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The RESPOND Project Study Series:
Contributions to Global Knowledge

Report No. 9

Replication of the Community Mobilization for Postabortion Care (COMMPAC) Model in Naivasha District, Rift Valley Province, Kenya: An Evaluation Report

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Acronyms and Abbreviations

ANC	antenatal care
CAC	community action cycle
CBO	community-based organization
CHEW	community health extension worker
CHW	community health worker
COMMPAC	Community Mobilization for Postabortion Care
DHMT	District Health Management Team
FBO	faith-based organization
FGD	focus group discussion
FP	family planning
KMOH	Kenya Ministry of Health
MOH	Ministry of Health
MVA	manual vacuum aspiration
NGO	nongovernmental organization
PAC	postabortion care
SEED	Supply–Enabling Environment–Demand
USAID	U.S. Agency for International Development

Executive Summary

Maternal health complications, including those arising from unsafe abortion and miscarriage, are a leading cause of morbidity among women in Kenya. The Rift Valley Province in particular has had the highest level of abortion-related outpatient morbidity in the country since at least 2003. These realities necessitate interventions to prevent unintended or mistimed pregnancies and to ensure access to quality care for women with postabortion complications.

In response to this need, the RESPOND Project replicated an existing intervention previously tested under the ACQUIRE Project. The intervention package, known as the Community Mobilization for Postabortion Care (COMMPAC) intervention, aimed at increasing awareness and use of postabortion care (PAC) services[1] and improving family planning (FP), reproductive health, and maternal health outcomes. RESPOND worked with districts and communities to: strengthen service delivery points to provide PAC services; conduct community mobilization to improve community involvement in and knowledge on the prevention and treatment of postabortion complications; build community capacity to address needs related to PAC; and encourage involvement in community action of those most marginalized and most affected by postabortion complications. The interventions were carried out in three communities in Naivasha District, Rift Valley Province, over an 18-month period, from July 2010 to December 2011.

This report summarizes the key results emerging from an evaluation exercise carried out in Naivasha District to assess the effects of the COMMPAC intervention. The evaluation used a quasi-experimental design, with intervention and comparison groups covering six study sites within Naivasha District. Measurements were taken at baseline (from May to June 2010) and at endline (from January to February 2012). The data collected as part of this evaluation included community-based surveys of women between the ages of 18 and 49; an inventory of all public and private health care facilities in the study area; interviews with providers working at the identified facilities; service statistics; and focus group discussions and in-depth interviews conducted with a range of community actors and key informants.

Key Findings

- **Overall, awareness about danger signs in early pregnancy was higher among women in the intervention areas than among their peers at the comparison sites:** Over time, changes in the levels of awareness about certain danger signs in early pregnancy (particularly, the danger sign of "bleeding heavier than a normal period") were significantly greater among women at the intervention site than among women in the comparison area.
- **Women who experienced pregnancy complications in the intervention areas had increased tendency to seek PAC services at dispensaries:** Service statistics from the health facilities indicate that while no clients had received PAC services at baseline, by the

[1] Throughout the intervention, postabortion complications are referred to as "bleeding in the first half of pregnancy," given the sensitivities of talking about abortion and PAC in the Kenyan context.

endline period, a total of 30 women had received such services at intervention-area health facilities, with 23 receiving PAC services at dispensaries and seven obtaining services at a health center.

- **In the general population of women, knowledge about where PAC services may be obtained did not increase significantly:** Although strengthening the interaction between communities and the dispensaries and health centers within them was an important aspect of the COMMPAC intervention, by endline, knowledge of dispensaries and health centers as places at which to obtain PAC services did not increase significantly in the general population of women.
- **Exposure to community discussions about PAC did not increase significantly:** Although a major thrust of the COMMPAC intervention was to generate community discussions around PAC, there was no significant increase attributable to the intervention in regard to women's exposure to community discussions about PAC.
- **Partner support for obtaining PAC services did not increase:** Between baseline and endline, most forms of partner support for obtaining PAC services in intervention sites decreased.
- **Providers' confidence about offering PAC services increased:** By the endline period, all intervention-site providers regarded the provision of PAC services as a responsibility of their health care facility, considered themselves competent to practice manual vacuum aspiration (MVA), and had each personally used the MVA method to treat PAC clients. Conversely, none of the comparison-site providers considered PAC services to be an integral part of the services offered at their facility, and, accordingly, PAC services were not offered at any of these facilities. Providers within the intervention areas also demonstrated a more comprehensive awareness of the danger signs in the postabortion period than did their comparison-site counterparts.
- **Perceptions of the quality of care available for postabortion complications improved among intervention-site respondents:** By the endline period, there was a statistically significant reduction in the proportion of intervention-site respondents seeking PAC services who had to wait for more than 1.5 hours before being seen by a provider. PAC clients at intervention sites were more likely to report that they were accorded enough privacy during their visit, that the provider's explanation of the procedure to be performed was clear, and that they were treated very well by other facility staff.
- **The proportion of women seeking PAC services who reported having received FP information and methods at intervention sites increased:** There was a statistically significant increase in the proportion of PAC clients who received information about FP prior to discharge (from 4% [n=24] to 29% [n=42]), while among their counterparts in the comparison areas, a decline was observed (from 5% [n=19] to 0% [n=12]).
- **The FP components of the COMMPAC intervention not related to service provision did not produce the desired effects:** Although FP was an integral part of the COMMPAC model, by the endline period, there was no significant increase attributable to the intervention in such areas as women's current FP use and approval of FP use by women and their partners.
- **The evaluation showed evidence that community members were empowered to take action for their own health:** Qualitative data suggest that, by the endline period, intervention communities were inspired to proactively and creatively address postabortion

complications and the barriers that lead to this condition. Community members were able to engage with community and government leaders and organizations and with their fellow community members to effect change in their neighborhoods. As a result of their activities and initiatives, community members went beyond tackling PAC-related issues alone, to simultaneously address other social issues within their communities.

- **The District of Naivasha appeared prepared to replicate and/or scale up components of the COMMPAC model, as appropriate:** Provincial and district health management teams in Naivasha were unequivocal about their willingness and intention to sustain the COMMPAC intervention in Naivasha and to replicate or scale up the COMMPAC model across and beyond Naivasha District.

In summary, the COMMPAC intervention was successful in the following respects: increasing knowledge of a critical danger sign in early pregnancy; enabling providers to effectively offer PAC services at the dispensary level; raising awareness of PAC; encouraging women to seek and obtain PAC services at the dispensary level; inspiring communities to take action for their own health; and generating interest among key stakeholders in sustaining the intervention.

The COMMPAC intervention was less successful in increasing: FP knowledge and current use; approval and partner approval of FP use; knowledge of dispensaries and health centers as service delivery points for PAC among the general population of women; partner support for obtaining PAC services; and participation in community discussions about PAC.

Recommendations

1. Given the importance of FP for any PAC program, there is a need to ensure that FP is strengthened as an element of PAC at all levels of the COMMPAC intervention.
2. To increase partner support for obtaining PAC services, including partner approval of FP, current efforts under the COMMPAC model must be enhanced to more effectively reach men.
3. Community sensitization around danger signs in early pregnancy needs to be framed in ways that resonate and that women find easy to remember. The fact that the danger sign of "bleeding more heavily than a normal period" was significantly more likely to be remembered by women in the intervention areas points to the idea that women could simply relate to (and therefore remember) this sign better than others.
4. Community participation and mobilization should be part of programs that seek to expand access to PAC services. The majority of the outcomes for which an effect is observed in this study are related to the intensive community action cycles that form part of the COMMPAC intervention. Engaging men as well as women in such processes is recommended. The intervention was able to demonstrate discernible differences in some behavioral outcomes, suggesting that the approach has the potential to show improvements in a number of additional outcomes once the intervention is in place for a longer period of time.
5. The provision of PAC services at the dispensary level is a novel undertaking that was tested under the COMMPAC model and found to be feasible. As the accessibility of dispensaries can be greater than that of higher level health care facilities, introducing PAC services to dispensaries that are reasonably ready to provide such services is recommended

as a means of expanding women's access to PAC services. Furthermore, this approach aligns well with the Government of Kenya's policy of decentralized service delivery. Greater attention must be placed, however, on creating general community awareness around dispensaries as places at which to obtain PAC services.

6. Linked to the recommendation to use dispensaries to broaden women's access to PAC services is the need to train providers within dispensaries to offer PAC services and to ensure that they have the equipment they need to provide PAC services. The evaluation demonstrates that if providers are trained to offer PAC services and if communities are made aware of their existence, women will seek out these services.
7. The number of community health workers employed to carry out the intervention under the current design of the COMMPAC model should be increased, to ensure greater exposure to PAC-focused community discussions.

Background

Deaths from unsafe abortion in developing countries represent 13% of all pregnancy-related mortality and in some countries as many as 25% of all maternal deaths (Curtis, Huber, & Moss-Knight, 2010). A woman dies every eighth minute somewhere in a developing country due to complications arising from unsafe abortion and miscarriage. In Kenya, such maternal health complications are a leading cause of morbidity among women (KMOH, 2008). The Rift Valley Province, where Naivasha is located, has consistently had the highest level of abortion-related outpatient morbidity in the country since at least 2003, with 10,958 abortion-related deaths in 2004 alone (KMOH, 2005). Given these staggering numbers, interventions to prevent unintended or mistimed pregnancies and to ensure access to quality care for women with postabortion complications are a public health imperative.

In response to this need, The RESPOND Project[2] designed an intervention package aimed at increasing awareness and use of postabortion care (PAC) services[3] and improving family planning (FP), reproductive health, and maternal health outcomes. Known as the Community Mobilization for Postabortion Care (COMMPAC) intervention, this package builds on efforts by The ACQUIRE Project (2005–2007) to address PAC and increase FP uptake by focusing on the central role that communities can play in improving access to services. As part of this intervention, RESPOND worked with districts and communities to: strengthen service delivery points to provide PAC services; conduct community mobilization to improve community involvement in and knowledge about the prevention and treatment of postabortion complications; build community capacity to address community needs related to PAC; and encourage involvement in community action of those most marginalized and most affected by postabortion complications. The intervention package was guided by EngenderHealth's Supply–Enabling Environment–Demand (SEED) Programming Model™[4] framework and was carried out in selected communities in Naivasha District over an 18-month period from July 2010 to December 2011.

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[2] The RESPOND Project (Responding to the Need for Family Planning through Expanded Contraceptive Choices and Program Services) is a five-year U.S. Agency for International Development (USAID) Leader with Associates Cooperative Agreement. RESPOND is led by EngenderHealth, in partnership with five other organizations: FHI 360, the Futures Institute, Johns Hopkins Bloomberg School of Public Health Center for Communication Programs (JHU/CCP), Meridian Group International, Inc., and the Population Council.

[3] Throughout the intervention, postabortion complications are referred to as "bleeding in the first half of pregnancy," given the sensitivities of talking about abortion and PAC in the Kenyan context.

[4] The Supply–Enabling Environment–Demand (SEED) Programming Model™ is a holistic programming framework based on the principle that sexual and reproductive health (SRH) programs will be more successful and sustainable if they comprehensively address the multifaceted determinants of health and if they include synergistic interventions that: a) attend to the availability and quality of services and other supply-related issues; b) strengthen health systems and foster an enabling environment for SRH-seeking behavior; and c) improve knowledge of SRH and cultivate demand for services. Further, the model recognizes these three program components do not operate in isolation and highlights bridging aspects linking Supply, Enabling Environment, and Demand—namely, areas of synergy (Quality Client-Provider Interaction, Systems Strengthening, and Transformation of Social Norms) that bridge program components for enhanced programmatic results.

The project contributes to the overall purpose of the Postabortion Care Global Results Framework (2003), which is designed to contribute substantively to United States Government and Government of Kenya goals with respect to maternal health. The PAC Strategic Objective under this Results Framework is to "advance and support the increased use of PAC, with particular emphasis on FP counseling and services" (USAID, 2004, p. 9) and is based on achieving three Intermediate Results: (1) PAC expanded and supported through service delivery; (2) PAC policy and advocacy supported and advanced; and (3) PAC services expanded and supported through community empowerment via community awareness and mobilization.

From May to June 2010 and January to February 2012, the Population Council collected baseline and endline data, respectively, in Naivasha, Rift Valley Province, Kenya, to assess the combined effect of COMMPAC's supply and demand interventions on community capacity to mobilize for improved FP, reproductive health, and maternal health outcomes. The final evaluation consisted of five components: a community-based survey of women between the ages of 18 and 49; in-depth interviews and focus group discussions (FGDs) with a range of key informants and intervention-site community members; short, semi-structured interviews with providers; exit interviews with PAC clients; and service statistics collected from April 2009 to December 2011. This report summarizes the key results emerging from the final evaluation.

Description of the Intervention

The COMMPAC Model

The RESPOND Project designed the COMMPAC intervention package to increase awareness and use of PAC services and to improve FP and reproductive health outcomes. This package, which built on efforts started under The ACQUIRE Project (2005–2007), was carried out in selected communities in Naivasha District in Rift Valley Province over an 18-month period from July 2010 to December 2011. It involved the following activities:

1. RESPOND trained Ministry of Health (MOH) community health extension workers (CHEWs) and community health workers (CHWs) based in Naivasha on the community action cycle (CAC), which is described in detail below, and on approaches for working with communities in Naivasha using the CAC. This included training CHEWs to provide ongoing mentoring and support to CHWs in facilitating community dialogue around PAC and FP in the communities in their work areas.
2. RESPOND trained service providers (primarily clinical officers, registered nurses, and registered midwives) within MOH dispensaries (Level I facilities) and health centers (Level II facilities) in Naivasha in the management of complications related to miscarriage and unsafe abortion, to respond comprehensively to potential demand for PAC services by community members. Providers at 11 participating health centers and dispensaries were trained in PAC (including FP) and received an additional training on FP.
3. RESPOND supported trained CHEWs and CHWs in conducting community mobilization sessions in their communities and provided ongoing mentoring and support to trained CHEWs and CHWs via monthly monitoring visits and quarterly meetings, which enabled community-facility linkages and joint problem solving.

Kenya MOH Community Strategy

RESPOND deliberately aligned its package of inteventions with the MOH Community Strategy to use "community units" and the structures integrated within them as the entry point into Naivasha villages. A community unit comprises five or more villages; each unit ideally has two CHEWs and 50 CHWs covering it. The Community Strategy aims to enhance community access to health care by decentralizing sustainable lower-level services and enhancing accountability and responsibility among all, including community members themselves.

The Community Strategy Guidelines provide direction for building the capacity of CHEWs and CHWs, establishing a communication strategy that effectively improves health-seeking behavior, and providing services closest to communities. This community-based approach is recognized as the mechanism through which households and communities strengthen their role in health by increasing their knowledge, skills, and participation. The intention of the Community Strategy is to strengthen the capacity of communities to assess, analyze, plan, implement, and manage health initiatives, while recognizing the pivotal role of the health system in supporting community efforts (KMOH, 2007). It is through synergy between the health system and communities that improvement can be realized and sustained. RESPOND focused its efforts, in part, on strengthening the interface between communities and the dispensaries and health centers that serve them.

The Community Strategy clearly outlines the roles of CHEWs and CHWs. CHEWs are trained health personnel and MOH employees responsible for supervising CHWs and monitoring community-level activities. CHWs are chosen by their fellow community members and are meant to provide the link between households and facilities, as they organize and lead community health activities, provide referrals, and promote care-seeking behavior by making household visits and participating in dialogue and action days.

Community Engagement Process

RESPOND's goal was to support existing structures at the district level and partner with the MOH in implementing its Community Strategy by strengthening community units, thereby building on what is hoped to be a sustainable structure supporting good health. Naivasha had established community units prior to the intervention. (This contributed in part to the selection of this district, since at least limited capacity and structures were in place.)

In Naivasha, efforts to promote buy-in among MOH counterparts for COMMPAC began in 2009, with the joint selection of the project site, presentation of the project proposal to the MOH's Division of Reproductive Health and Division of Community Health Services, and an orientation of the Naivasha District Health Management Team (DHMT), to harmonize workplans and indicators. With the support of the DHMT and all CHEWs, community units were mapped to establish intervention and control sites. Criteria were developed for selecting 10 CHWs out of the 50 from each unit, including level of interest in FP, PAC, and reproductive health, prior experience (however limited) in community engagement, knowledge of the community and its members, some knowledge of the health issue, time and availability to help with the effort, a history of submitting reports to their supervising CHEW, and an eagerness to learn.

The CAC was the primary methodology used to facilitate the capacity-building process during the three-day community mobilization sessions. Its steps are as follows:

1. Preparing to mobilize the community
2. Organizing the community for action
3. Exploring health issues and setting priorities
4. Planning together
5. Acting together
6. Evaluating their action plans together as a community
7. Preparing to scale up

These steps echo the goals outlined in the MOH Community Strategy. It is a highly participatory process in which communities themselves take action for their own health.

Seven DHMT members, five CHEWs and 31 CHWs were trained over five days at the intervention sites in the use of the CAC and on how to conduct community mobilization sessions as part of it. The team developed a database of all villages and existing community groups in each unit. These included men, women, youth, farmers, self-help and fishermen's groups, and marginalized groups, including the disabled and people living with HIV. These community groups then became a central part of the community engagement process, as they

participated in three-day community mobilization sessions that were framed around the "three delays" model. This model proposes that pregnancy-related mortality is overwhelmingly due to delays in deciding to seek care, seeking care, and receiving care.

In addition to discussing comprehensive PAC and the three delays, the training covered topics such as gender dynamics, conflict resolution, leadership, couple communication, gender-based violence, financial management, and links to resources outside the community.

Once a community had carried out and evaluated its action plan, it was encouraged to start another round of the CAC, to address issues either that had not been completed or that were deemed their next set of priority issues. Each community went through two cycles in the 18-month period of the intervention, with 85% addressing a second set of community-identified reproductive health issues. Two community-facility linkage meetings were also supported by RESPOND, to bring the trained CHEWs and CHWs together to share progress on their action plans, including the challenges they had faced, in an effort to strengthen community-facility linkages and jointly solve problems together.

A set of community behavior change communication flip cards were also shared with each trained CHEW and CHW for use during outreach, in house-to-house visits, and on dialogue and action days. Topics covered in the flip cards included information on how to conduct a participatory community health discussion, basic information about all FP methods, PAC, danger signs in pregnancy, the three delays, and a story from the community. (This described a woman named Regina, who in one scenario recognizes the danger signs of bleeding and seeks care, while in a second scenario does not seek care.)

Community Mobilization Linked with Service Strengthening

More than 630 community members participated in three days of community mobilization sessions at the intervention sites, with discussions focusing on delays in recognizing health problems, in deciding to seek care, and in resolving health issues. Problems identified in the action planning process ranged from negative rumors about FP methods, religious opposition, lack of partner support, and poor spousal communication about reproductive health issues to such problems as long distances to the nearest facility, poor roads, lack of trained providers, unfavorable facility hours, poor provider attitudes, and lack of equipment and supplies for MVA. At the start of the intervention, none of the local dispensaries had the capacity to provide PAC services, and only short-acting methods of FP were available, which limited potential users' choice.

Community members debated their most urgent reproductive health issues and identified local resources for resolving their problems. At the intervention sites, communities developed a total of 25 action plans in partnership with their local CHWs. Following the first round of community mobilization sessions, all units sent representatives to the MOH demanding PAC, FP, and antenatal care services at their dispensaries (both public and private). As a result, RESPOND trained 16 providers (clinical officers and nurses) in PAC and 20 in FP, and MVA kits were provided to the facilities using private funds.

Methodology

Study Objective

The main objective of the evaluation was to assess the combined effectiveness of the supply, enabling environment, and demand on communities' capacity to mobilize for improved FP, maternal health, and reproductive health outcomes.

Evaluation Design

The evaluation used a quasi-experimental design with intervention and comparison groups and baseline and endline assessments at six study sites within Naivasha District.

Each study site is a "community unit," as defined by the MOH and described earlier in this report. Six community units were selected and matched based on their similarities in regard to urban-rural distribution of the population, service coverage, socioeconomic profile, and level of economic development. Three community units were then randomly allocated to be the intervention sites, and three units randomly allocated as comparison sites (Table 1).

Table 1. COMMPAC intervention and comparison sites

Intervention	Comparison
Karunga	Eburu
Kiambogo	Maraigushu
Longonot	Moi Ndabi

The evaluation design includes both the health facilities offering services and the communities served by them. Measurements taken at the health facilities at baseline gauged their readiness to provide PAC services and the quality of these services after being introduced. A community-level survey provided information on knowledge levels of women residing in the community in regard to danger signs in pregnancy, access to and quality of PAC services at the focus facilities, and uptake of PAC services.

At endline, data collection involved a follow-up community survey in all intervention and comparison sites; in-depth interviews and FGDs with a range of key informants and intervention site community members; short, semi-structured interviews with providers in both intervention and comparison areas; exit interviews with PAC clients at intervention sites; and the collection of service statistics from April 2009 to December 2011 from health facilities in both intervention and comparison settings.

Community-based survey

At baseline, 593 women aged 18–49 years who resided in the six community units covered by the project were interviewed. At endline, 647 women in the same age range and residing in the same community units were interviewed. Girls below the age of 18 were excluded from the sample, as the numbers in this age range would be too small to permit disaggregation during data analysis, and because of the attendant issues of obtaining consent from those younger

than 18. The sample sizes were calculated to be able to detect a 10-percentage-point difference in knowledge and use of PAC services between intervention and comparison groups at 95% confidence level and 80% power.

From each community unit in the intervention and comparison groups, individuals were sampled with probability proportional to the population size of the community unit (Table 2).

Table 2. Population sizes of community units and health facilities serving the study areas

Community unit	Population size	MOH Dispensary	MOH health center	Private medical clinic	Faith-based health center
Eburu	6,798	1		1	
Karunga	12,874	1			
Kiambogo	32,450	2	1	1	
Longonot	4,722	1			1
Maraigushu	10,000	1			
Moi Ndabi	7,000	1			

In the first stage, four villages were randomly selected from each community unit. Within each selected village, every third household was visited, and within each household, only one female member aged 18–49 was identified for an individual interview. Selected households that did not have a female member who met this criterion were replaced with the next available household having such a member.

Facility readiness

At baseline, an inventory of the physical infrastructure and a review of facility records were conducted at all of the health facilities available in the intervention and comparison sites (11 public and private health care facilities). A checklist tool was used to determine whether improvements/alterations or additions would be required to accommodate PAC services, including new supplies and equipment, and to gauge the availability of commodities required for PAC and FP. Although the inventory data indicated that PAC services were not being offered at any of the 11 health facilities, an analysis of these data demonstrated that all of the health facilities could feasibly provide PAC services following some strengthening, particularly in the actual training of staff in the provision of these services.

Health provider interviews

A short, semi-structured questionnaire was developed to assess providers' knowledge, attitudes, and practices pertaining to PAC at baseline and endline. Attempts were made to carry out interviews with providers (doctors, clinical officers, and registered nurses) at all health facilities in the study areas where PAC services were offered. At baseline, no health facilities in the study areas offered PAC services (and, hence, no providers were interviewed at this stage). This was not unexpected, as the health facilities available in the study areas are mainly dispensaries, which typically do not offer such services, per government norm. At endline, one provider per facility was interviewed at all participating health care facilities.

Service statistics

Service statistics for antenatal care (ANC) visits, births with skilled attendants, PAC, and FP were abstracted from April 2009 to December 2011 from all health care facilities in the study

areas (11 at baseline and 10 at endline) to determine trends in the mean numbers of clients seeking FP and PAC services.

In-depth interviews and FGDs

After the intervention, semi-structured, in-depth interviews were conducted with two key informants from the Provincial Health Management Team, four key informants from the DHMT, three PAC clients who had sought services from government health care facilities within the intervention area, and two partners of these clients. The purpose of the with key informant interviews was to gain insight into what happened under the COMMPAC intervention and why, from people who were particularly knowledgeable about the study context and articulate about their knowledge (Patton, 2002). Provincial and district program managers in particular were identified for key informant interviews, to ascertain their views on the potential for replicating or scaling up the intervention, gauge their interest in and commitment to PAC services, and learn about their reservations, if any. PAC clients were also interviewed to explore the thoughts, feelings, and experiences of women who had direct experiences with PAC (Patton, 2002).

Fifteen FGDs were conducted with a wide range of participants drawn solely from the intervention sites, including CHEWs, CHWs, community leaders, youth leaders, representatives of community-based organizations, and community members who participated in the intervention's CAC component or who resided in locations were the CAC was in operation. The purpose of the FGDs was to provide a broader view of the COMMPAC intervention than could be obtained via individual interviews, through the interaction of focus group participants as they compared their perspectives, opinions, and experiences (Morgan, 1998). A total of 92 participants took part in the range of FGDs conducted.

Data Quality

Data quality checks were carried out in multiple ways. During collection of the survey data, field supervisors did a manual check of every completed interview schedule turned in by interviewers. Interview schedules with errors were rectified by revisiting the household. Second, quality checks were built in to reduce data entry errors; Epi Info™ screens were created that only allowed in-range codes and checked for skip patterns. In addition, after data entry, range checks were conducted on the data to test for in-range responses. Where relevant, data entry clerks consulted with the original interview schedules to make the appropriate corrections. Data quality was also enhanced by using the double-entry procedure. After the first round of data entry, a special program that permits the entering of data a second time was used, and each second entry was checked against the first. Any discrepancies noted during this process were corrected.

The dependability of the qualitative data (comparable with what would be referred to as "reliability" in quantitative methods) was assured by minimizing the number of data collectors (n=3) and data coders (n=1) and by holding regular discussions with data collectors, to moderate differentiation in interview/discussion methods. The credibility of the qualitative data (similar to what would be referred to as "internal validity" in quantitative methods) was assessed by deliberately teasing out areas of uncertainty (including negative evidence) in the data set and by considering opposing explanations prior to making final conclusions.

Data Analysis

The primary analyses were the following:

1. Measuring the effect of the COMMPAC model on community knowledge around PAC, including FP
2. Measuring the effect of the COMMPAC model on health outcomes in the area of maternal health, reproductive health, FP, and PAC
3. Documenting the potential and ability of the model to be scaled up, in partnership with the MOH through the National Community Strategy.

The effect of the intervention was determined by identifying the following:

1. A statistically significant increase between baseline and endline within intervention sites in measures such as knowledge of danger signs in early pregnancy, awareness of PAC services, use of PAC services, and FP use
2. Significantly higher indicators at the intervention sites than at the comparison sites at endline
3. No significant change, or a decline between baseline and endline at the comparison site
4. Significantly greater changes in the indicators over time at the intervention sites than at the comparison sites.

The survey data collected were entered in Epi Info and analyzed using STATA software. Analysis of the quantitative data occurred in two steps. First, descriptive statistics on each variable at baseline and endline were generated, and comparisons were drawn within the intervention and comparison sites, conducting chi-square tests to determine whether there were any significant differences (calculated as $p<.05$). Second, a difference-in-differences estimation—i.e., the difference in changes over time between intervention and comparison sites—was conducted. This is achieved by comparing changes in proportions over time in both study areas and then by estimating logit models with interactions between the indicators for study site (intervention and comparison) and the time point of study (baseline and endline). This approach takes into account the "natural dynamics" that might bring change over time even in the absence of a treatment, such that additional changes in the intervention over and above what is observed at the comparison sites could be attributed to the effect of the treatment.

The qualitative data were analyzed thematically through a process that involved "identifying, analyzing, and reporting patterns (themes) within [the] data" (Braun & Clarke, 2006, p. 79). Specifically, open coding techniques were employed—an analytical process involving the examination, comparison, and categorization of qualitative data according to themes (Miles & Huberman, 1994). The codes were developed and organized along the lines of topical inquiry, including clients' experiences with PAC services received; perceived effect of, and overall successes and challenges with, the COMMPAC intervention; possibilities for sustaining COMMPAC (or aspects of the COMMPAC model, as appropriate); and advocacy efforts demonstrating the potential of COMMPAC for scale-up.

Findings

Description of Study Participants

Table 3 depicts the close comparability of the intervention and comparison sites as far as key demographics are concerned at baseline and endline and for the intervention and comparison areas.

Table 3. Respondent and partner demographics

Demographic measure	Intervention		Comparison	
	Baseline (N=401)	Endline (N=442)	Baseline (N=192)	Endline (N=205)
% aged 20–29	45.3	44.1	50.5	41.5
% with primary education	74.8	69.9	78.1	66.8*
% married	79.8	80.3	81.3	82.4
% Catholic	15.2	14.9	19.4	20.5
% Protestant/other Christian	78.3	82.8	70.2	75.6

*p<.01

Pregnancy and Childbearing

As Table 4 indicates, at endline, 15% of respondents in the intervention area had ever experienced a pregnancy that did not come to term, versus 9% of respondents in the comparison areas. It is plausible that women in the intervention areas were more likely to admit having experienced a pregnancy that did not come to term due to a component of the COMMPAC intervention that focused on reducing the stigma around postabortion complications.

Approximately one-third of respondents in both the intervention and the comparison areas were pregnant in the last year. Of these, 3% in both the intervention and comparison areas reported at endline having had a miscarriage. While the proportion of those in the intervention areas who reported having had a miscarriage decreased from 4% to 3% between baseline and endline, the proportion of respondents in the comparison areas reporting the same experience fell from 10% to 3%. This decrease was not statistically significant.

Table 4. Selected measures of pregnancy and childbearing, by study area

Measure	Intervention		Comparison	
	Baseline	Endline	Baseline	Endline
% who ever had a pregnancy that did not come to term	11.1 (N=370)	14.9 (N=416)	14.0 (N=178)	8.6 (N=198)
% who were pregnant in the past 1 year	29.8 (N=356)	34.0 (N=415)	34.1 (N=173)	34.0 (N=197)
% who had a miscarriage in the past 1 year	4.2 (N=95)	2.9 (N=140)	10.3 (N=58)	3.0 (N=67)

Pregnancy Experiences and Complications

The COMMPAC intervention focused a large part of its work on improving knowledge of danger signs and encouraging women, couples, and communities to act immediately in such cases. Respondents were therefore asked to list the danger signs in pregnancy that they were aware of. The proportion of intervention-area respondents reporting knowledge of certain danger signs (specifically, "bleeding heavier than a normal period," "continued bleeding for two weeks," and "dizziness/fainting") increased significantly from baseline to endline; there was a lack of similar increases in comparison sites. Significant increases in knowledge of other danger signs, however (i.e., "severe abdominal pain" and "severe and constant headache"), were noted in both intervention and comparison areas (Table 5, page 13).

Results from the difference-in-differences analysis demonstrate that the change over time at the intervention sites regarding the proportion of women who identified "bleeding heavier than a normal period" was 2.05 times greater than was the case in the comparison site, with this change attributable to the COMMPAC intervention.

Community sensitization on danger signs in pregnancy was a key responsibility of CHWs and community members under the project, and unusual bleeding in particular seemed to resonate with community members. As respondents explained:

> We did not know that bleeding even a spot of blood is risky. We did not know that a small amount of bleeding was bad. But we have now discovered and we now know the truth. So if you see just a small amount of blood, you should rush to hospital.
>
> *—FGD with female youth who lived in a community where the CAC took place*

> Before we were trained by PAC [COMMPAC], our people died a lot from miscarriages, they didn't understand the danger signs. They thought it was normal and ended up dying. But now we have been trained and we've penetrated to the grassroots and even the ones who thought it wasn't a serious problem now know it's a serious problem. So, the extreme cases and miscarriages have reduced tremendously.
>
> *—FGD with community leaders (male and female), Karunga*

> Before, they used to ignore [it]. If they were bleeding, they would delay and not feel that anything was going to happen. Like in our area, since January when we started being trained, three women have died during the first three months. But after that, we have not had any other disaster, because people have started going to hospitals and the health centers which are nearby. So the best way is to talk to them.
>
> *—FGD with male CAC participants from Longonot, Karunga, and Kiambogo*

Table 5. Percentage of respondents knowing various danger signs or complications in early pregnancy

Danger sign/complication	Intervention		Comparison	
	Baseline (N=388)	Endline (N=442)	Baseline (N=186)	Endline (N=205)
Increased bleeding	32.2	19.7**	43.0	20.5**
Bleeding heavier than a normal period	13.4	23.5**	21.0	20.5
Continued bleeding for two weeks	2.8	7.5**	1.6	4.9
Severe abdominal pain	38.4	50.0**	44.6	56.6*
Fever	7.2	5.9	8.1	8.8
Chills	6.2	1.1**	7.0	3.9
Foul-smelling vaginal discharge	3.9	6.1	6.5	4.9
Muscle aches	13.4	8.4*	10.2	6.8
Tenderness to pressure in abdomen	4.6	6.3	3.2	12.2**
Dizziness or fainting	15.2	24.4**	20.4	23.9
Feeling ill, weakness	39.4	37.3	38.7	36.1
Persistent nausea or vomiting	42.5	26.7**	42.5	33.2
Severe and constant headache	9.3	14.3*	5.9	12.2*
Other	16.5	20.6	18.3	17.1

*p<.05; **p<.01

Respondents were also asked about their own personal experiences with pregnancy complications—specifically, with bleeding in the first few months of pregnancy. At endline, 13% of respondents at the intervention sites had ever experienced bleeding in the first few months of pregnancy, compared with 6% of their peers in the comparison areas (Table 6).

Of those who reported having experienced bleeding, 80% at the intervention sites sought care for this condition, compared with 100% at the comparison sites. This represents an increase between baseline and endline in the proportion of women seeking care for bleeding in early pregnancy, from 65% to 80% in the intervention areas and from 79% to 100% in the control areas. The increases in question were not statistically significant and, due to the small number of cases, it is not possible to conduct a difference-in-differences analysis on this outcome.

Table 6. Percentage of respondents who experienced bleeding in the first few months of pregnancy and percentage who sought care

	Intervention		Comparison	
	Baseline	Endline	Baseline	Endline
% who ever experienced bleeding in first few months of pregnancy	9.8 (N=378)	13.1 (N=420)	13.3 (N=180)	6.0 (N=200)*
% experiencing bleeding who did not seek care for bleeding or other complications	35.1 (N=37)	20.0 (N=55)	20.8 (N=24)	0.0 (N=12)

*p<.05

Although knowledge that care for bleeding in early pregnancy was available at government hospitals/clinics increased in both intervention and comparison sites from baseline to endline (Table 7, page 14), the increase was greater in intervention sites than in comparison settings. There was equally an increase within intervention sites in the proportion of respondents who acknowledged dispensaries as places where care for bleeding in early pregnancy can be sought.

A similar increase was observed in the comparison areas, with the increase being statistically significant. Although the exact reasons for this are not clear, it is possible that the health-related work of other organizations in the comparison areas contributed to this change. The intervention sites registered a substantial but nonsignificant increase in the proportion of respondents who sought care for bleeding in pregnancy from dispensaries (Table 7), in contrast to the comparison areas, in which a decline was observed (from 47% to 25%).

Table 7. Percentage of respondents knowing where to access care in case of bleeding in early pregnancy and places where care was sought for bleeding in early pregnancy

	Intervention		Comparison	
	Baseline (N=401)	**Endline (N=442)**	**Baseline (N=192)**	**Endline (N=205)**
Knowledge				
Government hospital/clinic	51.6	58.1	64.1	67.8
Government health center	54.1	26.7**	34.9**	11.2**
Dispensary	40.1	46.8	46.9**	60.5**
Private hospital/clinic	14.5	6.1**	14.6	9.8
Pharmacy/chemist	1.3	0.0*	0.0	0.5
Traditional birth attendanc	0.3	0.5	0.5	0.5
CHW	1.3	0.2	3.1	0.5*
Herbalist	1.5	0.9	1.6	0.5
Other	0.3	1.6	1.6	1.0
	Intervention		**Comparison**	
	Baseline (N=23)	**Endline (N=44)**	**Baseline (N=19)**	**Endline (N=12)**
Place where care was sought				
Government hospital/clinic	52.2	29.5	47.4	41.7
Government health center	26.1	25.0	0.0	33.3**
Dispensary	0.0	13.6	47.4	25.0
Private hospital/clinic	30.4	27.3	0.0	16.7
Herbalist	0.0	2.3	0.0	0.0
Friend	0.0	4.5	0.0	0.0
Other	0.0	4.5	0.0	0.0

*p<.05; **p<.01

Service statistics from the health facilities indicate that while no clients had received PAC services at baseline, by the endline period, a total of 30 women were recorded as having received such services at the intervention-area health facilities (Table 8), and none had obtained PAC services from the comparison site. The intervention trained providers at dispensaries that are closest to the community and encouraged communities to visit their closest facility, to reduce the delay in obtaining care.

Table 8. Number of clients recorded as having sought PAC services at intervention-site health facilities (December 2010 to December 2011)

Karunga	Kiambogo			Longonot	
Karunga Dispensary	**Kiambogo Dispensary**	**Kiptangwanyi Dispensary**	**Oljorai Health Center**	**Holy Trinity Health Centre**	**Longonot Dispensary**
3	10	10	7	0	0
Total number of clients=30					

Participants in the intervention areas were more likely at endline than at baseline to seek care for bleeding in early pregnancy within their own communities (50% vs. 33%), getting to points of care either by walking or by using transportation. In contrast, participants at comparison sites were less likely to seek care within their own communities at endline than at baseline (42% vs. 58%) (Table 9). This relates directly to the focus in COMMPAC on seeking care at one's closest service delivery point, to reduce delays in obtaining PAC.

Table 9. Percentage distribution of respondents who sought care for bleeding in early pregnancy, by mode of transportation to place where care was sought

Mode of transportation	Intervention		Comparison	
	Baseline (N=24)	Endline (N=42)	Baseline (N=19)	Endline (N=12)
Within community, at walking distance	12.5	21.4	26.3	25.0
Within community, but transportation needed	20.8	28.6	31.6	16.7
Outside the community, at walking distance	4.2	0.0	0.0	0.0
Outside the community, transportation needed	62.5	50.0	42.1	58.3
Total	**100.0**	**100.0**	**100.0**	**100.0**

As a corollary to this, providers interviewed at the intervention sites stated that they felt equipped to offer care for bleeding in pregnancy, unlike their peers at the comparison sites. The six intervention-site providers interviewed all regarded the provision of PAC services as a responsibility of their health facility. Furthermore, they all considered themselves competent to practice MVA in particular, and each personally had used MVA to treat PAC clients. In contrast, none of the four comparison-site providers[5] considered PAC services as integral to the services offered; accordingly, PAC services were not offered at any of these facilities. While intervention-site providers were each able to accurately cite 5–8 danger signs (an average of six signs each) at endline, providers within the comparison areas cited 3–5 (an average of four).

By the endline period, 60% of intervention-site respondents reported spending from less than 30 minutes to less than one hour traveling to obtain PAC services, compared with 33% of comparison-site respondents. Thirty-one percent of those at the intervention sites reported not having incurred any travel costs to obtain these services, compared with 25% of their comparison-site counterparts. Women who had experienced bleeding in early pregnancy at the intervention sites were also less likely to have paid more than Kshs 1,000 for obtaining care (2%) than were their comparison-site peers (17%).

Women reported being supported by their partners in various ways to obtain PAC services. The provision of money to cover the cost of services was the major form of partner support in intervention and comparison sites at baseline and endline. By endline, the proportion of respondents whose partners accompanied them to obtain PAC services increased at both

[5] At baseline, five health facilities in the comparison site and six intervention site health facilities formed part of the study (for a total of 11 health facilities). By endline, however, one of the comparison-site health facilities (Prime Medical Care Clinic, a private health facility) had closed down.

intervention and comparison sites (Table 10). This increase was not significant, however, due to the small number of respondents on which this indicator was based.

Table 10. Selected measures of partner support for obtaining PAC services

Measure of partner support	Intervention		Comparison	
	Baseline (N=19)	Endline (N=40)	Baseline (N=19)	Endline (N=10)
Gave permission to go	47.4	7.5**	15.8	20.0
Provided transportation	31.6	12.5	21.1	20.0
Provided money	84.2	72.5	68.4	70.0
Accompanied respondent	36.8	55.0	52.6	70.0
Other	10.5	12.5	5.3	0.0

**p<.01

Perceptions of Quality of Care for Bleeding in the First Half of Pregnancy

The COMMPAC intervention included training providers in PAC as a central component of the intervention to improve quality of care. Improvements in waiting times for respondents in the intervention areas who sought services for bleeding in the first half of pregnancy were observed between baseline and endline. There was a statistically significant reduction in the proportion of those at the intervention sites who had to wait for more than 1.5 hours (from 21% at baseline to 5% at endline), while the proportion of those who did not have to wait at all doubled (Table 11).

Table 11. Percentage of respondents seeking care for bleeding, by how long they had to wait before being seen by a provider

Duration of wait	Intervention		Comparison	
	Baseline (N=24)	Endline (N=42)	Baseline (N=19)	Endline (N=12)
More than 1.5 hours	20.8	4.8*	42.1	25.0
1–1.5 hours	12.5	16.7	0.0	8.3
30–59 minutes	4.2	7.1	0.0	25.0*
1–29 minutes	41.7	31.0	21.1	8.3
Did not have to wait	20.8	40.5	31.6	33.3
Other	0.0	0.0	5.3	0.0

*p<.05

Respondents at the intervention site who had sought care for bleeding in the first half of pregnancy were more likely to feel that they were accorded enough privacy during their visit than those in the comparison areas (99% vs. 91%); that the provider's explanation of the procedure to be performed was clear (79% vs. 67%); and that they were treated very well by other health facility staff (65% vs. 50%). By endline, 70% of respondents at the intervention sites and 74% of those in the comparison areas recommended the health facility at which they sought services to someone else.

When asked to spontaneously recall the kind of information that providers gave them upon discharge, the proportion of participants in the intervention areas who received information about FP increased significantly, from 4% at baseline to 29% at endline, while the proportion

in the comparison areas declined from 5% to 0% (Table 12). However, respondents in the comparison areas were more likely than their counterparts at the intervention sites to indicate that they were given information on self-care and danger signs upon discharge.

Table 12. Percentage of respondents seeking care for bleeding who reported receiving various types of information upon discharge

Type of information	Intervention		Comparison	
	Baseline (N=24)	Endline (N=42)	Baseline (N=19)	Endline (N=12)
Return to fertility	8.3	2.4	5.3	8.3
FP	4.2	28.6*	5.3	0.0
Nutrition	20.8	21.4	15.8	16.7
Need to rest	62.5	54.8	36.8	58.3
Date of return visit for check-up	45.8	38.1	36.8	50.0
Self-care and danger signs	16.7	19.0	31.6	41.7
Other	0.0	7.1	36.8	25.0

*p<.05

The experiences of 25 women at the intervention and comparison sites who had experienced a pregnancy loss due to complications and who had received information on FP subsequent to the loss (19 from the intervention site and six from the comparison area) were compared. Eighteen of the 19 women at the intervention site who sought care for bleeding had a skilled health professional speak to them about FP methods, as was the case with all six women from the comparison areas. Of those who spoke with a skilled health professional about FP methods, none of the women in the comparison areas accepted a method, while three out of 18 women in the intervention areas left with a method.

Exposure to Community Interventions

Between baseline and endline, the proportion who knew of some CHWs increased slightly both within the intervention areas (from 37% to 41%) and within the comparison sites (from 35% to 40%) (Table 13). The proportion of participants that did not know any CHEWs or CHWs declined nonsignificantly in both the intervention and comparison areas.

Results from the difference-in-differences analysis show that the change over time at the intervention site with regard to the proportion of women that only knew some CHWs was not significantly greater than that observed in the comparison area.

Table 13. Percentage distribution of respondents, by knowledge of CHEWs and CHWs

Knowledge	Intervention		Comparison	
	Baseline (N=401)	Endline (N=442)	Baseline (N=192)	Endline (N=205)
Know some of the CHEWs only	3.0	4.5	10.4	6.3
Know some of the CHWs only	36.7	41.0	35.4	40.0
Know some of the CHEWs and CHWs	8.2	7.7	11.5	13.2
Do not know of any CHEWs/CHWs	52.1	46.8	42.7	40.5

At endline, exposure to any meeting sponsored by a nongovernmental organization (NGO) or community group that focused on bleeding in the first half of pregnancy remained virtually the same at comparison sites as at baseline, while it tripled in the intervention areas (Table 14).

The change observed with regard to the proportions of women who had participated in any NGO/community group/CHW meeting or activity focused on bleeding in the first half of pregnancy was greater in the intervention areas than in the comparison settings. However, the difference-in-differences estimates for these outcomes were not statistically significant.

Table 14. Percentage of respondents who recalled participating in NGO/community group meetings/activities or CHW meetings/activities focused on bleeding in the first half of pregnancy in the past year

	Intervention		Comparison	
Participation	**Baseline**	**Endline**	**Baseline**	**Endline**
Have you participated in any NGO/community group meeting or activity focused on bleeding in the first half of pregnancy	9.3 (N=173)	23.5 (N=285)**	7.9 (N=89)	8.7 (N=92)
Have you participated in any CHW meeting or activity focused on bleeding in the first half of pregnancy	6.7 (N=401)	16.7 (N=442)**	2.1 (N=192)	7.3 (N=205)*

*p<.05; **p<.01

Given the 18-month duration of the intervention, there may have been insufficient time for this element to produce significant quantitative results. Qualitative data obtained from the communities and DHMT members involved in the COMMPAC intervention reported enhanced community ownership, confidence, and capacity to take action for community health. For example, many communities built or repaired roads to ease passage to dispensaries for women seeking PAC, while others partnered with local authorities to build or expand dispensaries in their communities:

> PAC [COMMPAC] has also trained us on how to unite people so that they can be able to do work for themselves. We have seen that they have started to do many things in places where nothing could be done before. Things have been able to take place through PAC.
>
> *—FGD with community members (older men), Karunga, Kiambogo, and Longonot*

> I think the best way is that the community is empowered to take care of their own health… So, when we are at the facility and the community is empowered then you find that most of the health problems are identified and are solved. So only the complicated cases come up. So the workload at the facility is reduced because people even know how to prevent ill health. So, the workload is reduced and there is quality time to care for the few clients who really need care. Even at the dispensary. *—Key informant 2*

FP Knowledge

Awareness creation around FP is a key PAC strategy aimed at preventing unintended pregnancies—and, therefore, potential pregnancy complications. The intervention therefore included a focus on FP as a means to prevent unintended pregnancies and included it as a

topic in the community behavior change communication cards. There was a highly statistically significant increase in the intervention areas in respondents' overall awareness of FP between baseline and endline (from 93% to 98%). In comparison, the increase at comparison sites was not statistically significant (Table 15). Additionally, respondents' knowledge of long-acting and permanent methods of FP rose significantly between baseline and endline in both intervention and comparison areas.

Results from the difference-in-differences analysis, however, show that over time there were no statistically significant differences between the intervention sites and the comparison areas in the change in proportions of women aware of FP or of long-acting and permanent methods.

Table 15. Percentage of respondents reporting various types of FP knowledge

	Intervention		Comparison	
Knowledge	**Baseline**	**Endline**	**Baseline**	**Endline**
% who ever heard of methods to delay or prevent pregnancy	92.5 (N=401)	98.4 (N=442)**	94.8 (N=192)	97.1 (N=205)
% who are aware of:	(N=371)	(N=435)	(N=182)	(N=199)
Pill	93.2	91.7	93.4	90.5
Injectable	88.1	93.1*	90.1	96.5*
Intrauterine device	49.1	70.3**	55.0	71.4**
Condom	32.6	44.4**	34.1	50.8**
Hormonal implants	29.9	53.3**	33.5	61.8**
Female sterilization	14.8	27.4**	14.3	32.7**
Standard days method	12.4	4.6**	14.8	4.5**
Fertility awareness methods	6.5	16.1**	4.4	21.1**
Male sterilization	4.0	7.8*	0.6	10.6**
Withdrawal	2.4	4.8	2.8	7.0
Emergency contraception	3.5	6.0	1.1	6.5**
Lactational amenorrhea method	2.7	7.8**	1.1	8.0**
Other	2.9	1.8	1.7	2.5

*p<.05; **p<.01

Knowledge of specific FP methods increased significantly not only at the intervention sites, but also within the comparison areas. This is probably because the endline coincided with FP outreach activities conducted by at least one other NGO in both the intervention and the comparison areas.

Source of FP Information

A primary thrust of the intervention focused on generating discussion around FP at the community level, though service-side improvements also focused on training providers in FP. Government health facilities were the primary channel through which the majority of participants in the intervention and comparison areas had been exposed to information on FP methods, at both baseline and endline (Table 16, page 20). It is noteworthy, however, that the proportion of respondents who mentioned government health facilities as being their source

of FP information declined in both the intervention and the comparison areas. There was a significant increase from baseline to endline in the proportion of intervention-area participants who listed as their main source of FP information community-based organizations (CBOs), NGOs, or faith-based organizations (FBOs) (from 0% to 3%); CHWs (0% to 6%); or fellow community members (23% to 30%). In the comparison areas, the proportion of respondents who mentioned CHWs as their source of FP information also increased significantly. Notably, the comparison sites registered a decline in the proportion of respondents who cited their fellow community members as their source of FP information.

Table 16. Percentage of respondents citing various sources of exposure (heard/seen/read) to information on FP methods

Source	Intervention		Comparison	
	Baseline (N=371)	Endline (N=435)	Baseline (N=182)	Endline (N=199)
Government health facility	81.1	76.3	74.7	72.9
Private health facility	7.6	6.4	13.7	10.6
Pharmacy/chemist	0.0	0.2	0.0	0.5
CBO/NGO/FBO	0.0	3.2**	0.0	2.0
Traditional birth attendant	0.0	0.2	0.0	1.0
Husband	0.0	0.5	0.0	0.5
Relative/friend	27.0	22.5	31.9	26.1
Radio/TV	30.7	32.9	31.9	33.7
Newspaper	0.0	0.2	0.0	1.0
Poster	0.0	2.8**	0.0	2.5*
CHW	0.0	5.5**	0.0	7.5**
Community member	22.6	29.9*	23.1	19.6
Other	0.0	9.9**	0.0	10.6**

*p<.05; **p<.01

The highly significant increase in the proportion of respondents at the comparison sites who reported receiving information about FP from a CHW may be linked to the work of other organizations in the same areas.

FP Discussion and Use

Gender dimensions were addressed as part of the intervention, since gender dynamics affect reproductive health decision making. Men were included in outreach activities both to educate them and to encourage their support and involvement in FP and reproductive health issues.

By the endline period, the proportion of women who had held discussions on FP with their partners increased at the intervention and comparison sites alike (from 57% to 75% at the intervention sites and from 60% to 73% at the comparison sites [p<.01 in each case]). Of these, there was a highly significant increase by endline in both the intervention and the comparison settings in the proportion of respondents that reported that their partners did not want any more children (from 27% to 39% at the intervention site; from 23% to 42% in the comparison area) (Table 17, page 21). Women at the intervention sites were more likely than

women in comparison areas to report that their partners wanted them to delay childbearing for a period of 2–5 years or for more than five years.

Table 17. Percentage distribution of respondents, by partner's desire for future childbearing

Partner's childbearing desire	Intervention		Comparison	
	Baseline (N=394)	Endline (N=442)	Baseline (N=189)	Endline (N=205)
Husband does not want more children	26.9	38.7**	23.3	42.0**
Husband wants a/another child in:				
1 year or less/as soon as possible	7.1	4.3	3.7	4.9
Less than 2 years	5.3	1.4**	2.1	2.4
2–5 years	9.4	13.8*	11.1	13.7
More than 5 years	7.9	10.6	12.7	5.9*
Do not know	14.0	14.5	19.0	15.6
Not applicable	29.4	16.7**	28.0	15.6**
Total	**100.0**	**100.0**	**100.0**	**100.0**

*p<.05; **p<.01

At endline, there was no significant change in the proportion of women who reported that their partner approved of their use of FP at either the intervention or the comparison sites (Table 18). On the other hand, women's personal approval of FP use rose significantly from baseline to endline at both the intervention and the comparison sites (from 74% to 84% in the intervention area and from 71% to 83% at the comparison sites). Nonetheless, the difference-in-differences analysis showed that the changes in the intervention areas were not significantly greater than those in the comparison sites.

Table 18. Percentage of respondents reporting that their partner or that they approve of FP

Approval	Intervention		Comparison	
	Baseline	Endline	Baseline	Endline
Respondent reports partner approval of FP	66.1 (N=310)	66.4 (N=396)	61.4 (N=153)	62.2 (N=196)
Respondent approves of FP	73.5 (N=370)	84.1 (N=435)**	70.9 (N=182)	83.4 (N=199)**

**p<.01

There was no significant change in the proportion of respondents in the intervention and comparison areas who said they would like to have a/another child in the future (Table 19, page 22).

By the endline period, respondents in the intervention areas were less likely than their peers in the comparison sites to report wanting another child as soon as possible or in less than two years. The proportion of women desiring another child in the next 2–5 years or more rose significantly in the intervention areas, with no significant change in this measure at the comparison sites. Nonetheless, based on the difference-in-differences analysis, these apparent changes in the intervention areas did not differ significantly from those at the comparison sites.

Table 19. Percentage of respondents who desire a/another child, by how soon

	Intervention		Comparison	
	Baseline	Endline	Baseline	Endline
% of respondents who would like to have a (another) child	43.5% (N=398)	44.6% (N=442)	46.6% (N=191)	40.7% (N=204)
Among respondents who want a/another child,% reporting when they would like to do so	(N=173)	(N=197)	(N=89)	(N=83)
1 year or less/as soon as possible	14.7	10.2	7.8	15.7
Less than 2 years (13–23 months)	14.7	3.6**	9.7	7.2
2–5 years	27.2	41.6**	29.1	38.6
More than 5 years	20.1	36.5**	26.2	28.9
Other	2.7	1.0	0.0	1.2
Do not know	20.7	7.1**	27.2	8.4**

**p<.01

Table 20 shows that substantial increases in FP use occurred at the intervention sites (from 47% at baseline to 54% at endline) and at the comparison sites (from 46% at baseline to 60% at endline). While the injectable and the pill remained the most commonly used methods across the study period, there was a significant decrease in the use of the standard days method by both intervention and comparison respondents and nonsignificant increases in the use of long-acting and permanent methods at both intervention and comparison sites. A statistically significant increase was observed, however, in current use of hormonal implants both in intervention areas (from 3% to 7%) and at comparison sites (from 0% to 6%).

Despite the observed increases, the difference-in-differences analysis indicates that over time, there were no significant changes at the intervention sites versus the comparison areas in the proportions of women that were currently using FP.

Table 20. Percentage of respondents currently using FP, and percentage distribution of current users, by method

FP method	Intervention		Comparison	
	Baseline	Endline	Baseline	Endline
% currently using FP	46.9 (N=343)	53.9 (N=397)	45.9 (N=172)	59.5 (N=185)*
% distribution of FP methods currently used	(N=160)	(N=215)	(N=77)	(N=110)
Injectable	58.8	46.0*	57.1	51.8
Pill	10.0	14.4	18.2	15.5
Standard days method	6.9	0.5**	10.4	1.8*
Female sterilization	6.3	9.8	3.9	8.2
Intrauterine device	5.6	10.2	2.6	9.1
Fertility awareness methods	4.4	4.7	2.6	7.3
Condom	3.8	4.7	2.6	0.0
Lactational amenorrhea method	0.0	1.9	2.6	0.0
Hormonal implants	2.5	7.0*	0.0	5.5*
Emergency contraceptive	0.6	0.0	0.0	0.0
Other	1.3	0.9	0.0	0.9

*p<.05; **p<.01

Not being married, breastfeeding, and fearing side effects persisted as some of the main reasons for women's nonuse of FP methods at both intervention and comparison sites. By endline, intervention-site respondents were less likely than comparison-site respondents to cite their own opposition to the use of FP as the reason for their nonuse (Table 21).

Table 21. Percentage distribution of respondents not using FP, by main reasons for not using FP

Reason	Intervention		Comparison	
	Baseline (N=182)	Endline (N=183)	Baseline (N=92)	Endline (N=75)
Is not married	22.5	22.4	20.7	24.0
Is not having sex	8.2	15.3*	12.0	17.3
Is having infrequent sex	3.3	7.7	2.2	2.7
Is menopausal/had hysterectomy	6.6	4.9	0.0	4.0
Is subfecund/infecund	2.2	0.0*	5.4	0.0*
Is breastfeeding	17.6	19.1	17.4	16.0
Is fatalistic	0.6	0.5	0.0	1.3
Is opposed	6.0	3.8	7.6	8.0
Husband/partner is opposed	4.4	6.0	8.7	10.7
Others are opposed	0.0	0.5	0.0	0.0
Religion prohibits	5.5	3.3	3.3	2.7
Has health concerns	5.0	9.8	5.4	9.3
Fears side effects	11.5	14.8	13	20.0
Lacks access/is too far	0.0	0.0	0.0	0.0
Costs too much	0.0	1.1	0.0	0.0
Inconvenient to use	2.2	0.0*	1.1	2.7
Interferes with body's natural processes	5.0	1.1*	5.4	5.3
Knows no source	0.0	0.0	2.2	0.0
Does not know	0.0	2.7*	0.0	0.0
Other	0.0	4.9**	0.0	14.7**

*p<.05; **p<.01

Knowledge and Source of Health Services

Access to health services, including FP and PAC, can be hampered by a lack of awareness of sources of care. The intervention therefore encouraged community members to visit their local facilities for PAC and FP, as part of a range of reproductive health services.

At both baseline and endline, most respondents from the intervention and comparison sites indicated that the majority of people in their communities get their FP methods from government health facilities (Table 22, page 24).

Table 22. Percentage of respondents mentioning perceived access points for FP methods among community members

Access point	Intervention		Comparison	
	Baseline (N=371)	Endline (N=435)	Baseline (N=182)	Endline (N=199)
Government health facility	97.6	92.2**	94.0	88.4
Private health facility	15.6	17.9	30.2	26.1
Pharmacy/chemist	4.9	3.9	1.7	1.5
CBO/NGO/FBO	0.0	0.2	0.0	0.5
Herbalist	3.8	0.5**	4.4	1.0*
Other	0.5	11.7**	3.9	10.6*

*p<.05; **p<.01

While at baseline government hospitals and government health centers were perceived as the most common access points for ANC by both intervention- and comparison-area respondents, at endline respondents at both the intervention and the comparison sites were significantly more likely to cite dispensaries as community members' primary access points for ANC (Table 23).

Table 23. Percentage of respondents citing various perceived access points for ANC among community members

Access point	Intervention		Comparison	
	Baseline (N=401)	Endline (N=442)	Baseline (N=192)	Endline (N=205)
Government hospital/clinic	41.4	22.9**	52.6	31.2**
Government health center	50.4	41.4**	39.1	15.6**
Dispensary	44.4	62.2**	57.3	82.9**
Private hospital/clinic	8.5	9.7	10.9	17.1
Traditional birth attendant's home	0.0	0.0	3.1	0.5*
Nowhere/they do not go	5.2	0.0**	4.2	1.5
Other	0.5	5.0**	0.5	1.5

*p<.05; **p<.01

A similar pattern was seen with regard to perceived access points for delivery services. While the community perception that a considerable proportion of women deliver at home persisted in both intervention and comparison settings, an increase was observed in the perception that community members seek delivery services at dispensaries. This increase was statistically significant by endline at the intervention sites in particular (Table 24, page 25). Nonetheless, according to the difference-in-differences analysis, this apparent change in the intervention areas was not significantly greater than the change observed at the comparison sites.

Table 24. Percentage of respondents citing various perceived access points for delivery care among community members

Access point	Intervention		Comparison	
	Baseline (N=401)	Endline (N=442)	Baseline (N=192)	Endline (N=205)
Government hospital/clinic	50.9	32.4**	63.5	59.0
Government health center	50.6	33.5**	27.6	6.8**
Dispensary	31.7	47.3**	26.0	32.7
Private hospital/clinic	10.2	10.2	9.4	15.6
Traditional birth attendant's home	0.8	0.5	4.2	4.9
At home	33.2	35.1	44.8	47.3
Other	0.5	0.7	0.5	1.0

**p<.01

Between the baseline and endline, the proportion of women that made their first ANC visit in the first trimester of their last or current pregnancy increased slightly in the intervention areas (from 14% to 17%). The comparison sites, however, experienced a major decline, from 28% at baseline to 11% at endline (Table 25). Of those who attended ANC, there was a nonsignificant increase in the intervention areas in the proportion of women making four or more visits (from 36% to 41%), compared with a decrease from 57% to 49% at the comparison sites.

Table 25. Percentage distribution of respondents who made an ANC visit during their last or current pregnancy, by month of gestation at which they made their first visit

Month of gestation	Intervention		Comparison	
	Baseline (N=96)	Endline (N=126)	Baseline (N=50)	Endline (N=63)
0	0.0	0.0	2.0	0.0
1	1.0	1.6	0.0	1.6
2	3.1	4.0	6.0	4.8
3	9.4	11.1	20.0	4.8*
4	20.8	21.4	10.0	28.6*
5	20.8	23.0	30.0	22.2
6	28.1	20.6	18.0	25.4
7	13.5	15.9	14.0	9.5
8	3.1	2.4	0.0	3.2
Total	**100.0**	**100.0**	**100.0**	**100.0**

*p<.05

Programmatic Implications

In summary, the COMMPAC intervention was successful in increasing knowledge of a critical danger sign in early pregnancy; enabling providers to effectively offer PAC services at the dispensary level; raising awareness of PAC; helping women seek and obtain PAC services at the dispensary level; inspiring communities to take action for their own health; and generating interest among key stakeholders in sustaining the intervention.

The COMMPAC intervention was less successful in improving FP knowledge and current use; women's approval and partners' approval of FP use; knowledge of dispensaries and health centers as service delivery points for PAC among the general population of women; partner support for obtaining PAC services; and participation in community discussions around PAC.

Given these realities and the interest among key stakeholders in sustaining the intervention, it is important to note that there are certain clear areas for which replicating and sustaining the COMMPAC model holds merit (e.g., awareness creation around PAC, provider training to offer PAC services as lower level health facilities, creation of community ownership around a health issue). Aspects of the model that require strengthening have also been specified—especially those related to strengthening community health workers, who are the mainstay of the community mobilization strategy. Providing PAC services at the dispensary level was aimed at enhancing community access, but information about service availability at dispensaries needs to be widely disseminated in the community for the strategy to be fully effective. Of particular importance is FP—which, being such an integral part of PAC, must be adequately addressed for optimal outcomes to be observed as a result of the COMMPAC model. The potential for sustainability and replication in light of these findings are discussed in greater detail in the following section.

Sustainability and Replicability of the COMMPAC Model

Qualitative findings from this study shed light on the potential for the gains made under COMMPAC to be sustained and replicated. Emerging themes in regard to the sustainability of the COMMPAC model fall into three main categories: COMMPAC's community approach; community ownership; and enhanced capacity.

COMMPAC's community approach

Respondents repeatedly referred to the "community approach" employed within the COMMPAC intervention as being remarkable and as leading to the successes registered by the project. They noted that the COMMPAC strategy involved providing communities with the tools needed to address bleeding in pregnancy and then essentially taking a back seat to ensure that the community was able to carry the work forward.

> [T]he way the COMMPAC model has been doing, is that they have involved the community themselves. They have trained the community and after training the community, it's the community now that does the work. In that way, sustainability...will be very high. In other projects,...the donors themselves are the ones who usually do the work, and in that way, sustainability is not there. —*Key informant 3*

> [T]he approach...focused on the community because also the government advocates that at the end of the day, if we don't make the community to be in the forefront, then we are not going to deliver; we are not going to have any impact on the community. So the approach of also using the community and at the end of the day, spreading the impact on the ground in the community, to me, it is very vital. —*Key informant 1*

The second quote on page 26 also hints at another key strategy of the community approach employed within the COMMPAC model: working within government structures. In this case, key informants across the board noted that building the COMMPAC intervention upon the National Community Strategy has essentially ensured the sustainability of any of the COMMPAC components. As one participant intimated:

> [T]hey have been able to use the established structure of the Ministry of Health, so with or without [RESPOND], COMMPAC will still continue because it's not standing on its own [but]...under...the Community Strategy. So [the work] will continue even without [RESPOND]. They didn't establish their own structures. —*Key informant 2*

Community ownership

COMMPAC's community approach naturally led to greater community ownership of the COMMPAC model—another important aspect that shows the potential for the model's sustainability. Working with existing community structures, where some cohesion already existed, and strengthening their ability to identify, prioritize, and act on issues they determined were most important was an important strategy within the intervention. COMMPAC facilitated a process of community reflection and capacity building that resulted in communities using their own resources to solve problems, taking responsibility for actions to improve community health, and celebrating those successes through use of the CAC. As one respondent put it:

> They [RESPOND] are not the ones doing it, but they are influencing *us* to do it. So even if they leave today, we shall still continue because our people have the experience and have been doing it. —*Key informant 3*

Qualitative evidence abounds in regard to the level of ownership that community members have taken on as a result of the COMMPAC intervention. In particular, over the life of the project, communities have independently and creatively taken action in various ways to consider issues that lead to bleeding in early pregnancy and to address barriers to seeking care for this condition. As the quotations below demonstrate, community members are tackling barriers to seeking care for bleeding in early pregnancy in a variety of impressive ways:

> [I]n Karunga, people accessing the [health] facility was an issue, but the village came together to make the roads so that they can be passable and people can get access to the facilities. You see, it is not the women that [constructed] that road—it is the men.... There is that sharing of responsibilities.
>
> —*Key informant 3*

> In...Kiambogo..., the community has started claiming some of their rights when it comes to health services. For example, there is a place called "Njeno"... because [community members] know there is a place where a dispensary is supposed to be built.... They have gone to the councillor, and that area has been given to the community for the development of these services. I think this is a good action, seeing that they are taking care of their own health.
>
> —*FGD with CHEWs*

> In order for the project to last, the community has to own it, and because most of the people have believed that the project is theirs, they believe that they have to do something in order to sustain the project and ensure that it does not die. —*FGD with CBO members*

Action-taking on the part of communities extended beyond the direct issue of care-seeking for bleeding in early pregnancy alone. Indeed, respondents' narratives suggest that training, mentoring, and support under the COMMPAC model resulted in a holistic effect upon communities, leading community members to also address a myriad of other issues that were indirectly related to the problem of bleeding in early pregnancy. Issues such as alcohol and drug abuse, domestic violence, and insecurity were increasingly understood by communities as being linked to bleeding in pregnancy and as worthy of addressing proactively so as to effectively tackle the core issue. The discussion excerpts below provide further insight into this dynamic:

> [RESPOND] has taught us the act of how to teach these people about behavior changes. Because even issues of irresponsible births result out of drunkenness of men, however much the wives would want to plan their families. This even made children to be born anyhow, because the men never wanted their women to go for family planning, yet they even demanded sex forcefully sometimes. Women who went for family planning pills hid them outside the house in containers. —*FGD with community leaders, Karunga*

> [T]he benefit accruing from this is that community members have managed to realize their own problems.… PAC [COMMPAC] has helped people in creating awareness about knowing their problems and formulating possible solutions to these problems. They come up with solutions as community members. —*FGD with CHWs (male and female), Longonot*

These and other narratives suggest that community members were able to integrate the COMMPAC approach into their everyday lives, thus ensuring the sustainability of the lessons learned.

Enhanced capacity

A common refrain in participants' narratives had to do with the sustainability of knowledge—and therefore of the gains made through the COMMPAC intervention. There was a consensus among the participants that their capacity to mobilize their communities to handle bleeding in early pregnancy had been enhanced in a variety of ways. Many respondents were of the opinion that the knowledge they had received through training under the COMMPAC intervention was sufficient to ensure the project's sustainability.

> Even if they [RESPOND] leave, we will not stop the good work; we will continue with it.... Because even if they go, this is a talent which is at heart, and with all the training that I have got, the community will still be coming to me even after they [RESPOND] have gone. I won't tell [the community] my trainers are gone; I'm going to implement what I know as I continue praying that God uplifts others for refresher courses. Because I'm ready to assist the community with or without the presence of [RESPOND].... I can't stop giving referrals because they are no longer there; I can't stop assisting women with bleeding. —*FGD, CHWs, Karunga*

> Before the training penetrated the villages, we men had a problem. When we heard that a woman had a bleeding problem, men didn't come close to her. But since the training, we try to help the women with problems and direct them to the hospitals. Men feared particular women problems, but with the unity all men and women are equal and can offer assistance in any case. This training has given us the knowledge and the unity to dispel fear which men had earlier on. Nowadays, things are okay, and we help women who are faced with problems. We take the initiative of taking them to hospitals.
>
> *—FGD with community leaders (male and female), Karunga*

> PAC has also trained us on how to unite people so that they can be able to do work for themselves. We have seen that they have started to do many things in places where nothing could be done before. Things have been able to take place through PAC.
>
> *—FGD with community members (older men), Karunga, Kiambogo, and Longonot*

The knowledge and skills alluded to apply to providers at the health facilities as well, who felt that the skills gained under COMMPAC would be applied to their regular work, pointing out that this is a form of sustainability:

> *Respondent 1:* [S]ince you have the knowledge and you have the [MVA] kit, the services have to continue. That is what I believe.
>
> *Respondent 6:* I also believe so—that sustainability is not an issue here—because the community had been imparted with the knowledge on danger signs, and the information is with them. They know where to get these services, which is close to them, and all the surrounding facilities have MVA kits, so sustainability is not an issue. They will always take care [their] health. They know the places to go to and wherever they go, there is somebody with the information. All the personnel in the facilities have been trained on that issue.
>
> *—FGD, CHEWs*

In addition to knowledge and skills, respondents expressed their determination to ensure that systems developed under the COMMPAC platform are sustained. Examples of the systems referred to include record-keeping and reporting formats used by CHWs and CHEWs; strategies for client referral and follow-up; and budgeting at the district level for MVA kits.

Key informants also emphasized their intention to apply certain components of the COMMPAC model (such as the approach to community engagement, the empowerment of community members to address their health issues through the establishment of income-generating activities, etc.) to other programs in Naivasha District.

In the ways enumerated here, aspects of the COMMPAC model can clearly be sustained in the communities that have experienced this intervention.

There is also strong willingness on the part of the Naivasha's District and Provincial Health Management Teams to scale up the COMMPAC model within and beyond Naivasha District. As one interviewee asserted:

> Apart from ourselves, we have the CHWs, CHEWs—these are the in-charges of the health centers and dispensaries. We have the community health committee, who are the supervisors of the community health workers. And in the DHMT, we have the [District Public Health Nurse]. I'm working under the DHMT. We work as a team. There is also the divisional nursing officer, who in most cases is in the field with a motorbike, doing supervision and evaluation and also going to attend the Dialogue Days, and at least she can tell us how, up to what level, where, and what we can do to make [COMMPAC activities] continue, and what has not been put in place. We have been putting all these in place because, you know, after they [RESPOND] go, we need to sustain this. We need to sustain PAC in our facilities. We need to continue the on-the-job training because we are funded for training and because we have the model. We know we have the way. We shall continue to do that. —*Key informant 4*

Advocacy avenues to promote potential replication and scale-up were also highlighted by key informants and include: the District Stakeholders Health Forum, which periodically brings together all health players within the District and provides insight into areas in the District that stakeholders can contribute toward or conduct programming around; dissemination of the evaluation findings at local and national levels, including at provincial meetings during which district heads are encouraged to share innovative interventions occurring in their own districts; national training curricula (e.g., for CHWs); and advocacy with the Division of Reproductive Health (MOH) and Ministry Heads to include COMMPAC activities in their annual operational plans and in their budgets.

Eighteen months is a relatively short time period in which to expect to see any significant results or changes at the community level, yet the endline results portray a situation in which community capacity has been built to address certain reproductive health issues. Program features that contributed to potential sustainability and scale-up include: focusing on community-led activities, through identification and prioritization of issues by the community themselves; using local resources in resolving community problems; allocating duties and responsibilities among community members; ensuring participation and accountability; recognizing achievements by community members using the CAC; and conducting simultaneous improvements at the facilities to deliver quality services.

Future efforts to replicate the intervention, however, should incorporate a focus on strengthening those areas that need improvement if the full effect of the COMMPAC model is to be realized.

Limitations

It is important to highlight the limitations of this study. First, in-depth client exit interviews were meant to be carried out with PAC clients identified at the health facilities located within the study communities. However, the small numbers of PAC clients presenting at this level created difficulties for identifying those who were willing to provide informed consent for an interview. Tracing PAC cases back to individual homes also proved to be a challenge. Thus, information necessary for gaining an in-depth understanding of PAC clients' experiences as a result of the COMMPAC intervention is limited. Our ability to assess the effects of the program on key indicators, including use of PAC services, partner support, and pregnancy outcomes, was equally hampered by small sample sizes.

Second, during the endline study period, it was discovered that COMMPAC was not the only intervention occurring in the study sites. The work of one international health NGO during this period, for example, specifically involved FP outreach activities and engagement with government health facilities and CHWs attached to these facilities, so as to expand community access to FP. Advertisements and posters were employed to publicize free health camps among community members, who were also sensitized on the use of long- and short-acting FP methods. These realities may have contributed to the unexpected results at endline within the comparison sites, such as a significant increase in FP knowledge levels and in the proportion reporting that they received FP information from a CHW. However, to the extent that this particular organization covered both intervention and comparison study sites, we believe that the effect of this additional intervention did not bias results in favour of any specific group.

Overall, while the study was useful in gaining an understanding of the effects of the COMMPAC model, future studies should apply different approaches to recruiting PAC clients, to enrich the study findings with their perspectives. For instance, conventional client exit interviews (conducted at a health facility upon discharge) can be done, but attention will need to be paid to the feasibility of conducting these kinds of interviews, including the expense involved and the ethics of doing such data collection. Exit interviews conducted with clients and health facilities involve an added cost of having a data collection team wait at the facility for PAC clients. While there is a possibility of restricting such interviews to high-volume facilities, these are likely to be referral facilities with an overemphasis on complicated cases. Where ethics are concerned, there is a need to develop guidelines for ensuring participants' comfort and the brevity of interviewing tools, bearing in mind that women may not wish to participate in such interviews at that moment.

Summary of Key Messages

The RESPOND Project in Kenya aimed to ensure the prevention of unintended or mistimed pregnancies and to ensure access to quality care for women experiencing bleeding in early pregnancy in Naivasha District. To this end, an intervention package was designed to foster increased awareness and use of PAC services, including FP, and to improve reproductive health and maternal health outcomes. Guided by its supply–enabling environment–demand framework over an 18-month period, RESPOND worked with selected communities in Naivasha District to strengthen service delivery points to provide PAC services; conduct community mobilization to improve community involvement and knowledge on the prevention and treatment of bleeding in the first half of pregnancy; build community capacity to address PAC needs; and encourage involvement in community action of those most marginalized and most affected by postabortion complications.

This final evaluation for the COMMPAC intervention in Naivasha has yielded key findings that speak both to the ability of certain aspects of RESPOND's COMMPAC model to contribute to improved PAC, maternal health, and reproductive health outcomes and to the potential of these components of the model to be scaled up in partnership with the MOH through the National Community Strategy. The key findings of this final evaluation are summarized below.

- **Overall, there were higher levels of awareness about danger signs in early pregnancy among women in the intervention areas than among their peers at the comparison sites:** Over time, changes in levels of awareness about certain danger signs in early pregnancy among women at the intervention site (particularly, the danger sign of "bleeding heavier than a normal period") were significantly greater than among women in the comparison area.
- **There was an increased tendency for women in the intervention areas to seek PAC services at dispensaries when they experienced pregnancy complications:** Service statistics from the health facilities indicated that while no clients had received PAC services at baseline, by the endline period, a total of 30 women had received such services at the intervention-area health facilities. Twenty three of these women received PAC services at dispensaries in the intervention area, while the remaining seven obtained services at an intervention-area health center.
- **Knowledge among the general population of women about where PAC services may be obtained did not increase significantly:** Although strengthening the interface between communities and the dispensaries and health centers within them was an important aspect of the COMMPAC intervention, by endline, knowledge of dispensaries and health centers as places to obtain PAC services did not increase significantly among the general population of women.
- **Levels of exposure to community discussions around PAC did not increase significantly:** Although the COMMPAC intervention focused on generating community discussions around PAC, there was no significant increase attributable to the intervention in regard to women's exposure to community discussions around PAC.

- **Partner support for obtaining PAC services did not increase:** Between baseline and endline, most measures of partner support for obtaining PAC services decreased in the intervention areas.
- **Providers experienced increased confidence about offering PAC services:** By endline, all intervention-site providers regarded the provision of PAC services as a responsibility of their health facility, considered themselves competent to practice MVA, and had each personally used the MVA method to treat PAC clients. Conversely, none of the comparison-site providers considered PAC services to be an integral part of the services offered within their health facilities, and, accordingly, PAC services were not offered at any of these facilities. Providers within the intervention areas also demonstrated a more comprehensive awareness of the danger signs in the postabortion period than did their comparison-site counterparts.
- **The quality of care available for postabortion complications was perceived as being higher among intervention-site respondents:** By endline, there was a statistically significant reduction in the proportion of intervention-site respondents seeking PAC services who had to wait for more than 1.5 hours before being seen by a provider. PAC clients at the intervention sites were more likely to report they were accorded enough privacy during their visit, that the provider's explanation of the procedure to be performed was clear, and that they were treated very well by other health facility staff.
- **There was an increase in the proportion of women who had sought PAC services reporting having received FP information and methods at intervention sites:** The proportion of PAC clients who received FP information prior to discharge increased significantly (from 4% to 29%), while a decline was observed among their counterparts in the comparison areas (from 5% to 0%).
- **The FP components of the COMMPAC intervention not related to service provision did not produce the desired effects:** Although FP was an integral part of the COMMPAC model, by endline there was no significant increase attributable to the intervention in such areas as women's current FP use and approval of FP by women and their partners.
- **The evaluation showed evidence of community empowerment to take action for their own health:** Qualitative data suggest that by endline intervention communities were inspired to proactively and creatively address postabortion complications and the barriers that lead to this condition. Community members were able to engage with community and government leaders and organizations and with their fellow community members to effect change in their neighborhoods. As a result of their activities and initiatives, community members went beyond tackling PAC issues alone, to simultaneously address other social issues within their communities.
- **There was evidence of preparedness in the District of Naivasha to replicate and/or scale up components of the COMMPAC model, as appropriate:** Provincial and District Health Management Teams in Naivasha were unequivocal about their willingness and intention to sustain the COMMPAC intervention in Naivasha and to replicate or scale up the COMMPAC model across and beyond Naivasha District.

Recommendations

1. Given the importance of FP for any PAC program, there is a need to ensure that FP is strengthened as an element of PAC at all levels of the COMMPAC intervention.
2. To increase partner support for obtaining PAC services, including partner approval of FP, current efforts under the COMMPAC model must be enhanced to more effectively reach men.
3. Community sensitization around danger signs in early pregnancy needs to be framed in ways that resonate and are easy for women to remember. The fact that the danger sign of "bleeding more heavily than a normal period" was significantly more likely to be remembered by women in the intervention areas points to the idea that women could simply relate to (and therefore remember) this sign better than others.
4. Community participation and mobilization should be part of programs that seek to expand access to PAC services. The majority of the outcomes for which an effect has been observed in this study are related to the intensive CACs that form part of the COMMPAC intervention. Engaging men as well as women in such processes is also recommended as being beneficial. The intervention was able to demonstrate discernible differences in some behavioral outcomes, suggesting that the approach has the potential to improve a number of additional outcomes once it is in place for a longer period of time.
5. The provision of PAC services at the dispensary level is a novel undertaking that was tested under the COMMPAC model and found to be feasible. As the accessibility of dispensaries can be greater than that of higher level health care facilities, introducing PAC services to dispensaries that are reasonably ready to provide them is recommended as a means of expanding women's access to these services. Furthermore, this approach aligns well with the Government of Kenya's policy of decentralized service delivery. Greater attention must be placed, however, on creating general community awareness around dispensaries as places at which to obtain PAC services.
6. Linked to the recommendation to use dispensaries to broaden women's access to PAC services is the need to train providers within dispensaries to offer PAC services and to ensure that they have the necessary equipment to facilitate PAC service provision. The evaluation demonstrates that if providers are trained to offer PAC services and if communities are made aware of the existence of these services, women will seek them out.
7. The number of community health workers employed to carry out the intervention under the current design of the COMMPAC model should be increased, to ensure greater exposure to PAC-focused community discussions.

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Appendix

Effect of the COMMPAC Interventions on Reproductive Health Knowledge and Behaviors of Women

Indicator	Difference-in-differences estimates (odds ratios)
Source of exposure to FP information	
CBO/NGO/FBO	n/c
Partner's desire for a(another) child	
Husband want a/another child in 2–5 years	1.22
Approval of FP	
Respondent approves of FP	1.10
Respondent's desire for a (another) child	
Wants a child in 2–5 years	0.32
Current use of FP	
Currently using FP	0.77
Perceived access points for delivery	
Dispensary	1.40
Percentage knowing various danger signs	
Bleeding heavier than a normal period	2.05*
Continued bleeding for two weeks	0.75
Severe abdominal pain	0.99
Dizziness or fainting	1.44
Knowledge of CHEWs or CHWs	
Know some of the CHWs only	0.99
Participation in NGO/community group meetings or activities or CHW meetings/activities focused on bleeding	
Participated in any NGO/community group meeting or activity focused on bleeding	2.70
Participated in any CHW meeting or activity focused on bleeding	0.75

Notes: n/c: not calculated due to small number of cases; *p<.05