Community Empowerment and Accountability: A Simplified Community Scorecard Approach in the Democratic Republic of Congo

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Acronyms

AC Animateur Communautaire (Community health volunteer)

ASSP Accès aux Soins de Santé Primaires (Access to Primary Health Services)
CODESA Comité de développement de l'aire de santé (Health Area Development

Committee)

DFID Department for International Development

DID Difference-in-Differences

DRC Democratic Republic of the Congo

ECZ Equipe Cadre de la Zone de Santé (Health Zone Management Team)

FC Franc Congolais (Congolese franc)

IMA Interchurch Medical Assistance (dba IMA World Health)

IP Implementing Partner

MCZ *Médecin Chef de Zone* (Health Zone Chief Physician)

SE Standard Error

EXECUTIVE SUMMARY

Background:

Community engagement has long been proposed as a mechanism by which the quality of health services could be improved. IMAWorld Health (dba IMA), through its *Accès aux Soins de Santé Primaires* (ASSP) project has introduced a component for community participatory evaluation of the quality and scope of health services, specifically, a simplified community scorecard, as part of its approach to improve quality and utilization of health services. The simplified community scorecard approach provides a mechanism by which communities regularly rate the health services on indicators that are important to the community. The scorecard methodology is designed to emphasize cooperation between local stakeholders and action based on dialogue and consensus. Community analysis focuses on joint identification of problems and constructive solutions, consciously avoiding personal blame and sanctions. The entire process strongly emphasizes shared community and health worker interests in improving health services.

It was expected that by the fifth year of the ASSP project, in March 2018, at least 85 percent of ASSP-supported health areas (i.e. 757 out of a total of 888) would have conducted the simplified community scorecard process at least one time. In addition, IMA hoped that at least 50 percent of health areas conducting the simplified community scorecard would have achieved at least 80 percent of the recommendations produced by the simplified community scorecard process at the end of each year.

Evaluation description:

The study has three objectives. The first objective is to monitor the implementation of the simplified community scorecard intervention and offer recommendations for strengthening the intervention's approach. The second study objective is to track changes over time in the participating communities' perceptions of quality of health services, communities' utilization of health services, and real changes in the supplies, equipment, and services available at their health facilities, as well as to describe the characteristics of a successful or unsuccessful site. The final objective of the study is to assess unintended impacts of the intervention.

The evaluation uses a mixed methods approach. Quantitative data comes from the ASSP project's baseline and endline surveys, which were administered to health facilities, health workers, and households in 2014 and 2017, as well as routine program monitoring. Using descriptive statistics and a difference-in-difference approach, changes in indicators of scopes of service, utilization, quality, community empowerment, and health worker satisfaction are tracked over time, and the impact of the scorecard approach is estimated.

Qualitative data collected in communities that participated in the scorecard approach is also used. In-depth interviews or focus groups were held with community members, health workers, CODESA members, animateur communautaires, the chief physician of the health zone, and implementing partners. These conversations were designed to understand how the approach was implemented, how it was received, whether impacts have been observed, and to elicit suggestions for improving the approach.

Results:

The community scorecard approach appears to have been well-received by facilitators, community members, and most health workers. Descriptions of the initial rounds of scorecard meetings closely matched ASSP's design. Quantitative analysis did not detect an impact of the scorecard approach on facility-level indicators of scopes of service, service delivery, or quality, either from the perspective of health workers, community members, or objective assessments via health facility surveys. Unadjusted comparisons showed that locations that had participated in the scorecard tended to experience significant improvement more often that non-scorecard sites. Participants saw improvements in health services, and those impacts were concentrated at the levels at which the community or health workers had direct control (e.g. painting, cleaning, hours of operation, health worker attitudes). Requests that required action at higher levels of the health system (e.g. medicines, supplies, staffing, health worker remuneration) had mixed results. The majority of health workers reported appreciating the scorecard approach. Community members corroborated this and observed that health workers seemed to appreciate the joint problem-solving and advocacy. The main barrier to full participation by health workers was a lack of remuneration.

Conclusions and recommendations:

Project leadership should determine whether it is a priority that all sections of society are actively participating in the scorecard activity. If it is, this expectation should first be communicated to facilitators. The design of the scorecard approach should then be altered to overcome barriers that certain populations face. Respondents overwhelmingly reported that meetings should be held more than once per year. The project could encourage communities to set their own meeting schedules.

While most respondents were satisfied with the eleven indicators listed on the scorecard, a few had suggestions for new indicators; this option could be reinforced and formalized within the approach. The project could also go further by providing groups with objective standards for service delivery (for example, national guidelines) and facility-specific data, as well as comparison with their peer facilities.

Quantitative analysis did not detect an impact of the scorecard approach on facility-level indicators of scopes of service, service delivery, or quality. However, scorecard sites were not selected randomly and so it cannot be ruled out that these sites received more attention from ASSP. All locations in the analysis were receiving some amount of ASSP support, which may obscure the incremental impact of the scorecard approach. Qualitative analysis found that participants saw improvements in health services, and that those impacts were concentrated at the levels at which the community or health workers had direct control (e.g. painting, cleaning, hours of operation, health worker attitudes).

In general, there was disagreement among stakeholders as to whether the joint action plan should primarily consist of actions the community and facility could take together, or if it should also be used for advocacy to higher levels. In practice, communities attempted to appeal to higher levels of the health system. Project leadership should provide clarity on the level(s) at which the action plan should focus.

The majority of health workers reported appreciating the scorecard approach. Although significant program impacts were not detected, measures of health worker satisfaction tended to improve in scorecard sites (with the exception of sufficient salary), and community members' satisfaction with health worker performance also improved.

There were mixed perspectives among stakeholders about whether the scorecard approach would continue without project support. Sustainability may be improved if a formalized process is developed to give communities acknowledgement and regular feedback on the status of their requests. Further, educating participants and facilitators on the decision-making process and the levels at which specific types of decisions are made may decrease frustration when results are not quickly realized.

Going forward, the Theory of Change should be updated to reflect decisions about inclusivity of vulnerable groups, the level(s) at which the joint action plan is targeted, and the role of IMA. The limiting factors identified in the evaluation, many of which were financial (the cost of facilitating meetings, opportunity cost of attendance for very poor community members, and health worker resentment due to unpaid salaries) should be incorporated and addressed if possible.

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"You see, with the community scorecard, we made a diagnosis at the level of the community. The disease was found, it has been given the treatment, and it is healed."

—Health workers' focus group

1. Background

a. International and policy context

Over the last decade, the government of the Democratic Republic of Congo (DRC) with assistance from international partners has supported a large number of projects and strategies to improve health system performance. Community engagement has long been proposed as a mechanism by which the quality of health services could be improved. Brinkerhoff (2004) explained the need for accountability in three areas of the health system: financial accountability, performance accountability and political/democratic accountability (Brinkerhoff 2004). He argued that increasing accountability in these three areas will help reduce the abuse and misuse of resources, assure health personnel follow set rules and regulations, and monitor the performance of staff. However, the success of community engagement interventions has been mixed (Falisse, Meessen et al. 2012, Goodman, Opwora et al. 2011, Munyanshongore, Milabyo Kyamusugulwa et al. 2005, Wild, Harris 2011). It remains to be determined whether the limitations on success are due to "theory failure" (i.e. faulty beliefs about the causal linkages assumed by the project) or "implementation failure" (i.e. resulting from the project not being implemented as planned).

Community scorecards and Citizen Report Cards, which both provide a structured mechanism for communication between community members and health personnel, are a common type of intervention aimed at promoting community empowerment. While the two processes differ slightly on how they are implemented, both require formal meetings of community members and health professionals, often monitored by an independent facilitator. These meetings have a prescribed structure and involve discussing priorities and creating action plans which incorporate both provider and community member perspectives.

The community scorecard approach evaluated in Malawi is an example of a relatively successful intervention (Wild, Harris 2011). The success of this program relied heavily on having people from both the supply and demand side of healthcare participate in the process so that once community consensus was reached and priorities identified, the key stakeholders having the power to implement change could act. (Wild, Harris 2011) This required developing a joint action plan between communities and health facilities and implementing a structured process to follow up on the agreed upon points. The initiative has worked best where certain preconditions were already present. In the Malawian context, this included having local leadership support and a pre-existing community capacity for self-help. It was also essential to get buy-in from the district and national levels in order to facilitate certain action points, such as medicine procurement, staff changes, and performance quality monitoring. As a result of the community scorecard intervention, changes were made at the local level including the construction of new schools, and the implementation of new mechanisms for reducing corruption. (Wild, Harris 2011)

A similar community-monitoring program, Citizen Report Cards, was implemented in Uganda, and a randomized control study was used to test for changes in key indicators (Bjorkman, Svensson 2009). The program's design aimed to improve structured communication between healthcare providers and users, by

utilizing locally trained facilitators to monitor these discussions. Post-intervention, communities who participated in the Citizen Report Card program were more involved in the monitoring of facility progress and providers who were involved showed an increased effort in serving the community. Beyond participation rates, intervention communities also showed marked improvements in provider absenteeism, waiting times, quality of care, and a 20 percent increase in utilization of services when compared to control communities. Additionally, healthcare users demonstrated significant positive increases in health outcomes (Bjorkman, Svensson 2009).

b. Community scorecards in the DRC

In 2013, the International Rescue Committee implemented a community scorecard approach as part of its Tuungane project in eastern DRC. Under this model, communities were convened to review data related to routine facility indicators and to rate their health services on a number of additional indicators. Health providers rated themselves on these same indicators and also developed some of their own. Community members and health workers then came together to develop a joint service improvement plan. After allowing time for the plan to be implemented, the scoring process was repeated. Progress was then presented to local authorities for the purposes of accountability and securing ongoing support (Ho 2015).

A qualitative evaluation of the Tuungane community scorecard found evidence of increased community participation and improved quality within the health facilities. The evaluators concluded that when solutions fell within the jurisdiction of communities and health workers, the scorecard was effective in improving health services. The scorecard approach appeared to be well-accepted by both community members and health workers in the context of the DRC (Ho 2015).

c. ASSP's Simplified Community Scorecard approach

IMAWorld Health (dba IMA), through its *Accès aux Soins de Santé Primaires* (ASSP) project has introduced a component for community participatory evaluation of the quality and scope of health services, specifically, a simplified community scorecard, as part of its approach to improve quality and utilization of health services. The simplified community scorecard approach provides a mechanism by which communities regularly rate the health services on indicators that are important to the community. The scorecard methodology is designed to emphasize cooperation between local stakeholders and action based on dialogue and consensus. Community analysis focuses on joint identification of problems and constructive solutions, consciously avoiding personal blame and sanctions. The entire process strongly emphasizes shared community and health worker interests in improving health services.

In 2014, IMA developed a simplified community scorecard based on input from focus groups of community members in ASSP health zones within Kasai-Occidental and Equateur (now Nord Ubangi) (Appendix A). IMA conducted a pilot test of the simplified community scorecard approach in four health areas (Kanyuka, Lubuyi, Kalemba Mulamba, and Nkonko 2)¹ in April 2015, with promising results. Using a phased timeline, IMA planned to implement the approach to 85 percent of health areas within the 52 health zones covered by the ASSP project by March 2018. The simplified community scorecard process was organized around

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¹ Kanyuka and Lubuyi health areas are located in Lukonga Health Zone; Kalemba Mulamba and Nkonko 2 health areas are located in Tshikaji Health Zone.

services provided by the primary health center in the health area, attempting to gather input from users or potential users of that facility, and was carried out by the community that benefits from those services.

In consultation with IMA, Tulane developed a Theory of Change for the simplified community scorecard approach which is presented in Figure 1. ASSP's simplified community scorecard intervention is introduced in four phases. First, there is a preparatory and planning phase during which ASSP experts/consultants meet with community leaders, CODESA² members, and healthcare providers to sensitize them about the simplified community scorecard strategy. As part of its responsibilities, the CODESA publicizes an open invitation to the community and the healthcare providers to participate in the intervention. The experts/consultants also conduct community social mapping at this stage and organize the training of scorecard process facilitators who are selected by the CODESA.

During the first year, the process was guided by a designated coach in each health zone. Depending on circumstances, this person might be a capable individual selected from active community groups (faith-based organizations, non-governmental organizations, etc.) or a designated scorecard advocate from the health zone management team. The appropriate approach in each health zone depended on evaluation of opportunities and constraints in each pool of health zones, jointly arrived at by ASSP implementers and participants from the provincial health offices.

The second phase is an implementation of the scorecard, which occurred in the following four steps.

- 1. Orientation: ASSP project staff oriented the health facility head and CODESA members on the simplified community scorecard approach. These individuals were recruited to mobilize the community for the scorecard meeting, and a date, time, and venue for the meeting was set. The health facility head and CODESA members also assisted IMA with a social mapping exercise, during which the different interest groups in the health area were identified. The importance of recruiting both men and women to participate in the meeting, and to record the number of participants by gender, was stressed.
- 2. Community assembly: The moderator sorted community members into interest groups (women, men, youth, community leaders, religious leaders). Health workers formed a separate group. Each group selected two facilitators: a discussion leader and a reporter. The moderator explained the scorecards, distributed index cards to each group, and directed the groups to separate locations. The groups discussed and recorded their ratings for each item on the scorecard. Afterward, the groups returned for the "interface session" during which scores were pooled and the group participated in joint identification of deficiencies in health services. When reporting groups' ratings, the discussion leader also reported the number of men and women who made up the group.
- 3. **Development of the joint action plan**: A meeting to develop a joint action plan, often occurring on the day after the community assembly, was held. Participants from the community assembly were invited to attend this meeting; as well the facilitators typically requested that each group's moderator be present. The joint action plan showed how the community and health workers

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² CODESAs are local committees that serve as liaisons between communities and health facilities.

intended to resolve the issues identified at the community assembly. Once written, the plan was displayed prominently in the health facility.

4. **Reporting:** The CODESA, health facility head in some cases the *animateur communautaire* (AC) wrote and submitted reports to the health zone and provincial health offices and to ASSP. Reports included participant counts by gender.

During the third phase of the intervention, there was a follow-up of joint action plan implementation to ensure that the remedial measures have been taken and were effective. In addition, the *Equipe Cadre de la Zone de Santé* (ECZS³) ensured that the assessment of the health services using the scorecard was regularly conducted and that it was extended to other health areas in the health zone.

Health areas were supposed to conduct a second simplified community scorecard exercise a year later in order to determine whether the problems identified during the first exercise had been corrected and discuss whether new issues had arisen during the year. While the process of meeting, scoring, and developing the joint action plan were the same, these subsequent meetings were to be facilitated by the CODESA without the participation or support of ASSP.

As noted above, it was expected that by the fifth year of the ASSP project, in March 2018, at least 85 percent of ASSP-supported health areas (i.e. 757 out of a total of 888) would have conducted the simplified community scorecard process at least one time. In addition, IMA hoped that at least 50 percent of health areas conducting the simplified community scorecard would have achieved at least 80 percent of the recommendations produced by the simplified community scorecard process at the end of each year; this was tracked through IMA's routine monitoring system.

The principles underlying the simplified community scorecard strategy are two-fold: (1) communities that are engaged with a mechanism to hold health facilities accountable will be better positioned to ensure that quality and responsive services are being offered; and (2) communities that are more invested in the health system and have a say in how services are provided will be more likely to utilize formal healthcare services. This will contribute to ASSP's goal of increasing access to and utilization of quality health services. The simplified community scorecard strategy aligns with the ASSP project's Theory of Change (Figure 1), as the ASSP consortium provides training and supervision to communities, health workers, and CODESA members through the implementation of the scorecard intervention. These inputs will strengthen community participation in decision-making and tracking of resources at health facilities, leading to improved service delivery and quality, increased community involvement, and greater access to and utilization of services. This will contribute to sustained access to health services and ultimately, to improved maternal and child health.

The strategy relies on five assumptions. The first assumption is that CODESAs will ensure that the community scorecard is applied every year. ASSP wants to involve CODESAs in the intervention. The CODESA participates in the management of the health center designated to serve a given health area. The

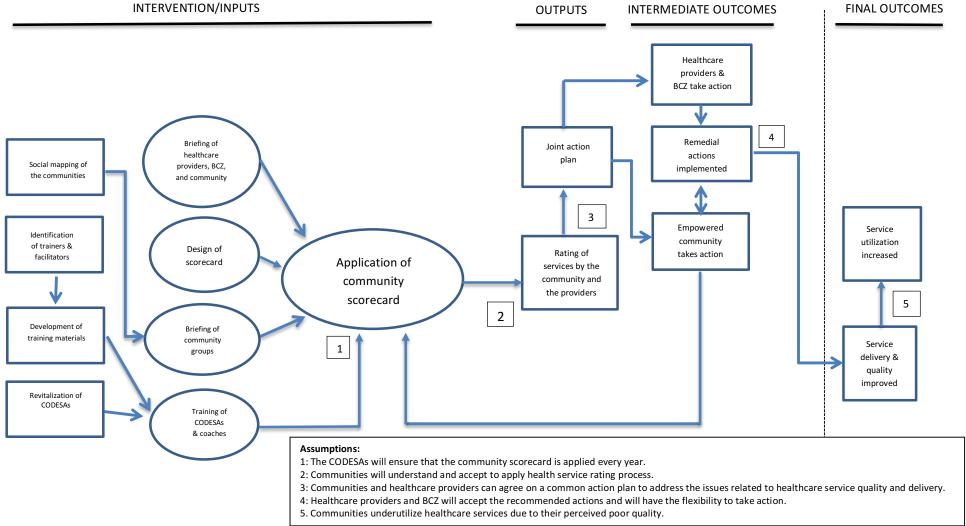
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³ Health Zone Management Team

CODESA is therefore entitled to hold the health center accountable. The second assumption is that communities will understand and accept to apply health service rating process. The strategy assumes that communities and health workers can agree on a common action plan to address the issues related to healthcare service quality and delivery. It also assumes that health workers and the ECZ will accept the recommended actions and will have the flexibility to take action. The final assumption is that communities underutilize healthcare services due to their perceived poor quality.

In addition to the positive impacts, the intervention has the potential for unintended impacts. Exclusion from or even inclusion of community members in the scorecard process may lead to the disempowerment of women and other vulnerable groups such as tribal or ethnic minorities and youth (Gaventa, Barrett 2010). The intervention may lead to conflict within the community, especially in post-conflict areas, as well as conflict between the community and the health workers. The intervention may lead to differential treatment of community members who participate in simplified community scorecard events compared with non-participants at the health facilities. Finally, the process of being publicly evaluated may have an impact on health worker motivation and satisfaction.

Figure 1. Community Empowerment and Accountability: ASSP'S Community Scorecard Approach in the Democratic Republic of Congo



2. Evaluation description

a. Purpose

The goal of the study is to produce evidence that can be used to refine a simplified community scorecard model.⁴

b. Evaluation questions

The study has three objectives. The first objective is to monitor the implementation of the simplified community scorecard intervention and offer recommendations for strengthening the intervention's approach.

The specific research questions related to this objective are:

- 1. Is the simplified community scorecard being implemented as planned?
- 2. Are community members and health workers actively participating in the simplified community scorecard strategy? Who takes part in the intervention and who does not?
- 3. Has the community's sense of empowerment or actual empowerment changed during the course of the intervention (with specific focus on women and vulnerable groups)?
- 4. What factors contribute to the success or failure of the simplified community scorecard intervention?

The second study objective is to track changes over time in the participating communities' perceptions of quality of health services, communities' utilization of health services, and real changes in the supplies, equipment, and services available at their health facilities, as well as to describe the characteristics of a successful or unsuccessful site. This component of the study is designed to test the key assumptions behind the program; in particular, that increased participation will lead to improved scope and quality of services and increased utilization. The specific research questions related to this objective are:

5. Have the communities' perceptions of the affordability and scope of health services offered, or the actual affordability and scope of health services offered, changed over the course of the intervention? What characteristics of the community, health facility, or intervention are associated with change?

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⁴ The concept note for this study is included in Appendix C.

- 6. Have the communities' and health workers' perceptions of the quality of health services, or the actual quality of health services, changed over the course of the intervention? What characteristics of the community, health facility, or intervention are associated with change?
- 7. Has utilization of health services changed over the course of the intervention? What characteristics of the community, health facility, or intervention are associated with a change?

The final objective of the study is to assess unintended impacts of the intervention. The specific research question related to this objective is:

- 8. Does the simplified community scorecard intervention have any positive or negative impacts in the following areas?
 - a. Health worker motivation and satisfaction
 - b. The role, responsiveness and perceptions of CODESAs
 - c. Relations, responsiveness and resources provided at the health zone administrative level

c. Indicators and themes

The indicators and themes which will be used to address the research questions are presented in Table 1.

Table 1. Research objectives/questions and related indicators and themes

Researc	ch Questions	Quantitative Indicators	Qualitative Themes
		mmunity scorecard intervention and offer recomm	nendations for strengthening the intervention's
	ne simplified community scorecard being elemented as planned?	 a. Percentage of health areas in which an initial scorecard meeting was held. b. Percentage of health areas in which a second scorecard meeting was held. 	 a. Community members' and providers' responses when asked to describe the community scorecard process b. Responses from implementing partners, coaches, and CODESA members when asked this question
acti scor	community members and health workers vely participating in the simplified community recard strategy? Who takes part in the exvention and who does not?	a. Average percentage of adults/men/women living in the community who participate in the scorecard meeting.	 a. Responses when asked to characterize participants b. Responses when asked whether specific groups (community leaders, men, women, youth, minorities, etc.) participate and why or why not c. Observers' assessments of the percentages and characteristics of attendees who offered input during meetings
actu	the community's sense of empowerment or nal empowerment changed during the course of intervention (with specific focus on women vulnerable groups)?	 a. Facility solicitation of community input i. Formal meetings held with community members ii. Mechanisms in place to solicit patient feedback b. Community engagement i. Community member satisfaction with healthcare in community ii. Community member satisfaction with community involvement in health services 	 a. Community members' most common responses when asked whether they feel empowered to affect health services b. Community members' responses when asked whether they feel empowered to affect other spheres c. Female respondents' responses when asked whether they felt empowered to participate d. Male respondents' responses when asked attitudes about women's participation e. Health workers' responses when asked attitudes toward community feedback f. Health zone staff's responses when asked attitudes toward community feedback
	at factors contribute to the success or failure of simplified community scorecard intervention?	Not assessed quantitatively	a. Respondents' responses when asked whether the intervention was a success b. Respondents' responses when asked why the intervention succeeded or failed c. Respondents' responses when asked how the intervention could be improved

Research Questions	Quantitative Indicators	Qualitative Themes
	ommunities' perceptions of quality of health services	s, communities' utilization of health services, and
real changes in the supplies, equipment, and service		
5. Have the communities' perceptions of the quality of health services changed over the course of the intervention? What characteristics of the community, health facility, or intervention are associated with change?	a. Conditions at facility i. Electricity ii. Drinking water iii. Sanitary toilet/latrine iv. Medicines v. Equipment vi. Supplies vii. Family planning supplies viii. Personal protective equipment ix. Transport b. Health worker reports of: i. Physical state of the building ii. Adequacy of medicines iii. Adequacy of supplies c. Patient assessments of conditions during visits i. Cleanliness of the facility ii. Adequacy of medicines iii. Adequacy of medicines	a. Respondents' responses when asked whether quality has changed, how it has changed, and why
6. Have perceptions of the scope of health services offered improved over the course of the intervention? What characteristics of the community, health facility, or intervention are associated with change?	 a. Facility services offerings Percentage of 23 services offered at the health facility User fees for consults User fees for normal deliveries b. Affordability of services Percentage of outpatient illnesses for which the patient had to borrow money or sell possessions to pay for care 	Respondents' responses when asked whether scope of service has changed, how it has changed, and why
7. Have there been changes in utilization of health services in participating communities? What characteristics of the community, health facility, or intervention are associated with a change?	a. Patient volumes at health facilities i. Consults ii. Deliveries	a. Respondents' responses when asked whether self and community are more likely to use services as a result of the intervention and why

Research Questions	Quantitative Indicators	Qualitative Themes
RO3. Assess unintended impacts.		
 8. Have there been positive or negative impacts on the following? a. Health worker motivation and satisfaction b. The role, responsiveness and perceptions of CODESAs c. d) Relations, responsiveness and resources provided at the health zone administrative level 	 a. Health worker agreement that: 1. They are respected in the community 2. The facility has a good reputation 3. Their job is a source of pride 4. Their salary is sufficient to meet their basic needs b. Patient satisfaction with: 1. Wait time at the facility 2. The way in which the provider explained the situation c. Community knowledge of a CODESA operating in the community Health zone administrative level not assessed quantitatively. 	 a. Respondents' responses when asked about positive and negative impacts in the pertinent areas b. Respondents' responses when asked for additional positive or negative impacts

d. Study design

The study involves both quantitative and qualitative methods using data from health areas in which the simplified community scorecard intervention has been introduced. The quantitative analysis provides an understanding of the intervention's implementation and the impact of participation in the scorecard program on changes in user fees, availability of medications, and the physical state of the facility. The qualitative analysis explores the issue of empowerment, solicit participants' perspectives on the intervention, and document unintended impacts of the intervention.

Quantitative Component

The quantitative component employes two analyses. The first involves the calculation of descriptive statistics using routine programmatic data. This analysis reports the percentage of sites in which the simplified community scorecard strategy has been implemented, the numbers of meetings that have occurred, and the numbers of participants. The results are stratified at the provincial level. This analysis will use all available programmatic data.

The second component involves the analysis of data from the ASSP project's baseline and endline surveys, conducted in 2014 before the implementation of the community scorecard approach, and in 2017 after the approach had been rolled-out in the majority of ASSP-supported health areas. The surveys had modules for health facilities, health workers, and households. The household module included questions about outpatient visits made by household members. The survey methods are described in detail in Tulane University's *Evaluation of the Impact of the ASSP (Accès aux Soins de Santé Primaires) Project in the Democratic Republic of Congo.*

Civil unrest in the Kasai region precluded endline data from being collected there. Therefore, the quantitative analysis is limited to sites in the other ASSP project areas, namely, Nord Ubangi, Maniema, and Tshopo.

Qualitative Component

The qualitative component of the study involves the analysis of data collected at intervention sites by Tulane researchers at two points in time. Data collection included key informant interviews, and focus groups at each selected site.

Sites were selected from a list of health areas in which the simplified community scorecard had been introduced. In total, interviews and focus groups will be conducted at 12 sites. Within each site, four focus groups (women, men, health worker, and CODESA) and one in-depth interview (community coach) will be held. For each health zone with a selected site, a representative from the implementing partner responsible for the health zone, and a representative from the ECZ will be interviewed. (Refer to Table 2 for further detail on the qualitative data collection strategy.)

Congolese research assistants, both male and one female, were recruited and trained in qualitative data collection. Prior to data collection, the co-investigators conducted a three-day training with the research assistants, focusing on the intervention design, qualitative methods, simulated interviews, approaches for interacting with respondents, and research ethics.

Data collectors recruited participants to the study upon arrival at the site with the assistance of the AC. Community members ages 15 years old and above who attended the community scorecard meeting were invited to participate in focus groups. Data collectors also conducted focus groups with all available health workers who participated in the simplified community scorecard process. Additionally, data collectors invited a representative from the health zone office and from the implementing partner organization responsible for the health zone to participate in key informant interviews.

Qualitative data was collected at two points in time. The first wave of data collection, which occurred in September 2015, was conducted in sites that initiated the simplified community scorecard approach between April 1, 2015 and June 30, 2015. The second wave of data collection, which occurred in March 2016, was conducted in the original sites plus sites that initiated the simplified community scorecard approach between April 1, 2015 and November 30, 2015. Additionally, the sites from the first wave were re-visited. The collection strategy is detailed in Table 2.

Table 2. Qualitative data collection strategy

	Data Collection Wave 1	Data Collection Wave 2
	(September 2015)	(February and March 2016)
Pilot sites (4 per wave;	Key informant interviews	Key informant interviews
same sites selected in	*Community coach (1 per site)	*Community coach (1 per site)
each wave)	*Health zone staff (1 per HZ)	*Implementing partner (1 per HZ)
	*Implementing partner (1 per HZ)	
		Focus groups
	Focus groups	*Women (1 group per site; 4-6
	*Women (1 group per site; 4-6	participants)
	participants)	*Men (1 group per site; 4-6 participants)
	*Men (1 group per site; 4-6 participants)	*Health workers (1 group per site; 1-4
	*Health workers (1 group per site; 1-4	participants)
	participants)	*CODESA (1 group per site; 1-4
	*CODESA (1 group per site; 1-4	participants)
	participants)	
		Observations (if timing permits)
	Observations (if timing permits)	*Community meeting (1 per site)
	*Community meeting (1 per site)	*Provider meeting (1 per site)
	*Provider meeting (1 per site)	*Interface meeting (1 per site)
	*Interface meeting (1 per site)	
Expansion sites	Not applicable	Key informant interviews
(4 total: 2 in Equateur		*Community coach (1 per site)
and 2 in Maniema)		*Health zone staff (1 per HZ)
		*Implementing partner (1 per HZ)
		Focus groups
		*Women (1 group per site; 4-6
		participants)
		*Men (1 group per site; 4-6 participants)
		*Health workers (1 group per site; 1-4
		participants)
		*CODESA (1 group per site; 1-4
		participants)
		1 /

e. Analytic approach

Quantitative Component

Quantitative analysis was performed using STATA version 13. Descriptive statistics were calculated using routine programmatic data. The results were stratified at the provincial level.

Analysis of differences in health facilities pre-and post-simplified community scorecard intervention was conducted using sites for which baseline and endline survey data is available. Surveyed health facilities and community were divided into sites that participated in the simplified community scorecard intervention, and those that did not. Using a difference-in-difference (DID) approach and controlling for community and facility-level variables, the analysis examined the impact of participation in the scorecard program on changes in user fees, availability of medications, and the physical state of the facility. These outcomes were chosen due to their presence as indicators on the simplified community scorecard, and their inclusion in the baseline and endline facility surveys.

Additionally, the analysis examined changes in reported utilization rates according to participation in the community scorecard project, the change in the scope of services offered, and the degree of community participation in health services. Although these are not represented by indicators on the scorecards, increasing utilization and the scope of services offered and improving community participation are stated goals of the intervention. The scope of services is calculated as the percentage of 13 services⁵ being offered at the facility on the day of the survey.

The outcome variable in the analysis of change in user fees used the change in user fees reported in the baseline compared with the user fees reported in the endline for consults and delivery services.

The outcome variable in the analysis of availability of medications was the change percentage of 40 essential medications listed in the survey that were available on the day of the survey, as well as the percentage that have not been stocked-out within the past month between the baseline and endline surveys.

The outcome variable in the analysis of availability of supplies was the change in the percentage of supplies within six categories which are available on the day of the survey. These categories are equipment, supplies, family planning kits, individual personal protective equipment, cold chain supplies, and working transportation.

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⁵ General ambulatory care; vaccination of children; antenatal care; normal delivery, caesarean delivery, postnatal care; family planning; tuberculosis treatment; treatment for sexually-transmitted infection; outreach services; dental services; inpatient care; surgery care.

The analysis of the change in the physical state of the building used three outcome variables: the availability of electricity, the availability of drinking water, and the presence of a sanitary toilet or latrine in the facility.

The change in utilization rate was calculated as the number of outpatients reportedly seen in the last completed month. In cases where both a documented and an estimated number are reported, the documented number was used.

Change in the scope of services was assessed by comparing the percentage of the 13 services assessed in the baseline and endline surveys which are offered by the facility.

Finally, the change in levels of community participation was calculated using three outcome variables: the reported frequency of routine meetings between the health facility and community, the use of a mechanism for soliciting client feedback, and the reported prevalence of routine quality assurance activities conducted by the facility.

Qualitative Component

Analysis of focus groups and interviews was conducted using ATLAS.ti, a text organizing software, and Microsoft Word. Qualitative data was coded deductively, with codes based on the research objectives and indicators, as well as inductively, with codes developed for any additional themes that may emerge. Analysis was conducted to identify sub-themes within codes, as well as general themes across codes. Results from the various interviews and focus groups were triangulated to develop a comprehensive picture of the intervention. Quotations which represent the key findings were identified and included in the report.

Data Triangulation

Quantitative and qualitative data were analyzed concurrently and used to provide a comprehensive understanding of the implementation and impact of the community scorecard. Cases in which the qualitative and quantitative results did not align were identified and, if possible, explained.

f. Ethics and evaluator independence

Ethical approval of the study was obtained from the Institutional Review Boards of Tulane University and the Kinshasa School of Public Health. Tulane consulted with the United Kingdom's Department for International Development (DFID) and IMA in the development of research questions and the scope of the evaluation; however, the researchers remain independent in decisions pertaining to research procedures. The methods used, strategies and activities assessed, data collection sites visited, subjects interviewed, types of data collected, and results and analysis reported are at the sole discretion of Tulane.

d. Justification for departures from original protocol

This evaluation was originally designed to use health facility data from the ASSP baseline and midline surveys, to be conducted in three regions: Nord Ubangi, Maniema/Tshopo, and Kasai. However, the midline survey was not conducted. This resulted in the evaluation being delayed until endline data was available. A fortunate outcome of this delay was that, in contrast to the planned midline survey, the endline survey matched the baseline survey in that it included modules for households and health workers. This allowed

for the evaluation to consider the impact of the scorecard intervention on household and health worker-level outcomes in addition to facility-based outcomes.

Another major deviation is that, as previously described, endline data was not collected in the Kasai region due to civil unrest. Therefore, the quantitative analysis is based only on data from Nord Ubangi, Maniema, and Tshopo.

Finally, the protocol called for qualitative data collectors to observe scorecard meetings if possible. However, no communities had scheduled their second scorecard meeting during the data collection window. Therefore, qualitative data is limited to perspectives of participants and facilitators and has not been independently verified.

h. Limitations

This study has a number of limitations to note. Although trends and associations are part of the analyses and the difference-in-difference approach controls for baseline differences between groups, the methods employed in this research are unable to establish whether the intervention caused a change in the outcome. This is primarily due to the fact that the intervention was not randomly assigned.

The ASSP project operated in both scorecard and non-scorecard areas. Therefore, the impact of the scorecard approach may be diluted. A stronger impact would likely have been detected if the scorecard were implemented alone.

Due to evaluation delays, the qualitative and endline quantitative data were collected over a year apart. This means that qualitative results may not fully explain quantitative findings, as changes may have occurred between qualitative and quantitative data collection.

Further, the quantitative analysis is limited to data from Nord Ubangi and Maniema/Tshopo and results are therefore not generalizable to all ASSP-supported areas.

Finally, though not a limitation, it should be noted that the due to the qualitative research the results of the qualitative analysis will not be statistically representative. However, the concepts derived from focus groups with multiple subjects across geographic areas and over time will produce information which can be generalized to other settings.

3. Results

a. Descriptive statistics

By the end of 2017, 81 percent of ASSP-supported health facilities had participated in at least one community scorecard exercise. It appears that ASSP is on track to meet its goal of 85 percent participation by March 2018, despite significant setbacks in the Kasai region due to civil unrest.

Within the three provinces assessed in the quantitative evaluation, it was estimated less than two percent of the population had attended a meeting. This percentage was lowest in Nord Ubangi and highest in Tshopo. The location with the highest level or participation was in Tshopo, at 9.5 percent of the population. Females as a percentage of all participants were similar among provinces. Attendees of an average scorecard meeting in Tshopo were 27.1 percent female, while in Maniema they were 32.6 percent female. Within provinces there was significant variation, with Nord Ubangi having the widest range (Table 3.)

Table 3. Coverage of community scorecard intervention and percentage of participants by sex among ASSP-supported health areas.

	Facility participation		Estimated population participating		Female pa	articipants
Province	N	%	Mean %	Range	Mean %	Range
			Not	Not	Not	Not
Kasai Central	129	84.3	calculated	calculated	calculated	calculated
			Not	Not	Not	Not
Kasai	273	72.8	calculated	calculated	calculated	calculated
Maniema	133	91.7	1.0	0.2; 3.3	32.6	7.4; 57.1
Tshopo	54	100.0	1.4	0.2; 9.5	27.1	12.0; 48.1
Nord Ubangi	138	81.2	0.5	0.2; 1.3	29.6	0.0; 68.6
Total	727	81.0				

Source: ASSP project and DHIS2

In total, 68 health facilities were surveyed at baseline and endline. According to the DRC DHIS2, the majority (56) had participated in the scorecard exercise one time. None of the facilities in the sample had reported conducting a second community scorecard exercise. Among those facilities that participated, over half were in Maniema/Tshopo, the majority were in rural areas, and most were health centers/posts. Roughly one third had initiated the scorecard initiative each year from 2015 to 2017.

Table 4. Percentage of health facilities with select characteristics by simplified community scorecard participation status.

	No scorecard	Scorecard	p-value
Location			0.001
Nord Ubangi	83.3	42.9	
Maniema/Tshopo	16.7	57.1	
Setting			0.136
Rural	100.0	83.9	
Peri-urban	0.0	16.1	
Facility type			0.581
Health center/post	91.7	85.7	
Reference health center	8.3	14.3	
Year of scorecard meeting			
2015	N/A	37.5	
2016	N/A	32.1	
2017	N/A	30.4	
Total health facilities	12	56	68

Note: In total 70 health facilities were surveyed; however, the two that were hospitals were not included in the analyses. Statistical significance is considered at p<0.100.

Within surveyed health facilities, 185 health workers responded to a questionnaire. Among those working in facilities that had participated in the scorecard, the majority were in Maniema/Tshopo and in rural areas. No health workers in non-participating facilities were in peri-urban areas.

Table 5. Percentage of health workers with selected characteristics by simplified community scorecard participation status.

	No scorecard	Scorecard	p-value
Location			
Nord Ubangi	76.2	34.2	< 0.001
Maniema/Tshopo	23.8	65.9	
Setting			
Rural	100.0	83.5	0.044
Peri-urban	0.0	16.5	
Facility type			
Health center/post	90.5	77.4	0.168
Reference health center	9.5	22.6	
Age			
<24	0.0	1.8	0.216
25-34	4.7	20.7	
35-44	42.9	33.5	
45-54	47.6	28.7	
55-64	4.8	12.8	
65+	0.0	2.4	
Sex			
Female	23.8	23.2	0.948
Male	76.2	76.8	
Year of scorecard meeting			
2015	N/A	36.0	
2016	N/A	32.2	
2017	N/A	31.8	
Total health workers	21	164	

Note: Statistical significance is considered at p<0.050.

In total, information was collected on 2,855 households. Again, the majority of visits to scorecard facilities occurred in Maniema/Tshopo, and in rural areas. There were significant differences between patients in scorecard and non-scorecard sites across all measures assessed. Information on 862 outpatient visits to ASSP-supported facilities originating from these households was collected.

Table 6. Percentage of households in which members made outpatient visits to ASSP-supported health facilities with selected characteristics by simplified community scorecard participation status.

	No scorecard	Scorecard	p-value
Location			
Nord Ubangi	88.3	44.4	< 0.001
Maniema/Tshopo	11.8	55.6	
1			
Setting			
Rural	99.2	82.6	< 0.001
Peri-urban	0.8	17.4	
Facility type			
Health center/post	92.3	84.3	<0.001
Reference health center	7.7	15.8	
Age of head of household			
<24	7.5	5.5	0.002
25-34	22.4	20.8	*****
35-44	23.7	21.8	
45-54	16.2	18.1	
55-64	16.8	13.6	
65+	13.5	20.3	
Education of head of household			
No education	20.1	13.7	< 0.001
Some primary	33.1	23.5	
Completed primary	46.1	54.8	
Completed secondary	0.8	8.0	
Wealth quintile			
Low	42.3	19.5	<0.001
Low middle	27.1	17.3	
Middle	16.1	17.1	
High middle	10.9	17.7	
High	3.7	28.5	
Year of scorecard meeting			
2015	N/A	39.1	< 0.001
2016	N/A	30.7	
2017	N/A	30.2	
Total households	519	2,336	

Note: Statistical significance is considered at p<0.050.

b. Research objective 1: Monitor the implementation of the simplified community scorecard intervention and offer recommendations for strengthening the intervention's approach.

Quantitative results: Facility level

At baseline, there were no significant differences in the prevalence of formal meetings with the community or mechanisms for soliciting patient feedback between facilities that eventually participated in the scorecard activity and those that did not (Table 7).

Table 7. Measures of facility solicitation of community input at baseline by simplified community scorecard participation status.

	No scorecard	Scorecard	p-value
Formal meetings with community	50.0	57.1	0.651
Mechanism for soliciting patient	91.7	78.6	0.295
feedback			
Total facilities	12	56	

Note: Statistical significance is considered at p<0.100.

Table 8 shows the differences in the outcome measures between baseline and endline separately for scorecard facilities and non-scorecard facilities. Within non-scorecard facilities there was no change in the prevalence of formal meetings and a (non-significant) reduction in mechanisms for soliciting patient feedback. Scorecard facilities experienced increases in both measures, although again these differences were not statistically significant.

Table 8. Change in facility solicitation of community input between baseline and endline by simplified community scorecard participation status.

	No scorecard (n=12)				Scorecar	d (n=56)		
	2014 %	2017 %	dif	p-val	2014 %	2017	dif	p-val
						%		
Formal meetings	50.0	50.0	0.0	1.000	57.1	69.6	+12.5	0.170
with community								
Mechanism for	91.7	83.3	-8.4	0.537	78.6	89.2	+10.6	0.123
soliciting patient								
feedback								

Note: Statistical significance is considered at p < 0.100.

The difference-in-difference analysis found a positive but non-significant impact of the scorecard on both outcomes (Table 9).

Table 9. Impact of participation in the simplified community scorecard exercise on facility solicitation of community input (difference-in-difference).

	Marginal effect	SE	p-value
Formal meetings with	12.5	21.6	0.563
community			
Mechanism for soliciting patient	18.8	16.8	0.261
feedback			

Note: Table displays DID coefficients. Models controlled for domain, setting, and facility type. Each line represents a separate regression. Statistical significance is considered at p<0.100.

Within participating facilities, the likelihood that formal meetings with the community were held was significantly higher if the scorecard meeting had been held two years ago, compared with the last year (Table 10).

Table 10. Relationship between time since community scorecard exercise and facility solicitation of community input among participating facilities (reference category= less than one year).

	One	year	Two years		
	Marginal effect	p-value	Marginal effect	p-value	
Formal meetings with community	17.2	0.301	38.6	0.010	
Mechanism for soliciting patient feedback	16.7	0.187	Not estimable		

Note: Table displays DID coefficients. Models controlled for domain, setting, and facility type. Each line represents a separate regression. Statistical significance is considered at p<0.100.

Quantitative results: Community level

Two indicators of community engagement in health services were assessed: heads of households' satisfaction with healthcare in the community, and satisfaction with community involvement in health services. At baseline, there were no differences between scorecard and non-scorecard areas in the percentage who reported being "satisfied" or "very satisfied" with either measure (Table 11).

Table 11. Measures of community engagement in health services at baseline by simplified community scorecard participation status.

	No scorecard	Scorecard	p-value
Satisfaction with healthcare in the	72.0	67.2	0.152
community			
Satisfaction with community	39.8	44.2	0.217
involvement in health services			
Total households	519	2,336	

Note: Statistical significance is considered at p < 0.050.

Between baseline and endline, the percentage who were satisfied with community involvement in health services increased significantly in scorecard communities. No other significant changes in community engagement were observed (Table 12).

Table 12. Change in community engagement in health services between baseline and endline by simplified community scorecard participation status.

	No scorecard (n=519)			Scorecard (n=2,336)				
	2014 %	2017 %	dif	p-val	2014 %	2017 %	dif	p-val
Satisfaction with	72.0	65.0	-7.0	0.089	67.2	65.0	-2.2	0.265
healthcare in the								
community								
Satisfaction with	39.8	47.8	+8.0	0.072	44.2	51.6	+7.4	< 0.001
community								
involvement in								
health services								

Note: Statistical significance is considered at p < 0.050.

The difference-in-difference model found that the scorecard approach had a positive but non-significant impact on both measures of community engagement (Table 13).

Table 13. Impact of participation in the simplified community scorecard exercise on community engagement in health services (difference-in-difference).

	Marginal effect	SE	p-value
Satisfaction with healthcare in	4.7	4.8	0.323
the community			
Satisfaction with community	0.5	4.9	0.919
involvement in health services			

Note: Table displays DID coefficients. Models controlled for domain, setting, facility type, head of household sex, head of household education, and wealth quintile. Each line represents a separate regression. Statistical significance is considered at p < 0.050.

Among participating communities, levels of community engagement were not significantly correlated with the amount of time that had passed since the scorecard meeting was held (Table 14).

Table 14. Relationship between time since community scorecard exercise and measures of community engagement in health services among participating communities (reference category= less than one year).

	One	year	Two years		
	Marginal effect	p-value	Marginal effect	p-value	
Satisfaction with healthcare in the community	2.9	0.454	-6.2	0.113	
Satisfaction with community involvement in health services	-0.3	0.952	-7.2	0.084	

Note: Table displays marginal effects. Models controlled for domain, setting, facility type, head of household sex, head of household education, and wealth quintile. Each line represents a separate regression. Statistical significance is considered at p < 0.050.

Qualitative results

Participation and meeting description: Across all respondents there was an accurate understanding of the design of the community scorecard activity. Community members described being recruited either through personal invitations or by town criers. Facilitators, who were AC's or CODESA members, stressed that meetings were open to all members of the community and characterized the participants as diverse in terms of age, sex, tribal affiliation, and status in the community. Facilitators stated that they had not been instructed to target specific vulnerable groups. When asked whether any specific groups under-participated, the facilitators noted that very poor people who could not spare time away from work were unable to attend the meeting. Additionally, those who did not speak the common language were by nature excluded. One participant mentioned that some community members did not attend for fear of retaliation from health workers.

Community members explained that they were motivated to participate by several factors. Some wanted to change specific conditions at the health center, such as the unaffordability of services. Others had seen positive impacts from the ASSP project and wanted to be involved. Others simply came because they were invited. Health workers who participated described attending the meetings because they understood that the community was suffering, and they wanted to improve their services. Some health workers explained that they received limited professional evaluation and were therefore enthusiastic about the scorecard's assessment process. Others saw the scorecard as a way to partner with the community to magnify their advocacy. Not all health workers were as enthusiastic, however. One described being initially skeptical due to previous experience with initiatives led by international non-governmental organizations but changing his/her mind after realizing that this was a grassroots effort.

Participants were consistent in their descriptions of the meetings. In most cases an AC facilitated the meeting, beginning with an explanation of the approach. Next, participants were divided into smaller groups, typically of men, women, youth, pastors, community leaders, health workers. Each group scored the list of indicators and then returned to the large group to present and justify their scores. In a few cases, participants stated that this interface meeting did not occur or that they did not attend it. Those who did attend described the development of a joing action plan that was then posted at the health facility.

When community members were asked whether they would participate again in the future, responses were mixed. Some liked that the meeting made them more informed and committed to the health center.

"We envisage to participate again because these meetings open our minds. These meetings help us to get rid of former habits and lastly, these meetings educate us by giving us knowledge and information on problems that we were unable to solve." Women's focus group

Others cited the lack of compensation for the time spent as a reason for not continuing to participate, and that they had not seen benefit from their involvement.

"That is a waste of my time. On Sunday after church, instead of going to cook food for my children, I go to attend the meeting and I benefit from nothing. When sickness occurs, they ask me to pay a lot of money to the health center [the same] as everybody, without taking into account sacrifices I provide." Women's focus group.

All facilitators interviewed, whether ACs, CODESA members, *Médecins Chefs des Zones* (MCZs) or Implementing Partners (IPs) felt positively toward the scorecard approach and thought that it should continue. One IP mentioned that it was her favorite activity in the portfolio.

Community empowerment: When asked what positive impacts they had seen from the community scorecard initiative, community members described a newfound sense of the community's ownership of their health services. While many had previously regarded the health center as the jurisdiction of the head nurse, participating in the scorecard activity convinced them that the community also held responsibility. In one case the community organized a system of secret shoppers and patient follow-up to determine whether services were being delivered properly.

"The training has revealed to us that the health center is under the responsibility of the community. We do not need to focus only on bad things done by nurses. We need to endeavor to know how the activities of the health center are going. That is why, after the scorecard meeting, we are following up. When a sick person goes to the health center, we ask him to tell us how he was treated and if he has received medicine." Men's focus group

Health workers also expressed an understanding of community ownership of health services.

"They (the community) also did not know that they had the right to know what is happening in their [health] center. They did not know that they had to take control of their center, that it became their property and that they had to know if it worked or not. What was wrong with it, they also did not know, but thanks to the scorecard, they had light on their right to the center. They knew that the center belonged to them." Health worker focus group

This led to some concrete changes including the installation of latrines, water infrastructure and a new roof, the rehabilitation of a road leading to a health center, painting, and the purchase of privacy curtains, all carried out by communities themselves. In response to concerns about malnourished children, community members organized to donate food. At least one community began self-policing theft of health facility property.

"They are now aware that the community has the responsibility to thwart any deed of theft of properties belonging to the health center. They cannot dare because they know that we will alert young men...who can attack them." Women's focus group

c. Research objective 2: Track changes over time in the participating communities' perceptions of quality of health services, communities' utilization of health services, and real changes in the supplies, equipment, and services available at their health facilities, as well as describe the characteristics of a successful or unsuccessful site.

Quantitative results: Facility level

Table 15 compares baseline availability, quality and utilization measures between facilities that eventually participated in the scorecard activity and those that did not. Scorecard sites tended to be better off than non-scorecard sites; they had significantly higher volumes of consults, were more likely to have electricity and basic equipment, and charged higher user fees for normal deliveries. This may be related to accessibility, as facilities that were easier to reach are better equipped and more likely to have been reached by the scorecard initiative. To account for this, differences in changes over time, rather than absolute differences, are assessed using a difference-in-differences approach.

Table 15. Measures of availability, quality, and utilization of health services at baseline by simplified community scorecard participation status

	No scorecard	Scorecard	p-value
Scope of services			
Percentage of 13 services offered	53.8	63.2	0.012
(mean)			
Utilization			
Consults in last 12 months	1,222.9	2,317.3	0.052
Deliveries in last 12 months	144.5	179.0	0.389
User fees (FC)			
Antenatal care	400.0	292.7	0.357
Normal delivery	1,591.7	3,416.3	0.023
Sexually-transmitted infection	2,833.3	2,231.3	0.287
treatment			
Physical state of building			
Electricity	0.0	21.4	0.077
Drinking water	25.0	19.6	0.677
Sanitary toilet/latrine	16.7	12.5	0.699
Availability of drugs			
Drugs in stock on day of survey	40.2	37.4	0.467
Availability of equipment			
Equipment	31.7	32.5	0.889
Supplies	36.3	48.8	0.036
Family planning kits	8.3	11.8	0.619
Personal protective equipment	6.0	4.0	0.191
Transport	66.7	60.7	0.700
Total facilities	12	56	

Note: Statistical significance is considered at p < 0.100.

Table 16 shows changes in quality between baseline and endline separately for scorecard and non-scorecard facilities. Both scorecard and non-scorecard facilities saw significant improvements in consult volume, delivery volume, and the availability of personal protective equipment. Both also saw increases in antenatal care fees. Non-scorecard facilities, none of which had electricity at baseline, passed scorecard sites in the prevalence of electricity. Scorecard sites also experienced significant improvement in their scope of services offered, the availability of family planning kits, and the availability of drugs. Only one measure, availability of transport, decreased significantly in scorecard facilities.

Table 16. Change in availability, quality, and utilization of health services between baseline and endline, by simplified community scorecard participation status.

	No scorecard (n=12)				Scorecard (n=56)			
	2014	2017 %	dif	p-val	2014 %	2017 %	dif	p-val
Scope of								
services								
Percentage of	53.8	62.8	+9.0	0.060	63.2	69.0	+5.8	0.005
13 services								
offered (mean)								
Utilization								
Consults in last	1,222.9	2,854.8	+1,631.9	0.006	2,317.3	3,498.9	+1,181.6	0.007
12 months								
Deliveries in	144.5	265.3	+120.8	0.080	179.0	267.1	+88.1	0.002
last 12 months								
User fees (FC)								
Antenatal care	400.0	550.0	+150.0	0.061	292.7	500.0	+207.3	0.008
Normal delivery	1,591.7	1,545.5	-46.2	0.914	3,416.3	2,962.7	-453.6	0.321
STI treatment	2,833.3	3,122.7	+289.4	0.554	2,231.3	2,581.8	+350.5	0.222
Physical state								
of building								
Electricity	0.0	33.3	+33.3	0.028	21.4	19.6	-1.8	0.815
Drinking water	25.0	25.0	0.0	1.000	19.6	28.6	+9.0	0.269
Sanitary	16.7	16.7	0.0	1.000	12.5	23.21	+10.7	0.139
toilet/latrine								
Availability of								
drugs								
Drugs in stock	40.2	41.5	+1.3	0.837	37.4	41.4	+4.0	0.089
on day of								
survey								
Availability of								
equipment								
Equipment	31.7	36.7	+5.0	0.597	32.5	36.8	+4.3	0.219
Supplies	36.3	48.6	+12.3	0.150	48.8	54.2	+5.4	0.123
Family planning	8.3	16.7	+8.4	0.514	12.5	28.6	+16.1	0.015
kits								
Personal	8.3	63.7	+55.4	< 0.001	20.0	45.2	+25.2	<0.001
protective								
equipment								
Transport	66.7	33.3	-33.4	0.102	60.7	39.3	-21.4	0.023

Note: Statistical significance is considered at p<0.100.

The scorecard exercise was found to significantly increase the availability of personal protective equipment, and significantly decrease user fees for antenatal care relative to facilities without the scorecard.

Table 17. Impact of participation in the simplified community scorecard exercise on measures of availability, quality, and utilization of health services (difference-in-difference).

	Marginal effect	SE	p-value
Scope of services			
Percentage of 13 services	-3.2	4.3	0.462
offered (mean)			
Utilization			
Consults in last 12 months	-4.8	6.4	0.455
Deliveries in last 12 months	-0.3	0.7	0.701
User fees			
Antenatal care	-1.0	0.6	0.086
Normal delivery	-2.9	3.9	0.464
STI treatment	-0.8	3.1	0.798
Physical state of building			
Electricity	-139.3	20.1	<0.001
Drinking water	8.9	19.1	0.641
Sanitary toilet/latrine	11.2	16.8	0.504
Availability of drugs			
Drugs in stock on day of survey	2.8	6.2	0.653
Availability of equipment			
Equipment	1.2	11.4	0.920
Supplies	0.6	0.9	0.510
Family planning kits	0.2	19.2	0.994
Personal protective equipment	40.8	17.0	0.016
Transport	11.1	21.8	0.611

Note: Table displays DID coefficients. Models controlled for domain, setting, and facility type. Each line represents a separate regression. Statistical significance is considered at p<0.100.

Facilities that had conducted the scorecard meeting one year ago (i.e. in 2016) were more likely to have family planning kits and less likely to have personal protective equipment compared with those that had held a scorecard exercise in the last year (i.e. in 2017). (Table 18). Those facilities that had conducted the scorecard exercise two years ago were more likely to have drugs in stock, equipment, family planning kits, and a working method of transportation and less likely to have personal protective equipment than those that conducted the scorecard in the past year.

Table 18. Relationship between time since community scorecard exercise and availability, quality, and utilization of health services among participating communities (reference category= less than one year).

	One	year	Two y	ears
	Marginal effect	p-value	Marginal effect	p-value
Scope of services				
Percentage of 13 services	-2.3	0.285	-2.8	0.222
offered (mean)				
Utilization				
Consults in last 12 months	961.2	0.169	427.8	0.582
Deliveries in last 12 months	34.4	0.419	-36.7	0.457
User fees				
Antenatal care	*	*	*	*
Normal delivery	-543.9	0.315	-591.4	0.221
STI treatment				
Physical state of building				
Electricity	11.2	0.369	-2.4	0.833
Drinking water	-1.1	0.946	1.8	0.911
Sanitary toilet/latrine	-3.0	0.841	-1.4	0.927
Availability of drugs				
Drugs in stock on day of	4.4	0.245	7.8	0.069
survey				
Availability of equipment				
Equipment	6.0	0.253	13.3	0.046
Supplies	0.1	0.924	1.9	0.281
Family planning kits	63.8	< 0.001	45.2	< 0.001
Personal protective	-19.6	0.048	-26.0	0.010
equipment				
Transport	15.4	0.370	29.2	0.076

Note: Table displays DID coefficients. Models controlled for domain, setting, and facility type. Each line represents a separate regression. Statistical significance is considered at p < 0.100. * indicates that the model was not estimable.

Quantitative results: Health worker level

Health workers were asked to report their level of satisfaction with the availability of medicines, equipment, and supplies in their facility, as well as the condition of the building. At baseline, health workers in scorecard facilities were significantly less likely to be satisfied with the availability of medicines (Table 19).

Table 19. Measures of health workers' perceptions of quality at baseline by simplified community scorecard participation status.

	No scorecard (n=21)	Scorecard (n=164)	p-value
Condition of the building	40.9	38.4	0.824
Availability of medicines	27.3	9.6	0.020
Availability of equipment	9.1	15.2	0.450
Availability of supplies	13.6	12.8	0.914

Note: Statistical significance is considered at p < 0.050.

Between baseline and endline, health workers in scorecard facilities experienced significant improvement in their satisfaction with the availability of medicines and supplies. No significant improvements were observed among health workers in non-scorecard sites (Table 20).

Table 20. Change in health workers' perceptions of quality between baseline and endline, by simplified community scorecard participation status.

	No scorecard (n=21)			Scorecard (n=164)				
	2014 %	2017 %	dif	p-val	2014 %	2017 %	dif	p-val
Condition of	40.9	42.9	+2.0	0.897	38.4	42.1	+3.7	0.529
the building								
Availability of	27.3	33.3	+6.0	0.665	9.6	18.3	+8.7	0.038
medicines								
Availability of	9.1	23.8	+14.7	0.191	15.2	17.7	+2.5	0.574
equipment								
Availability of	13.6	38.1	+24.5	0.066	12.8	22.6	+9.8	0.034
supplies								

Note: Statistical significance is considered at p < 0.050.

No significant impacts of the scorecard approach on health workers' perceptions of quality were observed (Table 21).

Table 21. Impact of participation in the simplified community scorecard exercise on health workers' perceptions of quality (difference-in-difference).

	Marginal effect	SE	p-value
Condition of the building	3.8	16.0	0.814
Availability of medicines	2.5	9.7	0.795
Availability of equipment	-15.7	11.7	0.179
Availability of supplies	-6.4	11.2	0.572

Note: Table displays DID coefficients. Models controlled for domain, setting, facility type, age, and sex. Each line represents a separate regression. Statistical significance is considered at p<0.050.

Health workers at participating facilities were less likely to feel that their supplies were adequate if one year or two years had passed since the scorecard activity. They were also less likely to report that the equipment was adequate if two years had passed (Table 22).

Table 22. Relationship between time since community scorecard exercise and health workers' perceptions of quality among participating facilities (reference category= less than one year).

	One	year	Two years	
	Marginal effect	p-value	Marginal effect	p-value
Condition of the building	-16.7	0.074	-18.2	0.073
Availability of medicines	3.5	0.639	-10.6	0.106
Availability of equipment	-4.7	0.516	-18.3	0.002
Availability of supplies	-21.4	0.005	-28.6	< 0.001

Note: Table displays DID coefficients. Models controlled for domain, setting, facility type, age, and sex. Each line represents a separate regression. Statistical significance is considered at p<0.050.

Quantitative results: Community level

Heads of households were asked about the quality of outpatient visits made by members of their households to ASSP-supported facilities in the past four weeks. At baseline, there were significant differences in the percentages of visits in which equipment and the drug supply were reported to be adequate. In both cases, those living in scorecard communities reported worse conditions than those in non-scorecard communities.

Table 23. Measures of community members' perceptions of quality during outpatient visits at baseline by simplified community scorecard participation status.

	No scorecard	Scorecard	p-value
	(n=128)	(n=734)	
Did not sell or borrow money to	75.3	75.6	0.964
pay for health services			
Reported that facility was clean	44.9	38.7	0.402
Reported that drug supply was	66.1	40.1	<0.001
adequate			
Reported that equipment was	84.8	68.7	0.012
adequate			
Total visits	128	734	

Note: Statistical significance is considered at p<0.050.

The percentage of visits in which the facility was reported to be clean, and the percentage for which the patient did not sell possessions or borrow money to pay for services increased significantly in scorecard areas between baseline and endline. Non-scorecard areas saw similar increases in the percentage who could pay for services without borrowing or selling possessions (Table 24).

Table 24. Change in community members' perceptions of quality during outpatient visits between baseline and endline, by simplified community scorecard participation status.

	No scorecard (n=128)				Scorecard (n=734)			
	2014 %	2017 %	dif	p-val	2014 %	2017 %	dif	p-val
Did not sell or	75.3	96.3	+21.0	<0.001	75.6	94.8	+19.2	<0.001
borrow money								
to pay for								
health services								
Reported that	44.9	54.4	+9.5	0.310	38.7	59.8	+21.1	<0.001
facility was								
clean								
Reported that	66.1	60.9	-5.2	0.540	40.1	46.4	+6.3	0.084
drug supply								
was adequate								
Reported that	84.8	78.3	-6.5	0.349	68.7	74.1	+5.4	0.101
equipment								
was adequate								

Note: Statistical significance is considered at p < 0.050.

The difference-in-difference model found positive but non-significant impacts of the scorecard approach on community-reported measures of quality (Table 25).

Table 25. Impact of participation in the simplified community scorecard exercise on community members' perceptions of quality during outpatient visits (difference-in-difference).

	Marginal effect	SE	p-value
Did not sell or borrow money to	-8.2	9.1	0.364
pay for health services			
Reported that facility was clean	14.6	13.0	0.258
Reported that drug supply was	7.1	10.4	0.493
adequate			
Reported that equipment was	11.2	12.4	0.367
adequate			

Note: Table displays DID coefficients. Models controlled for domain, setting, facility type, head of household age, education level, and wealth quintile. Each line represents a separate regression. Statistical significance is considered at p < 0.050.

Patients were significantly more likely to report that the facility was clean during a recent visit if one year had passed since the scorecard meeting had been held, and more likely to report that the drug supply was adequate if two years had passed (Table 26).

Table 26. Relationship between time since community scorecard exercise and community members' perceptions of quality during outpatient visits among participating communities (reference category= less than one year).

	One	year	Two years	
	Marginal effect	p-value	Marginal effect	p-value
Did not sell or borrow money	1.0	0.726	-2.0	0.536
to pay for health services				
Reported that facility was	18.9	0.013	14.3	0.052
clean				
Reported that drug supply	2.1	0.595	7.8	0.049
was adequate				
Reported that equipment was	0.01	0.986	0.2	0.965
adequate				

Note: Table displays DID coefficients. Models controlled for domain, setting, facility type, head of household age, education level, and wealth quintile. Each line represents a separate regression. Statistical significance is considered at p < 0.050.

Qualitative results

Quality: Availability of medicines and supplies were the two most frequently-cited concerns of participants in the community scorecard process. Facility infrastructure, such as the construction of latrines, was also a major issue. Participants expressed that through the scorecard activity they had had mixed success in improving quality in these areas. On the topic of medicines, several communities had resolved to place orders earlier to avoid stock-outs, and some had negotiated for longer-lasting supplies of drugs to be delivered. In the absence of community effort some participants stated that they received that for which they had asked; however, given that ASSP was conducting many activities in the region it is unclear whether this was directly attributable to the scorecard.

A substantial number of participants stated that they had seen no change related to drugs, particularly when the issue was related to drug pricing. The situation was similar for supplies. Participants reported requesting items like hospital beds, supplies for delivery, and microscopes, as well as the rehabilitation of their facilities. In many cases, these requests had not been answered. This was frustrating for participants and facilitators for several reasons. Among these, participants were often under the impression that they would automatically be given what they requested.

"They said that through [the scorecard] project, the health center will be provided with a lot of medicine and thanks to this project, nurses will be paid, and they will be able to treat your children at low cost." Men's focus group

Further, there was typically no communication from higher levels of the health system to the scorecard participants and facilitators regarding the receipt and status of their requests. This was one of the most frequent critiques of the intervention and was often cited as a reason that one might not continue participating in future meetings.

"To enable the scorecard project to function properly, delay should be avoided in the accomplishment of our requests because the population gets encouraged when response is given to requests. That is to say, when no feedback is given to our requests, people get discouraged." Men's focus group

Scope of services: Overall, participants did not report to have requested changes to the scope of services provided with the exception in several sites of a desire for blood transfusion services. At the time of data collection, this had not been implemented. Expanded services for the care of malnourished children were added in at least one site. However, it was unclear if this was the result of the scorecard activities.

Utilization: All respondents asked about utilization claimed that it had stayed the same or increased as a result of the scorecard. In several sites, respondents explained that in the past, patients had gone directly to further health facilities or to hospitals or stayed home because of quality concerns at their local health facility. However, since the action plan was implemented community members had started coming back to their facility. In some cases, patients from neighboring villages began traveling to the scorecard facility as well.

"If [community members] get sick, they have to go to their health center. There are several centers, there are also private dispensaries here, but now they understand that what is here is for them. For example, a pregnant woman is going to attend antenatal care at the general hospital while we have made a requisition for her mosquito net that is still here... When she understands this, instead of going elsewhere,

she will decide to go to the center to take her mosquito net which is her right and the care that is there is also her right. They are beginning to understand."—Health workers' focus group

The reasons cited for increases included reductions in user fees and the willingness of health workers to accept guarantees of payment, or to collect payment after treatment. Participants also attributed improvement in sanitation to increased utilization, especially for antenatal care and delivery. Community members also felt that improvements in health worker attitudes and attendance at work contributed to increases in utilization; this will be discussed in detail later in this section.

d: Research objective 3: Assess unintended impacts of the intervention.

Quantitative results: Health worker level

Health workers were asked questions related to their satisfaction and motivation in their work. Four indicators related to the community scorecard approach were selected: whether the health worker felt respected by the community, whether the facility had a good reputation in the community, whether their job was a source of pride, and whether their salary was sufficient to meet their basic needs. The first three were quite high in both scorecard and non-scorecard facilities at baseline. In contrast, very small numbers of health workers reported that their salary met basic needs; in fact, no health workers in non-scorecard facilities did so at baseline (Table 27).

Table 27. Measures of health worker satisfaction and motivation at baseline by simplified community scorecard participation status.

	No scorecard	Scorecard	p-value
	(n=21)	(n=164)	
Respect from community	95.5	99.2	0.162
Facility reputation	90.9	88.0	0.694
Job is a source of pride	86.4	86.4	0.996
Salary meets basic needs	0.0	1.6	0.550

Note: Statistical significance is considered at p < 0.050.

Between baseline and endline, health workers in scorecard facilities had significant increases in reports that the facility had a good reputation in the community, and that their job was a source of pride. Similar increases were not observed among health workers in non-scorecard facilities (Table 28).

Table 28. Change in health worker satisfaction and motivation between baseline and endline, by simplified community scorecard participation status.

		No scorecar	d (n=21)	Scorecard (n=164)				
	2014 %	2017 %	dif	p-val	2014 %	2017 %	dif	p-val
Respect from community	95.5	95.2	-0.3	0.973	99.2	97.6	-0.6	0.290
Facility reputation	90.9	90.5	-0.4	0.961	88.0	95.1	+7.1	0.027
Job is a source of pride	86.4	85.7	-0.7	0.951	86.4	93.9	+7.5	0.030
Salary meets basic needs	0.0	4.8	+4.8	0.300	1.6	0.6	-1.0	0.411

Note: Statistical significance is considered at p < 0.050.

No significant impacts of the scorecard approach on health worker satisfaction and motivation were observed (Table 29).

Table 29. Impact of participation in the simplified community scorecard exercise on health worker satisfaction and motivation (difference-in-difference).

	Marginal effect	SE	p-value
Respect from community	3.2	4.1	0.432
Facility reputation	7.7	8.3	0.355
Job is a source of pride	8.0	9.0	0.374
Salary meets basic needs	*	*	*

Note: Table displays DID coefficients. Models controlled for domain, setting, facility type, age, and sex. Each line represents a separate regression. Statistical significance is considered at p < 0.050. * indicates that the model was not estimable.

Health workers at participating facilities were significantly less likely to report that they were respected in the community if it had been at least one year since the scorecard meeting (Table 30).

Table 30. Relationship between time since community scorecard exercise and health worker satisfaction among participating facilities (reference category= less than one year).

	One	year	Two years		
	Marginal p-value effect		Marginal effect	p-value	
Respect from community	-10.6	< 0.001	-10.3	< 0.001	
Facility reputation	-5.1	0.314	*	*	
Job is a source of pride	-14.2	0.050	-0.3	0.948	
Salary meets basic needs	*	*	*	*	

Note: Table displays DID coefficients. Models controlled for domain, setting, facility type, age, and sex. Each line represents a separate regression. Statistical significance is considered at p < 0.050. * indicates that the model was not estimable.

Quantitative results: Community level

The survey had several questions designed to solicit levels of community satisfaction with health worker and CODESA performance. All surveyed heads of households were asked whether a CODESA was operating in their community. At baseline, a significantly higher proportion of respondents in scorecard communities reported that there was a CODESA. Information was also collected on visits to ASSP-supported health facilities, specifically, satisfaction with wait times and provider explanations. No significant differences in these measures were observed at baseline (Table 31).

Table 31. Measures of community satisfaction with CODESA and health worker performance at baseline by simplified community scorecard participation status.

	No scorecard (n=519)	Scorecard (n=2,336)	p-value
Knowledge of a CODESA operating in the community	31.8	48.6	<0.001
	No scorecard (n=128)	Scorecard (n=734)	p-value
Satisfaction with wait time	88.1	80.9	0.182
Satisfaction with provider explanation	72.9	68.1	0.464

Note: Statistical significance is considered at p < 0.050.

Knowledge that a CODESA was operating in the community increased significantly in scorecard communities between baseline and endline. No significant changes were observed in non-scorecard communities (Table 32).

Table 32. Change in community satisfaction with CODESA and health worker performance between baseline and endline, by simplified community scorecard participation status.

	No scorecard (n=519)			Scorecard (n=2,336)				
	2014 %	2017 %	dif	p-val	2014 %	2017 %	dif	p-val
Knowledge of a CODESA operating in the community	31.8	39.4	+7.6	0.075	48.6	54.2	+5.6	0.007
		No scorecard (n=128)			Scorecard (n=734)			
	2014 %	2017 %	dif	p-val	2014 %	2017 %	dif	p-val
Satisfaction with wait time	88.1	79.7	-8.4	0.199	80.9	81.4	+0.5	0.869
Satisfaction with provider explanation	72.9	71.0	-1.9	0.815	68.1	71.2	+3.1	0.369

Note: Statistical significance is considered at p < 0.050.

The difference-in-difference model did not detect significant impacts of the scorecard approach on community satisfaction with CODESA and health worker performance (Table 33).

Table 33. Impact of participation in the simplified community scorecard exercise on community satisfaction with CODESA and health worker performance (difference-in-difference).

	Marginal effect	SE	p-value
Knowledge of a CODESA	-1.2	5.1	0.818
operating in the community			
Satisfaction with wait time	12.7	10.8	0.237
Satisfaction with provider	8.1	11.9	0.498
explanation			

Note: Table displays DID coefficients. Models controlled for domain, setting, facility type, head of household age, education level, and wealth quintile. Each line represents a separate regression. Statistical significance is considered at p < 0.050.

Within participating communities, heads of households were less likely to report that a CODESA was operating in their community if the scorecard meeting had been held two years ago than if it had been held in the past year (Table 34).

Table 34. Relationship between time since community scorecard exercise and community satisfaction with CODESA and health worker performance among participating communities (reference category=less than one year).

	One	year	Two years		
	Marginal p-value effect		Marginal effect	p-value	
Knowledge of a CODESA operating in the community	-6.9	0.092	-13.1	0.001	
Satisfaction with wait time	3.9	0.470	-2.4	0.648	
Satisfaction with provider explanation	5.7	0.282	5.1	0.316	

Note: Table displays DID coefficients. Models controlled for domain, setting, facility type, head of household age, education level, and wealth quintile. Each line represents a separate regression. Statistical significance is considered at p < 0.050.

Qualitative results

Health worker motivation and satisfaction: As one might expect, health workers' reactions to the scoring exercise varied. In general, the health workers appeared unaccustomed to receiving feedback on their performance, particularly from the community.

"They [the nurses] feared. It was like unexpected icy water poured over them." -Men's focus group

When scores were high, health workers were naturally happy for the feedback. When scores were low, some, particularly trainees, accepted it gracefully. Others became upset. In one community, it was reported that since the scorecard meeting, health workers had been absent from work because they were upset. In another, the head nurse became quite angry during the meeting (the MCZ independently mentioned that this particular nurse had a temper) but that after the meeting his attitude improved. Both community members and health workers pointed out that in general, the health workers' self-assessment scores were worse than those given to them by the community.

A frequently-cited reason for the health workers' negative reaction was the fact that they had not been paid. It frustrated them to be criticized when they saw themselves as working for free.

"The health staff said also that you want us to treat you free of charge so that we go back home with empty hands and die of hunger with our children! And they concluded saying that 'if we were paid well, we would be able to work as needed.'" Women's focus group

However, in some cases health workers viewed the scorecard as an opportunity to have the community advocate on their behalf for the payment of their salaries and for the problems that they faced at the health center to be solved. This was particularly true for problems that were not within the health workers' ability to address.

"We felt the joy when that we will be well supported, we will be supported... When we have learned about the scorecard project, it was felt that if the population has pleaded for us, we will be well-supported...that first of all it starts with the community."—Health worker focus group

Most respondents agreed that the scorecard activity had improved relations between health workers and the community. One health worker raved that while previously only the CODESA had visited them, now every day community members stopped by to see how things were going. The improvements were on both sides of the relationship. Health workers reported to better understand their role within the community, while community members gained an appreciation for the struggles that the health workers faced.

Community members in multiple locations mentioned an improvement in clinic hours of operation. Schedules were set and posted, nurses were more punctual, and patients began to be received at night and on weekends. Health workers were also reported to be acting more courteously toward patients. In one case, family members began to be allowed to accompany patients in the clinic, something that the respondents seemed to appreciate.

Role, responsiveness, and community perceptions of the CODESA: Community members and health workers who discussed the CODESA felt that it had become more efficient and effective since the start of ASSP. In some cases, the scorecard motivated the CODESA to be more involved in cleaning and

maintaining the health facility. CODESA members themselves appreciated the data generated by the scoring exercise and the additional empowerment that they gained from the discussions.

"I am happy because before the scorecard, we lacked the means to survey the activities of the health center, notably to know what quantity of medicines is received, used, and available. We were especially unable to know how medicines get out. Now, the scorecard has given us the possibility to follow up and keep under scrutiny the activities of the health center so as to know how patients are receiving healthcare, if they comply with user fees or not. This is a good thing that the community has benefited from the scorecard."—CODESA focus group

CODESA members expressed two main complaints about the scorecard design. First, they felt somewhat excluded from the process, as their role was primarily to recruit and help with facilitation rather than to participate in the scoring. They also expressed a desire not only to report on indicators, but to offer recommendations to higher levels of the health system.

"We cannot be happy to give only information. We should also do the follow up, [make] recommendations." –CODESA focus group

Relations, responsiveness and resources provided at the health zone administrative level: One of the MCZs interviewed was very knowledgeable and enthusiastic about the scorecard. It should be noted that this person was oriented to the approach by IP and ASSP staff. The other MCZs were educated by the AC's, typically because they had started in their positions after the approach was implemented. While all expressed support for the scorecard activity, only one received regular reports from the health areas. Several MCZs mentioned that the community's requests were aimed at differing levels of the health system and that often the MCZ was not able to assist. One also suggested that the ECZ be included in the scorecard approach. The MCZ who was engaged in the project stated that there was a clear difference between areas that had participated in the scorecard and those that had not.

"Yes, there is a difference. The difference is significant in view of the fact that today if you go to the health areas where there is a scorecard, the participants have a clear explanation of the health center. They know it is theirs. As it is theirs, they must ensure that...these assets are well-kept for their use." – MCZ interview

e. Emerging theme: sustainability

Respondents discussed whether they thought that the community scorecard process would be sustained, even in the event that donor support ended. Opinions among the different groups who participated varied. Community members were cautiously optimistic. A few were convinced that the scorecard would continue, while more felt that it would only continue if the community saw results. Respondents stressed the importance of being fully prepared to continue the scorecard after donor support ended.

"I give an example of prophet Elijah and his substitute Elisha. The latter told the former, 'my lord, even if you want to move away, leave me your coat.' Even if the Partners want to remove the scorecard, at least it should deepen what it has already built so that we can keep our promises to the health center. Clearly, if the Partner wants to go we need to be prepared seriously, so that we will be able to continue by ourselves."-Men's focus group

When asked whether they personally would attend another scorecard meeting, most said that they would, citing a reliance on health services, commitment to their health center, and a desire for knowledge as the motivating factors. A small number stated that they would not attend because they had not been compensated for their time or had not seen any impact.

Health workers in one location were optimistic about the sustainability of the scorecard because they had already seen impacts.

"Yes, it's sustainable. Because for us here, we have already had the effects. Could we possible forget it? We cannot forget. Everything will remain of the scorecard."-Health worker focus group

In one location, the health workers were planning to help spread the concept to neighboring villages.

"Yes, recently we spoke with the president of the CODESA to see about the possibility of taking the scorecards and going to organize meetings in other villages." -Health worker focus group

Other health workers expressed hope that it would be sustained, but cautioned that this was reliant on the scorecard producing results.

AC's in three locations discussed sustainability, and in all of these instances thought that the scorecard would continue. One saw it as an extension of the well-established CODESA structure, one explained that the data generated by the scorecard was too valuable to stop, and the third felt that more meetings would be held because only a percentage of the recommended improvements had been made.

CODESA members were quite mixed in their assessments of sustainability. Responses ranged from those who thought it would definitely continue, to those who felt it would only continue if results were achieved, to those who stated that it depended on stakeholders outside of the community to be sustained.

"Yes, if and only if everybody, notably the partners, the health zone, the health center, and the community could get involved and keep on working hand in hand with only one objective, it can last. Still, if the others are there just to push without doing anything, people will get tired."-CODESA focus group

MCZs were the least positive about the sustainability of the scorecard without donor support. One, the most engaged of the MCZs, thought that the activity would require outside facilitation for at least two years

before it took root in the community. Another explained that without financial support for the ACs and other facilitators, it would not continue. A third expressed hope that the scorecard would be sustained, but did not say whether s/he thought that it would.

Finally, most implementing partner staff stated that sustainability was their goal in designing and administering the scorecard approach. They differed in their assessments of whether they would be successful in this. One said that when communities were addressing problems themselves it would be evidence that the approach would be sustained. Another felt that the scorecard would stop because of weaknesses within the health system.

"Well, I think that if the project is no longer there, [the scorecard] will stop. Because we do not have really dynamic partners who could help us keep the scorecard going. In any case I do not see [it happening] ... This vision of things will stay at the level of the community and even at the level of the providers perhaps. But at the level of our DPS, I do not think so. This idea can stay, but not the activity... I have traveled with other partners for the scorecard assessment, but when they file their reports at the partner level and at the DPS... If I went to ask them about this release, they may even say they do not know about this scorecard activity... You see, the people we work with together do not help us."-Implementing partner interview.

4. Conclusion and recommendations

Implementation and participation: The community scorecard approach appears to have been well-received by facilitators, community members, and most health workers. Descriptions of the initial rounds of scorecard meetings closely matched ASSP's design. No evidence of purposeful exclusion of community members, either from attending or participating in meetings, based on sex, ethnicity, or social status was observed. However, women were proportionally underrepresented in attendance. Further, the design of the intervention necessarily limits the types of people who are able to participate, and facilitators are not prioritizing the very poor or linguistic minorities in their outreach efforts. Project leadership should determine whether it is a priority that all sections of society actively participate in the scorecard activity. If it is, this expectation should first be communicated to facilitators. The design of the scorecard approach should then be altered to overcome the barrier that the very poor have to engaging in unpaid activities, and seek to be inclusive to those who do not speak the common language. Both of these are areas in which communities could develop locally-relevant solutions if encouraged.

Meeting frequency: Respondents overwhelmingly reported that meetings should be held more than once per year. The recommended frequencies varied from every six months to monthly. The project could encourage communities to set their own meeting schedules, perhaps asking participants to recommend a date for the next meeting at the end of each scorecard exercise. This puts the responsibility in the hands of the community rather than leaving them to wonder when the next meeting will occur.

Scorecard indicators: While most respondents were satisfied with the eleven indicators listed on the scorecard, a few had suggestions for new indicators related to provider remuneration and gender. While the scorecard document has lines on which to add new indicators, this option could be reinforced and formalized within the approach. The project could choose to go further by providing groups with objective standards for service delivery (for example, national guidelines) and facility-specific data, as well as comparison with their peer facilities, as was done in the Tuungane project, to allow for more evidence-based priority setting. This proposal was not raised during data collection but has been successful in fostering empowerment in other settings.

Impact on scopes of service, quality, and utilization: Quantitative analysis did not detect an impact of the scorecard approach on facility-level indicators of scopes of service, service delivery, or quality, either from the perspective of health workers, community members, or objective assessments via health facility surveys, with the exception of personal protective equipment. Significant negative impacts on electricity and antenatal care was found; however, these were likely anomalies as there is no reason to suspect that the scorecard would have prevented facilities from having either. Unadjusted comparisons showed that locations that had participated in the scorecard tended to experience significant improvement more often that non-scorecard sites. However, scorecard sites were not selected randomly and so it cannot be ruled out that these sites received more attention from ASSP overall, perhaps being more physically accessible or open to ASSP's intervention. Overall, though, all locations in the analysis were receiving some amount of ASSP support, which may obscure the incremental impact of the scorecard approach. An evaluation of a community scorecard intervention in a setting in which no other intervention was occurring would likely show stronger impact.

Impact on empowerment: Qualitative analysis found that participants saw improvements in health services, and that those impacts were concentrated at the levels at which the community or health workers had direct control (e.g. painting, cleaning, hours of operation, health worker attitudes). This phenomenon was observed in the Tuungane evaluation as well. Requests that required action at higher levels of the health system (e.g. medicines, supplies, staffing, health worker remuneration) were less successful. Some of the positive results reported may have been part of the ASSP project's other activities rather than a direct result of requests made through the scorecard process.

In general, there was disagreement among stakeholders as to whether the joint action plan should primarily consist of actions the community and facility could take together, or if it should also be used for advocacy to higher levels. In practice, communities did attempt to appeal to higher levels of the health system. However, in some cases the recipients of those appeals were disengaged. Knowledge and support for the scorecard varied among MCZs. Some were champions of the approach while some could not describe it. Requests stalled in the various levels of approval needed to make changes. Further, it was not clear whether IMA was simply a facilitator of the scorecard approach or the target of an empowered community. At least one IP stated that the goal of the approach was for communities to help themselves. IMA is not listed as an actor in the approach's Theory of Change. However, respondents spoke more often of their appeals to IMA than they did to the governmental health system.

Project leadership should provide clarity on the level(s) at which the action plan should focus. If actions are to be limited to the local level, this should be communicated to participants and the indicators that are not within local control should be removed from the scorecard. If the community is expected to appeal to higher levels of the health system, which communities will understand to include IMA, then more engagement at the health zone, province, and IP levels should be fostered and these stakeholders should be encouraged to attend scorecard meetings. In terms of advocacy, as many communities' requests are similar, project leadership should consider aggregating scorecard data for presentation to higher levels of the health system so that multiple sites advocate together.

Impact on provider motivation and satisfaction: The majority of health workers supported the scorecard approach. Community members corroborated this and observed that health workers seemed to appreciate the joint problem-solving and advocacy. The main barrier to full participation by health workers was a lack of remuneration; this led to resentment at being asked to do more than was already being done. Although significant program impacts were not detected, measures of health worker satisfaction tended to improve in scorecard sites (with the exception of sufficient salary), and community members' satisfaction with health worker performance also improved significantly. A few cases of sustained negative attitudes among health workers were reported. Fostering buy-in among MCZs might mitigate this, as the expectation of community responsiveness becomes and expectation of one's job, as would the regular payment of health worker salaries.

Sustainability of the approach: There were mixed perspectives among stakeholders about whether the scorecard approach would continue without project support. Community members and health workers were enthusiastic, but this enthusiasm seemed vulnerable to disillusionment if positive changes were not seen. The fact that change comes slowly in the DRC should be mitigated if the approach is to continue. Sustainability may be improved if a formalized process is developed to give communities acknowledgement and regular feedback on the status of their requests. Further, educating participants and facilitators on the

decision-making process and the levels at which specific types of decisions are made may decrease frustration when results are not quickly realized. MCZs and IPs were less optimistic about the future of the scorecard, but suggested that several rounds of facilitation and improved engagement at the health zone and provincial levels would improve its chances.

The analysis of the impact of time since the scorecard meeting found that some indicators seem to peak in the year that the scorecard meeting is held. For example, health workers' assessments of sufficiency of supplies and respect among the community declined as years passed. Other indicators take time to be realized. For example, the availability of drugs, equipment, and transport in the facility, as well as the prevalence of formal meetings with the community was significantly higher two years after the scorecard meeting. While these results may be contaminated by the other activities of the ASSP project, they support the idea that participants could be encouraged by "quick wins" if expectations about the length of time needed to accomplish other changes are managed.

Theory of Change: The community scorecard approach relies on five assumptions:

- 1. The CODESAs will ensure that the community scorecard is applied every year. None of the communities in the quantitative data had reported conducting a second scorecard meeting. Those visited 12 months after the initial meeting had not yet had a repeat meeting. As suggested, putting meeting schedules in the hands of the community may improve frequency of meetings, and holding them more often may provide momentum. However, the funding for facilitators to travel to meetings appears to be a limiting factor.
- 2. Communities will understand and accept to apply health service rating process. This assumption was supported in the evaluation.
- 3. Communities and healthcare providers can agree on a common action plan to address the issues related to healthcare service quality and delivery. This assumption was also supported in the evaluation. There were no reports of conflict preventing the development of the joint action plan.
- **4.** Healthcare providers and BCZ will accept the recommended actions and will have the flexibility to take action. Health workers did take action based on the recommendations. Their ability and willingness to do so, however, was tempered by resentment about unpaid salaries. BCZs' level of responsiveness varied and in some cases, they were unable to grant requests but had to escalate them to higher levels.
- 5. Communities underutilize healthcare services due to their perceived poor quality. Poor quality appeared to limit utilization, particularly among pregnant women. The cost of services and collections practices also appeared to contribute to underutilization.

Going forward, the Theory of Change should be updated to reflect decisions about inclusivity of vulnerable groups, the level(s) at which the joint action plan is targeted, and the role of IMA. The limiting factors identified in the evaluation, many of which were financial (the cost of facilitating meetings, opportunity cost of attendance for very poor community members, and health worker resentment due to unpaid salaries) should be incorporated and addressed if possible.

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Appendix A: ASSP Simplified Community Scorecard

PROVINCE DE	:	
District de	:	
ZONE DE SANTE DE	:	
Modérateur :		
Fonction :		
	BULLETIN COMMUNAUTAIRE DE PERFORMANCE (BCP) FICHE DE COTATION DE GROUPE	
	(A)	
Groupe:	Date/Site	Aire de santé :

No				COTE			
	INDICATEUR	Médiocre 1	Mauvaise 2	Acceptable 3	Bonne 4	Très Bonne 5	EXPLICATIONS
1	Disponibilité des médicaments essentiels au CS et des Fournitures						
2	Matériels disponibles au CS						
3	Etat physique des bâtiments						
4	Propreté des bâtiments et des environs						
5	Possibilité d'être soigné hors des regards des autres personnes (intimité)						
6	Compétences techniques des prestataires						
7	Présence et ponctualité des prestataires au service						
8	Accueil et attitudes des prestataires par rapport aux patients						
9	Discretion et Confidentialité des prestataires						
10	Les prestataires méritent le respect et la confiance de la population						
11	Les tarifs sont abordables						
12							
13							

Nom & Signature du Modérateur

Nom & Signature du Rapporteur

Appendix B: Interview and Focus Group Guides

Simplified Community Scorecard Discussion Guide

Men's and Women's Focus Groups Visit 1

Part A: Background

Introduction to the Community

- o Tell me about the people who live in this area. (Probe: occupations, ethnicity, religion.)
- What are some occasions that bring big groups of people together in this area? How many people usually attend? (Probe: holidays, weddings, funerals, religious events)
- Are there any groups of community members who are organized to improve things in this area? What do they do? (Probe: church groups, women's groups, youth groups, community councils)

Quality and Utilization of Health Services

- Tell me about the health center in this area. (Probe: what services does it offer? What is its reputation?)
- What are the main reasons why someone in this area might not go to the health center when they are sick or injured? (Probe: would someone avoid the health center because of poor quality?)
- o How would you describe "good health care?"
- o How does the quality of your health center compare with other health centers in your province? How do you know?
- How does the quality of your health center today compare with its quality a year ago? What has changed, if anything?
- o Is there a CODESA in this area? What do they do?

Community Empowerment

- Who should be responsible for making decisions about the health center? (Probe: the providers? The entire community? Only certain community members? Someone else?) Why?
- o In reality, who is responsible for making decisions about the health center? Why?
- On the health workers at your health center listen to the community's concerns? Should they listen to them? Why or why not?
- O health workers face any negative consequences if they do not listen to the community's concerns? What are they? If no, should they?
- o In the last year, what has the community done to improve the health center, if anything? How did this come about?

Part B: Simplified Community Scorecard Program

Implementation

- o How was the project introduced to you? Who initially introduced the project activities?
- o What were you told about the project?
- What factors contributed to your decision to participate?
- Please describe the community meeting that you attended. What went well? What didn't go well? (Probe: who facilitated the meeting?)
- o Please describe the interface meeting that you attended. What went well? What didn't go well?

Participation

- O How would you describe the group that attended the community meeting, and the interface meeting? (size of group, gender, age, ethnicity, occupation, family membership) Are there any groups who did not participate?
- How would you describe those who participated (spoke up) during the community meeting, and the interface meeting? Are there any groups who did not participate?
- What do you think are the main reasons why someone might not attend a scorecard meeting?
- What do you think are the main reasons why someone might not participate in a scorecard meeting, even though they are in attendance?
- o How long do you think you will continue to attend scorecard meetings in the future? Why?

Outcomes: Empowerment

- o How has the scorecard activity changed the relationship between the community and health workers?
- Has the scorecard activity resulted in any changes within the community itself?

Outcomes: Quality and Utilization

- o How has the quality of health services in your community changed as a result of the scorecard meetings, if at all? How and why has it changed?
- What new services are being offered as a result of the scorecard meetings, if any?
- How have the scorecard meetings affected people's willingness to visit the health center, if at all?
 Please explain.
- Were there changes recommended that are not being made? What are the reasons they are not being made?

Outcomes: Secondary Effects

- o How do you think the health workers feel about participating in scorecard meetings? Why?
- o How did the providers react to low scores on the scorecard? Please explain.
- o How has the scorecard process affected providers' morale at work, if at all? Please explain.
- o How has the role of the CODESA changed since the beginning of the scorecard program? Do you feel that the CODESA is more or less effective? Please explain.
- o Have there been any other effects from the project that we have not discussed?

Assessment and Recommendations

- o Are you satisfied with the scorecard program? Please explain.
- What are the overall limitations or weaknesses of the project?
- o Do you have any suggestions regarding ways to improve the project activities?
- Are there items that you would like to see added to or removed from the scorecard? What are they? Why would you recommend these changes?
- How often do you think that scorecard meetings should be held? Do you think that scorecard activities can be sustainable over the long-term? Why?
- Are there other ways that would be more successful in improving the quality of health services and/or increase use of the health facility? What are they?

Simplified Community Scorecard Discussion Guide

Men's and Women's Focus Groups Visit 2

Part A: Background

Quality and Utilization of Health Services

- Tell me about the health center in this area. (Probe: what services does it offer? What is its reputation?)
- What are the main reasons why someone in this area might not go to the health center when they are sick or injured? (Probe: would someone avoid the health center because of poor quality?)
- o How would you describe "good health care?"
- o How does the quality of your health center compare with other health centers in your province? How do you know?
- How does the quality of your health center today compare with its quality six months ago? What has changed, if anything?
- o Is there a CODESA in this area? What do they do?

Community Empowerment

- Who should be responsible for making decisions about the health center? (Probe: the providers? The entire community? Only certain community members? Someone else?) Why?
- o In reality, who is responsible for making decisions about the health center? Why?
- On the health workers at your health center listen to the community's concerns? Should they listen to them? Why or why not?
- o Do health workers face any negative consequences if they do not listen to the community's concerns? What are they? If no, should they?
- o In the last six months, what has the community done to improve the health center, if anything? How did this come about?

Part B: Simplified Community Scorecard Program

Implementation

- o How many community scorecard meetings have been held in your community?
- O When will the next meeting be held?
- Who is responsible for calling a meeting? How will you be notified that it is happening?

Participation

- o How long do you think you will continue to attend scorecard meetings in the future? Why?
- o Do you think that the number of people who participate will increase or decrease over time? Why?
- o Do you think there are any groups who will not want to participate? Who are they, and why?

Outcomes: Empowerment

- o How has the scorecard activity changed the relationship between the community and health workers?
- o Has the scorecard activity resulted in any changes within the community itself?

Outcomes: Quality and Utilization

- O How has the quality of health services in your community changed as a result of the scorecard meetings, if at all? How and why has it changed?
- o What new services are being offered as a result of the scorecard meetings, if any?
- How have the scorecard meetings affected people's willingness to visit the health center, if at all?
 Please explain.
- Were there changes recommended that are not being made? What are the reasons they are not being made?
- o How is the community kept informed of the health center's progress on the recommendations?

Outcomes: Secondary Effects

- o How has the scorecard process affected providers' morale at work, if at all? Please explain.
- o How has the role of the CODESA changed since the beginning of the scorecard program? Do you feel that the CODESA is more or less effective? Please explain.
- Have there been any other effects from the project that we have not discussed?

Assessment and Recommendations

- o Are you satisfied with the scorecard program? Please explain.
- What are the overall limitations or weaknesses of the project?
- o Do you have any suggestions regarding ways to improve the project activities?
- Are there items that you would like to see added to or removed from the scorecard? What are they? Why would you recommend these changes?
- o How often do you think that scorecard meetings should be held? Do you think that scorecard activities can be sustainable over the long-term? Why?
- Are there other ways that would be more successful in improving the quality of health services and/or increase use of the health facility? What are they?

Simplified Community Scorecard Discussion Guide

Provider Focus Group Visit 1

Part A: Background

Quality and Utilization of Health Services

- o Tell me about your health center. (Probe: what services does it offer? What is its reputation?)
- What are the main reasons why someone in this area might not go to the health center when they are sick or injured? (Probe: would someone avoid the health center because of poor quality?)
- o How would you describe "good health care?"
- O How does the quality of your health center compare with other health centers in your province? How do you know?
- How does the quality of your health center today compare with its quality a year ago? What has changed, if anything?
- o Is there a CODESA in this area? What do they do?

Community Empowerment

- Who should be responsible for making decisions about the health center? (Probe: the providers? The entire community? Only certain community members? Someone else?) Why?
- o In reality, who is responsible for making decisions about the health center? Why?
- o Is there a way for the community to express their feedback on their health services? What do you do with that feedback?
- O po you face any negative consequences if you do not listen to the community's concerns? What are they?
- o In the last year, what has the community done to improve the health center, if anything? How did this come about?

Part B: Simplified Community Scorecard Program

Implementation

- o How was the project introduced to you? Who initially introduced the project activities?
- o What were you told about the project?
- What factors contributed to your decision to participate?
- Please describe the provider meeting that you attended. What went well? What didn't go well? (Probe: who facilitated the meeting?)
- o Please describe the interface meeting that you attended. What went well? What didn't go well?

Participation

- Please describe your supervisor's level of support for your participation in the community scorecard process?
- o To what extent are you expected to take the community's input into account?
- o Are you paid for the time spent in scorecard meetings?

Outcomes: Empowerment

- o How has the scorecard activity changed the relationship between the community and health workers?
- o Has the scorecard activity resulted in any changes within the community itself?

Outcomes: Quality and Utilization

- O How has the quality of services at your health center changed as a result of the scorecard meetings, if at all? How and why has it changed?
- What new services are being offered as a result of the scorecard meetings, if any?
- How have the scorecard meetings affected people's willingness to visit the health center, if at all?
 Please explain.
- Were there changes recommended that are not being made? What are the reasons they are not being made?

Outcomes: Secondary Effects

- How do you feel about participating in scorecard meetings? Why?
- O How has the scorecard process affected your morale at work, if at all? Please explain (Probe: Does it motivate them to do better, or discourage them? Do they resent having to listen to community members?)
- How has the role of the CODESA changed since the beginning of the scorecard program? Do you feel that the CODESA is more or less effective? Please explain.
- o Have there been any other effects from the project that we have not discussed?

Assessment and Recommendations

- o Are you satisfied with the scorecard program? Please explain.
- What are the overall limitations or weaknesses of the project?
- o Do you have any suggestions regarding ways to improve the project activities?
- Are there items that you would like to see added to or removed from the scorecard? What are they? Why would you recommend these changes?
- How often do you think that scorecard meetings should be held? Do you think that scorecard activities can be sustainable over the long-term? Why?
- O Are there other ways that would be more successful in improving the quality of health services and/or increase use of the health facility? What are they?

Simplified Community Scorecard Discussion Guide

Provider Focus Group Visit 2

Part A: Background

Quality and Utilization of Health Services

- o Tell me about your health center. (Probe: what services does it offer? What is its reputation?)
- What are the main reasons why someone in this area might not go to the health center when they are sick or injured? (Probe: would someone avoid the health center because of poor quality?)
- o How would you describe "good health care?"
- O How does the quality of your health center compare with other health centers in your province? How do you know?
- How does the quality of your health center today compare with its quality six months ago? What has changed, if anything?
- o Is there a CODESA in this area? What do they do?

Community Empowerment

- Who should be responsible for making decisions about the health center? (Probe: the providers? The entire community? Only certain community members? Someone else?) Why?
- o In reality, who is responsible for making decisions about the health center? Why?
- o Is there a way for the community to express their feedback on their health services? What do you do with that feedback?
- O po you face any negative consequences if you do not listen to the community's concerns? What are they?
- o In the last six months, what has the community done to improve the health center, if anything? How did this come about?

Part B: Simplified Community Scorecard Program

Implementation

- o When will the next meeting be held?
- Who is responsible for calling a meeting? How will you be notified that it is happening?

Participation

- Please describe your supervisor's level of support for your participation in the community scorecard process?
- o To what extent are you expected to take the community's input into account?

Outcomes: Empowerment

- O How has the scorecard activity changed the relationship between the community and health workers?
- o Has the scorecard activity resulted in any changes within the community itself?

Outcomes: Quality and Utilization

- O How has the quality of services at your health center changed as a result of the scorecard meetings, if at all? How and why has it changed?
- o What new services are being offered as a result of the scorecard meetings, if any?
- How have the scorecard meetings affected people's willingness to visit the health center, if at all?
 Please explain.
- Were there changes recommended that are not being made? What are the reasons they are not being made?

Outcomes: Secondary Effects

- o How do you feel about participating in scorecard meetings? Why?
- o How has the scorecard process affected your morale at work, if at all? Please explain.
- o How has the role of the CODESA changed since the beginning of the scorecard program? Do you feel that the CODESA is more or less effective? Please explain.
- o Have there been any other effects from the project that we have not discussed?

Assessment and Recommendations

- o Are you satisfied with the scorecard program? Please explain.
- What are the overall limitations or weaknesses of the project?
- o Do you have any suggestions regarding ways to improve the project activities?
- Are there items that you would like to see added to or removed from the scorecard? What are they? Why would you recommend these changes?
- O How often do you think that scorecard meetings should be held? Do you think that scorecard activities can be sustainable over the long-term? Why?
- Are there other ways that would be more successful in improving the quality of health services and/or increase use of the health facility? What are they?

Simplified Community Scorecard Discussion Guide

CODESA Focus Group Visit 1

Background

- o In general, what is the role of the CODESA? Please describe its main activities over the past year.
- o If you participated in any trainings for CODESA members within the past year, what was the content? What was most helpful about the trainings?

Implementation

- O How was the simplified community scorecard project introduced to you? Who initially introduced the project activities?
- How is the project supposed to work?
- o What data is collected from the project? Who collects it, and where is it sent?
- What are your plans to improve the scorecard meetings next time?

Participation

- How do you elicit participation from the community? (Probe: how are meetings publicized? Are they open to the public or are specific people invited?)
- O How would you describe the group that attended the community meeting, and the interface meeting? (size of group, gender, age, ethnicity, occupation, family membership) Are there any groups who did not participate?
- o What are your strategies for making sure that community members attend these meetings?
- How would you describe those who participated (spoke up) during the community meeting, and the interface meeting? Are there any groups who did not participate?
- What are your strategies for making sure that attendees feel comfortable participating during the meetings?
- What strategies are you using to ensure that marginalized groups are represented?

Outcomes: Primary Effects

- What do you hope to accomplish through the community scorecard project?
- o To what extent are these goals being met?
- o How has the scorecard activity changed the relationship between the community and health workers?
- o Has the scorecard activity resulted in any changes within the community itself?
- Were there changes recommended during the scorecard meetings that are not being made? What are the reasons they are not being made?

Outcomes: Secondary Effects

- How has the role of the CODESA changed since the beginning of the scorecard program? Do you feel that the CODESA is more or less effective? Please explain.
- What effect does participation in the scorecard meetings have on providers? (Probe: Does it motivate them to do better, or discourage them? Do they resent having to listen to community members?)

o Have there been any other effects from the project that we have not discussed?

Assessment and Recommendations

- o Are you satisfied with the scorecard program? Please explain.
- What are the overall limitations or weaknesses of the project?
- o Do you have any suggestions regarding ways to improve the project activities?
- O Do you have recommendations as to how to improve the data collection process?
- o What advice would you give to another CODESA who is considering starting a scorecard project?
- How often do you think that scorecard meetings should be held? Do you think that scorecard activities can be sustainable over the long-term? Why?
- Are there other ways that would be more successful in improving the quality of health services and/or increase use of the health facility? What are they?

Simplified Community Scorecard Discussion Guide

CODESA Focus Group Visit 2

Background

- Please describe the main activities/accomplishments of the CODESA over the past six months.
- o If you participated in any trainings for CODESA members within the past six months, what was the content? What was most helpful about the trainings?

Implementation

- Are you planning another simplified community scorecard meeting? When will it be held? How do you decide when to have a meeting?
- o What feedback have you heard from community members about the community scorecard program?
- o What feedback have you heard from health workers about the community scorecard program?
- o How is the community being kept informed of the health center's progress on the recommendations?

Participation

• How do you think that attendance at the next meeting will compare with the first meeting? Does the community seem engaged in the process?

Outcomes: Primary Effects

- What do you hope to accomplish through the community scorecard project?
- o To what extent are these goals being met?
- What progress has been made on the recommendations from the interface meeting?
- Were there changes recommended during the interface meetings that are not being made? What are the reasons they are not being made?
- o How has the scorecard activity changed the relationship between the community and health workers?
- Has the scorecard activity resulted in any changes within the community itself?

Outcomes: Secondary Effects

- o How has the role of the CODESA changed since the beginning of the scorecard program? Do you feel that the CODESA is more or less effective? Please explain.
- What effect does participation in the scorecard meetings have on providers? (Probe: does it motivate them to do better, or discourage them? Do they resent having to listen to community members?)
- Have there been any other effects from the project that we have not discussed?

Assessment and Recommendations

- Are you satisfied with the scorecard program? Please explain.
- What are the overall limitations or weaknesses of the project?
- o Do you have any suggestions regarding ways to improve the project activities?

Simplified Community Scorecard Discussion Guide

Community Coach Interview Visit 1

Implementation

- O How was the simplified community scorecard project introduced to you? Who initially introduced the project activities?
- How is the project supposed to work?
- O How were you selected to be the community coach? What is your role in the project? What training or preparation did you undergo?
- O Please describe the level of support that you have received from NGO's and the provincial health office in the continued management of this project. Do you feel that you have been trained and supported adequately?
- What data is collected from the project? Who collects it, and where is it sent?
- o Please describe the community meeting that you facilitated. What went well? What didn't go well?
- o Please describe the provider meeting that you facilitated. What went well? What didn't go well?
- o Please describe the interface meeting that you facilitated. What went well? What didn't go well?
- What are your plans to improve the scorecard meetings next time?

Participation

- O How would you describe the group that attended the community meeting, and the interface meeting? (size of group, gender, age, ethnicity, occupation, family membership) Are there any groups who did not participate?
- How would you describe those who participated (spoke up) during the community meeting, and the interface meeting? Are there any groups who did not participate?
- What are your strategies for making sure that attendees feel comfortable participating during the meetings?
- o What strategies are you using to ensure that marginalized groups are represented?

Outcomes: Primary Effects

- o What do you hope to accomplish through the community scorecard project?
- o To what extent are these goals being met?
- o How has the scorecard activity changed the relationship between the community and health workers?
- o Has the scorecard activity resulted in any changes within the community itself?
- Were there changes recommended during the scorecard meetings that are not being made? What are the reasons they are not being made?

Outcomes: Secondary Effects

o How has the role of the CODESA changed since the beginning of the scorecard program? Do you feel that the CODESA is more or less effective? Please explain.

- What effect does participation in the scorecard meetings have on providers? (Probe: Does it motivate them to do better, or discourage them? Do they resent having to listen to community members?)
- o Have there been any other effects from the project that we have not discussed?

- o Are you satisfied with the scorecard program? Please explain.
- What are the overall limitations or weaknesses of the project?
- o Do you have any suggestions regarding ways to improve the project activities?
- o Do you have recommendations as to how to improve the data collection process?
- What advice would you give to another community coach before his first community scorecard meeting?
- How often do you think that scorecard meetings should be held? Do you think that scorecard activities can be sustainable over the long-term? Why?
- Are there other ways that would be more successful in improving the quality of health services and/or increase use of the health facility? What are they?

CODESA/Community Coach Focus Group Visit 2

Implementation

- Are you planning another simplified community scorecard meeting? When will it be held? How do you decide when to have a meeting?
- o What feedback have you heard from community members about the community scorecard program?
- What feedback have you heard from health workers about the community scorecard program?
- o How is the community being kept informed of the health center's progress on the recommendations?
- O Please describe the level of support that you have received from NGO's and the provincial health office in the continued management of this project. Do you feel that you have been trained and supported adequately?

Participation

O How do you think that attendance at the next meeting will compare with the first meeting? Does the community seem engaged in the process?

Outcomes: Primary Effects

- What do you hope to accomplish through the community scorecard project?
- o To what extent are these goals being met?
- O What progress has been made on the recommendations from the interface meeting?
- Were there changes recommended during the interface meetings that are not being made? What are the reasons they are not being made?
- o How has the scorecard activity changed the relationship between the community and health workers?
- Has the scorecard activity resulted in any changes within the community itself?

Outcomes: Secondary Effects

- o How has the role of the CODESA changed since the beginning of the scorecard program? Do you feel that the CODESA is more or less effective? Please explain.
- What effect does participation in the scorecard meetings have on providers? (Probe: does it motivate them to do better, or discourage them? Do they resent having to listen to community members?)
- Have there been any other effects from the project that we have not discussed?

- Are you satisfied with the scorecard program? Please explain.
- What are the overall limitations or weaknesses of the project?
- o Do you have any suggestions regarding ways to improve the project activities?

Implementing Partner Interview Visit 1

Background

- o What is your role within your organization?
- Had you had any exposure to community scorecard projects before this one?

Implementation

- How was the simplified community scorecard project introduced to you? Who initially introduced the project activities?
- o How is the project supposed to work?
- o How was the community coach selected? What training or preparation did he/she undergo?
- What data is collected from the project? Who collects it, and where is it sent?
- o If you attended the first round of scorecard meetings, please describe them. What went well? What did not go well?
- What are your plans to improve the scorecard meetings next time?
- What feedback have you heard from the CODESAs and the community coach about the community scorecard program?
- o How is the community being kept informed of the health center's progress on the recommendations?
- O Please describe the level of support that you have received from the provincial health offices in implementing the recommendations from the interface meetings?
- What changes are being made based on your experience with the first round of scorecard meetings?

Participation

- What guidance are the coach and CODESAs given around recruitment? Are the meetings open to the community, or are specific people invited?
- o What strategies are you using to ensure that marginalized groups are represented?

Outcomes: Primary Effects

- What do you hope to accomplish through the community scorecard project?
- o To what extent are these goals being met?
- o How has the scorecard activity affected the relationship between the community and health workers?
- o Has the scorecard activity resulted in any changes within the community itself?
- Were there changes recommended during the scorecard meetings that are not being made? What are the reasons they are not being made?

Outcomes: Secondary Effects

 Describe the community coach and the CODESA's level of competence in facilitating the scorecard project.

- What effect does participation in the scorecard meetings have on providers? (Probe: Does it motivate them to do better, or discourage them? Do they resent having to listen to community members?)
- o Have there been any other effects from the project that we have not discussed?

- o Are you satisfied with the scorecard program? Please explain.
- o Do you have any suggestions regarding ways to improve the project activities?
- o Do you think that scorecard activities can be sustainable over the long-term? Why?
- o Do you have recommendations as to how to improve the data collection process?

Implementing Partner Interview Visit 2

Background (if interviewing a different person than was interviewed in Wave 1)

- What is your role within your organization?
- o Had you had any exposure to community scorecard projects before this one?

Implementation

- Are you planning another simplified community scorecard meeting? When will it be held? How do you decide when to have a meeting?
- What feedback have you heard from the CODESAs and the community coach about the community scorecard program?
- o How is the community being kept informed of the health center's progress on the recommendations?
- Please describe the level of support that you have received from the provincial health offices in implementing the recommendations from the interface meetings?
- O What changes are being made based on your experience with the first round of scorecard meetings?

Participation

• How do you think that attendance at the next meeting will compare with the first meeting? How has the community received the project?

Outcomes: Primary Effects

- What do you hope to accomplish through the community scorecard project?
- o To what extent are these goals being met?
- O How has the scorecard activity affected the relationship between the community and health workers?
- Has the scorecard activity resulted in any changes within the community itself?
- Were there changes recommended during the scorecard meetings that are not being made? What are the reasons they are not being made?

Outcomes: Secondary Effects

- Describe the community coach and the CODESA's level of competence in facilitating the scorecard project.
- What effect does participation in the scorecard meetings have on providers? (Probe: does it motivate them to do better, or discourage them? Do they resent having to listen to community members?)
- o Have there been any other effects from the project that we have not discussed?

- o Are you satisfied with the scorecard program? Please explain.
- o Do you have any suggestions regarding ways to improve the project activities?
- o Do you think that scorecard activities can be sustainable over the long-term? Why?
- o Do you have recommendations as to how to improve the data collection process?

Health Zone Management Team Interview Visit 1

Background

- o Please describe your role.
- o Have you had exposure to community scorecards prior to ASSP's project?

Implementation

- How was the simplified community scorecard project introduced to you? Who initially introduced the project activities?
- o How does the project work, as you understand it?
- o How are you kept informed of the project's activities and progress?

Community Empowerment

- Who should be responsible for making decisions about the health center? (Probe: the providers? The entire community? Only certain community members? Someone else?) Why?
- o In reality, who is responsible for making decisions about the health center? Why?
- o Are health workers in your health zone responsive to the community's concerns? Why or why not?
- O Do health workers face any negative consequences if they do not listen to the community's concerns? What are they? If no, should they?
- Ouring the community scorecard meetings, the community may make recommendations that the health zone cannot support. What guidance do you give the CODESAs and health workers in these scenarios?

Outcomes: Primary Effects

- o What do you hope is accomplished through the community scorecard project?
- o To what extent are these goals being met?

Outcomes: Secondary Effects

- How has the role of the CODESA changed since the beginning of the scorecard program? Do you feel that the CODESA is more or less effective? Please explain.
- What effect does participation in the scorecard meetings have on providers? (Probe: Does it motivate them to do better, or discourage them? Do they resent having to listen to community members?)
- o Have there been any other effects from the project that we have not discussed?

- Are you satisfied with the scorecard program? Please explain.
- What are the overall limitations or weaknesses of the project?

- Do you have any suggestions regarding ways to improve the project activities?
 Do you think that scorecard activities can be sustainable over the long-term? Why?
- Are there other ways that would be more successful in improving the quality of health services and/or increase use of the health facility? What are they?

Appendix C: Concept Note

Proposed ASSP Operations Research Concept Note Community Empowerment and Accountability: A Community Scorecard Approach in the Democratic Republic of Congo 6 August 2014

Background

Over the last decade, the government of the Democratic Republic of Congo (DRC) with assistance from international partners has supported a large number of projects and strategies to improve health systems performance. Despite the millions of dollars that have poured into the country, the health care system remains relatively weak and service utilisation is still quite low (Wembonyama, Mpaka, Tshilolo, 2007). In an effort to create a more responsive and "bottom up" solution, IMA's Accès aux Soins de Santé Primaires (ASSP) project plans to introduce a community participatory evaluation component, specifically, a simplified community scorecard, as part of its approach to improve service delivery. Although the details of the intervention are yet to be developed, the basic strategy of the community scorecard approach will be to provide a strategy to help communities regularly rate the health services provided to them on measures that are important to the community. At this time it is hoped that the intervention will be implemented project-wide. The assumptions underlying the strategy are two-fold: (1) communities that are engaged with a mechanism to hold health facilities accountable will be better positioned to ensure that quality and responsive services are being offered; and (2) communities that are more invested in the health system and have a say in how services are provided will be more likely to utilize formal health care services. This will contribute toward ASSP's goal of increasing access to and utilization of quality health services.

Community engagement has long been proposed as a mechanism by which the quality of health services could be improved. Brinkerhoff (2004) explained the need for accountability in three areas of the health system: financial accountability, performance accountability and political/democratic accountability. He argued that increasing accountability in these three areas will help reduce the abuse and misuse of resources, assure health personnel follow set rules and regulations, and monitor the performance of staff. However, the success of community engagement interventions has been mixed (Falisse, Meessen, Ndayishimiye, & Bossuyt, 2012; Goodman, Opwora, Kabare, & Molyneux, 2011; Munyanshongore, Milabyo Kamusugulwa, & Witumbula Katambwe, 2005; Wild & Harris, 2011). It remains to be determined whether the limitations on success are due to "theory failure" (i.e. faulty beliefs about the causal linkages assumed by the project) and "implementation failure" (i.e. resulting from the project not being implemented as planned).

The proposed study has several aims. The first phase will be formative research. Tulane will provide IMA with a literature review detailing the theoretical basis for community empowerment and accountability in health services, and an overview of interventions which have aimed to

improve community empowerment. The literature review is intended to assist IMA in the development of an evidence-based intervention facilitating community participatory evaluation of health services using funding from DFID which has been earmarked for community empowerment and accountability. As the intervention is implemented, the second phase of the proposed study will monitor whether the intervention is being implemented as planned, and assess unintended effects of the intervention such as changes in health worker satisfaction and motivation. This will assist IMA in refining a successful model to be scaled beyond the initial pilot locations. Finally, the study will track changes in the participating communities' assessment and utilization of health services over time. This component of the study is designed to test the key assumptions behind the program; in particular, that increased participation will lead to improved scope and quality of services and increased utilization.

Research Questions

The following are the research questions that will be investigated:

Phase 1:

- 2) How have previous researchers and health policy decision-makers defined and measured "community engagement," "community empowerment," and "accountability"?
- 3) What are the alternative strategies available to strengthen community empowerment and accountability? In particular, what strategies have focused on community participatory evaluation of health services and community scorecards? What are the strengths, weaknesses, enabling factors and limiting factors of these alternative strategies?

Phase 2.

- 4) Is the simplified community scorecard intervention being implemented as planned?
- 5) Are community members and healthcare providers actively participating in the simplified community scorecard strategy? Who takes part in the intervention and who does not?
- 6) Are the expected changes occurring in the following areas?
 - a. Improved community perception of the scope of health services offered
 - b. Improved community perception of the quality of health services
 - c. Increased utilization of health services⁶

implementation starr)

7) What factors contribute to the success or failure in the initial stages of the simplified community scorecard intervention (based on perceptions of community leaders, community members, health zone staff, health care managers and providers, and program implementation staff)?

⁶ Although this study will track trends in utilization over time, due to ASSP's broad package of concurrent interventions aimed at increasing utilization it will not be possible for this study to attribute any increases in utilization to the simplified community scorecard intervention specifically.

- 8) Does the simplified community scorecard intervention have any positive or negative effects in the following areas?
 - a. Health worker motivation and satisfaction
 - b. Community's sense of empowerment
 - c. The role, responsiveness and perceptions of CODESAs
 - d. Relations, responsiveness and resources provided at the health zone administrative level

Methodology

The research will be conducted using three methods: 1) a literature review; 2) a quantitative analysis; and 3) a qualitative analysis. A detailed description of each component is presented below.

Phase 1:

1) Literature review

The literature review will be conducted during the design phase of the intervention. The purpose of the literature review is to inform IMA in the design of an evidence-based intervention.

The literature review will investigate approaches for defining and measuring community engagement and accountability, alternative approaches for strengthening accountability and empowerment, and the evidence base of the effectiveness of these interventions. Peerreviewed articles as well as grey literature will be included in the review. The literature review will focus on community participatory evaluation interventions, in particular community scorecard interventions, targeted to health service provision, although highly relevant examples from other sectors may be included. Similarly, while examples from sub-Saharan Africa and francophone Africa in particular will be highlighted, the literature review will also include interventions implemented in other regions. The date range for articles will be restricted to the past 20 years (1994-2014). If possible, the input of professionals who have been involved in implementing similar interventions will be obtained and included as well.

Phase 2:

2) Quantitative analysis

Quantitative analysis will be used to track the implementation of the intervention and to monitor changes in outputs of the intervention over time. This analysis will allow IMA to target improvement efforts toward areas of weakness in the intervention. It will also track whether the program is being implemented as planned, as well as whether the intended effects are occurring.

Although IMA will be solely responsible for collecting and managing routine programmatic data, the ORIE team will assist IMA with the design of data collection tools and a project database. Routine data will track activities such as trainings, orientations, and modified community scorecard events, as well as scorecard data. It will also monitor the numbers of men and women who participate in the intervention. Additionally, changes in communities' ratings of health services will be reported on an ongoing basis. All available routine data will be utilized for this aspect of the quantitative analysis.

In order to assess the effect of the simplified community scorecard intervention on health worker satisfaction and motivation, the ORIE team will utilize the results of the provider survey conducted as part of the baseline survey for the ASSP project. Questions related to community relations and overall job satisfaction will be taken from the baseline survey and re-administered in intervention areas at two points during the intervention. This will occur in tandem with qualitative data collection and where possible will coincide with the ASSP project's midline process evaluation. If feasible, the survey questions will also be readministered in matched non-intervention areas which will serve as a control group.

3) Qualitative investigation

Finally, qualitative methods will be used to understand the community-level and facility-level factors which influence the success or failure of the intervention, information which is not available through routine programmatic data. It will allow researchers to explore whether and how vulnerable groups such as women and ethnic minorities are empowered through the intervention. Additionally, it will enable the ORIE team to assess whether improvements in the quality of health services in the target areas has occurred. The findings of the qualitative investigation will assist IMA in replicating the factors which contributed to the success of the intervention, and mitigating the factors which inhibited the intervention's success.

Qualitative data collection will occur at two points in time after the intervention has begun. The timing of data collection will be determined based on the intervention's implementation plan. Locations for qualitative data collection will be selected after IMA has identified the communities in which the intervention will occur. Similarly, appropriate informants will be determined when the intervention has been further developed. In general, informants will include representatives from health service delivery, community members, and intervention facilitators. Data collectors will conduct both interviews and focus groups. In some cases it may be preferable to interview the same subjects at both points in the study; for others, new informants will be identified at the second point. Additionally, data collectors will engage in participant observation at health facilities and simplified community scorecard events.

Analysis

Phase 1:

The literature review will conclude with a summary of the ways in which "community engagement" and "accountability" have been defined and measured. It will also include a discussion of the alternative strategies available to strengthen community engagement and

accountability, as well as the strengths, weaknesses, enabling factors and limiting factors of these alternative strategies.

Phase 2:

The analysis of routine and survey data will be carried out using STATA, a statistical data analysis software. The analysis will be stratified at the level at which the intervention is targeted. This is anticipated to be the community or health area level. Health workers' satisfaction and motivation at two points during the simplified community scorecard intervention will be compared with ratings from the baseline survey.

Qualitative data, including interview and focus group records and participant observation journals will be transcribed and translated. Transcripts will be analysed using coding categories which will be based on the research questions, as well as key concepts that emerge during data collection. Transcripts will be coded using ATLAS.ti, a text-organizing software. Content analysis will be used to identify trends of concepts in and across individual codes. Data triangulation will be used to ensure that the findings are validated across different respondents, and between various methods of data collection. Efforts will also be made to identify direct quotations and case studies that illuminate key data findings.

Ethics

This is a minimal risk study. The researchers will obtain informed consent from all study participants. Ethical approval of the quantitative and qualitative components of the study will be obtained from the Institutional Review Boards of Tulane University and the Kinshasa School of Public Health prior to data collection.

Research Staff

Janna Wisniewski, the PI, and Dr. Paul Lusamba, the Co-PI, will oversee the design and execution of the study. Janna Wisniewski is a doctoral student in the Department of Global Health Systems and Development at the Tulane School of Public Health. Dr. Paul Lusamba serves as the Research Director for the portfolio of ORIE studies.

Deliverables

- 1. Technical report presenting results of the literature review (phase one)
- 2. Technical report presenting results of phase two of the study
- 3. Policy brief(s) on the simplified community scorecard strategy in order to disseminate successes, challenges, and lessons learned to ASSP project managers, government and NGO partners, and other stakeholders involved in the implementation of the simplified community scorecard intervention.

Estimated Cost

The estimate cost of the study is \$90,000.

References

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Timeline

Operational Research Steps and Milestones

Programme:	ASSP - OR
Study Topic:	Community Participatory Evaluation
DFID Adviser(s):	Sarah Goldsmith, Lizz Frost Yocum
Implementer:	Tulane

	Steps and Milestones (marked in *)	Expected	Completed	Notes
1	Identifying Research Topics			
	Study topics proposed to DFID	Dec 2013	Dec 2013	
*	DFID APPROVAL : Study topic agreed by DFID (with input from IMA)	Jan 2014	Jan 2014	
2	Drafting Concept Note			
	Discussions with DFID, gov and other stakeholders on research questions for the study completed	July 2014		
	Development of study concept note	July 2014		
	Submission of Concept Note to DFID	July 14, 2014		
*	DFID APPROVAL: Concept Note approved by DFID (OR STUDIES ONLY)	Aug 14, 2014		
*	DFID APPROVAL: CV of lead researcher agreed by DFID	Aug 14, 2014		
3	Developing Study Protocol			
	Protocol and instruments completed	Nov 3, 2014		Per IMA, intervention to be designed and pre- tested from Sept late Nov 2014
	Submission of Study Protocol to DFID	Nov 3, 2014		
	DFID review and QA	Nov 3- Nov 17 2014		
*	DFID APPROVAL: When protocol has passed QA	Nov 17, 2014		
	Authorisation in writing from DFID to start research implementation	Dec 17, 2014		
	Tulane IRB approval given	Dec 16, 2014		
	Local IRB approval given	Dec 16, 2014		
4	Implementing Study	TBD		Pending intervention plan from IMA
	Field workers trained			
	Field work/ secondary data collection completed.			
	Analysis of data completed			
5	Reporting	TBD		Pending intervention plan from IMA
	Literature review submitted	Sept 1, 2014		

	Preliminary findings presented in routine meetings with IMA and DFID	Ongoing	Fieldwork briefs will be submitted upon completion of data collection in each province. This will include a discussion of the preliminary findings.
	Drafting preliminary report		
	Preliminary report submitted		
	Dissemination and uptake plan, based on dissemination strategy in study protocol approved earlier by DFID (following QA), submitted		
*	DFID APPROVAL: Preliminary report		
*	DFID APPROVAL: Dissemination and uptake plan		
	Final report revisions		
	Final report submitted to DFID for approval		
	DFID review and final report		
*	DFID APPROVAL: Final report		
6	Dissemination, Uptake	TBD	Pending intervention plan from IMA
	Publication paper(s) reviewed by DFID		
	Dissemination activities conducted		
	Study submitted for publication		