ADVANCING COMMUNITY-LEVEL ACTION FOR IMPROVING MATERNAL, NEONATAL, AND CHILD HEALTH/PREVENTION OF MOTHER-TO-CHILD HIV TRANSMISSION (ACCLAIM): END OF PROJECT REPORT

(APRIL 1, 2012 – MARCH 31, 2016)

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ACRONYMS

ACCLAIM	Advancing Community-Level Action for Improving MNCH/PMTCT
ANC	antenatal care or clinic
ART	antiretroviral therapy
ARV	antiretroviral
BCC	behavior change communication
CAP	Community Action Plan
DA	District Administrator
EID	early infant HIV diagnosis
EGPAF	Elizabeth Glaser Pediatric AIDS Foundation
GEM	gender-equitable men
IRB	International Research Board
KAPB	knowledge, attitudes, practices and beliefs
MNCH	maternal, neonatal, and child Health
MOH	Ministry of Health
M&E	monitoring and evaluation
NVP	Nevirapine
PMTCT	prevention of mother-to-child HIV transmission
SOP	standard operating procedure
STI	sexually transmitted infection
VHT	Village Health Team

BACKGROUND

THE ELIZABETH GLASER PEDIATRIC AIDS FOUNDATION

The Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) is the global leader in the fight to end AIDS in children. Since 2000, EGPAF has supported expanded access to comprehensive HIV prevention, care and treatment services in regions of the world deeply affected by HIV and AIDS. Our dedicated staff work in close partnership with local governments, ministries of health, and organizations to halt the spread of the virus, especially among children, and to ensure those living with HIV receive the care and support they need to live long and healthy lives.

EGPAF's program implementation efforts seek to expand HIV prevention, care, and treatment access to children, women, and families affected by HIV in the countries where we work. EGPAF is currently supporting activities in 19 countries. Strengthening health systems, and integrating HIV services with primary health care services, particularly maternal and child health services, is critical to achieving this goal.

Over the last quarter century, the international research community has achieved great progress in deepening its scientific understanding of pediatric HIV and AIDS, leading to the development of innovations to address the epidemic among children. However, important challenges remain in ensuring access to and uptake of HIV testing, prevention, care and treatment services to all who need them. EGPAF continues to lead the field in the conduct of clinical and implementation research to evaluate innovative strategies and novel technologies to contribute to this ever-growing body of knowledge. EGPAF's research efforts specifically focus on determining the effectiveness of prevention of mother-to-child HIV transmission (PMTCT) and HIV care and treatment programs under real-world conditions, and assessing ways to increase the effectiveness of HIV-related health services and improve the health and wellbeing of women, children, and families. This includes developing effective and replicable comprehensive service delivery models that are well integrated within the health system with strong linkages to the communities that they serve.

ADVANCING COMMUNITY-LEVEL ACTION FOR IMPROVING MNCH/PMTCT

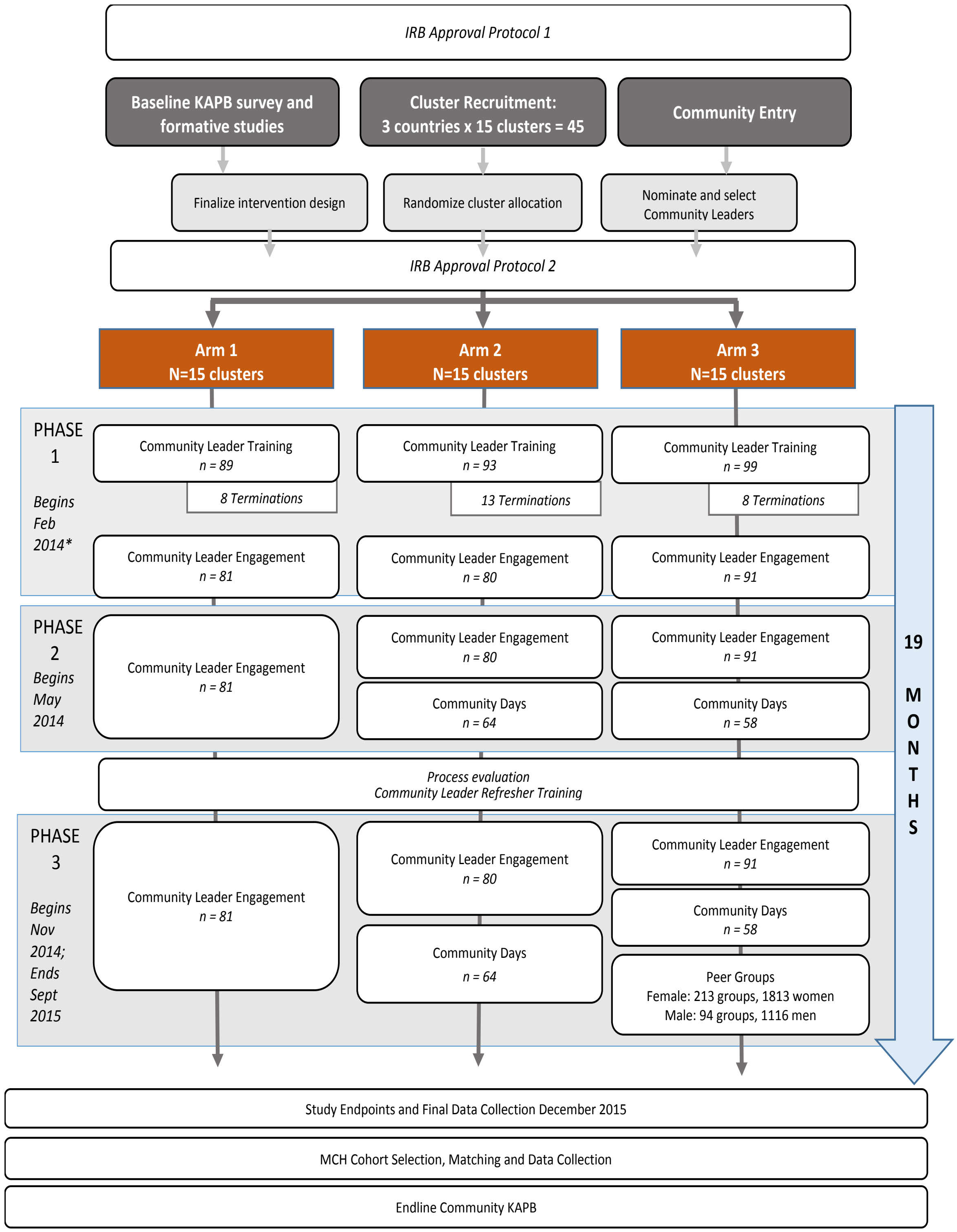
Numerous studies have demonstrated the effectiveness of a community interventions at improving early care-seeking behaviors (multiple antenatal care visits), engendering increasing skilled deliveries, improving awareness of the critical danger signs for mother and child, and reducing neonatal and maternal mortality. A variety of interventions, including early and consistent home visits throughout pregnancy and postpartum, women's groups, community groups, community-based emergency assistance, and local safe motherhood committees comprised of male and female community members and leaders have demonstrated effectiveness at improving maternal, neonatal and child health outcomes at scale (Bhutta et al.; Imdad et al.; Lassi Z et al).

Several studies (Rotheram-Borus et al., Thomlinson et al. and Rosato et al.) were designed to demonstrate the feasibility and effectiveness of approaches that equip lay cadres and Community Leaders to provide support to pregnant women living with HIV in a high burden context, specifically in disproportionately affected communities of Eastern and Southern Africa. One study in Malawi, Project MaiMwana, attempted to address HIV and AIDS as part of an integrated community-based maternal, neonatal, and child health intervention package (Lewycka et al.). The studies were designed to shed additional light on the social and behavioral pathways to health-seeking behaviors, but demonstrated that the proposed interventions are feasible, and bear the promise of being effective if implemented at scale. None of the studies achieved scale in multiple country settings.

To effectively implement a community-focused package of interventions and to demonstrate impact, ACCLAIM was implemented in Uganda, Swaziland, and Zimbabwe. These countries were chosen because of their need to increase community demand for, uptake of, and retention in maternal, neonatal, and child health (MNCH)/PMTCT services, coupled with EGPAF's strong, sustained implementation of PMTCT programs at the facility level, and close working relationships with the Ministry of Health (MOH) in each country at national and district levels. In each country, EGPAF had strong, sustained implementation of PMTCT programs at the facility level, and close working relationships with the MOH.

The goal of the multi-country (Uganda, Swaziland and Zimbabwe) ACCLAIM project was to increase community demand for, uptake of, and retention in MNCH/ PMTCT services to improve country progress towards elimination of pediatric HIV/AIDS. ACCLAIM tested through rigorous quasi-experimental design, a package of community-level interventions to achieve PMTCT. This goal was achieved through the implementation of the following interventions:

- Engagement of community leaders: through training and capacity-building for community leaders, the project facilitated the development of Community Action Plans (CAP) that identified and addressed barriers in the community, in order to increase demand for MNCH and PMTCT services
- Community Days: semi-annual Community Days that brought entire communities together for a day of communication, information, and activities to improve awareness among key target populations of important MNCH and PMTCT services.
- Community Peer Groups: Working at the individual level, MNCH classes and men's groups provided comprehensive MNCH/PMTCT information and skills development to crucial community sub-groups focused on increasing and improving MNCH and PMTCT health behaviors.



**Uganda received IRB approval later than the other two countries and began in May 2014, resulting in a 16 month intervention period.*

Figure 1. Study design

Each intervention was implemented for 18 monthsin Zimbabwe and Swaziland only, however the implementation period was 16 months for the interventions in Uganda due to the late approval of their baseline and effectiveness protocol.

GOAL AND OBJECTIVES

The ACCLAIM interventions were designed to overcome key social barriers to health service access and utilization across a variety of country settings, and in so doing, to improve the uptake of key maternal, child health, and HIV services. Intervention selection under ACCLAIM recognized that there is tremendous expertise inherent in local structures, and intended to work in partnership with this expertise to identify harmful gender and cultural norms and address health barriers. ACCLAIM recognized that community capacity is most effectively enhanced when communities have the opportunity for dialogue, shared reflection, joint learning, and collaboration.

STUDY OUTCOMES

The main study outcomes were derived from service statistics at the health facilities within each cluster.

Primary outcome:

1. Retention:
    - Proportion of HIV-exposed infants who present for HIV DNA-PCR testing for early infant diagnosis (EID) in the first six to eight weeks of life.

Secondary outcomes:

1. Demand for services:
    - Proportion of all women presenting for first ANC visit at less than 20 weeks gestation.
    - Proportion of all women who complete a minimum of four ANC visits.
    - Proportion of all women who deliver in a health facility.
    - Proportion of male partners tested for HIV, of all pregnant women living with HIV
2. Service uptake:
    - Proportion of HIV-exposed infants who receive Nevirapine (NVP) prophylaxis at birth.
    - Proportion of HIV-positive pregnant women who receive ART or ARV prophylaxis.

PREPARING FOR ACCLAIM

The process of initiating, nurturing and sustaining a desirable relationship with the purpose of securing and sustaining the community's interest in all aspect of a program is a complex process. This process is usually initiated before the project is started and this was done under the ACCLAIM Project. The purpose of this process was to identify the community by gathering information through formal and informal means. This was important as the project needed to know the community they will be working with so as to prepare and meet their needs. The second purpose for this process was to identify the leadership in these communities so that they can help the program team to develop ways in seeking their co-operation and support program implementation. Leadership at all levels was met to discuss the project mission, the history of the community, various interest groups and personalities in every community who must be identified to serve as contact persons and the ACCLAIM Project.

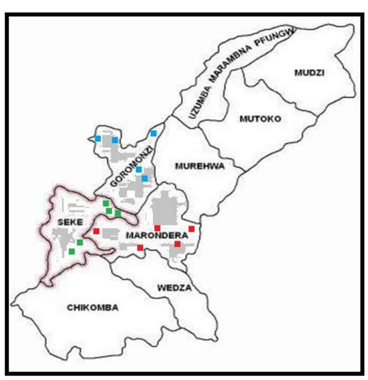
The implementation of the ACCLAIM project interventions in the countries warranted standardization across the board. A specific set of standard operating procedures (SOPs) for each intervention and related forms for data collection were developed by the *ACCLAIM global team,* in collaboration with the country teams. SOPs were essential for each intervention to ensure consistency of implementation across the three countries and compliance with the research protocol.

In April 2013, an implementation working group was convened to provide coordination for the implementation strategies of the project. The members of the implementation working group included the global team, technical directors of each participating EGPAF country program, project monitoring and evaluation (M&E) officers, and project implementation staff. This was done through weekly calls conducted with the three countries to discuss the details of the SOPs and process of implementation in each country. Reviews were made feedback and comments were incorporated into the final documents to ensure that all the interventions were rolled out the same way across the three countries. Training was conducted under the supervision of the Regional Project Coordinator to ensure adherence to protocol.

CLUSTER RANDOMISATION

This study was a three-arm randomized trial across three countries. Within each country, criteria for potential study regions included being supported by EGPAF, no recent history of intensified community-level PMTCT interventions, and low research activity but moderate to high maternal HIV yield. Within each country, three subunits were identified; each consisting of five clusters. A cluster was defined as the lowest level of health facility that implements PMTCT, together with its population catchment area. Criteria for selection included recording at least 14 HIV-positive pregnant women in the most recent year, a catchment area completely within the district/region with no overlap, and a mix of facility types. Referral facilities were excluded. The randomization allocated each region with the five clusters into one of three arms: Arm I clusters received an intervention that engaged community leaders; Arm II clusters, in addition to the community leader engagement, also implemented 'Community Days', a package that consisted of quarterly or semi-annual community events with structured dialogues and provision of selected health services; Arm III clusters, in addition to the community leader engagement and Community Days interventions, also implemented male and female community Peer Groups. Due to the high background levels of community programming in each of these countries (the national PMTCT program in each of these countries includes a robust community programming strategy as part of the minimum essential package of care), the selection of a true control arm was deemed to be infeasible. Figure 2 presents the trial design.

The study clusters were almost all rural, but varied in size depending on the zoning system observed by the particular MOH. The community clusters in Uganda are situated in the Southwest region of the country, where the majority of EGPAF Uganda's operations are based. In Zimbabwe, the study is implemented in Mashonaland East Province. In Swaziland, the study is implemented in Hhohho North and South and Shiselweni Regions (Figure 2).



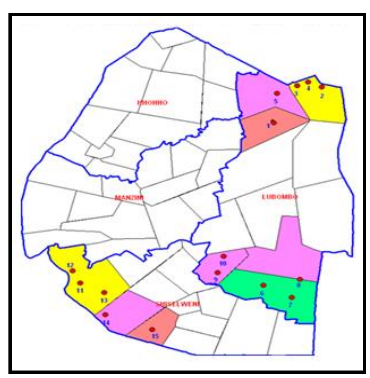


Figure 2: Implementation regions by country (Uganda, Zimbabwe, Swaziland)

At baseline and throughout the intervention, aggregated data on the key study outcomes of interest were extracted from the facility MNCH/PMTCT registers and quarterly reports. At community level, household surveys were done to measure changes in key social and behavioral indicators at baseline and at end-line. Individual knowledge, attitudes, practices and beliefs were measured among the Community Leaders before the training and six months after; and the Peer Groups' members before and after the implementation of the MNCH classes. Finally, individual level health services data were collected from facility registers and by phone for a selection of the cohort completing the MNCH Peer Groups, as well as from a comparison cohort in the Community Leader-only arm. The formative research included a structured community entry process to work with existing community structures (political, administrative, traditional, religious, etc.) to identify leaders who could be enlisted as change agents in their communities.

The community entry phase for the ACCLAIM study started in 2012, prior to finalizing the intervention design. Critical relationships were developed with the key national coordination structures and local structures (technical working groups, ministries and government offices) to ensure that decision makers and key influencers were vested in the study, and to lay the ground for influencing national community norms in the long term, which was a key aim of ACCLAIM.

STAFFING

In each country the ACCLAIM project had dedicated staff members responsible for project implementation, research, monitoring and evaluation. Each country team had 6-10 project staff members working full time on the project. In country the Country Technical Director would oversee all the work under the project. The team also reported to the Associate Project Director at regional level who managed all the activities under the project in the three countries. Project activities were also monitored through support from the global team composed of the Project Director, Research Director, S&IE Technical Officer and the Senior Technical Officer for Community Mobilisation.

In Zimbabwe the intervention coordinators stayed in the field so as to closely supervise the implementation of the interventions. In Uganda the team were based in the regional office with weekly travel to the field. In Swaziland the teams conducted daily travels to the field and weekly travels for Arm 3 because of its long distance from the national office.

COMMUNITY ENTRY

The community entry phase for the ACCLAIM study started in (April) 2012, prior to finalization of the intervention design. Each country team developed a costed plan to guide this effort. In the early phases of study design, community entry focused on securing pertinent data and intelligence on key factors that may influence the prioritization of study sites. Approvals and clearance for the research study were secured at national level. In addition, critical relationships were developed with the key national coordination structures (technical working groups, ministries and offices) to ensure that decision makers and key influencers were vested in the study, and to lay the ground for influencing national community norms in the long term, which was a key aim of ACCLAIM. Through the key working groups and ministry offices, guidance was secured on specific protocols to be observed, specific individuals to consult, and the expectations and norms of each specific Ministry and/or office. In general, the key ministries and offices involved included the MOH, Ministry of Local Government (Tinkundhla in Swaziland), Medical Research Council of Zimbabwe, Swaziland Ethics Committee and Uganda National Council of Science and Technology and the national/executive security offices.

Study coordinators played a lead role in explaining and ensuring adherence to community entry protocols at the sub-national level (province/region/district), which targeted the administrative and political offices. These institutions are responsible for service planning, development coordination, security clearances, and coordination across the multitude of government units. It is at this level that guidance on the accepted customs and protocols, local power and influence structures, and key administrative requirements was secured. On the basis of introductions initiated at higher administrative levels, consultations and relationship building at the local level were made.

At the community level (village/ward/district), formal cadres including elected officials (local councillors), appointees, civic leaders (civil society and business), and social leaders (religious and traditional) were targeted. These leaders often identified informal leaders (change agents, advocates, gatekeepers, champions, etc.) whose viewpoints and support were critical in accomplishing any objectives at community level. Completion of the entire community entry process was important for understanding and managing the political, social, reputational, financial, and other risks associated with operating in the selected communities. Care was also taken to elicit information on each community's health and social challenges, developmental priorities, collective history, the community's perspective on the success and failures of past and recent interventions and schemes, and to document community recommendations on how to manage relationships. The entire process, in general, took six to nine months to initiate in each community, and continued throughout the life of the project. The formative research and baseline study took place after the initial phases of community entry were completed.

Coordination with key civil society organizations was a core principle of the ACCLAIM project to reduce the fragmentation and incoherence across community institutions and actors, which is a continued challenge within the HIV response. Each of the three ACCLAIM country teams engaged active civil society organizations at multiple levels to ensure that they was no duplication of activities at community level and support in implementation of the Community Day intervention.

STUDY SETTING

Table 1 presents selected background characteristics of the 45 selected clusters by country and shows were some of the significant differences between the countries. The clusters in Uganda had to be much larger due to the structure of their PMTCT program, where only higher level clinics can provide ARV services. Thus, median Uganda cluster population was greater than 30,000, while Zimbabwe and Swaziland were much lower because of PMTCT availability at lower level clinics. There were also striking differences in the levels of education reported, with both men and women in Zimbabwe having higher levels of education. Ugandans tended to participate in more conventional religions, while in Zimbabwe and Swaziland, evangelicals were much more prominent. In Uganda, there was no information on education levels in the clusters; about male or female employment; or about the proportion of women married and the median age of first birth. About 20-25% of women in Zimbabwe and Swaziland were reported to be in formal employment; for men, 45-55% of Swazi and Zimbabwean men work away from home. The differences in the rates of marriage were large, with about 80% of Zimbabwean women under 30 years of age being married, but only 60% of Swazi women. The ages of first birth are similar in both countries at about 19 years. Ugandan women had an average of six children per women, in Swaziland three per woman, and in Zimbabwe 4.5.

Table 1. Profile of health facilities by country

Data element	Country		
	Swaziland	**Uganda**	**Zimbabwe**
Type of facility:			
- **Clinic/health center**	15	12	14
- **Community/rural hospital**		1	1
- **Hospital**		2	
Type of area: Rural	15	13	15
Median catchment population	7,674	30,300	7,297
Median no. of expected pregnancies	188	1575	248
Facility provides maternity services	2	15	7
Median no. of facility deliveries	640	351	93
Identification of mothers missing appointments	15	11	15
Identification of babies missing appointments	14	12	15
Facility/community links	15	14	14
Exposed infant diagnosis facility testing	15	15	15
Existence of civil society forum	0	2	2
District HIV/AIDS multi-sectoral forum	0	0	15
Existence of active community/village health committees	14	7	14

PROTOCOL DEVELOPMENT

The ACCLAIM study developed two protocols, one focusing on the formative and baseline (knowledge, attitudes, perceptions, and behavior [KABP]) evaluation, and the other, on the effectiveness of the interventions. This was done to facilitate a better understanding of very complex project and to ensure a more manageable review and approval process for the Institutional Review Boards/ Ethical Research Council IRBs/ERCs. The purpose of the approval process is to ensure that the ethical and regulatory compliance of research that involves human subjects is observed. The board ensures that appropriate steps are taken to protect the rights and welfare of humans participating as subjects in a research study. Zimbabwe, Uganda and Swaziland received approvals from Ethics Research Board in their respective countries in late 2013 and started implementation in November 2013. Uganda received their clearance in 2014 and hence started implementation in May 2014. Uganda's protocol took time to be approved because of its complex approval process for research activities in the country. This clearance gave the countries permission to conduct all the three community interventions, starting with the Community Leaders' engagement process.

Although all three interventions were underway by November 2014, the duration of project interventions was somewhat shorter than originally planned due to the late approvals of the IRB protocols.

Each of the three interventions had excellent adherence to protocol across the three countries. A protocol checklist was used assess adherence by during implementation. The implementation period was shorter than the original 24 months planned: 16 months for Uganda (due to IRB delays) and 19 months for Swaziland and Zimbabwe.

RESEARCH

The goals and specific aims of the formative and KAPB survey were to gather information from community leaders, community members and health care workers in order to tailor the community interventions to each country context.

The specific aims of the formative study were to:

- Explore the acceptability, feasibility, key messages, format, and timing of the proposed interventions
- Explore the facilitators and barriers to the proposed interventions.
- Identify what gaps the interventions will address and potential other gaps in achieving our outcomes.

The specific aims of the KAPB Survey were to;

- Document the knowledge, attitudes, beliefs, practices and community norms regarding MNCH and PMTCT from community leaders, community members and health care workers.
- Establish a baseline against which with data collected after implementation can be compared to assess the contributions of the community-level interventions.

FORMATIVE RESEARCH

The goal of the formative research was to gather information from Community Leaders, community members and health care workers in order to tailor community interventions to each country context. The research aimed to explore the acceptability, feasibility, key messages, format, and timing of the proposed interventions; the facilitators and barriers to the proposed interventions; and to identify gaps the interventions would address and other potential gaps in achieving the outcomes. Using semi-structured interview guides, data were collected from both formal and informal Community Leaders, adult community members and health care workers. Additionally, direct observations of existing women's antenatal education and counselling were conducted within the maternal and child health units of purposively selected local health facilities. A structured checklist was used to document the key messages, timing, size, scheduling, length, delivery format, facilitator profile and participant profile of group education classes attended by pregnant women in the local communities. This information was triangulated with basic health facility data to identify gaps in women's ANC education which subsequently could be filled by information sourced in the women's peer groups.

Two clusters per intervention arm, totalling six clusters per country, were randomly selected for the formative data collection. The formal Community Leaders already identified by members of the ACCLAIM Project team were interviewed and subsequently asked for recommendations of informal leaders to be interviewed. Community members were recruited from general community gatherings such as markets, places where people collect water, places where men gather. The health facilities in the randomly selected clusters were accessed for the interviews with health care workers and direct observations. Where there was more than one health facility in the randomly selected cluster, the health facility with the largest population in the catchment area of the facility was selected. Health care workers in the MNCH clinics and in any HIV-specific clinic were targeted for interviews. All the interviews were audio recorded to ensure data validation and quality control. Altogether, 180 community leaders, (17 of which were informal community leaders) and 18 health care workers were interviewed.

KEY FINDINGS FOR THE FORMATIVE SURVEY

ENGAGING COMMUNITY LEADERS

- All the countries had existing structures through which potential leaders could be identified for the project.
- Community Leaders proposed included traditional, religious and, elected leaders and in some countries included also administrative officers, health care workers and community health workers.
- Leaders had identities of "trust". Informal leaders such as pastors, church leaders, elders, are normally trusted. Formal leaders had leadership positions in the community. In some countries, the community women wanted female leadership for this project.
- Leaders could engage the community through seminars/workshops, existing meeting structures, and techniques such as drama, illustrations, discussions and questions should be used.
- Leaders would be motivated to participate so that they could get more information and education on health matters
- Leaders' engagement with the local health facility was multidimensional. They wanted the education to better inform community members, assist them to reach the facility, refer members to the facility; also to observe the conditions and interactions at the health facility, mobilize and coordinate fund raising and resource generation activities to improve the facility. In addition, it was thought that Community Leaders could communicate facility needs to higher structures.
- Recommendations from Community Leaders for the project included increased community sensitization, health education, more education on services offered, including child spacing/family planning for couples, couple counselling, door to door testing for HIV, providing incentives for pregnant women to attend the facility. Also the need for improved facility services, including delivery, more staff, better conditions for staff, specialized services such as diabetes, emergency transport, and waiting mothers' shelters.

HOLDING COMMUNITY DAYS

- Consider local conditions for which day to hold and take into account seasonality.
- Mobilize through local leaders, utilize local structures; have active participatory events; drama, poetry, with pamphlets, flyers etc.

SETTING UP WOMEN PEER GROUPS

- Hold meetings on weekends or local/traditional rest days.
- Motivation to attend: health knowledge.
- Separate married and unmarried groups.
- Different opinions on whether to also have men in the groups.

SETTING UP MALE PEER GROUPS

- Hold meetings weekends or local/traditional rest days.
- Timing and duration, afternoons in some countries (but comments by health workers and female leaders that men may be drunk at that time), morning in other countries; duration one to two hours.

- Elect chairperson, but have health specialist in attendance.
- Recruit through local leaders, or from places men gather.
- Motivation to attend varied: desire for knowledge, but “tangibles” important; food, seeds, t-shirts, condoms, possibility to have income generating activities.
- Structure: should be open to all men, married or single.

FACILITY BARRIERS

Individual-level: Transport, money/poverty, ignorance, family/traditional beliefs, fear of HIV testing

Facility-level: Medicines shortages, staff shortages, staff transfers, hours of operation, lack of mothers’ waiting shelters, lack of electricity and water, transport and money for transport

SUGGESTED HEALTH TOPICS – WOMEN

- Pregnancy, delivery, HIV/PMTCT, immunization, family planning, nutrition, breast feeding, hygiene
- Social issues, interpersonal relations, importance of women working

KAPB SURVEY

The KAPB survey was conducted after concluding the formative research. The goal of the KAPB survey was to gather data on knowledge of key outcomes with select participant groups; specifically, to document the knowledge, attitudes, beliefs, practices and community norms regarding MNCH and PMTCT from community leaders, community members and health care workers, and to establish a baseline against which data collected after implementation on the community could be compared to assess the interventions.

Using structured interviews, the survey was organized into twelve main domains: barriers to accessing health care; individual MNCH knowledge, attitudes, behaviors and practices; community MNCH perceptions, attitudes and beliefs; HIV related attitudes; HIV knowledge, PMTCT knowledge; pregnancy and postnatal care; HIV testing and disclosure; community norms on HIV related stigma; gender norms; household decision-making; contraception; and social capital. Survey items were generated by adapting measures from standard surveys such as the Multiples Indicator Cluster Survey, USAID’s Rapid Catch Survey (USAID: 2000); and the Demographic and Health Surveys. In addition, the Gender Equitable Man validated scale (Pulerwitz J: 2008, Ugarte W: 2013) and relevant items from the World Bank’s Social Capital scale (Krishna A: 2000) were included in the questionnaire to assess gender norms and social capital. Households to be surveyed were randomly selected from the ACCLAIM clusters. In each selected household, one eligible adult (18-60 years of age) was randomly selected after informed consent. A total of 70 participants per cluster were interviewed and a total of 1050 per country, with approximately equal number of men and women. Key findings of the formative and the baseline study are detailed below.

The findings were able to inform the specific MNCH and PMTCT messages used under all three interventions. The example of some of the messages that were used to inform the messages of the interventions were on the importance of early ANC visit to the facility, the need for pregnant women to conduct all the four ANC focused visit, importance of facility delivery, exclusive breastfeeding for the first 6 months, the importance of using condoms during pregnancy and breastfeeding and importance of post- natal care. The survey also informed the methodology on how to conduct the community meetings especially using dialogues instead of campaigns. Dialogues created the discussions which presented an opportunity for communities to discuss some of the myths and the misconceptions, harmful gender norms and beliefs. The findings also informed the logistics on how to conduct the community meetings and the specific days to conduct the meetings duration and best meeting places.

KEY FINDINGS FOR THE KAPB SURVEY

DEMOGRAPHIC AND SOCIO-ECONOMIC STATUS

A total of 3,320 respondents were interviewed, 53% of whom were women.

Table 2. Gender distribution by country

Country	Women	Men
Swaziland	549	552
Uganda	556	584
Zimbabwe	658	421
Total	**1763**	**1557**

Overall, Swazi women were younger, (mean age 34.7 years), and Zimbabwean women older, (mean age 36.4 years). Ugandan men tended to be older, (mean age 39.8 years) and the Swazi men younger, 33.9 years. Zimbabwean respondents had higher education levels (65% of women and 78% men with secondary education and above), and Ugandan respondents had lower education levels, (19% of women and 34% of men with secondary education and above). More Zimbabweans had been away from home for at least one month in the past 12 (39%), Ugandans were least likely to be away from home (21%). More women than men were married, but Swaziland had the highest proportions of unmarried respondents, 34% of women, 53% of men, Uganda the lowest, 6% of women, and 10% of men. Households were smallest in Zimbabwe, median household number 2.5; the other countries had household size of six.

PROBLEMS IN ACCESSING HEALTH CARE

Lack of money to go to the health facility was a major problem in Uganda and Zimbabwe, distance was a big problem in Uganda and Swaziland, and the poor state of the health facility a reported problem for respondents in Uganda. In Uganda, one barrier included women not wanting to go to the health facility alone.

MNCH KNOWLEDGE, ATTITUDES, PRACTICES, BELIEFS AND BARRIERS

- Nearly all respondents agreed that a woman needed to attend ANC, and that the best place for ANC is a public (government) health facility. In contrast to the other countries, 10% of Ugandan respondents preferred private health facilities.
- Less than 50% of all respondents indicated that a woman should attend ANC as soon as she suspects she is pregnant, and while overall about 70% indicated that women should attend ANC at least 4 times, about 20% of the Uganda respondents felt that it should be less than 4 times.
- About 35% of respondents agreed that maternal death is caused by evil spirits or breaking taboos.
- About 70% of Swazi and Ugandan, but only 40% of Zimbabwean, respondents agreed that community members would be willing to mobilize resources to ensure health outcomes for every mother and child in the community.

STI/HIV KNOWLEDGE AND STIGMA

- Knowledge on sexually transmitted infections (STIs) was high with over 90% for Uganda and Zimbabwe respondents, but only 70% of Swazi respondents agreeing that it was possible for a person to have an STI without knowing it or showing any signs.
- HIV knowledge was also generally high, but few respondents mentioned that a mother could transmit HIV to her baby.
- Ugandan respondents had more stigmatizing attitudes towards persons living with HIV, compared to respondents in the other (higher prevalence) countries.

HIV TESTING AND DISCLOSURE

Overall, more women had ever tested for HIV (over 85%) compared to men, (70%). The higher rates among women were because many had been tested during pregnancy.

PMTCT KNOWLEDGE

Less than 40% of respondents knew that HIV could be transmitted to a baby during pregnancy, and only 15% of respondents mentioned that HIV could be prevented from being passed to an infant by exclusive breastfeeding for the first six months after birth.

PREGNANCY AND POSTNATAL CARE

- Though over 95% of the women who had been pregnant in the past five years had attended ANC, only 50% attended before 4 months of gestation.
- Nearly all women reported testing for HIV during this pregnancy, but the rate of retesting for HIV-negative women varied.
- 50% of the husbands/partners tested for HIV at the same time. The percentages are 59% (Zimbabwe), 41% (Uganda), 55% (Swaziland), so about 50% overall.

GENDER EQUITY NORMS

- Over 60% of all respondents agreed that a woman should tolerate violence in order to keep her family together.
- Over 70% of Zimbabweans (both women and men) – but less than 50% of respondents in the other countries – agreed that "a man needs a woman, even if things with his wife are fine", meaning that a man needs other women in addition to his wife.
- Swazi respondents generally had more favourable gender norms.

HOUSEHOLD DECISION-MAKING

- There were divergent answers on who decides how the money coming into the household would be used. In Uganda and Zimbabwe, higher proportions of men compared to women said that they did so jointly with their spouse/partner, 45% and 53% respectively, as against 34% and 40% respectively. In Swaziland, equal proportions of women and men jointly decided on the use of the money.
- A high percentage of Swazis were unmarried and living with their families, so these respondents relied on their families for decision making.
- About 17% of Zimbabwe, 12% of Uganda, and about 6% of Swazi respondents reported that the husband/partner usually decides on the health care for the woman

CONTRACEPTION

- Most women knew the contraceptive methods of the pill (90%), injectable (83%) and the male condom (56%). Men knew the male condom (77%), the pill (70%) and the injectable (55%).
- About 58% of all respondents said they were using some form of contraceptive, with more men than women were reporting to be using a contraceptive.
- Only 43% of women in Uganda were on contraceptives, compared with 54% in Zimbabwe and 55% in Swaziland.
- Overall, about 45% of the women on contraceptives chose the method themselves, 37% in Uganda, 54% in Swaziland.

SEXUAL PRACTICES AND ATTITUDES

- About 20% of Swazi, 10% of Ugandan and 9% of Zimbabwean men, but less than 2% of women overall, reported that they had had two or more sex partners in the past 6 months
- About 60% of Ugandan men, 11% of Ugandan women, 5% of the Swazis and 3% of the Zimbabweans agreed that it is acceptable for a man to have unprotected sex with someone who is not his wife/main partner when she is pregnant.

SOCIAL CAPITAL – GROUPS AND NETWORKS

- Uganda had the most groups and networks as over 80% of respondents said that they or someone in their household belonged to a group, compared with 30% in the other countries.
- The more common groups were farmers'/fishermen groups; credit/finance groups and village/neighbourhood associations.
- There was overlapping memberships for about 20% of the respondents/households in Uganda and Zimbabwe, for the three important groups members belonged to, while in Swaziland, there was little overlap.
- In Swaziland, about 20% of the groups were members of the same religion, and this was also the case among the men in Zimbabwe.
- A majority of groups in Zimbabwe and among the Swazi women were organized along gender lines.

COMPARISON OF THE BASELINE AND END-LINE KAPB SURVEYS

Using similar methodology, an end-line KAPB community survey was held to evaluate if there were any community changes which could be attributed to the ACCLAIM project.

We compared selected KAPB on MNCH and PMTCT with community surveys before and after the intervention was implemented, by study arm; community leader only, community leader and Community Day, community leader, Community Day and Peer Groups. The selected questions were in the domains of individual MNCH knowledge, attitudes, perceptions and barriers, community MNCH perceptions, attitudes and beliefs, HIV knowledge, HIV-related stigma (Ugarte WJ: 2013), PMTCT knowledge, gender-equitable men (GEM); gender norms, and household decision-making. Appendix 1 presents these domains, their questions and answer options, and the scoring system.

In each domain, the questions were recoded to enable scoring. The scores for each question were then totaled to get the overall domain score. Except for the HIV-related stigma scale, higher scores were indicative of improvement in the particular item being measured. For the stigma scale, a decreased score indicated a reduction in stigma. The abbreviated GEM scale was scored according to Pulerwitz J: 2008.

Using the scores by domain, we then undertook a difference-in-differences analysis. The community leader only intervention (Arm 1) was the referent group. In Tables 3-5, we present the findings from this analysis, with the mean score and standard error, by study arm, country and gender. We also indicate where the differences were statistically significant, $p<0.05$.

Overall, Uganda demonstrated the most improvement in the items measured. Compared to Arm 1, Ugandan women in Arm 3 had significantly increased KAPB in all the selected domains. Both the Ugandan women and men had improved knowledge, attitudes, practices and beliefs in HIV-related stigma, (both Arms 2 and 3), PMTCT knowledge (Arm 3), gender norms (both Arms 2 and 3) and household decision-making (both Arms 2 and 3).

Zimbabwe women had significant score increases in community MNCH perceptions, attitudes and beliefs, (both Arms 2 and 3), and HIV knowledge (Arm 3). Compared to Arm 2, women in Arm 1 had significantly increased scores for household decision-making. There were no significant improvements in KAPB scores for the Zimbabwean men.

Swazi women in Arm 1 had improved HIV knowledge scores compared to both Arms 2 and 3, and they also had reduced HIV stigma scores when compared with the women in Arm 3. There were no changes among the Swazi men.

These findings suggest that at least for Uganda and to some extent in Zimbabwe, the additional interventions of the Community Day and Peer Groups together with the community leader were more effective than the community leader alone at the community level. For Swaziland, there did not appear to be any additional effect beyond the community leader alone. All analyses were done using SAS 11.

Table 3. Pre- and post-mean scores by KAPB domain, and mean difference in differences scores and (standard errors) by study arm, by gender, Swaziland

	Females			Males		
	Pre	Post	Difference	Pre	Post	Difference
Individual MNCH KAPB						
CL only (Arm 1)	3.50	2.75	Ref	3.15	3.65	Ref
CL and CD (Arm 2)	3.60	2.86	0.016 (0.094)	3.12	3.55	- 0.075 (0.137)
CL, CD, and PG (Arm 3)	3.49	2.81	0.062 (0.093)	2.89	3.62	0.218 (0.143)
Community MNCH KAPB						
CL only (Arm 1)	22.37	23.53	Ref	22.58	23.81	Ref
CL and CD (Arm 2)	22.51	23.10	- 0.569 (0.521)	22.40	24.07	0.432 (0.553)
CL, CD, and PG (Arm 3)	22.16	23.91	0.584 (0.513)	21.90	23.62	0.479 (0.577)
HIV Knowledge						
CL only (Arm 1)	4.54	5.37	Ref	3.52	3.63	Ref
CL and CD (Arm 2)	4.71	4.98	0.166 (0.131)	3.46	3.51	- 0.065 (0.138)
CL, CD, and PG (Arm 3)	4.44	5.42	- 0.817[1] (0.414)	3.24	3.48	0.125 (0.144)
HIV-related stigma						
CL only (Arm 1)	15.53	16.12	Ref	16.24	15.92	Ref
CL and CD (Arm 2)	15.16	15.76	0.014 (0.423)	15.67	15.94	0.591 (0.463)
CL, CD, and PG (Arm 3)	15.57	15.34	- 0.817[1] (0.414)	16.51	15.93	- 0.256 (0.482)
PMTCT Knowledge						
CL only (Arm 1)	1.59	1.72	Ref	1.38	1.72	Ref
CL and CD (Arm 2)	1.53	1.68	0.023 (0.117)	1.14	1.42	- 0.051 (0.118)
CL, CD, and PG (Arm 3)	1.66	1.67	- 0.129 (0.115)	1.23	1.35	- 0.218 (0.122)
GEM						
CL only (Arm 1)	24.83	26.94	Ref	25.57	27.34	Ref
CL and CD (Arm 2)	24.28	25.58	- 0.797 (0.587)	25.11	27.05	0.174 (0.618)
CL, CD, and PG (Arm 3)	24.09	25.60	- 0.585 (0.427)	24.94	25.54	- 1.167 (0.646)
Household decision-making						
CL only (Arm 1)	0.57	0.49	Ref	0.47	0.53	Ref
CL and CD (Arm 2)	0.51	0.58	0.142 (0.109)	0.57	0.56	- 0.059 (0.114)
CL, CD, and PG (Arm 3)	0.48	0.47	0.053 (0.106)	0.43	0.49	0.010 (0.119)

[1]p<0.05, [2]p<0.01, [3]p<0.005, [4]p<0.001

Table 4. Pre- and post-mean scores by KAPB domain, and mean difference in differences scores and (standard errors) by study arm, by gender, Uganda.

	Females			Males		
	Pre	Post	Difference	Pre	Post	Difference
Individual MNCH KAPB						
CL only (Arm 1)	2.27	3.34	Ref	2.34	2.78	Ref
CL and CD (Arm 2)	2.16	3.14	- 0.092 (0.152)	2.08	2.88	0.356[1] (0.166)
CL, CD, and PG (Arm 3)	2.60	3.61	- 0.060 (0.152)	2.47	3.22	0.302 (0.167)
Community MNCH KAPB						
CL only (Arm 1)	24.68	23.85	Ref	24.98	24.44	Ref
CL and CD (Arm 2)	23.03	22.82	0.624 (0.487)	23.86	24.12	0.791 (0.523)
CL, CD, and PG (Arm 3)	25.36	26.24	1.708[4] (0.515)	24.56	27.39	3.368[4] (0.527)
HIV knowledge						
CL only (Arm 1)	5.28	6.03	Ref	3.72	4.14	Ref
CL and CD (Arm 2)	5.45	6.07	- 0.129 (0.204)	3.63	4.07	0.029 (0.149)
CL, CD, and PG (Arm 3)	5.43	6.64	0.455[1] (0.203)	3.76	4.41	0.241 (0.149)
HIV-related stigma						
CL only (Arm 1)	21.15	20.79	Ref	21.00	20.77	Ref
CL and CD (Arm 2)	20.45	18.96	- 1.122[1] (0.492)	20.81	19.40	- 1.178[1] (0.464)
CL, CD, and PG (Arm 3)	19.99	17.50	- 2.129[4] (0.492)	20.30	17.93	- 2.142[4] (0.468)
PMTCT knowledge						
CL only (Arm 1)	1.20	1.40	Ref	1.04	1.23	Ref
CL and CD (Arm 2)	1.08	1.45	0.169 (0.114)	0.96	1.23	0.082 (0.103)
CL, CD, and PG (Arm 3)	1.23	1.66	0.234[1] (0.113)	1.15	1.63	0.293[3] (0.104)
GEM						
CL only (Arm 1)	20.30	18.99	Ref	22.11	20.21	Ref
CL and CD (Arm 2)	18.87	21.07	3.501[4] (0.589)	20.89	21.90	2.915[4] (0.632)
CL, CD, and PG (Arm 3)	20.02	21.46	2.741[4] (0.589)	21.77	23.19	3.324[4] (0.639)
Household decision-making						
CL only (Arm 1)	0.51	0.48	Ref	0.74	0.56	Ref
CL and CD (Arm 2)	0.35	0.77	0.445[4] (0.105)	0.46	0.98	0.699[4] (0.109)
CL, CD, and PG (Arm 3)	0.52	0.73	0.234[1] (0.105)	0.70	0.86	0.333[3] (0.111)

[1]$p<0.05$, [2]$p<0.01$, [3]$p<0.005$, [4]$p<0.001$

Table 5. Pre- and post-mean scores by KAPB domain, and mean difference in differences scores and (standard errors) by study arm, by gender, Zimbabwe.

	Females			Males		
	Pre	Post	Difference	Pre	Post	Difference
Individual MNCH KAPB						
CL only (Arm 1)	3.54	2.67	Ref	2.88	2.43	Ref
CL and CD (Arm 2)	3.70	2.71	- 0.123 (0.093)	3.01	2.31	- 0.250 (0.178)
CL, CD, and PG (Arm 3)	3.57	2.69	- 0.011 (0.094)	2.87	2.49	0.072 (0.178)
Community MNCH KAPB						
CL only (Arm 1)	22.16	25.02	Ref	22.97	25.57	Ref
CL and CD (Arm 2)	21.53	25.69	1.298[3] (0.456)	21.99	25.55	0.955 (0.619)
CL, CD, and PG (Arm 3)	21.52	25.53	1.156[1] (0.460)	22.40	26.18	1.177 (0.622)
HIV knowledge						
CL only (Arm 1)	4.36	5.00	Ref	3.21	3.26	Ref
CL and CD (Arm 2)	4.59	5.40	0.177 (0.169)	3.28	3.26	- 0.070 (0.149)
CL, CD, and PG (Arm 3)	4.60	5.61	0.375[1] (0.171)	3.53	3.55	- 0.025 (0.150)
HIV-related stigma						
CL only (Arm 1)	16.92	14.67	Ref	17.72	16.29	Ref
CL and CD (Arm 2)	16.42	14.86	0.683 (0.452)	17.33	15.00	- 0.891 (0.598)
CL, CD, and PG (Arm 3)	15.77	14.40	0.865 (0.448)	16.19	15.41	0.664 (0.601)
PMTCT knowledge						
CL only (Arm 1)	1.49	1.65	Ref	1.24	1.55	Ref
CL and CD (Arm 2)	1.67	1.97	0.137 (0.092)	1.32	1.68	0.047 (0.119)
CL, CD, and PG (Arm 3)	1.65	1.92	0.104 (0.093)	1.51	1.71	- 0.106 (0.119)
GEM						
CL only (Arm 1)	21.23	22.51	Ref	23.46	24.47	Ref
CL and CD (Arm 2)	21.32	23.45	0.847 (0.639)	23.31	25.14	0.814 (0.842)
CL, CD, and PG (Arm 3)	21.97	22.26	- 0.983 (0.646)	24.55	25.44	- 0.118 (0.844)
Household decision-making						
CL only (Arm 1)	0.68	0.96	Ref	1.14	0.97	Ref
CL and CD (Arm 2)	0.88	0.94	- 0.220[1] (0.112)	1.04	0.96	0.081 (0.156)
CL, CD, and PG (Arm 3)	0.75	0.98	- 0.049 (0.113)	0.94	1.05	0.273 (0.156)

[1]p<0.05, [2]p<0.01, [3]p<0.005, [4]p<0.001

COMMUNITY PROFILES

To understand the project areas and to assist in the planning for the research data collection and the development of the interventions, teams undertook community profiles of the participating health facilities and of the communities in the various clusters. After the identification of the clusters, the profiles were developed through desk review in the three countries using the various data sources of the national Censuses, national and local surveys, government ministry reports, EGPAF reports, civil society directories and other unpublished documents.

The community profiles provided vital information on the health facilities. Swaziland and Zimbabwe health facilities provided similar services at the lowest levels, except for delivery services which were available in only four sites nationally, while in Uganda, PMTCT services were provided only at higher-level facilities. For this reason, the Uganda average facility catchment populations of about 27.000 were over three times larger than Zimbabwe's, with Swaziland's just over twice as large.

Table 6. Totals by arm and country

MEASURE	TOTALS BY ARM			TOTALS BY COUNTRY		
	Arm 1	Arm 2	Arm 3	Uganda	Swaziland	Zimbabwe
Estimated population	208,422	233,973	216,628	425,134	142,514	102,105
Estimated pregnancies per year	11,630	10,514	7,649	22,082	3,540	3,902
	MEANS, PERCENTS BY ARM			MEANS, PERCENTS BY COUNTRY		
	Arm 1	Arm 2	Arm 3	Uganda	Swaziland	Zimbabwe
Estimated population (means)	13,894	15,597	14,441	28,342	9,501	6,807
Estimated pregnancies per year (means)	774	700	509	1,472	236	260
Women's literacy (%)	75	72	82	81	78	95
Men's literacy (%)	85	83	88	83	92	97
Women in formal employment (%)	13	12	13	7	21	19
Men working away (%)	55	58	62	22	38	43
Median age at first birth (years)	-	-	-	--	19	18
Women<30 years of age married (%)	-	-	-	73	59	77
Number of children per women	-	-	-	6	3	4
Health facilities total	2	5	2	6	3	2
Number of civil society organizations	-	-	-	207	368	95
Number of HIV-focused organizations	-	-	-	13	19	79

ACCLAIM INTERVENTIONS

The ACCLAIM interventions were designed to overcome key social barriers to health service access and utilization across a variety of country settings, and in so doing, to improve the uptake of key MNCH, and HIV services. ACCLAIM recognized that community capacity is most effectively enhanced when communities have the opportunity for dialogue, shared reflection, joint learning, and collaboration, and worked in partnership with local structures to identify and address health barriers.

Process indicators (community indicators) that were collected on a monthly basis were for the community leaders, Community Days and the Peer Groups. The indicators were developed by the global team in close consultation with the country teams. Definitions for each indicator were developed and these were shared with the country teams for their inputs. Country teams were taken through the indicators and their definitions during a conference call to enhance their understanding on what data elements to be collected. The global team also developed the monthly reporting template that was used by country teams to capture the process indicators on a monthly basis and submitted to the global team for review and quarterly analysis.

Each country had a team of officers, tasked with abstracting the community leader's indicators from the community leader's diaries and the Peer Group's data indicators from the peer facilitator's registers in the community on a monthly basis. The Community Day's indicators were always collected in the community by the program officers at the end of each Community Day. The indicators were entered into a monthly report which was submitted to the Regional Coordinator and the M&E focal person at global level. The team reviewed the indicators and if there were any discrepancies they conducted calls with the country teams to address this. After resolving discrepancies the monthly report is captured in the database by the global focal person and reviewed by the global team to identify areas where targets were not being met and ensure that data quality issues were being observed and achieved. If they were major concerns with the data the global team will hold a data review meeting with each the country management and M&E staff so that course corrections were implemented early to allow for smooth implementation of the project. Quarterly data reviews were also done with each country over above the ones mentioned above to ensure data quality and that target were being met. Data was analyzed quarterly and used for monitoring progress of the project. Quarterly data analysis was always shared with the countries so that they understand where they were and where they needed to put more emphasis in their work. Activities were implemented according to the plan.

The ACCLAIM interventions engaged the community at three different levels:

- **Community Leaders:** this intervention trained Community Leaders and built their capacity for engaging with and conducting advocacy in the community. The leaders were supported to develop CAPs that identified and addressed barriers in the communities in order to increase demand for MNCH and PMTCT services.
- **Community Days:** Semi-annual Community Days that brought entire communities together for a day of dialogue, information, and health services to create community discussion around important MNCH and PMTCT issues.
- **Community Peer Groups:** MNCH classes and men's groups provided comprehensive MNCH/PMTCT information and skills development to crucial community sub-groups focused on increasing and improving MNCH and PMTCT health behaviors and changing harmful gender norms.

Coordination with key civil society organizations was a core principle of the ACCLAIM project to reduce the fragmentation and incoherence across community institutions and actors, which is a continued challenge within the HIV response. Each of the three ACCLAIM country teams engaged active civil society organizations at multiple levels to ensure that they was no duplication of activities at community level and support in implementation of the Community Day intervention.

COMMUNITY LEADER

The community leader intervention equipped Community Leaders from various sub-sections of the population with knowledge and skills to serve as opinion leaders, disseminating information and influencing attitudes and norms in their communities. These leaders created opportunities for discussion, enabling the target communities to collectively plan and implement responses to low uptake of MNCH and HIV services, and to challenge and change related harmful gender norms, attitudes, and behaviors.

The community leader intervention was developed by the EGPAF global team, and adapted and contextualized to the Zimbabwe, Swaziland and Ugandan local situations. The content of the Community Leaders training is shown on the table below.

Table 7. Content of the Community Leaders curriculum

Module	Goal
Rights and Health	Major policies and frameworks that guide MNCH services
Gender Inequality, Stigma and Discrimination	Link between actions and attitudes and the negative health effects of stigma, gender inequity, and social marginalization
Sexual Health, MNCH, and Achieving Elimination of HIV	Basic information on sexual and reproductive health, MNCH and elimination of mother-to-child HIV transmission (EMTCT)
Community Profile	Application of a social framework to understand the health issues in the community
A Vision for Better Health for Women, Children and Families	Generate a shared vision on ways that existing history, institutions and resources in communities could be leveraged for improved health outcomes in communities

Igniting Action	Build team cohesion and a sense of shared purpose among Community Leaders representing different communities
Community Planning for EMTCT and Maternal Survival	Reinforce community leaders' understanding of the important of using data for community action
Pulling all the resources together	Analyze the critical actions that need to take place for the community action plans to be developed and implemented

Adaptation workshops were conducted in each country to ensure that the curriculum met the information needs of the target audience; methods incorporated best practices in adult education; the scenarios and examples referenced in the curriculum were culturally appropriate; illustrations, case studies, ice breakers, and small group activities specified in the curriculum were appropriate for the target audience; that the language utilized in the curriculum was appropriate for a wide range of literacy levels; and that the technical content in the curriculum is matched to the audience's stage of behavior adoption, and was relevant to their span of influence. Reviews from the adaptation workshop were incorporated into the final curriculum for each country. Following the conclusion of the adaptation workshops the training of trainers' workshops were conducted.

The purpose of the training of trainers was to firstly enhance trainer's technical knowledge on MNCH and PMTCT issues, capacitate the facilitators with skills to conduct adult learning and to build their skills in how to briefly and precisely deliver the curriculum content to Community Leaders. It is worth noting that the training of trainers activity took two to three weeks to accomplish because the trainers had to refine their delivery skills to adequately prepare the Community Leaders in their advocate efforts. The pilot took a week to be accomplished because the team realised that all the modules had to be piloted since the exercises and icebreakers were different and needed to be practiced. Subsequently, the pilot modules were reviewed accordingly and translation into local languages was performed in all the three countries in preparation for training.

SELECTION OF COMMUNITY LEADERS

For the purpose of selecting Community Leaders in the 15 clusters of each district, the global team developed selection and screening criteria which were shared with the country teams. The country teams then visited all the clusters and shared the selection criteria with community leadership and the health facilities to guide them in the selection process. The initial selection was done by the community management structures: Ward Health Teams in Zimbabwe (administrative structure), Inner Council in Swaziland (traditional structure) and Parish Chiefs in Uganda (civic structure). In Zimbabwe a total of 95 leaders were selected, 62 were selected in Swaziland and 118 leaders in Uganda.

Table 8. Community leader totals by country

		Swaziland		Uganda		Zimbabwe	
Variable	Subcategory	N (62)	%	N (118)	%	N (95)	%
Gender	Male	38	61.3	55	46.6	33	34.74
	Female	24	38.7	63	53.4	62	65.26
Age	Younger (< 40 years)	37	59.7	43	36.4	21	22.1
	Older (≥ 40 years)	25	40.3	75	63.6	74	77.9
Education[a]	Primary or lower	7	11.3	37	31.9	16	24.6

	Secondary and above	55	88.7	79	68.1	79	832
Occupation[b]	Unemployed	5	8.5	1	0.9	1	1.1
	Informally Employed[1]	29	49.2	13	11.4	28	29.8
	Formally Employed	12	20.3	7	6.1	4	4.3
	Farmer	13	22.0	93	81.6	61	64.2
Marital Status[c]	Never Married	22	36.1	12	10.2	7	7.4
	Partnered[2]	38	62.3	98	83.1	73	76.8
	Divorced/Widowed	1	1.6	8	6.8	15	15.8
Did Not Complete Post-Intervention Survey		7	11.3	0	0.00	7	5.9

[1] self-employed and cross border trading; [2]monogamous marriage, polygamous marriage, cohabitating. [a]Missing =2, Uganda. [b] Other Uganda 4, Swaziland 3, Zimbabwe 1. [c] Missing Swaziland 1, Uganda 1.

The Community Leader intervention training was rolled out in Zimbabwe and Swaziland in November and December of 2013, respectively. In Uganda, training this was conducted in May 2014.

The objectives of the training were to introduce the ACCLAIM project to the Community Leaders, to impart the requisite skills to engage the community in dialogue on MNCH issues, to explore challenges that are confronted by communities in MNCH and PMTCT leading to high mortality among women and children across the ACCLAIM clusters. The trainings were highly participatory and informed by adult learning methodology. Training methods included brief didactic segments, facilitated discussions, case studies, role plays, quizzes, and small group work. At the end of each training session, the trainers identified specific issues on which the Community Leaders would require future refresher training and supportive supervision.

Community Leaders appreciated the content and the methodology used to execute the training. They indicated that, had they gone through this training earlier, MNCH outcomes in their communities would have improved for the better. Some of the highlights of the community leader's trainings from the three countries were as follows:

- Increased appreciation of patient rights in Zimbabwe: most leaders confessed that they were not aware of the Patient's Charter and that most people were not aware of their rights when they visited the health facility, and this empowered them to achieve their health outcomes.
- In Zimbabwe, reasons for not accessing health services that were discussed included: long distances to reach the clinic, lack of support from the community, lack of the knowledge of the services offered at the clinics, poverty, fear of being HIV-tested, and fear of drugs, especially of immunization.
- Problem of low male involvement in MNCH was attributed to the fact that most MNCH services are not designed to accommodate men. Hence many males do not feel comfortable attending MNCH clinics. A suggestion was made to try and involve men, for example targeting specific times when they are available e.g. weekends, public holidays and offer specific services particularly targeting them.
- Concerns about disrespectful clinical staff: Community Leaders pointed out that Health workers' often exhibit negative attitudes, and this was one of the reasons why women were not going to health facilities.
- Concerns about marginalized communities: a notable barrier was the opposition of some religious sects to women attending ANC. It was suggested that communities find suitable approaches to reach out to them (e.g. working through their leadership structures first and setting up outreach points in their areas).

- Limited involvement of leaders in service planning: Community Leaders noted that usually they are not aware of health programs pertaining to MNCH in their communities and they didn't know that they should work with the health facility to improve community health. They realised that they have a role to play in improving their relations with the health facility and to support Village Health Workers.

With sufficient advocacy on MNCH issues, most leaders agreed that essential stakeholders were the community members who themselves could be mobilized to support activities outlined in their action plans. The biggest resource common in all the clusters was the will power of people in the communities themselves.

COMMUNITY LEADERS KAPB

The Community Leaders completed an abridged version of the community KAPB survey immediately prior to their training in the Community Leaders' Institute, and again three months later to assess the retained learning and practices from the community leader intervention. Table 9 presents these findings for acknowledgement of safe mother/maternal to child health responsibilities, actions to ensure mothers attend ANC, and actions to encourage mothers to seek trained provider delivery services. The odds ratios, adjusted for gender, age, education, employment and marital status, showed the likelihood of positive responses after the training and practice, compared to before the training. All countries showed significant improvement in activities on these indicators, with the exception of encouraging women to attend ANC in Uganda. This activity was already high as 95% had indicated that they were already encouraging women to attend ANC before the training

Table 9. Summary of selected findings: Community Leaders KAPB pre/post survey, adjusted* odds ratio, 95% confidence intervals and p-values.

	Swaziland (N=55)		Uganda (N=112)		Zimbabwe (N=95)	
	OR (95% CIs)	p-value	OR (95% CIs)	p-value	OR (95% CIs)	p-value
Do you have any safe motherhood/maternal and child health responsibilities?	2.03 (0.91, 4.54)	0.084	--[a]	<.0001	39.14 (5.03, 304.13)	<0.001
Have you done anything to ensure that pregnant women seek ANC?	3.09 (1.52, 6.27)	<0.01	1.30 (0.81, 2.10)	0.278	4.13 (2.19, 7.82)	<0.001
Have you done anything to ensure that women receive delivery services from health facilities/trained personnel?	3.36 (1.44, 7.84)	<0.01	--[a]	<.0001	5.02 (2.72, 9.31)	<0.001

[a]all individuals responded "yes" on the post-intervention survey; a meaningful OR could not be calculated.
*Adjusted for gender, age (less than or greater than 35 years), education (secondary or less), employment status (informally or formally employed), and marital status (divorced/widowed, partnered, never married).

MOBILIZATION EFFORTS INITIATED BY THE COMMUNITY LEADERS

Upon completion of the Community Leaders training, the Community Leaders commenced implementation of local advocacy and mobilization efforts in Swaziland, Uganda and Zimbabwe. The leaders demonstrated resourcefulness by taking advantage of community gatherings such as the ward meetings and school development meetings to have dialogues with the communities. The outputs from the community dialogues were used to develop the Community Action Plans, (CAPs). CAPs are community plans developed by the community through the guidance of the trained leader with clear action steps, resources needed, timelines needed to accomplish the activity, responsible person identified to fix the challenge identified. This plan was used as guide for the work to be accomplished. It was also used as a tool to assess their accomplishments. Developments of the CAPs was done through rigorous mentorship and support from the ACCLAIM Staff.

ACCLAIM SUPPORTIVE SUPERVISION AND MENTORSHIP

Community Leaders received technical support, supportive supervision, and mentorship from the ACCLAIM country teams in Uganda, Swaziland and Zimbabwe, which had designated specific focal points for this purpose. Upon commencement of their implementation activities, Community Leaders received support through monthly meetings (to provide peer support and mentorship among the Community Leaders themselves), one-on-one mentorship and coaching from the intervention coordinators sometimes known as program assistants in Zimbabwe and program officers in Swaziland. The initial supportive supervision activities in 2013 focused on increasing Community Leaders’ confidence and competence in facilitating dialogue and leading critical discourse for the development of action plans. The follow up mentorship meetings in 2014 focused on conducting effective community dialogues; deepening understanding of message content; drafting the Community Action Plans (CAP), documenting action steps, resources, timelines; and on mobilizing people to take actions proposed in the CAP.

Monthly Community Leader forum meetings were used to provide refresher training and routine technical updates, while reflecting on shared experiences and discussing breakthrough opportunities. These platforms were also used as savings clubs, especially in Zimbabwe where the leaders took turns to give each other their small stipends so that the money will be significant to buy or initiate something more meaningful.

The program staff used these routine mentorship and supervision meetings to review data collection tools to ensure completeness of the data filled in the community action plans by the community leaders. They also abstracted process implementation data which was later presented in the monthly reports for each country and presented to the global team for review and analysis. A refresher training for the Community Leaders was conducted in all the three countries in July 2015. This focused on strengthening the Community Leaders’ dialogue, advocacy and completion of CAPs.

COMMUNITY LEADERSREFRESHER TRAINING

An abridged version of the Community Leader’s manual was developed. This was informed by the gaps noted during the one-on-one mentorship conducted in each country and the mid-term evaluation that was done by the Senior Officer for Community Mobilisation in EGPAF. The purpose of the refresher training was to provide technical updates to the Community Leaders, enhance the capacity of the Community Leaders to develop CAPs and capacitate them with skills to conduct community dialogues. Leaders took this opportunity to discuss the way forward on implementing the CAPs; even beyond project life, as they will be involving other stakeholders in the implementation.

CAP DEVELOPMENT

These were written in the local language, in the three countries after the final approvals of the individual CAPs by the different stakeholders, these were consolidated to develop the cluster CAPs, translated into English and submitted to the global team for review. The global team advised the CAPs to be specific so that they were easy to implement. The global team also advised the teams to put realistic timeframes on the implementation of activities that were suggested. The teams needed to build in time for consultation with various stakeholders and getting their buy in and eventually starting the work on the work as a collective. The teams addressed the gaps identified accordingly. After final approval of the CAPs by the global team, these were submitted to the respective custodians of the CAPs for implementation. The custodians of these community action plans are in Zimbabwe- Health Centre Committees, in Uganda- Parish Chiefs and in Swaziland it is the Inner Council.

The three countries managed to develop 15 CAPs, reaching the ACCLAIM target of a CAP for each of the 45 clusters. A total of 2634 mentorship meetings were held by ACCLAIM staff with the community leaders, across the three countries (Swaziland 587, Uganda 1273 and Zimbabwe 774). The Community Leaders managed to conduct 12088 meetings with their constituencies (Swaziland 1792, Uganda 6609 and Zimbabwe 3687).

Table 10. Community Leadership engagement: progress as of March 31, 2016

Number	Indicator	Detail	Swaziland	Uganda	Zimbabwe	Total
C-1	N of clusters that submitted a CAP		15	15	15	45
C-2	N of Community Leaders who completed training	*Male*	*37*	*55*	*34*	*126*
		Female	*25*	*65*	*61*	*151*
		Total	62	120	99	281
C-2a	N of Community Leaders active in the project		54	114	84	252
C-2b	N of Study Termination Forms submitted		8	6	15	29
C-3a	Number of mentorship meetings held with community leaders		587	1,273	774	2,634
C-4	N of meetings held by the Community Leaders with their constituencies or communities/parishes		1,792	6,609	3,687	12,088

IMPLEMENTATION OF COMMUNITY ACTION PLANS

In all the countries implementation of CAP activities started in late 2014 and focused on addressing barriers to facility delivery and included building or improving mothers' waiting huts, improving safety at the facilities, and improving roads and bridges to enable easier transportation for women, addressing domestic violence and male involvement in MNCH Issues. Community Leaders engaged with other partners, identified sources of funding and continued to advocate for community engagement in MNCH and PMTCT. While the messaging mainly focused on attending ANC early and on facility delivery, this period saw more advocacy on male engagement, stigma and discrimination, infant follow-up at facilities and support for mothers in PMTCT. In Zimbabwe (Wedza) the District Administrator's Office adapted the Community Days model for their activities. A notable barrier was the opposition of some religious sects to women attending ANC. The Community Leaders reached out to these congregations and initiated activities to address this with the congregations directly.

Community Leaders repairing roads

In Swaziland Community Leaders successfully solicited and received support from the clinic and partners like *Medecins Sans Frontiers*, thus demonstrating skills in collaborating with other stakeholders in promoting good health behaviors. As part of implementing the community action plan, the Community Leader of the Mlindazwe community (Arm 1, which includes Community Leader intervention only) organized a community wellness day on his own, which was held at Ezulwini Satellite Cluster in June 2015. The event was funded by Tee & Jay, a local commercial business concern. The 250 attendees included community members and stakeholders from Population Services International, AIDS Healthcare Foundation, tuberculosis control program, Roots Construction Health and Safety, and ACCLAIM officers.

PASSING OF BYLAWS BY COMMUNITIES

In an effort to encourage compliance with good health behaviors, trained Community Leaders in Swaziland worked with their communities to create community bylaws in their constituencies. Even though the ACCLAIM team did not encourage bylaws as a method of changing behaviors, some communities find by-laws useful and an acceptable supporting tool for changing community norms:

- In the Mvembili chiefdom, men were compelled to go with their partners to the ANC facility at least once, and youth less than 18 years of age are discouraged from getting married.
- The Nyakatfo chiefdom passed a law against stigmatization and discrimination against people living with HIV.

In Uganda, CAP activities focused on awareness around excessive alcohol consumption leading to domestic violence and also working with health facilities to improve the attitude of health care workers. However, in Arm 1 (Ntungamo) since the majority of the selected Community Leaders had more formal leadership background (i.e. retired civil servants and local council leaders) compared to the other arms, they were easily able to conduct advocacy and dialogues activities where they encouraged and referred community members to access MNCH services. They also encouraged pregnant women and men to start small income generating activities such as poultry, piggery, craft making, goat rearing and small scale farming to save money to enable community members to easily access these MNCH services in cases were distance or lack of birth preparedness kits are the barriers.

Some of the CAP implementation activities were included:

- Awareness raising on teenage pregnancy in Swaziland
- Savings clubs for pregnant women to buy baby clothes and food for the time the women will be at Mothers' Waiting homes (these are reported to be ongoing in the communities)
- Health care worker attitudes addressed through discussions between the health care workers and the community members in Uganda.
- Dialogue sessions with youths, men and the apostolic religious sect on PMTCT as part of addressing the knowledge gap in Zimbabwe.



COMMUNITY DAYS

Community Days, or community mobilization events, brought communities brought together to open dialogue about MNCH, PMTCT and gender issues that comprise the key barriers to MNCH/PMTCT service uptake and retention. Health promotion activities and dialogues were supported by select health services and disease screening. The minimum service package for ACCLAIM Community Days was always individual HIV testing and referral –diagnostic (and non-curative services) such as glucose screening, growth monitoring, and screening for high blood pressure and tuberculosis. Theatrical activities were used at the beginning of each Community Day to trigger dialogue discussions. Themes of the scripts were always centred on MNCH and PMTCT messages.

DEVELOPMENT OF COMMUNITY DAYS GUIDES

The team developed dialogue guides based on findings from the KAPB survey and the formative research to catalyse discussion on issues that were problematic in MNCH and PMTCT across the country. Dialogues were held for: men, male youth, female youth, women of childbearing age, and mothers-in-law. These guides were used to guide discussions on MNCH and PMTCT during the Community Day dialogue sessions.

The countries selected 12-15 community dialogue facilitators who were subsequently trained over a 3 day period. This training focused on facilitation skills and effectively conducting the discussions. Countries used health care workers, health assistants, VHTs and community health workers as dialogue facilitators as they find it easier to understand and respond to all the technical issues that could be raised during the structured dialogues.

Under this intervention (in Arms 2 and 3), the teams in the three countries worked closely with the different stakeholders and partners (district health teams, health workers, health centre committees, rural health motivators, Community Day facilitators, parish committee members and partners (e.g.,Nhlangano AIDS Training Information, Counselling Centre, Royal Swaziland Police, Emergency Preparedness Response, Maloma Colliery, Ministry of Tinkhundla and Administration, Population Services International, Ministries of Health, and Zimbabwe National Family Planning Council) in planning and implementation of the Community Day events. In Uganda the team partnered with SAJEKI, TASO, the district health team, local council members, health workers, Community Day facilitators and parish committee members.

Swaziland was the first country to conduct an *ACCLAIM* Community Day and they were joined by *ACCLAIM* team members from Zimbabwe and Uganda, who came to learn how to organize and conduct the intervention.

The teams conducted pre-planning meetings, Community Days and post event meetings. Planning meetings were held before the hosting of each Community Day to establish the flow of events, assign roles, setting the agendas, selecting the Masters of Ceremonies and guest speakers. Entertainment groups were assessed while rehearsing to establish that all intended key messages were correct and effective. After each Community Day event a follow-up meeting was held to discuss how Community Day s could be improved. Teams conducted Community Day facilitators' refresher mentorships after the event to ensure that good facilitation skills were practiced consistently.

Over 67,846 community members attended Community Day events in the three countries cumulatively, and 38,117 participated in the dialogue discussions during the life of the project. A total of 21,720 clients were tested for HIV (including 2,622 youth < 15 and 9 infants) and 560 (3%) tested positive and were referred for further care and treatment at health facilities in their respective clusters. Over 22,000 community members received other health services such as family planning (including counselling and the provision of condoms), ANC services (Table 11).

Table 11. Community Days

Indicator	Detail	Swaziland	Uganda	Zimbabwe	Total
N of ACCLAIM Community Days implemented		42	40	40	122
N of community members attending Community Days	*Male*	*9,177*	*9,185*	*6,664*	*25,026*
	Female	*12,065*	*19,239*	*11,516*	*42,820*
	Total	**21,242**	**28,424**	**18,180**	**67,846**
N of participants in dialogues	*Adult Dialogues (Male)*	*2,143*	*3,378*	*2,605*	*8,126*
	Adult Dialogues (Female)	*4,960*	*10,363*	*5,835*	*21,158*
	Youth Dialogues (Male)	*2,659*	*1,084*	*1,072*	*4,815*
	Youth Dialogues (Female)	*2,217*	*983*	*633*	*3,833*
	Total	**11,979**	**15,808**	**10,145**	**37,932**
N of participants tested for HIV during Community Days (includes DBS)	*Male >15 yrs.*	*1,208*	*4,064*	*770*	*6,042*
	Female >15 yrs.	*1,589*	*9,740*	*1,679*	*13,008*
	Male <15 yrs.	*189*	*872*	*58*	*1,119*
	Female <15 yrs.	*268*	*1,158*	*84*	*1,510*
	Infants (DBS)	*0*	*10*	*0*	*10*
	Total	**3,254**	**15,844**	**2,591**	**21,689**
N of participants receiving other health services during Community Days	*Male > 15 yrs.*	*532*	*2,432*	*1,283*	*4,247*
	Female > 15 yrs.	*1,101*	*9,707*	*3,586*	*14,394*
	Male <15 yrs.	*16*	*784*	*448*	*1,248*
	Female < 15 yrs.	*16*	*1,193*	*1,069*	*2,278*
	Total	**1,665**	**14,116**	**6,386**	**22,167**
N of participants referred to health facilities during the Community Days	*Male > 15 yrs.*	*79*	*303*	*105*	*487*
	Female > 15 yrs.	*170*	*1,380*	*279*	*1,829*
	Male <15 yrs.	*3*	*27*	*36*	*66*
	Female < 15 yrs.	*4*	*94*	*76*	*174*
	Total	**256**	**1,804**	**496**	**2,556**

During Community Days, the communities showed great enthusiasm for the drama shows and dialogues, finding them both educational, as well as entertaining. The communities also appreciated community-based HIV testing as an opportunity for community members who were afraid of hospital-based testing to access infection knowledge. In Uganda, dialogue discussions brought up the following issues:

- Post-natal care; family planning, use of male and female condoms; condom use during pregnancy.
- Importance of exclusive breastfeeding and caring for a newborn.
- Importance of attending ANC and PNC; attending ANC with partners; keeping healthy during pregnancy; dangers of home delivery, and importance of facility-based birth.
- HIV transmission and prevention; testing for HIV as a couple; discordance among couples
- When is the right time to resume sex after giving birth?

- Joint decision making in a home.


Male and female youth: attending a dialogue session in Swaziland


Men: during a dialogue in Swaziland

Mothers in Law: during a dialogue session

PEER GROUPS


MNCH and male Peer Groups were a series of four structured, peer-facilitated sessions on topics related to MNCH, gender, and PMTCT. They aim to provide support to pregnant women and their partners, as well as other men in the community, to achieve positive health outcomes for themselves and their families. These were implemented using a defined curriculum and SOPs.

DEVELOPMENT OF PEER GROUP MANUALS

Starting in September of 2013, a team of project staff and technical advisors commenced work on the materials for the male and female Peer Groups. Interns from Emory University and George Washington University Schools of Public Health were brought in to assist the team. The interns conducted extensive review of the literature and existing materials, and used this to produce draft curricula for the women's MNCH classes and the men's groups.

In March, 2013, representatives from the three country teams and the global team worked together to review the drafts, finalize key messages and create the session curricula for the groups. Key messages were developed for both male and female community Peer Groups, in-line with the primary and secondary objectives of the ACCLAIM protocol. Key messages were designed to improve birth preparedness for mothers and newborns, while promoting uptake and adherence to interventions and processes related to PMTCT as measured by early ANC attendance (<20 weeks), facility delivery, and infant attendance for child welfare visits 6-8 weeks after delivery.

The field test team convened male and female participants to test one of the four draft modules from each package among separate men's and women's groups. Six women and eleven men participated in each session (3 additional men attended at least part of the field test). Participants reflected a wide age range from teenage years to middle age.

The team was extremely pleased with field testing. The sessions were lively and the discussions centred on key issues that the project hopes to address. The men's sessions were exceptionally well-received. One man commented to the team, "The reason that you have men beating their women is that those men have not had the discussions that we have had here today." The sessions focused on how men treat their partners, how they understand what is happening to pregnant women, and how men could be more supportive. This is a key session and the team felt that the materials were ready for the next step. See Table 12 for the curricula outlines.

Table 12. Peer group curricula

Women's Class Sessions	Men's Class Sessions
1. Staying healthy during pregnancy	1. Strong informed, powerful men as champions for healthy families
2. Pregnancy and birth planning	2. Becoming a father
3. Preparing for childbirth, delivery and immediate postnatal care	3. Are you ready to be a father?
4. Staying healthy after birth	4. Keeping your family healthy

After this exercise, a consultant was engaged to develop the training and peer facilitator's manuals. This was done over a three-week period and the material was submitted to the country and global teams to review before being used. The team organized a pilot of the peer facilitator's training in Uganda. Five participants from Kanungu District were joined by *ACCLAIM* team members from Zimbabwe and Swaziland, along with six members from the Uganda team. The pilot was led by the consultant with support from the *ACCLAIM* Regional Coordinator and *ACCLAIM* team. A two-day piloting exercise for the entire curriculum was then conducted in one of Uganda's districts, with 32 VHT coordinators (16 women and 16 men) selected by the District Health Office. The three countries started recruitment of the peer facilitators in July. Zimbabwe and Swaziland started preparatory implementation of the Peer Groups intervention in early October and Uganda in November 2014.

IMPLEMENTATION OF PEER GROUPS

Groups commenced in Swaziland and Zimbabwe in November-December 2014; in Uganda classes started in May 2015 due to late approval from their local IRB. For group participants, 1408 pregnant women completed the four sessions and took the final KAPB Lite (a shortened version of the KAPB survey conducted at baseline) across the three countries. Men completed the four sessions and took the final KAPB Lite.

In all the countries, there was a surprisingly high demand for the classes among men, allowing them to immediately reach their targets for the male groups in the first three months of implementation. As a result of high demand, classes were changed to bi-weekly, so that men could finish all the sessions before travelling to different places looking for work. Uganda subsequently had to increase their targets for the male groups from 549 to 992. A total of 992 (100%) managed to attend male classes. Uganda reported very high demand among pregnant women and it is was easy to achieve their targets despite the delays in beginning the Peer Group intervention. A total of 734 women attended the classes. Uganda also had the largest clusters and a high number of pregnant women to reach.

The targets for women were not reached in Zimbabwe and Swaziland because most of the ACCLAIM sites in these countries were low-volume. Swaziland noted that there is high teenage pregnancy in the country hence it was difficult for the youths to join the classes because they were either in school or some had not disclosed to their parents about their pregnancy. Swaziland had to extend the period of implementation from September to November 2015, but still the targets were not reached.

In all countries, recruitment of male participants was surprisingly easy. Retention in the groups was extremely high; 92% for men and, although lower (88%) for females, usually due to delivery before completion of the four sessions.

Table 13. Participants starting and completing male and female MNCH classes

Country	Number of Female Participants		Completed Four Sessions	Number of Male Participants		Completed Four Sessions
	Started	*Completed*		*Started*	*Completed*	
Swaziland	367	308	84%	290	249	86%
Uganda	1016	922	91%	560	516	92%
Zimbabwe	430	366	85%	267	267	100%
Totals	1813	1596	88%	1117	1032	92%

The team managed to have 308 attend and complete the classes (lower than the 474 targets). In Zimbabwe, a total of 366 pregnant women attended the classes and completed four sessions instead of the 462, per set targets.

Table 14. Peer Group indicators

Indicator	Swaziland	Uganda	Zimbabwe	Total
N of male peer facilitators trained	5	12	20	37
N of female peer facilitators trained	15	23	30	67

MNCH group target	95	68	50	213
N of MNCH groups formed and assigned a number	54	92	67	213
N of pregnant women who attended the first MNCH class and completed the first KAPB survey	308	734	366	1408
MNCH participants target for completion and final KAPB survey	374	734	462	1,570
N of pregnant women who completed four MNCH classes and completed the final KAPB	24	45	25	95
Male group target	16	24	16	56
N of male groups formed and assigned a number	24	45	24	93
N of men who attended the first men's discussion groups and completed the first KAPB survey	290	435	267	992
Male participants target	156	180	152	488
N of men who completed four group discussion groups and completed the final KAPB	249	466	267	982

IMPACT

The number of pregnant women in the arms varied, with about 2,500 in Arm 1, 1,350 in Arm 2 and 1,300 in Arm 3. The statistical significance of the aggregate data was muted by the crossover of service uptake among women between clusters as several of the clusters were next to each other.

EID

In the 45 clusters, from baseline to end-of-intervention (18 months for Uganda, 24 months for Swaziland and Zimbabwe), the percentage of HIV-exposed infants tested for HIV within two months of birth, did not increase significantly, although there was a positive trend with EID uptake increasing from 54.0% prior to the intervention to 64.4% with the community leader intervention. EID uptake in Swaziland and Zimbabwe was already fairly high at baseline, at 78.0% and 70.8% respectively; however, in Uganda, EID uptake was very low at baseline and saw a significant increase from 13.1% to 44.8% in the cluster-level analysis ($p=0.012$, 95%CI 0.049-0.404) for the community leader interventions. Aggregated facility data showed an increase from 48% at baseline to 53% at endline.

Attendance at the 6 week postnatal visit across the three countries rose for all arms in the aggregated facility data. The cluster-level analysis followed this trend, rising from 54% at baseline to 64.4% at endline, but did not reach significance $P=0.124$).

ANC ATTENDANCE

Gestational age at first ANC reduced (more women attending ANC at or before 20 weeks gestation saw a 13% increase with the Community Leaders intervention [$p<0.05$]).

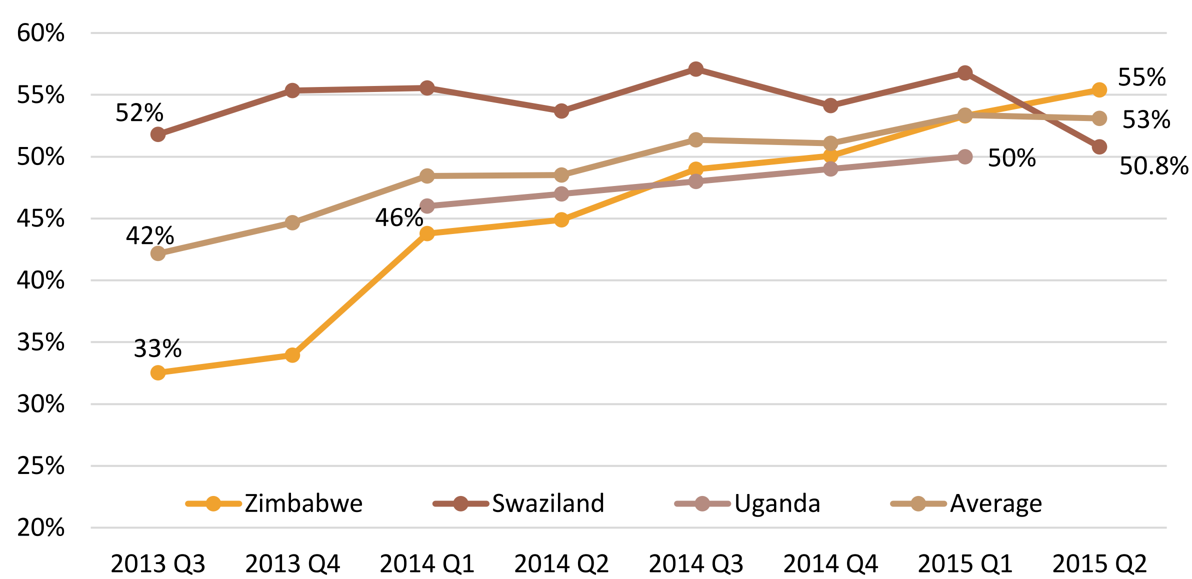


Figure 3. First ANC attendance ≤20 weeks gestational age 45 ACCLAIM clusters, Swaziland, Zimbabwe and Uganda, 2013-2015

At pre-intervention baseline, the overall proportion of women completing at least 4 ANC visits was 32% (SE: 2.5%). At the end of the first phase of community leader intervention implementation, the proportion of women completing at least 4 ANC visits was 37% (SE: 4.9%). Overall, none of the interventions had a significant effect on the proportion of women completing at least four ANC visits, with the exception of Uganda, where each intervention had significant effect on this indicator.

MALE PARTNER TESTING

Of pregnant women, 14% of their male partners received HIV testing during the pre-intervention baseline period. After the introduction of Community Leaders, the proportion of male partners of pregnant women seen in ANC receiving HIV testing did not change significantly (17%, SE: 8.0%). However, after adjusting for time trends and within group changes, the Community Leader intervention alone significantly increased the proportion of male partners tested for HIV among women attending ANC by 16% (95% CI: 8.9% - 22.1%)

DELIVERING IN HEALTH FACILITIES

During the pre-intervention baseline period, 56% (SE: 3.5%) of pregnant women delivered in health facilities. After the initial phase of the Community Leader intervention, there was a non-significant trend for an increase in pregnant women delivering in health facilities (60%, SE: 5.2%). Community Day and Peer Group interventions did not have a significant effect on proportion of pregnant women delivering in health facilities.

ARV/ART UPTAKE

At pre-intervention baseline, 58% (SE: 11.9%) of HIV-positive pregnant women were receiving ARV or ART across the three countries. After implementation of the Community Leaders intervention, the proportion of HIV-positive pregnant women receiving ART increased significantly to 72% (SE: 11.9%). Community Days and Peer Groups did not have significant added effect to the proportion of HIV-positive pregnant women who received ART or ARV prophylaxis. The proportion of women receiving any type of ARV during pregnancy remained at over 95% throughout the study period.

Uganda, where Option B+ had begun before implementation of the study, ART uptake trended upward generally increasing from 87% to 93%, but did not reach significance. Zimbabwe implemented Option B+ midway through the study and ART uptake increased significantly from 43% to 81%.

Overall, at pre-intervention baseline, 59% (SE: 11%) of HIV-exposed infants received NVP prophylaxis. After the initial phase of the community leader intervention the proportion HIV-exposed infants that received NVP prophylaxis remained similar (58%: SE 4.7%). There was not a significant effect on the proportion of HIV-exposed infants receiving NVP prophylaxis with any of the interventions.

Table 15. **Proportions, rate ratios and 95% confidence intervals by study outcomes at baseline and for study arm, overall (all countries) and by individual country.**

Outcome	Group	Baseline	Phase 1 (community leader)		*Effect of Community Days	*Effect of Community Days & Peer Groups
		Mean % (SE)	Mean % (SE)	Difference (95% CI)	Difference (95% CI)	Difference (95% CI)
Infants receiving EID	All countries	54.0% (16.8)	64.4% (8.6)	**+10.5% (1.4 , 19.6)**	-6.2% (-15.8,3.4)	-4.6% (-18.3,9.0)

	Swaziland	78.0% (5.1)	81.1% (4.9)	+3.0% (-10.8 , 16.8)	-2.0 % (-14.8,10.8)	-2.4% (-20.4,15.6)
	Uganda	13.1% (1.6)	44.8% (7.9)	**+31.6 (15.9 , 47.4)**	-8.2% (-30.1,13.8)	-7.9% (-38.9,23.1)
	Zimbabwe	70.8% (5.5)	67.5% (4.5)	-3.2% (-17.2 , 10.7)	-8.4% (-25.8,9.0)	-3.6% (-28.2,21.1)
Pregnant women presenting before 20 weeks gestation	All countries	31.4% (7.0)	44.5% (4.1)	**+13.1% (9.0 , 17.2)**	3.1% (-1.5,7.8)	4.5% (-2.1,11.1)
	Swaziland	45.8% (1.9)	53.7% (2.2)	**+7.9% (.2 , 13.6)**	***-8.9% (-15.1,-2.8)***	***-17.0% (-25.8,-8.2)***
	Uganda	16.0% (1.2)	36.6 % (3.3)	**+20.6% (13.7 , 27.5)**	**10.3% (1.6,19.1)**	**12.1% (-0.2,24.4**)
	Zimbabwe	32.4% (3.0)	43.2% (2.4)	**+10.8% (3.2 , 18.4)**	**8.0% (0,16.1)**	**18.4% (7.0,29.8)**
Pregnant women completing at least 4 ANC visits	All countries	31.5% (2.5)	37.0% (4.9)	+5.5% (-1.9 , 12.9)	3.4% (-5.6,12.3)	6.0% (-6.7,18.7)
	Swaziland	29.2% (2.8)	32.5% (5.4)	+3.3% (-8.7 , 15.2)	1.2% (-14.2,16.6)	-2.7% (-24.6,19.2)
	Uganda	27.7% (3.1)	48.9% (6.2)	**+21.2% (7.6 , 34.7)**	**22.6% (5.3,39.9)**	**32.4% (8.0,56.9)**
	Zimbabwe	37.4% (3.9)	29.5% (3.3)	-7.9% (-18.0 , 2.1)	***-13.7% (-25.6,-1.8)***	-11.8% (-28.7,5.1)
Women delivering in a health facility	All countries	55.7% (3.5)	60.2% (5.2)	+4.6% (-5.5 , 14.6)	0.4% (-10.4,11.3)	-2.2% (-17.6,13.1)
	Swaziland	61.4% (6.1)	72.2% (5.3)	+10.8 (-5.0 , 26.6)	5.3% (-10.7,21.3)	-0.2%(-22.8,22.4)
	Uganda	51.8% (7.5)	58.2% (8.7)	+6.4% (-16.1 , 28.9)	0.5% (-28.2,29.2)	-8.3% (-49.0,32.3)
	Zimbabwe	53.8% (4.0)	50.2% (3.7)	-3.5% (-14.2 , 7.2)	-4.4% (-16.3,7.4)	1.8% (-14.9,18.6)
Male Partners tested for HIV	All countries	14.4% (7.4)	16.7% (8.0)	+2.2% (-2.0 , 6.4)	**-13.6% (-18.8,-8.3)**	**-9.2% (-16.6,-1.7)**
	Swaziland	2.4% (0.9)	2.7% (1.1)	+0.3% (-2.6 , 3.2)	-1.4% (-4.2,1.3)	-2.1% (-6.0,1.8)
	Uganda	8.8% (1.0)	11.8 (1.8)	+3.0% (-1.0 , 7.1)	**-8.0% (-15.2,-0.9)**	-0.6% (-10.7,9.5))
	Zimbabwe	32.1% (3.6)	35.5 (4.5)	+3.3 (-7.9 , 14.6)	**-31.2% (-44.2,-18.3)**	**-24.8% (-43.1,-6.4)**
HIV-exposed infants receiving NVP prophylaxis	All countries	58.9% (10.9)	57.8% (4.7)	-1.1% (-12.5 , 10.4)	-2.3% (-14.3,9.7)	1.3% (-15.6,18.3)
	Swaziland	71.0% (6.4)	69.3% (8.9)	-1.6% (-23.2 , 19.9)	-0.1% (-19.5,19.3)	2.9% (-24.5,30.3)
	Uganda	32.2% (3.4)	50.6% (8.5)	**+18.4 (0.4 , 36.4)**	-8.2% (-36.3,19.9)	-7.7% (-47.5,32.1)
	Zimbabwe	73.4% (5.4)	53.5% (6.1)	**-19.9 (-35.9 , -4.0)**	1.4% (-15.6,18.3)	8.8% (-15.1,32.8)

HIV-positive pregnant women receiving ART or ARV prophylaxis	All countries	58.0% (11.9)	72.6% (11.9)	**+14.6% (7.0 , 22.2)**	1.9% (-5.1,8.9)	2.4% (-7.5,12.3)
	Swaziland	44.2% (3.9)	44.3% (4.7)	+0.1% (-11.8 , 12.0)	11.5% (-0.2,23.1)	9.8% (-6.7,26.4)
	Uganda	87.0% (3.6)	92.6% (2.8)	+5.6 (-3.2 , 14.4)	-3.0% (-9.9,3.9)	-7.6% (-17.3,2.2)
	Zimbabwe	42.7% (5.3)	80.8% (4.0)	**+38.1 (25.1 , 51.2)**	-2.7% (-13.3,7.9)	4.9% (-10.1,20.0)
Gestational age at first ANC visit (weeks)	All countries	21.9 (0.9)	20.8 (0.4)	**-0.9 (-1.1 , -0.6)**	**-0.5 (-0.9 , -0.1)**	-0.2 (-0.6, 0.3)
	Swaziland	20.4 (0.3)	20.0 (0.3)	-0.3 (-0.8 , 0.3)	0.6 (-0.1 , 1.4)	1.4 (0.6 , 2.2)
	Uganda	21.2 (0.3)	20.5 (0.5)	**-0.5 (-0.8 , -0.2)**	-0.04 (-0.6 , 0.5)	0.7 (-0.02 , 1.4)
	Zimbabwe	24.0 (0.5)	21.8 (0.4)	**-2.2 (-2.6 , -1.7)**	**-1.8 (-2.7 , -0.9)**	**-1.5 (-2.5 , -0.6)**
Pregnant women presenting before 20 weeks gestation (individual)	All countries	35.8% (3.4)	41.6% (1.6)	**+5.8% (1.5 , 10.1)**	+1.7% (-3.3 , 6.6)	**+5.3% (0.4 , 10.2)**
	Swaziland	42.4% (2.6)	45.5% (2.4)	+3.1% (-4.1 , 10.3)	**-10.8 (-16.9 , -4.6)**	**-19.6 (-28.3 , -10.9)**
	Uganda	36.9% (2.2)	40.4% (3.1)	+3.5% (-4.3 , 11.3)	+9.3 (-3.3 , 21.9)	+5.3 (-12.3 , 22.9)
	Zimbabwe	28.2% (3.0)	38.9% (2.7)	**+10.7 (2.5 , 18.9)**	**+9.6 (1.5 , 17.7)**	**+14.8 (3.3 , 26.3)**

*Compared to the baseline.

COST ANALYSIS

BACKGROUND / PURPOSE

Conducting a cost analysis of the different community interventions under the ACCLAIM project was undertaken for the following reasons:

- There is an increased interest in cost analysis of programs, and in particular, in understanding total costs, costs per beneficiary, and cost-effectiveness of community interventions;
- We hoped that such an analysis would provide greater understanding of amount of resources invested for each intervention, types of costs / cost drivers;
- Resource levels for financing the HIV / AIDS response are flat or declining, both among international donors and host governments; better data demonstrating which strategies / activities are smartest investments is more critical than ever;
- Such analyses may provide useful background information for EGPAF, other Implementing Partners and Ministries of Health seeking to implement similar interventions.

METHODOLOGY

The cost analysis methodology consisted of the following:

- A combination of a bottom-up, micro-costing approach and a macro-level approach was utilized. Where possible, a detailed review of summary expenses and individual transactions was completed, using keyword searches in memos, and isolating specific account codes to quantify expenditures on trainings and supplies (micro-costing). However, for cross-cutting expenditures (for example, for management and operational support), a macro approach was utilized, involving a review of the budget and interviews with project staff to inform assumptions about how the interventions were implemented, and resources were consumed.
- Interviews were conducted with in-country and global ACCLAIM leadership to determine timelines of interventions, and obtain estimates for Level of Effort of program staff;
- Program data (indicators and intervention reports) from the M&E team for the period of implementation;
- The cost analysis focused on financial costs from a provider perspective (expenditures), and not on economic costs (i.e. all resources required to implement intervention – opportunity cost, time of community members, other partners, value of in-kind services and supplies).
    - A proportional share of operating and indirect costs was included.
    - Period of analysis corresponds to period of implementation of interventions in-country;
    - Data includes expenditure *estimates*, not precise spending (difficult to itemize all spending by intervention)
    - Home office / global management costs, and spending outside the period of activity implementation, were excluded;
    - Where costs were cross-cutting across all interventions, Level of Effort by project staff was used as a proxy to allocate among interventions.

SUMMARY OF FINDINGS

The three ACCLAIM countries provide very different contexts for implementing community interventions, with variations in geographic distances, salary scales, venue and supplies costs (Zimbabwe is a higher-cost country relative to the others), and even implementing approaches (for example, in Uganda, a third party contractor was engaged to implement the Community Day intervention, as opposed to Swaziland and Zimbabwe, where it was implemented directly). However, the proportion of spending across each intervention by country did not show considerable variation.

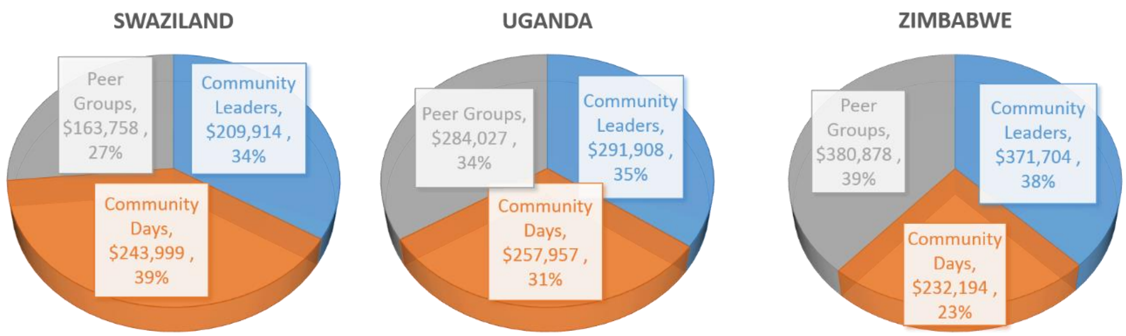


Figure 4. Cost allocation, per country, per ACCAIM approach

COMMUNITY LEADERS

For the Community Leaders intervention, an analysis of expenditures incurred revealed that a significant proportion of costs related to the investment / start-up phase of the intervention (as high as 44% in Zimbabwe), and also, that the vast majority of expenditures to support the intervention related to personnel and travel costs to support high-quality implementation of the Community Leader intervention.

Table 16. Community Leader Cost Breakdown

Community Leader Cost Breakdown	Swaziland	Uganda	Zimbabwe
Type of Cost			
Investment / Start-Up	40%	30%	44%
Recurrent / Ongoing	60%	70%	56%
Cost Category			
Personnel / Travel	71%	75%	68%
Other (Trainings, Supplies and Materials)	29%	25%	32%

The proportionally high level of spending in the start-up or preparatory phase of the intervention is a contrast to spending in a typical EGPAF country project, which focuses more on facility-level service delivery. Under such projects, start-up costs typically comprise 5-15% of overall spending. This suggests that community engagement interventions, and the Community Leader intervention in particular, requires much higher levels of effort at the outset of implementation. This was confirmed by interviews of technical staff who noted that the Community Leader intervention was extremely resource-intensive during the preparatory phase, with up-front Training of Trainers and sensitization sessions, as well as a great deal of time invested in the adaptation and piloting of the curriculum, so as to ensure buy-in from the community.

Personnel and travel were the most significant cost drivers for this intervention due to the fact that this intervention required significant ongoing support from project staff, from up-front training and curriculum development, to regular and intensive mentorship of Community Leaders to ensure their effectiveness at facilitating community dialogues.

Cost per Community Leader trained ranged from $433 in Uganda to $772 in Swaziland, with the differences between countries driven in part by the numbers of Community Leaders trained (Uganda had significantly more Community Leaders [at 120] than Swaziland [62] or Zimbabwe [99]).

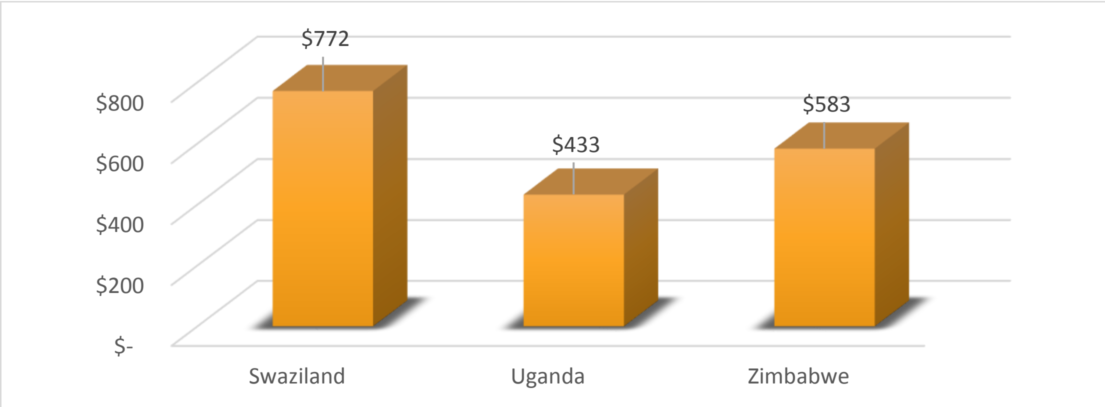


Figure 5. Cost per community leader trained

There is not much available costing data on the cost effectiveness of community leader training programs to provide us with useful benchmarks against which to compare these costs. A recent costing analysis completed by the International Rescue Committee (IRC) in Zimbabwe found that training Community Leaders on community governance significantly improved the cost-effectiveness of their program.

It is also worth noting that the Community Leaders were chosen for their ability to convene and facilitate community dialogues and mobilize their respective communities. One benefit of this from a cost effectiveness perspective is that many Community Leaders were able to leverage existing community gatherings to introduce discussions related to ACCLAIM topics, which was efficient from a resource perspective, since no additional resources required to convene new meetings.

Another important dimension of the Community Leader intervention that is important to highlight from a cost effectiveness perspective are the CAPs. CAPs were developed to address specific barriers to MNCH / PMTCT uptake, and facility delivery. CAPs were developed by community members through guidance from trained Community Leaders with action items, resources, timelines, and responsible persons specified for each challenge identified. Activities completed through CAPs included:

- Savings clubs for pregnant women;
- Dialogue sessions with religious sects; and
- Road repair.

It is important to emphasize that activities implemented by CAPs were not financially supported by EGPAF; rather, community-led development of CAPs unlocked additional financial and non-financial resources, which should be seen as a net benefit of the Community Leader intervention. Community Leaders were able to mobilize time and resources from individual community members in implementation of CAP activities. In some instances, external financial resources were also mobilized; e.g., in Swaziland, Community Leaders mobilized support and funding from a nearby clinic and from other partners like Médecins Sans Frontières; in another instance, a community wellness day was funded by a local business. This ability of community-owned interventions to unlock additional resources is rarely studied or documented; the nature and amount of these additional resources should be factored into any value for money analysis for such interventions.

COMMUNITY DAYS

The Community Day intervention typically required a lower proportion of start-up expenditures than the other interventions, since the majority of spending related to the implementation of the actual Community Day events. However, in spite of expenditures related to supplies, materials, and refreshments, as well as trainings of Community Day facilitators, the biggest cost drivers were personnel and travel costs for project staff.

Table 17. Community Day Cost Breakdown

Community Day Cost Breakdown	Swaziland	Uganda	Zimbabwe
Type of Cost			
Investment / Start-Up	16%	22%	22%
Recurrent / Ongoing	84%	78%	78%
Cost Category			
Personnel / Travel	75%	61%	61%
Other (Trainings, Supplies and Materials)	25%	39%	39%

Costs per Community Day and per Community Day participant were also calculated for each country. In spite of the significantly different implementing contexts in each country, the variations in costs per event or per participant were not significant. Uganda's Community Day events cost more to implement, but since they also had many more attendees at their Community Day events, they had the lowest unit costs per Community Day participant.

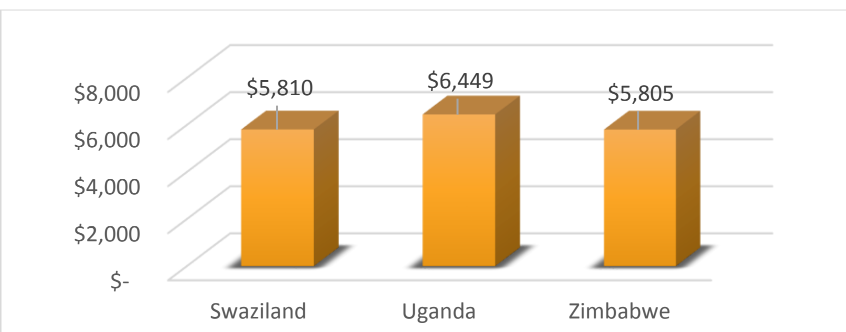


Figure 6. Cost per Community Day

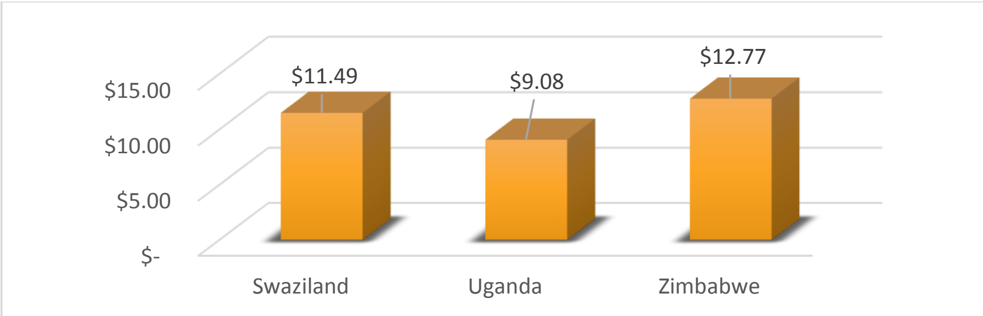


Figure 7. Cost per Community Day participant

Even though the primary objective of the Community Day events was to raise awareness and promote awareness and uptake of services at facilities, there was also a health service delivery component to these events for participants. As part of the cost analysis, we looked specifically at costs per participant tested for HIV, and cost per participant identified HIV-positive.

For cost per participant tested for HIV, we found that costs ranged from $7.86 per patient tested in Uganda to $12.23 in Swaziland. The numerator for these calculations included direct implementation costs for the Community Day, plus 10% EGPAF staff support costs (HIV testing and service provision at the Community Day was not the primary focus of EGPAF staff effort, who focused more on developing and implementing dialogues and drama shows). The denominator was the number of patients tested for HIV. Note that in most instances, the test kits (costs typically ranged from $0.90 - $1.50 depending on the type of test kit) were contributed by the MOH stock, or via in-kind donations to EGPAF, and were excluded from the numerator, since their purchase was not incurred as an expenditure to the project.

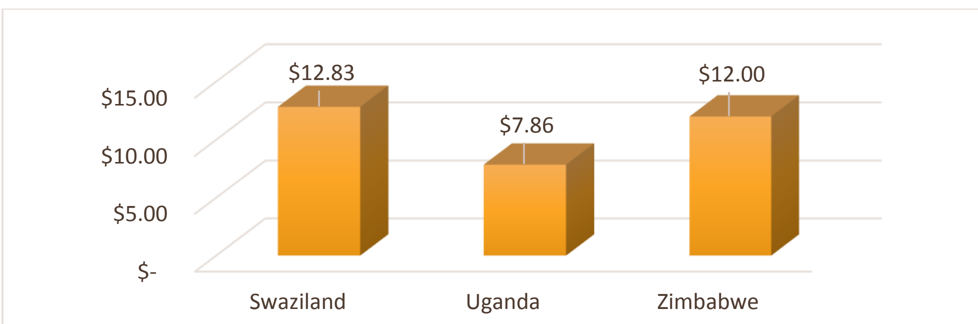


Figure 8. Cost per participant tested for HIV

There is not much published costing data on community-based HIV testing and counseling interventions; a Lancet study (Smith, 2015) cites published costs for sub-Saharan Africa ranging from US$2·45 per person tested in Malawi (cost of testing supplies only) to between $81·72 and $126·48 in South Africa (cost of testing supplies, personnel, utilities, training, buildings, office equipment, and publicity for church-based HTC).. A meta-review in Nature (Sharma, 2015) cites $11.17 per client tested for community campaigns.

PEPFAR Expenditure Analysis data for FY2015 indicates a weighted avg. of $1.54 per client tested for facility-based HIV testing and counseling in Uganda (data for community-based HIV testing and counseling modality was not available), and $17.72 in Swaziland for community-based testing and counseling. (Zimbabwe Expenditure Analysis data is unavailable as EGPAF doesn't complete these reports for Zimbabwe).

Given that HIV testing is not the primary focus of the Community Day events, costs per participant tested by CDs are still reasonable, and within range. For cost per patient identified HIV-positive, the data showed more variation across countries.

The same numerator was utilized as for cost per participant tested for HIV. Zimbabwe's costs per participant was driven in part by higher yield of HIV-positive participants during Community Day events (~6.3%, as compared to ~1.9% for Uganda, and ~2.7% for Swaziland).

PEPFAR Expenditure Analysis data for 2015 indicates a weighted avg. of $470.56 per client identified HIV-positive using a community-based testing modality for Swaziland, which is in line with the estimate of $489.90 per HIV-positive participant at Community Day events in Swaziland.

Given that testing for HIV is not a primary focus of Community Day events, costs per participant identified as HIV-positive by Community Days nonetheless seem to be reasonable. At the very least, further study is warranted on the value for money of Community Days as a modality to test and identify HIV-positive clients in high-prevalence settings.

PEER GROUPS

As with the Community Leader intervention, the Peer Group intervention required significant investment of resources during the start-up phase, ranging from 40% in Zimbabwe, to greater than 50% in Uganda.

Table 18. Peer Group Cost Breakdown

Peer Group Cost Breakdown	Swaziland	Uganda	Zimbabwe
Type of Cost			
Investment / Start-Up	45%	52%	40%
Recurrent / Ongoing	55%	48%	60%
Cost Category			
Personnel / Travel	62%	62%	73%
Other (trainings, supplies and materials)	38%	38%	27%

This can be attributed in part to the fact that trainings and mentorship of peer facilitators required a significant investment of time and effort, and that the start-up phase took longer than anticipated, due to additional time required to train facilitators and recruit participants. Costs per male Peer Group participant completing four peer-facilitated sessions compared favorably to costs for pregnant women (MNCH groups), in part because it was easier than anticipated to enrol male participants for sessions.

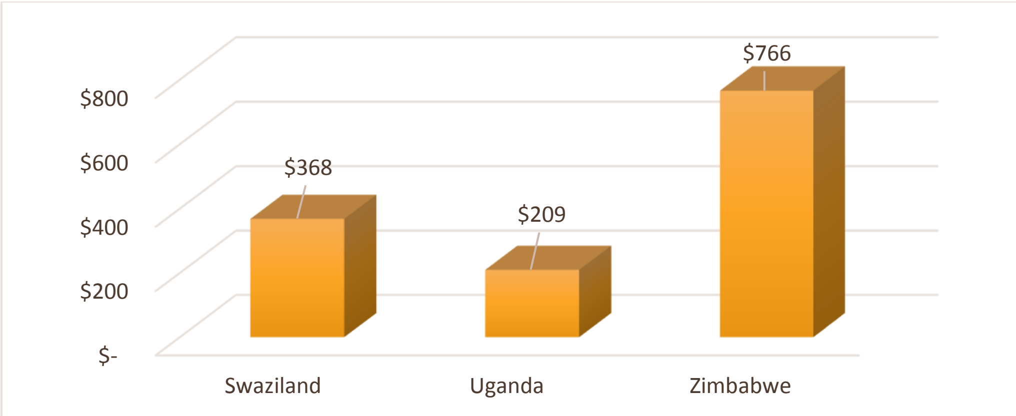


Figure 9. Cost per female peer group member completing 4 group discussions

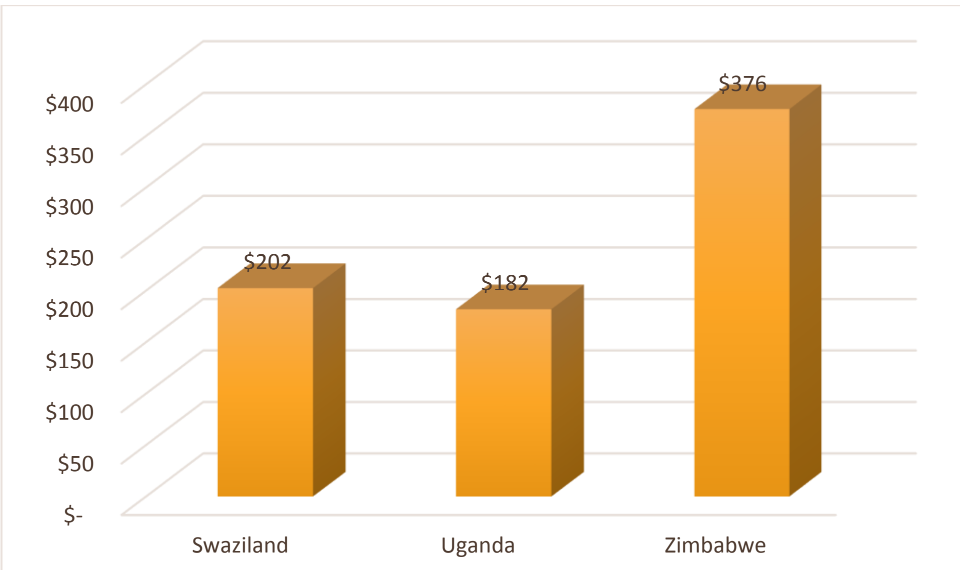


Figure 10. Cost per male peer group member completing 4 group discussions

Zimbabwe invested more in the Peer Groups intervention relative to others, and its total costs per group participant were higher as a result. Uganda had very high numbers of participants completing four sessions in MNCH/ male Peer Groups, contributing to lower unit costs. Retention in both groups was extremely high (92% for men, and 88% for women), so there was very little wastage of resources related to attendees of sessions who failed to complete four sessions.

In terms of cost per peer facilitator trained, Zimbabwe trained 50 peer facilitators, as compared to 35 in Uganda and 19 in Swaziland, and had lowest costs per peer facilitators trained (the numerator is total training costs, and denominator is no. of peer facilitators trained). Again, it is important to note that peer facilitators required intensive mentorship by project staff even after training.

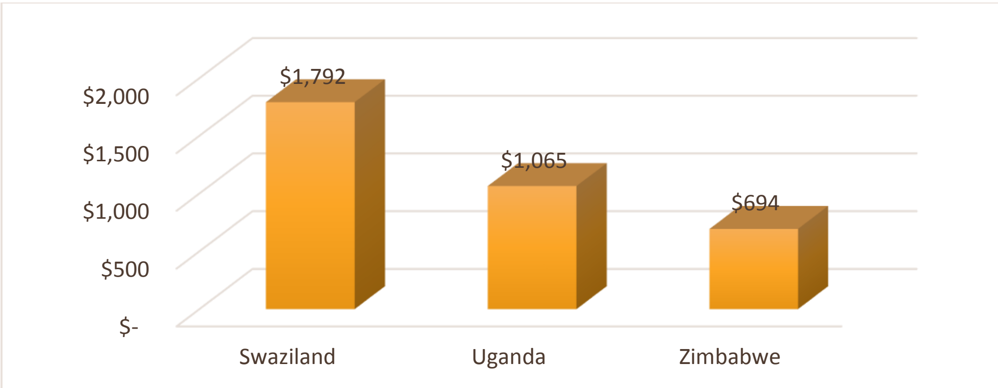


Figure 11. Costs per peer facilitator

DISCUSSION AND LESSONS LEARNED

This study sought to change both community and social norms related to maternal and child, including gender norms. It is one of the few studies that has tried to measure impact of community interventions that were not linked to facility follow-up. As the demand for evidence of impact is growing stronger from donors and other stakeholders, funding has shifted away from some community interventions that are not able to show results. This study team very carefully laid out the intervention pathways that would lead to the desired results, and the result affirm this methodology.

ACCLAIM results show that it is possible to change social norms in a relatively short period of time through engaging communities in carefully-designed interventions that include on-going mentoring and particular support for Community Leaders.

The results suggest that the three levels of intervention effectively engaged the community on different levels; individual, family and community. The Community Days were able to build on the leaders' intervention to create a "buzz" in the community about difficult myths and misperceptions that had long histories. The dialogues touched on sensitive issues in a safe environment and were able to engage groups of people in a new and exciting way. The individual changes shown through improved services retention by women in the Peer Groups were matched by reports from the men. During the mid-term review, one man remarked, "Ever since I took these ACCLAIM classes, my wife keeps asking me what I've been drinking because I treat her so differently." Enrollment in the men's classes had to be stopped due to budget constraints, but these groups clearly had a snowball effect. The members who graduated from the groups went into the communities and testified about the positive effects of the classes and through this more community members joined the groups. Had the study been able to continue and achieve saturation in the community, there may have been more impact shown from the Peer Groups.

These interventions are recommended to be implemented together as an integrated approach. Costing data is provided in this report and can provide guidance for other organizations seeking to replicate these interventions.

Trained Community Leaders continued implementing CAPs in their respective districts after EGPAF has closed the project. Zimbabwe Community Leaders went on to establish the Provincial ACCLAIM Committee on the 29th of September 2015. The purpose of this committee is to take ACCLAIM to the other districts where it was not implemented, sustain the gains that have been achieved through the project and to continue advocating for MNCH and PMTCT in their communities. Through this committee they were given money and soccer balls by one of their partners, which they will use to mobilise adolescents and use football games to pass on the PMTCT and MNCH messages. The committee continues to forge relationships with different stakeholders in the district to achieve MNCH and PMTCT outcomes. The Community Leaders have managed to create a standing agenda on MNCH and PMTCT in community meetings held in these areas.

In Uganda, Community Leaders continue to have consultative forums in the community, raising awareness around excessive alcohol consumption, domestic violence and income generating activities. In Swaziland the Community Leaders are partnering with schools to raise awareness and trying to avert teenage pregnancy which is a major challenge for most communities. The Community Leaders continue to raise awareness on the importance of early ANC booking. It was noted that parish chiefs (Uganda), village heads (Zimbabwe) and inner council(Swaziland) members are the best placed persons to act as Community Leaders since they have the requisite educational background and professional experience to facilitate development of CAPs and conduct dialogues (they have guaranteed platforms and can easily summon community for meetings).

The Community Day intervention was hailed as one of the innovative approach for reaching youth in MNCH and PMTCT discussions especially in Swaziland. A total of 8,648 adolescents attended the dialogues in the three countries. Swaziland shifted from conducting the Community Days during the week to conducting them during the weekends so that the youth could attend. As a result of this 4876 youths were able to attend the dialogues. This opportunity enabled the youth to learn and discuss sexuality issues in a safe environment because in most cases it is culturally difficult to discuss openly without being admonished or judged. In Swaziland, pregnant youths were able to share their experiences and difficulties of being a young parent with their peers and this was profound as it instilled in the youth that being a young parent was not an easy option, but the best was to go to school.

The intervention managed to get mother-in-law's to dialogue about some of the traditional and cultural practices still very popular in the communities that are harmful to pregnant women and their new born babies. Some of these included treatment of the fontanel using traditional medication and using African Pitocin to speed up the birth process. Mother-in-laws appreciated the dialogues as they commented that they now realised have their ways were not entirely good. In fact they commented that some of their old practices were outdated and that the best was to refer their families to the health facility. They were also encouraged to talk to their sons to be involved in pregnancy and birth of their children.

Men's dialogues focused on their role for achieving good health outcomes for their families. A total of 8126 attended the dialogues in the three countries. Facilitators emphasised that they should strive to keep HIV and STIs out of the pregnancy and breastfeeding period by being faithful or using condoms. They also discussed ways to provide for their pregnant spouses during pregnancy and after the birth of their children. They were also taught about birth preparedness - that it was important to accompany their wives to the facility at least once, get tested together and make a decision together on delivery and postnatal care. These discussions were an eye opener to the men. Men also indicated that it will help if the clinics could offer them other services to keep them healthy like prostate cancer screening, testing for high blood pressure and glucose instead of just being tested for HIV/AIDS.

CHALLENGES

The Community Leader intervention on its own significantly improved the proportion of HIV exposed infants returning to the health facility for early infant diagnosis. This intervention also increased the proportion of pregnant women coming for ANC earlier in their gestation. We were unable to demonstrate the effects of the additional interventions overall, though in Uganda and Zimbabwe, the additional effect of the community days and the peer groups impacted the proportion of pregnant women coming to ANC before 20 weeks gestation, and in Uganda, significantly more women completed at least 4 ANC visits.

The costing study demonstrated that community interventions require significant up-front investment, particularly of human resources and training / mentorship, to ensure that focal points engaging with the community (peer facilitators, Community Leaders, Community Day facilitators) are highly effective at mobilizing communities and promoting uptake of services, behavior change. However, higher up-front costs could mean that scale-up would drive down unit costs until communities get saturated; this could be especially true of the Community Leader and Peer Group interventions, where the significant amount of effort to ensure effective leaders and facilitators could promote long-term value for the communities in the form of heightened awareness and uptake of services.

It proved to be difficult however, to map costs to outcome indicators, because attribution is complex, so we limited our analysis to output indicators (e.g. no. of leaders and facilitators trained, no. of clients tested for HIV at a Community Day event, etc.). This makes it more challenging to make broader claims about cost effectiveness.

The cost analysis was conducted retrospectively, rather than prospectively; this made it more difficult to determine consistent expense coding across countries, and meant that we had to rely on estimates more heavily than if we had agreed to a specific methodology of coding expenditures from the outset of implementation. The lack of published literature around cost per beneficiary and cost effectiveness of community interventions also made it difficult to benchmark costs; in other words, even in instances where we obtain reasonable estimates for a specific intervention (e.g. cost per community leader trained), it is difficult to determine whether that cost is reasonable or whether it represents value for money, without available benchmark data. It is hoped that as more partners conduct such analyses of their programs and share their results, more data will be available to serve as a point of reference for other partners implementing similar interventions.

There were however, some limitations of the study, including the lack of accurate published population data, particularly on the number of pregnant women in the clusters. Data quality assessments were done throughout the project to ensure fidelity of the data reported, but the impact may be masked by the use of aggregate rather than cohort data. In addition, some of the clusters in Swaziland and Zimbabwe had difficulty identifying enough pregnant women to recruit for the Peer Groups. The randomization had unfortunately allocated some of the smallest facilities to Arm 3, which included the Peer Group intervention.

The study clusters were predominately rural due to the need to conduct the study in areas without competing community activities and to avoid having referral institutions in the clusters, and thus may not be generalizable to urban and peri-urban populations. Another issue with the clusters that became clear was that there appeared to be a fair number of women who received services in clusters other than the one where they attended ANC. This caused some indicators to equal over 100% in a cluster and others to be abnormally low

The study was also unable to assess the impact on ARV/ART uptake, as this was affected by the move to Option B+. All of the three countries started rolling out Option B+ nationally. Option B+ required that any women who tested positive were implemented on ART the same day. However, uptake was already high in these EGPAF-supported facilities.

A number of external developments, beyond the control of the organization, occurred during implementation which caused project delays, including the recent roll-out of amended national tools, ethical clearance issues in Uganda, and the presence of a similar project in Swaziland.

In 2013, Uganda introduced new registers to support the roll out of Option B+ in 2013. The ACCLAIM data quality audit process unveiled weaknesses with register completion and accuracy, which was attributed to incomplete health care worker orientations to the new tools. As a result, the desired levels of agreement between all sources of data are less than optimal, pointing to reliability issues with the ACCLAIM data sources. The Uganda team devised and implemented an action plan to address this specific constraint. They documented the areas where the challenges were experienced with understanding the data tools. Every week they would go around and orient the health workers on the tools so that they could understand better on how to complete the registers. Also in Uganda, there was a delay in receiving approval for the research activities, which delayed implementation of all the interventions.

In Swaziland, the team learned of a World Bank Project that was implementing community interventions in Manzini Region. This forced the team to move the ACCLAIM Project to two regions Shiselweni and Hhohho Regions. Secondly, they learned about another project that nearly duplicated the ACCLAIM projects in 2014. It had an operations research component with a KAPB study, as well as three community interventions. The Swaziland team and the ACCLAIM Project Director both met with this project team to ensure that there was no project 'contamination'. With strong support from the Swaziland MOH, the new project was designated to work in two regions where ACCLAIM was not being implemented.

In addition to the external challenges faced by the EGPAF ACCLAIM team, several challenges arose during implementation of all three interventions and at the facility level.

COMMUNITY LEADER INTERVENTION

Trained Community Leaders struggled to bring out key MNCH barriers in their early discussions. Instead, they came up with generalized messages, though after rigorous mentorship they managed to bring out the key messages. Leaders delayed conducting dialogues because of poor understanding of the content. Training done in staggered phases would have encouraged greater comprehension of the content in the early phases of the project as opposed to the one week intensive sessions, especially given the amount of new technical material and new skills that are involved. Leaders received intense mentorship on how to conduct dialogues and how to articulate the issues involved so that communities could easily understand. Intensive mentorship was necessary to improve Leaders' effectiveness.

PEER GROUP INTERVENTION

Training of peer facilitators took longer than anticipated in all three countries, which delayed implementation. Instead of the planned two weeks, it took three weeks in Swaziland. Zimbabwe extended the training into the field by doing first classes at cluster level to improve on facilitation and Uganda had to plan for additional trainings also. In addition, peer facilitators struggled to recruit pregnant women before their third trimester. The teams intensified looking and registering women whose gestational age was between 20-25 weeks.

COMMUNITY DAY INTERVENTION

The cost of hosting Community Days is rather high. It averaged between $1,200-$1,700 per Community Day in Swaziland and Zimbabwe (see Costing section for more details). Costs in Uganda were nearly twice as high due to national guidelines for services that must be provided during Community Days, included surgical male circumcision and cervical cancer screening. Countries were, therefore, encouraged to implement creative ways of reducing costs.

FACILITY-LEVEL CHALLENGES

In Uganda, allegations were made that health workers charged fees 5000-10 000 Uganda Shillings ($2-3) for labor and delivery services which are free at public facilities. This may have affected utilization of these services in

(Kanungu Arm 3). The reports were brought to attention of the respective District Health Officers who resolved these issues.

Health workers not having enough capacity during project implementation was an issue, particularly in the Ntungamo cluster, as there was a significant increase in the number of pregnant women delivering at the facilities. The few midwives at the available health facilities within the clusters were now overloaded with work. These issues were shared with the district managers for action. In addition, there was often not enough ACCLAIM manpower to manage all activities during Community Days in the three countries. All countries had to seek help from the ministry staff to alleviate these shortages. In Swaziland due to the high community demand for HIV testing and counselling services that exceeded the available staff, were provided after the dialogues.

LESSONS LEARNED

To share the valuable lessons learned from ACCLAIM, the dissemination Global Affairs Canada and the ministries in the three countries. In addition, an end of project event was held in late 2016 to showcase to major donors and stakeholders.

The team submitted several peer-reviewed manuscripts. Currently, three manuscripts are planned: 1) ACCLAIM protocol, accepted in the journal *Trials*; 2) major results, to be submitted; and 3) community entry and engagement of Community Leaders, to be submitted. Abstracts have been submitted to IAS 2016, ACCLAIM was presented in a satellite session hosted by Coalition for Children Affected by AIDS. Further submissions were made to other conferences during 2016.

The ACCLAIM team developed and shared a shorter project brief and IATT Webinar: to be proposed to the IATT secretariat for May 2016. ACCLAIM messaging was also be shared over social media, particularly to reach several sub-populations who were profoundly affected by ACCLAIM: young men and pregnant adolescents.

The ACCLAIM project has produced training guides that was be used by EGPAF teams in multiple countries. The materials and the ACCLAIM model are able to be used for new projects and will be adapted as a community-facility model to achieve the 90-90-90 goals.

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Appendix 1

Selected questions in the community survey.

Individual MNCH Knowledge, Attitudes, Perceptions and Barriers. (Total score=4)

When is the BEST time to start antenatal care? • As soon as a woman suspects she is pregnant/within 3 months of pregnancy • From 4 to 6 months of pregnancy • After 6 months of pregnancy • Anytime when a woman has a problem with her pregnancy • Do not know **Score: "As soon as a women suspect she is pregnant"=1, else=0**
How many times should a woman attend/receive antenatal services during pregnancy? • No. of times:____________ • Do not know **Score: No. of times ≥4=1, else=0**
If a woman delivers a baby outside of a health facility, how soon after delivery should the **WOMAN** receive medical care at the health facility? • Immediately/within 24 hours after birth • Within one week after birth • At the regular 6 week checkup • Other • Do not know **Score: Immediately/within 24 hours of birth=1, else= 0**
If a woman delivers a baby outside of a health facility, how soon should the **BABY** receive medical care at the health facility? • Immediately/within 24 hours after birth • Within one week after birth • At the regular 6 week checkup • Other • Do not know **Score: Immediately/within 24 hours of birth=1, else=0**

Community MNCH Perceptions, Attitudes, and Beliefs (Total score=29)

(Responses on a five-point Likert scale: strongly agree [4], agree [3], neither agree nor disagree [0], disagree [2], strongly disagree [1])

Vaginal bleeding during pregnancy is caused by pregnant mother working too hard. **Score: Strongly agree=4, strongly disagree=1**
Maternal death is caused by evil spirits or breaking taboos. **Score: Strongly agree=1, strongly disagree=4**
Complications during pregnancy can often be managed by rapid medical attention. **Score: Strongly agree=4, strongly disagree=1**
I believe in my ability to plan for the safe delivery for myself and my child. **Score: Strongly agree=4, strongly disagree=1**

I believe in my ability to handle any emergency situation that might occur during labor and delivery. **Score: Strongly agree=4, strongly disagree=1**
Community members would agree that ensuring healthy outcomes for every mother and child in the village is a priority for this community. **Score: Strongly agree=4, strongly disagree=1**
Members would be willing to mobilize resources to ensure healthy outcomes for every mother and child in this community. **Score: Strongly agree=4, strongly disagree=1**
There are skilled community members who would be willing to work together to solve the problems that prevent healthy outcomes for every mother and child in this community. **Score: Strongly agree=4, strongly disagree=1**

HIV Knowledge (Total score=12)

What are the various ways or methods you have heard of, that one can use to prevent HIV, the virus that causes AIDS? • Stop/Abstain from having sex • Use condoms every time you have sex • Reduce the number of partners • Have sex with only one uninfected partner • Have an HIV test • Not sharing needles or razor blades • Take medicine while pregnant to prevent transmission to child • Never heard of AIDS • Other (specify) • Do not know **Score=1 for each answer, except for "Reduce the number of partners", "Have HIV test", "Never heard of AIDS", "Other", "Do not know"=0**
What are the ways that a person can become infected with HIV? • Unprotected sexual intercourse with an infected partner • From contaminated medical equipment such as needles • Transfusion with infected blood • Witchcraft, spiritual, or other supernatural means • Mother transmits to her baby • Other (specify) • Do not know **Score=1 for each answer, except for "Witchcraft, spiritual or other supernatural means", "Other", "Do not know",=0**
Have you ever heard of any special care that health workers could give people living with HIV and AIDS to help them live longer? If yes, what have you heard of? • Medicine • Nutrition support • There is nothing they can do • Counseling • Other (specify) • Do not know **Score=1 for medicine or nutrition support, else=0**
Is it possible for a person to be healed of HIV and AIDS through prayers or other supernatural means? • Yes • No

• Do not know **Score: No=1, else=0**

HIV related stigma (Total score=26 – higher score, greater stigma)

(Responses on a four-point Likert scale; strongly agree, agree, disagree, strongly disagree)

Most people in this community would want to keep it a secret if a member of their family had HIV/AIDS. **Score: Strongly agree=4, strongly disagree=1**
Influential people in my community do not take HIV/AIDS seriously. **Score: Strongly agree=4, strongly disagree=1**
If a health worker is HIV positive, I don't think they should be allowed to treat patients. **Score: Strongly agree=4, strongly disagree=1**
If a member of my family became infected with the HIV virus, I would want it to remain a secret. **Score: Strongly agree=4, strongly disagree=1**
HIV/AIDS is the result of sinning. **Score: Strongly agree=4, strongly disagree=1**
It would be foolish to marry someone who is living with HIV or AIDS. **Score: Strongly agree=4, strongly disagree=1**
People living with HIV/AIDS should not be ashamed. **Score: Strongly agree=1, strongly disagree=4**
People with HIV/AIDS should be allowed to fully participate in social events in this community. **Score: Strongly agree=1, strongly disagree=4**

PMTCT Knowledge (Total score=3)

Are there any times that an HIV-positive woman can pass the HIV virus to her baby? • During pregnancy • During labor and delivery • During breastfeeding • She will ALWAYS pass HIV • to the baby • No, she cannot pass HIV to the baby • Other • Do not know **Score: "During pregnancy" and "during labor and delivery" and "during breastfeeding"=1, else=0**
Is there anything an HIV-positive mother can do to prevent passing the HIV virus to her baby? • No, there is nothing she can do • Take medicines to prevent passing HIV to her baby throughout pregnancy • Give her baby breast milk only (no water or porridge) for the first six months of life • Deliver in a health facility • Give medicine to a breastfeeding baby to prevent HIV passing to a breast-feeding until breast feeding stops completely • Other (specify) • Do not know

Score: "Take medicines to prevent passing HIV to her baby throughout pregnancy" and "Give her baby breast milk only (no water or porridge) for the first six months of life" and "Give medicine to a breastfeeding baby to prevent HIV passing to a breast-feeding until breast feeding stops completely"=1, else=0
Sometimes the partner of a breast-feeding woman has unprotected sex with other partners. Can this increase the risk of HIV infection for the infant? • Yes • No • Do not know **Score: "Yes"=1, else=0**

Gender Equitable Men: Gender Norms (Total score=36)

(Responses: agree=1, partially agree=2, disagree=3)

It is the man who decides what type of sex to have. **Score: Agree=1, disagree=3**
Men need sex more than women do. **Score: Agree=1, disagree=3**
You don't talk about sex, you just do it. **Score: Agree=1, disagree=3**
It is a woman's responsibility to avoid getting pregnant. **Score: Agree=1, disagree=3**
A man should have the final word about decisions in his home. **Score: Agree=1, disagree=3**
Men are always ready to have sex. **Score: Agree=1, disagree=3**
There are times when a woman deserves to be beaten. **Score: Agree=1, disagree=3**
A man needs other women, even if things with his wife are fine. **Score: Agree=1, disagree=3**
A woman should tolerate violence in order to keep her family together. **Score: Agree=1, disagree=3**
I would be outraged if my wife/husband asked me to use a condom. **Score: Agree=1, disagree=3**
It is okay for a man to hit his wife if she won't have sex with him. **Score: Agree=1, disagree=3**
Men in the community see it as unmanly to be involved in issues related to their partner's pregnancy and childbirth. **Score: Agree=1, disagree=3**

Household decision-making (Total score=2)

(Responses: Self – married/living together, Husband/Partner, Self and husband/partner jointly, Parents/other family members, Self – live alone, Other)

Who usually decides how the money coming into the household will be used: you, your partner/husband, or both of you together? **Score: Self/husband jointly=1, else=0**

Who usually makes decisions about health care for yourself? **Score: Self/husband jointly=1, else=0**