free of charge to women and children under five and 1,489 awards, prizes and gifts were presented to health care providers and local communities.



Box 3. Project description—"Improving Community Health Care in Mali"



In fact, a large majority of ASCs are already assistant or trained nurses; thus, in the view of our respondents, with a small amount of refresher training, the ASCs should be able to offer more services and bring health care even closer to the people.

"If the authorities or partners could see that at least the majority of ASCs are assistant nurses or nurses. So, if we could authorize them to give injections or prescriptions filled by the DTC, at least they could do injections or perfusions. If we could add that to their package" INT/DTC/CSC/HPC/Yo

"A possible diversification in range of services is a good. Adding injections, all the FP methods, adult treatment and giving them medicines. Carrying out discussions, increasing awareness, distributing pictures in the village to get people mobilized." DYA/REL/SIT/HPC/Ki

Services such as malaria treatment in adults, in practice, require only authorization from authorities at the Ministry of Health and minimal additional investment, given that the treatment of malaria in children is already part of the SEC program. On the other hand, it must be recognized that delivery at a SEC site can still be a controversial subject, given that the matrons' qualifications are not always recognized by the State. However, what emerges from this analysis is that demand by the population is so great that some ASCs risk working illegally in the absence of formal authorization from the health authorities.

"The people would be willing to pay for what we offer to do, I even had an ASC colleague who secretly delivered babies at 10,000F a person in a hidden location, and then the women went home afterwards. So I think that the people are ready to pay for the services." INT/ASC/RES/NAP/R2

• Establish a fair and durable motivation system for the actors in the SEC:

At the time of data collection in November 2013, some partners intended to stop providing financial support in December of the same year. The continuation of **management of the ASC salaries** was thus an enormous worry for local players in terms of future prospects:

"The continuity of salaries because, after 31 December, the ASC does a month without pay; there's the risk that he'll not carry on, so the sustainability of salaries and of their financial support. To make things sustainable you have to guarantee the ASC salaries after the partners' withdrawal. It's very important." INT/DTC/CSC/HPC/Ki

Even if the situation can be resolved in the short term, a sustainability plan must be developed and must take into consideration all of the human dimensions in order to offer decent and motivating working conditions to the ASCs. Our respondents suggested that increasing and regulating the incentives, broadening the activities program and providing appropriate means of transport should all be included as part of a long-term plan.

"Respondent A: To overcome that, it's better to add other activities to the ASC program; those who are qualified nurses could be authorized to do deliveries, give injections. Providing accommodation, food and a means of transport to the ASCs. Doubling the incentive." Respondent B: To overcome this problem: increasing their wages, guaranteeing them, and, if possible, taking on experts who are of the right level and providing them with security. That will keep them here!" DYA/MGT/PRJ/NAP/Di

Community *relais* must be consistently **included in all discussions about the system of motivation.** Indeed, the community *relais* are an essential link in the SEC chain; they come from the villages and are supposed to guarantee social mobilization and everything goes through them. However, unlike the ASCs, they are volunteer workers and currently they do not receive any financial compensation.

On the other hand, there is the call for involvement by the **local population**, who also have a role to play in the success of the program. People must take on the SEC program and make it theirs. The people can even work together to help provide the ASC and *relais* incentives, as is already the case in certain villages.

"We saw it the other day during the last training: the experience on an ASC site in Kita towards the Kayes area. There, the inhabitants of the ASC site contribute to their ASC's salary. The NGO provides the incentive and the people also contribute to it, there's also the ASACO that gives too. If the ASACOs can contribute too, it motivates the ASC... 90% of the ASCs don't want to travel around on bicycles and MCHIP gave them bicycles. Traveling often to the satellite villages is a problem; they have to buy petrol and their incentive is only 30,000F. If they have to take their petrol money out of that, it is really hard. If the village or the ASACO could offer an incentive, I think it would be a good idea". INT/DTC/CSC/LPC/Yo

• Strengthen the involvement of all community actors:

The full involvement of the community and all of its players has been widely considered by the respondents in this study to be the condition most important to the viability of the SEC:

"In order that the people may make it their own, I already had to talk once about the free access ... it's damaging afterwards. When you go to assign an agent to a village and the village isn't part of it, do you see what that means? They are always going to say that the agent belongs to them. They must get involved and be part of it; they must give something, make a contribution, not always have things given to them. Because that is naturally how we are. Getting things for free every time won't resolve problems. A man must stand up and face a problem and only then you come to help him along. And if he is slow to stand up and face it, you help him make it happen

It's not right to give them everything like that; you have to get the population more involved and increase awareness so that they take their share of the responsibility." INT/DTC/CSC/HPC/Ki

Several promising experiences have been reported by partners in Mali regarding the engagement of community actors. The first example was the MCHIP project giving support to the 18 women's groups in the ASC locations, for the production and preservation of enriched flour and increasing awareness about the "10 commandments" for good health in mothers and children. The trained women were given counseling cards on key behaviors and they organized activities to increase awareness among couples, in partnership with the ASCs. These efforts contribute to the support of ASC activities, encourage the ASCs to improve their services and rally the communities around the SEC program. It is all about taking advantage of the human resources already available in place.

A second example of community actor engagement was making available sanitation materials, such as wheelbarrows, spades, rakes and household gloves, to the chiefs of villages in the MCHIP-assisted sites. The chiefs of villages, in turn, gave responsibility to the village leaders to organize weekly good hygiene days, with the involvement of women's and youth groups and of the ASC. This activity mobilized a lot of community actors and provided an opportunity to discuss problems surrounding the utilization of the SEC, case referrals and sometimes difficulties in the payment for medicines prescribed for sick children.

One final example was the setting up of village health committees (CVS) by the NGO ICH/Muskoka of Save the Children and the Malian Red Cross, in collaboration with the DTC and the ASACOs, to guarantee the coordination of activities. These CVSs make a fundamental contribution to improving the utilization of the services offered by the ASCs.

• Take strict measures to set up a more efficient and durable logistics system:

The solutions provided must be on a par with the seriousness of the stock shortages and their negative impact on the program. We report the solutions suggested by our respondents, among which feature **improving demand estimation**: in order to do this, competence in stock management and ordering must be strengthened on all levels.

"In order to minimize drug shortages, as I said, it's about needs estimation, so for that we need training for workers on estimating their needs to better know their stock and also on when it is that you need to submit an order. It would be good if the SEC program could also make a contribution towards provisions by making regular supplies to avoid stock shortages because the circuit goes from CSRef to CSCom, then from CSCom to ASC." INT/DTC/CSC/HPC/Bo

"We have to try to make orders based on the stock and the needs; you have to make the order in time, and according to the rules if you have to base it on monthly consumption. Above all, we have to communicate between sites. There is a communication problem." INT/MGT/DIS/NAP/Ki

Another suggestion we received was to redefine the **periodicity of drug resupply**, to make a correct needs estimation and ensure a consistent supply of medicines, instead of using an occasional supply system for malaria and moderate acute malnutrition treatment.

"To avoid stock shortage, you have to have supplies delivered every three or six months. There is often shortage, even at the ASACO; we really need to avoid that." INT/DTC/CSC/LPC/Di

The solutions provided will definitely have to be more elaborate and more developed than those suggested by the respondents. In addition to technical considerations, **solutions to communication**

problems should be given serious attention. In fact, it was reported several times that supplies were available at certain levels but were not used. The application of new technologies to the logistics system for community-based services will definitely improve the visibility of stock level and reduce the bias of intentional and unintentional human errors.

• Reinforce the fundamental moral values and sense of responsibility within the SEC program: Above all, we must cultivate a sense of accountability and ethics, to ensure that all actors acquire a mutual sense of responsibility. In fact, a large number of problems highlighted as part of this study are directly or indirectly linked to problems of ethics and responsibility. This goes from small relationship problems that hinder the supply of medicines to very serious problems of sexual harassment. Addressing these issues must be consistently integrated into all elements of the strategy, from preparatory community dialogues, training and refresher training, supervision and the system of monitoring and evaluation.

The **integration of a gender approach** in all of the elements and stages of the SEC implementation is equally important. Women's empowerment is fundamental to equal say in making the personal decision to search for services and care they deem necessary for themselves, their families and their children. The rights and protection of women against gender-based violence and other forms of abuse should also carefully be taken into account. It is important to recognize that this involves in-depth and long-term endeavor, the results of which will be seen only in the longer term, but whose first steps must be taken as soon as possible and whose implementation and monitoring must be undertaken with the utmost care and patience.

7. Study Limitations

Despite many precautions taken during its design and during data collection and analysis, a certain number of limitations of this study remain.

Impossibility of determining the extent of some problems:

The qualitative nature of the study cannot determine with precision the extent of certain indicators, such as the proportion of resigning ASCs, the proportion of female ASC victims of sexual harassment and the proportion of ASCs facing stock shortages.

Reluctance of some respondents to make criticisms:

It is possible that some respondents may have embellished their accounts of the SEC approach and the work of the ASCs. Some accounts lead the researchers to believe that there are cases where this has happened. Nevertheless, the research assistants' experience in carrying out qualitative studies, coupled with training focused on techniques to gain the respondents' trust, certainly limited this reluctance to criticize.

Non-integral transcription of the discussions:

It is to be noted that the discussions were digitally recorded and detailed notes were taken during the discussions by one of the research assistants. Any omissions were detected by re-listening to the recordings and were inserted after the fact. Due to limited time and human resources, we did not produce a complete transcription of the discussions, which would probably have provided us with richer information.

Conclusion

The poor utilization of available services featured among the bigger issues highlighted by the supervision sessions and by an LQAS study undertaken in late 2012 and early 2013. This study was carried out in four areas of MCHIP intervention in order to examine the root causes of this poor utilization. Data collection took place from November 12–27, 2013, and involved a total of 314 respondents. By means of focus group discussions, discussions in small groups (dyads, triads) and one-on-one interviews, the following results were found:

- The DTCs are aware of the importance of their role within the community in giving credibility to ASCs. However, frequent conflictual relationships between DTCs and ASCs often result in the rejection of the ASC by some DTCs.
- It was confirmed that mothers have no power to decide whether sick children should be taken to a care provider—decisions are made by either the husband or the mother-in-law. The use of family planning services offered by the ASC is also influenced by objections by the men and by the fear of side effects or infertility. For diseases said to be caused by witchcraft, people first seek the help of traditional healers or marabouts (holy men). Social problems are discussed much more vigorously and with more assertiveness than financial barriers.
- The population appreciates the ASC activities a great deal. The social skills of the service provider are a very important factor in the beneficiaries' perception of the quality of service. However, people have difficulty admitting that a health care worker is not up to the task of either giving injections or treating adults.
- The inadequacy and irregularity of the ASCs' financial incentives is a serious problem. Furthermore, this study has revealed that it is not uncommon for the female ASCs to suffer psychological and/or sexual harassment at the hands of their supervisory DTCs or at those of villagers or even project coordinators.
- Finally, working materials—including the bicycles given to ASCs as their means of transport—are not suited to the realities on the ground. Medicine and other stock shortages are a chronic reality that calls into question the legitimacy of the whole approach.

Immediate action to re-establish decent ASC working conditions and to solve stock shortage problems is imperative in order to continue with the program. In the interim, it is essential to reinforce the progress made by leading a more aggressive campaign of demand generation; one that is better coordinated and that targets in particular men and mothers-in-law, as it is they who make the decisions in the family. In the long term, the country must seriously consider extending/expanding the package of activities offered as part of the SEC program, introduce a durable ASC incentive system and facilitate ASC integration into the communities they serve. Finally, long-term endeavors must include the integration of a gender-based approach to strengthen the decision-making abilities of mothers in the family and the development of specific strategies to promote a culture of moral sense and shared responsibility.

To conclude, it must be recognized that the SEC programs in Mali are among the most promising models in terms of community activities in Sub-Saharan Africa. However, if the issues raised as part of this study are not addressed rigorously and diligently, there is the risk that the approach will not achieve the intended objectives of reducing maternal and infant/juvenile mortality rates.

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Appendices

Appendix I. Approval by Ethics Committees

John Snow, Incorporated 44 Farnsworth Street Boston · Massachusetts 02210 • 1211 JSI. www.jsi.com October 30, 2013 Dr. Serge Raharison Senior Technical Officer for Child Health MCHIP/ John Snow Inc. 1616 N. Fort Myer Drive Rosslyn, VA 22209-3110 STUDY TITLE: "Qualitative study of the low utilization of Community Essential Care (CEC) in the health districts of Kita, Diéma, Bougouni and Yorosso, Mali" IRB REFERENCE: IRB #13-008 ACTION: APPROVED APPROVAL DATE: October 30, 2013 EXPIRATION DATE: October 29, 2014 **REVIEW TYPE: Expedited** REVIEW CATEGORY: Expedited review category #7 Dear Dr. Raharison: Thank you for your submission of New Project materials for this research study. The JSI Institutional Review Board (IRB) has APPROVED your submission. This submission has received Expedited Review based on the applicable federal regulation. Federal regulations require that all research be reviewed at least annually. Based on the level of risk, this project requires continuing review on an annual basis. The IRB specifically considered (i) the risks and anticipated benefits, if any, to subjects; (ii) the selection of

subjects; (iii) the procedures for securing and documenting informed consent; (iv) the safety of subjects; and (v) the privacy of subjects and confidentiality of the data. All research must be conducted in accordance with this approved submission. The IRB has determined that you have met the regulatory requirements necessary in order to waive documentation of informed consent.

Please note that any revision to previously approved materials or procedures must be approved by this office prior to initiation. Only IRB approved consent forms, questionnaires, letters, advertisements, etc. may be used in your research. Unanticipated events/problems involving risks to subjects or others and SERIOUS and UNEXPECTED adverse event(s) that occur during the course of this project must be reported in accordance with the IRB policy. All NON-COMPLIANCE issues or COMPLAINTS regarding to this study must also be reported to the IRB.

Please retain this letter with your project's research records. Research records include all IRB submissions and responses and must be kept in the project director/principal investigator's file for a minimum of three (3) years after completion of the study. If you have questions, please contact Andy Buckley at 617 385-3616 or email IRB@isi.com

Sincerely,

Farmer Kunster

Laureen Kunches, PhD JSI IRB Chair and Research Protections Specialist OHRP IRB00009069 John Snow, Inc. IRB #1

REPUBLIQUE DU MALI Un Peuple - Un But - Une Foi

DECISION N° 09/13 /CE-INRSP

LE PRESIDENT DU COMITE D'ETHIQUE DE L'INSTITUT NATIONAL DE RECHERCHE EN SANTE PUBLIQUE (INRSP)

Vu l'arrêté n°2013-1223/MS-SG du 03 avril 2013 portant nomination des membres du Comité d'Ethique de l'Institut National de Recherche en Santé Publique (INRSP) ;

Vu le compte rendu n°09/13/INRSP-CE et les recommandations n°10/13/INRSP-CE issues de la session du 25 septembre 2013 du comité d'éthique de l'INRSP relative à l'examen de protocole de recherche intitulé *«Etude qualitative sur la faible utilisation des soins essentiels communautaires (SEC) dans les districts sanitaires de Kita, Diéma, Bougouni et Yorosso au Mali»;*

Vu les corrections apportées audit protocole conformément aux recommandations formulées par le comité d'éthique lors de sa session du 25 septembre 2013.

DECIDE

<u>Article 1^{er}/</u>: Le protocole de recherche intitulé *«Etude qualitative sur la faible utilisation des soins essentiels communautaires (SEC) dans les districts sanitaires de Kita, Diéma, Bougouni et Yorosso au Mali»* jugé conforme à l'éthique et aux droits humains, est approuvé par le comité d'éthique de l'Institut National de Recherche en Santé Publique (INRSP).

<u>Article 2</u>/: Toute modification intervenant dans l'exécution dudit Protocole est portée à la connaissance du Comité d'Ethique de l'INRSP dans un délai maximum de quinze (15) jours.

<u>Article 3</u>/: La présente décision valable pour toute la durée de l'étude, sera enregistrée et communiquée partout où besoin sera.

Ampliations : Président /CE1	Bamako, le 25 octobre 2013 P/LE PRESIDENT DU COMITE D'ETHIQUE, P/O LA VICE PRESIDENTE
Archives/CE 1 Cerips 1	INSTITUT NATIONAL DE RECHERCHE EN SANTE PUBLIQUE
	(I.N.S.P) Comité d'Ethique LE PRESIDENT Mme SAMASSEKOU Kankou TRAORE

Feature	R	esults of LQAS and Routine Data		Research Questions		Hypotheses
			•	What are the fundamental factors determining utilization that explain the LQAS results in the health districts of Kita, Diéma, Bougouni and Yorosso?	•	Seeking care from alternative healers, despite the availability of ASCs, is facilitated by factors related to affordability, the quality of care as perceived by the community, uncertain demand and weak community support.
Utilization	•	Disparity in utilization rate (15–40%) for cases of treatment of sick children in most of the health districts	•	When do families decide to seek care outside of the home in the case of a sick child of 2–59 months? What is the decision-making process? And who makes the final decision? Why do families take their children to alternative healers?	•	If the families are able to identify signs that require specific diagnosis and treatment, they must make the best decisions for using ASC services. The decision-making process within the household should be understood by all those involved and should be targeted as an area for improvement.
Clinzation			•	Do the implementation and research partners provide lessons learned, improved practices, innovations and/or positive results that could lead to solutions in the low utilization of SEC?	•	The partners in the implementation of SEC programs and research can provide solutions that can be adapted or applied to scale in order to increase the utilization of the SEC.
	•	Low utilization of modern family planning methods (0–10%)	•	• How do families perceive the range of family planning methods offered by the ASCs and CSComs?		Families do not see the importance of using family planning methods. Social and cultural beliefs do not facilitate the utilization of family planning methods.

Appendix 2. Research Questions and Hypotheses

Feature		Results of LQAS and Routine Data	Research Questions	Hypotheses
Accessibility and availability	•	Kita ⁵ The sites generally cover only a part of the district's population (19% in Kita) Financial barriers are significant in access to SEC (48–85%) Few sociocultural barriers to SEC access (3–5%) Stock shortage of essential medicines for the sites' first line treatment of malaria (RDT, ACT) (40–72%) The high number of cases of ASCs abandoning their posts (e.g., around 109/426 ASCs in 2012, in the 7 health districts supported by MCHIP)	 How important a factor is the financial barrier in SEC accessibility in terms of the low utilization? What are the other important determining factors in the low utilization of SEC? What are the communities' perceptions of the ASCs and <i>relais</i>? What are the people's perceptions of the services offered by the ASCs? What is the difference in terms of geographic accessibility between the ASC sites and other alternative sources of health care (health care structures, traveling healers, etc.) and how does this influence the decisions made in first choice of services? What role does stock shortage play in the low utilization of SEC? What method of attracting or motivating ASCs (financial and professional motivation) should be applied to the program in order to keep them there? Why does a large proportion of ASCs quit the program? What are the options given to them when they leave the program? 	 The financial considerations are a priority determining factor in the decision to seek care and the choice of provider. The financial barrier is not the only factor contributing to low utilization. Families prefer to go directly to health care structures or to use alternative healers if the ASC sites are not secure. The more satisfied the people are with what the ASCs do, the more they will use the ASC services. The high rate of medicine and supplies shortages discourages families in terms of visiting the ASCs for the treatment of sick children. Medicine availability can be better guaranteed by random care providers. The ASCs would be better motivated and more willing to stay if they felt valued and their working environment offered opportunities for professional development.

⁵ Only 19% of the population living within a radius of more than 5 km from a CSCom in Kita are covered by community health worker sites, situated at a distance of 3 km (which meets the definition of coverage).

Feature	Results of LQAS and Routine Data	Research Questions	Hypotheses
Quality	 Low quality of management by the DTCs who are the frontline supervisors of the ASCs (better quality of care by the ASCs than by the DTCs) Low frequency of ASC supervision by the DTCs during the past 12 months (0–1 supervisory visits) A lot of antimalarial drugs and antibiotics are prescribed by the ASCs Only 60% of mothers or guardians of children comply with the recommendations for treatment or referral. 	 How do the DTCs perceive their role in supporting the SEC—What do they do best?—What are their shortcomings and how may they be addressed? How do the mothers and grandmothers define the "quality" services from the ASCs and the CSComs and how does their perception of "quality" influence the utilization of the services? How does the quality of the care offered by alternative healers differ from that of frontline health care workers (ASCs, DTCs)? Are the services of certain alternative healers more sought after for one disease or problem than for others? If so, which one(s) and why? How do the ASCs and their supervisors explain the massive prescription of antimalarial drugs and antibiotics? Are they under pressure? What sort and from whom? Why don't families comply with treatment guidelines and/or follow the advice of the ASCs? What to do and how? 	 The more the health care staff feel confident and independent, the more they will support the activities of the SEC program. The lack of quality (as defined by the community) is an additional barrier to the utilization of SEC services. Solutions to the problem of over-prescription of medicines should take account considerations on the root causes of this over-prescription. Solutions to the problem of not following treatments and not referring serious cases should be included in the considerations about root causes.

Feature	Results of LQAS and Routine Data	Research Questions	Hypotheses
Demand	 Low increase in awareness of promotional activities in the community. High demand in the community for the broadening of the ASC SEC package 	 What type of activities to promote health or events would be more appreciated by users? What do mothers and grandmothers know about <i>relais</i> and their roles in their communities? How do they perceive the <i>relais</i> within the SEC framework and what best be done with them? What more do people want the ASC to do, further to the current package? Would users be prepared to pay for added services? Why are families sometimes prepared to pay for the services of alternative providers but not for those of the ASCs? Are the ASCs prepared to offer additional services? How? What would be required to successfully implement such a program? 	 Poor promotion by the <i>relais</i> has contributed to the poor increase in awareness within the community. The inability or refusal to pay for SEC services is a major obstacle to the utilization of SEC. If the demands/needs of the communities are better taken into account in the package, people will use the SEC services more.
Social and political environment	 Poor coordination mechanism of SEC activities Current implementation of the SEC approach does not promote activities to strengthen the abilities of community players below the ASACO level 	 What are the current roles/responsibilities of the <i>relais</i>, ASC and CSCom and how do they interact? Why are they incapable of dealing with the low utilization of the SEC? How could coordination/collaboration/competition between <i>relais</i> and ASCs contribute to the low utilization of the SEC? How can the <i>relais</i> be given the ability to promote the utilization of the SEC? Is there an absence of features strengthening the abilities of community players and mobilizing the community in the current SEC approach? 	 Weak coordination and sometimes competition between <i>relais</i> and ASC can disrupt the system and contribute to low utilization. Getting <i>relais</i> involved may be part of the solution to the low utilization of SEC. Community involvement and the strengthening of their abilities could stimulate the social support of SEC utilization.

Appendix 3. Selection of Survey Sites

Selection of ASC sites: YOROSSO

Villages	Selection Criteria	N°	FDG Mothers	One-on-One Interview Mothers	FDG Community Leaders	OI ASC	Dyads Reps	FDG Grandmothers	Village Name	Health Care area	Distance from CSRef (in km)
	High- Performing ASC Site Villages = 3										
	2 ASC site	Ι	Х			Х			UNDISCLOSED	Koumbia	70
	villages most visited for the treatment of sick children	2		х	х	x			UNDISCLOSED	Boura	39
ASC	I ASC site village with good ASC- <i>relais</i> collaboration	3					×		UNDISCLOSED	CentralYorosso	7
village sites	Low- Performing ASC Site Villages = 4										
	3 ASC site	Ι	Х			Х			UNDISCLOSED	Ouérikela	81
	villages least visited for	2		X		Х			UNDISCLOSED	Ouérikela	94
	the treatment of sick children	3					х		UNDISCLOSED	Koury	37
	I ASC site village with good ASC- <i>relais</i> collaboration	4						x	UNDISCLOSED	Ouérikela	81

Villages	Selection Criteria	N°	FDG Mothers	One-on-One Interview Mothers	FDG Community Leaders	OI ASC	Dyads Reps	FDG Grandmothers	Village Name	Health Care area	Distance from CSRef (in km)
Satellite villages	Satellite Villages of Highest- Performing ASC Sites = 2										
	I Satellite village of site most visited for the treatment of sick children, different from the ASC sites chosen for mothers' FDG and OI	I		×					UNDISCLOSED	Koumbia	75
	I Satellite village of a ASC site with good ASC- <i>relais</i> collaboration, different from the ASC site chosen above	2					×		UNDISCLOSED	Menamba	30

Villages	Selection Criteria	N°	FDG Mothers	One-on-One Interview Mothers	FDG Community Leaders	OI ASC	Dyads Reps	FDG Grandmothers	Village Name	Health Care area	Distance from CSRef (in km)
	Satellite Villages of Lowest- Performing ASC Sites = 2										
	I Satellite village of site least visited for the treatment of sick children, different from the ASC sites chosen for mothers' FDG and OI	I		×					UNDISCLOSED	Kiffosso	45
	I Satellite village of a ASC site with poor ASC- <i>relais</i> collaboration, different from the ASC site chosen above	2							UNDISCLOSED	Boura	51

Villages	Selection Criteria	N°	FDG Mothers	One-on-One Interview Mothers	FDG Community Leaders	OI ASC	Dyads Reps	FDG Grandmothers	Village Name	Health Care area	Distance from CSRef (in km)
	Resigned AS	Cs							Name and village of	of residence	
	2 ASCs who have	Ι				Х			UNDISCLOSED		44
Resigning ASCs	resigned, abandoned or been sacked/made redundant from their jobs	2				x			UNDISCLOSED		55

Selection of ASC Sites: DIÈMA

Villages	Selection Criteria	No	FDG Mother s	One-on- One Intervie W Mothers	FDG Community Leaders	OI ASC	Dyad s Reps	FDG Grandmother s	Village Name	Health Care Area	Distanc e from CSRef
	High-Performing ASC Site Villages = 3										
	2 ASC site villages most	I	х			Х			UNDISCLOSED	Koungo	80
	visited for the treatment of sick children	2		х	x	x			UNDISCLOSED	Fassoudéb é	105
ASC	I ASC site village with good ASC- <i>relai</i> s collaboration	3					х		UNDISCLOSED	Lattakaff	81
village sites	Low-Performing ASC Site Villages = 4										
	3 ASC site villages least	I	x			x			UNDISCLOSED	Central Diéma	30
	visited for the treatment of sick children	2		х		x			UNDISCLOSED	Sansankid é	120
		3					Х		UNDISCLOSED	Dioumara	105
	I ASC site village with good ASC- <i>relais</i> collaboration	4						Х	UNDISCLOSED	Diangount é camara	47

Villages	Selection Criteria	No	FDG Mother s	One-on- One Intervie W Mothers	FDG Community Leaders	OI ASC	Dyad s Reps	FDG Grandmother s	Village Name	Health Care Area	Distanc e from CSRef
	Satellite Villages of Highest-Performing ASC Sites = 2										
	I Satellite village of site most visited for the treatment of sick children, different from the ASC sites chosen for mothers' FDG and OI	I		х					UNDISCLOSED	Guédébin é	88
Satellite	I Satellite village of a ASC site with poor ASC- <i>relais</i> collaboration, different from the ASC site chosen above	2					x		UNDISCLOSED	Central Diema	35
villages	Satellite Villages of Lowest-Performing ASC Sites = 2										
	I Satellite village of site least visited for the treatment of sick children, different from the ASC sites chosen for mothers' FDG and OI	I		х					UNDISCLOSED	Groumera	70
	I Satellite village of a ASC site with poor ASC- <i>relais</i> collaboration, different from the ASC site chosen above	2							UNDISCLOSED	Lattakaf	90
	Resigned ASC								Name and village	of residence	
Resigning	2 ASCs who have resigned,	Ι				Х			UNDISCLOSED		115
ASCs	abandoned or been sacked/made redundant from their jobs	2				х			UNDISCLOSED		70

Selection of ASC Sites: KITA

Villages	Selection Criteria	No	FDG Mothers	One-on- One Interview Mothers	FDG Community Leaders	OI ASC	Dyads Reps	FDG Grandmothers	Village Name	Health Care Area	Distance from CSRef
	High-Performing ASC Site Villages = 3										
	2 ASC site villages most visited	I	Х			Х			UNDISCLOSED	Djidian	20
	for the treatment of sick children	2		×	X	X			UNDISCLOSED	Balandougou	45
ASC	I ASC site village with good ASC- <i>relai</i> s collaboration	3					х		UNDISCLOSED	Djidian	20
village sites	Low-Performing ASC Site Villages = 4										
	3 ASC site villages least visited	I	Х			Х			UNDISCLOSED	Kokofata	60
	for the treatment of sick	2		Х		Х			UNDISCLOSED	Kofeba	36
	children	3					Х		UNDISCLOSED	Sitanikoto	110
	I ASC site village with good ASC- <i>relais</i> collaboration	4						х	UNDISCLOSED	Founia Morib	15

Villages	Selection Criteria	No	FDG Mothers	One-on- One Interview Mothers	FDG Community Leaders	OI ASC	Dyads Reps	FDG Grandmothers	Village Name	Health Care Area	Distance from CSRef
Satellite villages	Satellite Villages of Highest-Performing ASC Sites = 2										
	I Satellite village of site most visited for the treatment of sick children, different from the ASC sites chosen for mothers' FDG and OI	I		x					UNDISCLOSED	Guenikoro	95
	I Satellite village of a ASC site with good ASC- <i>relais</i> collaboration, different from the ASC site chosen above	2					x		UNDISCLOSED	Kofeba	36
	Satellite Villages of Lowest- Performing ASC Sites = 2										
	I Satellite village of site least visited for the treatment of sick children, different from the ASC sites chosen for mothers' FDG and OI	I		x					UNDISCLOSED	Berenimba	9
	I Satellite village of a ASC site with poor ASC- <i>relais</i> collaboration, different from the ASC site chosen above	2							UNDISCLOSED	Dafela	17
Resigning ASCs	Resigned ASC								Current village of residence		
	2 ASCs who have resigned, abandoned or been	Ι				Х			UNDISCLOSED		
	abandoned or been sacked/made redundant from their jobs	2				х			UNDISCLOSED		65

Selection of ASC Sites: BOUGOUNI

Villages	Selection Criteria	No	FDG Mothers	One-on- One Interview Mothers	FDG Community Leaders	OI ASC	Dyads Reps	FDG Grandmothers	Village Name	Health Care Area	Distance from CSRef
ASC village sites	High-Performing ASC Site Villages = 3										
	2 ASC site villages most visited for the treatment of sick children	I	Х			Х			UNDISCLOSED	Djine	55
		2		Х	Х	Х			UNDISCLOSED	Mafele	158
	I ASC site village with good ASC- relais collaboration	3					х		UNDISCLOSED	Keleya	53
	Low-Performing ASC Site Villages = 4										
	3 ASC site villages least visited for the treatment of sick children	I	Х			Х			UNDISCLOSED	Banzana	109
		2		Х		Х			UNDISCLOSED	Banzana	107
		3					Х		UNDISCLOSED	Manankoro	132
	I ASC site village with good ASC- relais collaboration	4						х	UNDISCLOSED	Debelin	81

Villages	Selection Criteria	No	FDG Mothers	One-on- One Interview Mothers	FDG Community Leaders	OI ASC	Dyads Reps	FDG Grandmothers	Village Name	Health Care Area	Distance from CSRef
Satellite villages	Satellite Villages of Highest- Performing ASC Sites = 2										
	I Satellite village of site most visited for the treatment of sick children, different from the ASC sites chosen for mothers' FDG and OI	I		×					UNDISCLOSED	Manankoro	115
	I Satellite village of a ASC site with good ASC- <i>relais</i> collaboration, different from the ASC site chosen above	2					х		UNDISCLOSED	Zantiebougou	30
	Satellite Villages of Lowest- Performing ASC Sites = 2										
	I Satellite village of site least visited for the treatment of sick children, different from the ASC sites chosen for mothers' FDG and OI	I		х					UNDISCLOSED	Meridjela	150
	I Satellite village of a ASC site with poor ASC- <i>relais</i> collaboration, different from the ASC site chosen above	2							UNDISCLOSED	East Bougouni	26
	Resigned ASC								Current village of residence		
Resigning		Ι				Х			UNDISCLOSED		0
ASCs	abandoned or been sacked/made redundant from their jobs	2				Х			UNDISCLOSED		0

Data Collection Method	Type of Respondent	Type of Site	Performance	Location
FGD Focus Group Discussion DYA Dyad or Triad INT In-Depth Interview	MTH Mothers GDM Grandmothers REL Relais Communautaire ASC Agents de Santé Communautaire ALT Alternative care provider LDR Community Leaders, mostly ASACO members DTC Directeur Technique de Centre MGT Management	SIT Village site of ASC SAT Village satellite of ASC RES Residence of resigning ASC CSC CSCom DIS CSCom or District representative PRJ Partner Project (MCHIP coordinators)	HPN High performance in overall number of visits HPC* High performance in collaboration* LPN Low performance in overall number of visits LPC* Low performance in collaboration* NAP Non-Applicable	Yo Yorosso Di Diéma Ki Kita Bo Bougouni RI** Region of Kayes [Diéma and Kita] R2** Region of Sikasso [Yorosso and Bougouni]

Appendix 4. Reference for Data Coding

* Includes at the village level, good (or poor) collaboration between the *relais* and the ASCs—at the CSCom level, support to ASCs' activities and regularity of supervision by the DTC—and for the community leaders, regularity of review meetings and level of support to the SEC.

** Resigning ASCs were coded by region (not by district) to further protect the identity of the respondents

Examples:

FGD/GDM/SIT/HPN/YO: Focus group discussion with grandmothers in a village site of ASC, high-performing in terms of number of visits, Yorosso district

INT/ASC/RES/NAP/R2: Interview with an ASC who resigned in his/her current village of residence in the region of Sikasso