

**Fistula Care
Associate Cooperative Agreement
GHS-A-00-07-00021-00**

.....
**Final Project Report
October 2007 to December 2013
Part I: Global Accomplishments**



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ACRONYMS AND ABBREVIATIONS

AMREF	African Medical and Research Foundation
AMSTL	active management of the third stage of labor
ANC	antenatal care
ARHB	Amhara Regional Health Bureau
AWC	Aberdeen Women's Centre
CBO	community-based organization
CDC	U.S. Centers for Disease Control
CFR	case fatality rate
CHUK	Central University Hospital of Kigali
CMO	context, mechanisms, outcomes
CNRFO	Centre National de Référence pour la Fistule Obstétricale
CoP	community of practice
CS	cesarean section
DDM	data for decision making
DGFP	Director General of Family Planning
DGHS	Director General of Health Services
DHS	Demographic and Health Survey
DRC	Democratic Republic of the Congo
EmOC	emergency obstetric care
ESCACON	East, Central and Southern Africa Congress of Nurses
ESCA-HC	East, Central and Southern Africa-Health Community
ESD	Expanding Service Delivery
FBO	faith-based organization
FC	Fistula Care
FIGO	International Federation of Obstetricians and Gynecologists
FMOH	Federal Ministry of Health
FP	family planning
FTWG	Fistula Technical Working Group
FY	fiscal year
GREFFA	Groupe de Recherche, d'Étude et de Formation Femmes-Action
HC	health center
HEAL	Health, Education, Community Action, Leadership Development
HFE	Hamlin Fistula Ethiopia
HIV	human immunodeficiency virus
HMIS	health management information system
ICM	International Confederation of Midwives
IEC	information, education, communication
IGL	Imagerie des Grands Lacs
IOFWG	International Obstetric Fistula Working Group
IR	intermediate result
ISOFS	International Society of Obstetric Fistula Surgeons
IUD	intrauterine device
IVDM	informed and voluntary decision making
JHU	Johns Hopkins University

JPII	Jean Paul II
JSS	joint supportive supervision
LGA	Local Government Area
MCCI	Mother and Child Care Initiative
MCHIP	Maternal and Child Health Integrated Program
M&E	monitoring and evaluation
MHTF	Maternal Health Task Force
MOH	Ministry of Health
MOHFW	Ministry of Health and Family Welfare
MOHPH	Ministry of Health and Public Hygiene
MSRK	Maternité Sans Risque Kindu
NGO	nongovernmental organization
NWGOF	National Working Group on Obstetric Fistula
OBSB	Obstetrics and Gynecology Society of Bangladesh
Ob/Gyn	obstetrics/gynecology
PAUSA	Pan-African Urological Surgeons Association
PMP	program monitoring plan
PROSANI	Projet de Santé Intégré
PRU	pre-repair unit
QI	quality improvement
RCT	randomized controlled trial
REF	Le Réseau pour l'Eradication des Fistules
RH	reproductive health
RVF	recto vaginal fistula
SJH	St. Joseph's Hospital
SMOH	State Ministry of Health
STI	sexually transmitted infection
SUI	International Society of Urogynecologists
SWT	site walk through
TGF	The Gloag Foundation
ToT	training of trainers
VHT	village health teams
VSMC	village safe motherhood committees
UN	United Nations
UNFPA	United Nations Population Fund
UTH	University Teach Hospital
USAID	United States Agency for International Development
VVF	vesico vaginal fistula
WLFO	Women Living with Fistula Organizations
WAHA	Women and Health Alliance International
WARP	West Africa Regional Program
WDC	Ward Development Committee
WFF	Worldwide Fistula Fund
WHO	World Health Organization

I. Executive Summary

Fistula Care was a six-year project funded by the United States Agency for International Development (USAID) and implemented by EngenderHealth, in partnership with IntraHealth International. The goal of the project was to establish and/or strengthen fistula prevention, repair and reintegration programs in at least 12 institutions in sub-Saharan Africa and South Asia.¹ The four intended results were specifically to:

1. Strengthen the capacity of centers to provide quality services for women with obstetric and traumatic gynecologic fistula;
2. Enhance community and facility understanding and practices to prevent fistula, to utilize and deliver services for emergency obstetric care, and to support women's reintegration;
3. Gather, analyze, utilize and report data to improve the quality and performance of fistula services; and
4. Facilitate a supportive environment to institutionalize fistula prevention, repair and reintegration services.

Key numerical accomplishments under Fistula Care are highlighted in the box to the right. However, numbers tell only part of the Fistula Care story. Together with international, national and local institutions, Fistula Care succeeded in changing the environment for obstetric fistula through partnership, participation, standardization of clinical practices, approaches and training, and a focus on building the evidence base for quality services to address the continuum of care. A mid-term evaluation of the project conducted in 2011 noted that the project had “achieved or surpassed its objectives under all four results”.²

Key Accomplishments under Fistula Care, 2007-2013

- Over 29,000 repairs performed in 14 countries in Sub-Saharan Africa and South Asia (23,860 through Fistula Care; 6,335 through bilateral projects)
- A total of 107 facilities ever supported for prevention and treatment services (92 FC; 15 through bilateral projects)
- More than 23,000 persons trained in support of treatment and prevention (no. persons trained):
 - Fistula repair surgery: 256
 - Pre & post -operative care: 819
 - Fistula counseling: 1,017
 - Obstetric care: 2,360
 - Family planning counseling and methods: 1,049
 - Quality improvement: 578
 - Infection prevention: 1,797
 - Community outreach and advocacy: 15,225
 - Data management: 640
- 23 research and evaluation studies completed including 2 multicenter clinical studies
- Randomized controlled clinical trial on fistula treatment completed in collaboration with WHO

When EngenderHealth embarked on its work in obstetric fistula (OF) at the beginning of this century, we noted that while much progress had been made worldwide over the last 100 years in improving maternal health, enormous disparities persist between the developed and developing

¹ In addition to its own activities, the project was charged with gathering data from all USAID-supported activities relating to obstetric fistula. This report focuses on the activities of Fistula Care, and provides selected data from other USAID-supported initiatives.

² Ojengbede, O., D. Caro, E. Mielke and P. MacDonald. Midterm Evaluation of the Fistula Care Project. Global Health Technical Assistance Project. November 2011.

worlds. The incidence of obstetric fistula is one of the most visible indicators of this disparity. It is a health equity issue, but one that represents the failure of many other systems, including values that contribute to poor nutrition for girls, the persistence of early marriage, restricted access to health care facilities and women's low status in general. While maternal mortality estimates have declined by approximately 34% from 1990, 48 million women still give birth each year without skilled attendance. Ninety percent of maternal deaths and 80% of still births happen in 58 countries. And for every death, 20 women are estimated to experience some acute or chronic morbidity such as obstetric fistula.³

In the work done under Fistula Care, we learned a lot about who these women are. From the randomized controlled trial, conducted in 8 countries, the women's ages ranged from 14-79, and the length of time they lived with fistula ranged from 1 month to 41 years. Ninety-four percent of them experienced fistula after delivery, 83% lived in rural areas and 63% had no education. The majority of fistula is caused by obstructed labor, and the majority of our work focused on obstetric fistula. However, we also contributed to broadening the understanding of the needs of women with traumatic gynecologic fistula (TF) caused by sexual violence, most often in areas experiencing conflict, such as Northern Uganda and the Democratic Republic of Congo. We explored with our colleagues a concern about an increasing trend of iatrogenic fistula (IF), when accidents occur during obstetric or gynecological surgeries such as cesarean sections or hysterectomies. We reviewed and discussed the needs of women whose fistula was deemed incurable (WDI), either because of the severity of the injury, or because a specialist with the requisite skills was not immediately available to provide the surgery needed.

Over the life of the project, particular attention was paid to increasing access to quality fistula prevention and treatment services through a holistic and triaged approach. We initially partnered with 16 facilities in seven countries. Six years later we had partnered with 92 facilities in 14 countries. We promoted the "levels of care" concept in which prevention would factor into all levels of the health care system, as well as within communities; simple fistula could be addressed at sites with staff trained to provide this specialized care; and complex fistula could be addressed by staff with a higher level of competence at facilities that could also serve as training centers. Training was an important component of our work. Our training strategy defined the competencies required for fistula surgery training, the type of training required over time to achieve successive levels of competency, and the need to train surgical teams, not just surgeons, to ensure that pre/intra- and post-operative care would all contribute to a successful outcome. We defined the competencies required to serve as a trainer for others and the facility requirements in order for a site to provide training. But while training is essential, it is not sufficient to ensure quality services.

We worked towards ensuring quality services by standardizing approaches and tools in collaboration with global and regional partners, and our partners at the country level, in turn, adapted and/or adopted those approaches and tools for their specific circumstances. Examples include standardized facility assessment, monitoring and supervision tools, standardized indicators and data collection and reporting tools, curricula for nursing care and counseling, and

³ Reichenheim, M., et al 2009. Severe acute obstetric morbidity (near-miss); a review of the relative use of its diagnostic indicators. *Archives of Gynecology and Obstetrics*, 280, 337-343

contributing to the first standardized, competency-based surgical training module. We established clear definitions for outcomes at discharge (e.g. closed and dry, closed but with residual incontinence), reportable complications, etc. and we collaborated with our in-country partners to monitor those rates. Through this joint monitoring we were able to identify areas of concern and take action to assist with improvements. Although death is a rare occurrence with fistula surgery, there were some deaths. We developed a tool and process for conducting mortality audits to determine if the cause of death was related to surgery, and to ensure that lessons learned from the process were incorporated into future services.

In prevention, at the facility level, we focused attention on the four key prevention interventions: the partograph, a “simple” paper-based tool that has been in use for almost fifty years yet rarely used to its best advantage; the role of immediate catheterization after prolonged or obstructed labor to prevent fistula formation, and in some instances to serve as a primary treatment for small, fresh fistula; improving record keeping and providing quality services for cesarean sections; and integrating family planning into fistula services. At the community level, we applied many behavior change interventions by providing opportunities for peer, community, religious and family meetings, establishing partnerships with community or media organizations, and establishing linkages between communities and service facilities. Perhaps the most successful examples are the democracy and governance approach in Guinea and the use of Village Safe Motherhood Committees (VSMCs) to enhance community and social capacity for safe motherhood and increased use of facility-based services for ante-natal care and delivery in Guinea and Niger.

The mid-term evaluators noted the project’s emphasis on the “interrelationship” between service delivery and evidence, and that the project’s “leadership on research and global and national advocacy has been particularly important for building and disseminating the evidence base on fistula.” As you will see in result 3, the project conducted a total of 23 research and evaluation studies, including two multi-center, multi/country clinical studies, and a randomized controlled trial in collaboration with WHO. These studies included:

- Evaluating the project’s work in integrating family planning into fistula services
- Evaluating community-level fistula prevention interventions in Guinea, Niger and Uganda
- Community-based screening for fistula to assist local governments in planning for services in Nigeria
- Data collection procedures and data quality of indications for cesarean deliveries (five countries, nine sites)
- Determinants of post-operative outcomes in fistula repair surgery (five countries, 11 sites)
- Estimating costs to provide fistula services in Nigeria and Ethiopia
- Programming considerations for integrating uterine prolapse and fistula services
- Use of the partograph: a review on effectiveness, training, modifications and barriers
- Current practices in treatment of female genital fistula: a cross-sectional study
- Randomized, controlled trial: non-inferiority of short-term catheterization following fistula repair surgery (eight countries, eight sites)

Finally, to address the enabling environment for increased access to prevention and treatment, the project worked hand-in-hand with multiple actors at the national and international levels. At the national level, the primary foci were the Ministry of Health, the National Obstetric Fistula Working Group and the institutions providing services. At the international level, the project collaborated with UNFPA, WHO, FIGO, the Pan African Urological Association (PAUSA), the International Society for Urology (SIU), the East, Central and Southern African organization (ECSA), the Fistula Foundation, the Harvard Humanitarian Institute and other international professional associations.

The project presented 76 papers and posters at 33 conferences; published 11 articles in peer reviewed journals; published 14 issues of a newsletter to nearly 1000 subscribers; published 11 technical briefs describing different approaches to fistula care; and managed a website which now receives an average of 3,000 unique “visitors” per month from across the globe.

Challenges remain. One of the major issues plaguing those engaged in working on obstetric fistula is the issue of prevalence and incidence. For every woman who experiences fistula, it is a tragedy. To serve them, good data are essential to effective planning. However, because fistula is a relatively rare condition that requires a clinical diagnosis to confirm, it is not something that has easily lent itself to accurate estimates included in population-based surveys. In 2007, Stanton *et al.*, 2007, reviewed available data and found the best estimate of prevalence to be 2 million women worldwide, with an annual incidence of perhaps 80,000 to 100,000 new cases.⁴ More recently Adler *et al.*, conducted a systematic review of 19 studies including estimates of incidence and prevalence at the population level from 1993 to 2012 (only 4 of which were after 2008) in which they project that just over one million women may have a fistula in sub-Saharan Africa and South Asia, with 6,000 new cases each year. The authors recognized that community-based studies may represent “an underestimate of the prevalence of fistula, as fistulae are generally more commonly found in regions where there is no access to obstetric care, and may be difficult to reach...” and that the estimates “may represent a lower bound estimate of prevalence.”⁵ It is doubtful that even 100,000 repairs have been supported since 2005 (USAID has supported 30,000 repairs in that time.) If either estimate of prevalence and incidence is true, the backlog of women with fistula continues to grow.

While we have made significant progress in programmatic and institutional sustainability, financial sustainability remains a significant challenge. Women with fistula must rely on public sector services, or the few not-for-profit facilities that care for fistula patients. They generally do not have resources with which to pay for, or contribute to, services of any kind. Though obstetric fistula is a rare event on a global or national scale, it is a devastating condition to the individual: physically, socio-emotionally, and economically. For those who do find their way to a facility that can help them, women waiting for fistula surgery will often wait days, weeks, months or years for a surgical space to open and for the bed space and nursing care to be available to them for a relatively long hospital stay. When health systems, facilities, and

⁴ Stanton, C., S.A. Holtz, S.A., and S. Ahmed, S. 2007. Challenges in measuring obstetric fistula. *International Journal of Obstetrics and Gynecology* 99 (suppl. 1): S4-S9

⁵ Adler, A., C. Ronsmans, C., Calvert, C. and V. Filippi, V. 2013. Estimating the prevalence of obstetric fistula: a systematic review and meta-analysis. *BMC Pregnancy and Childbirth* 2013, 13:246

providers are overwhelmed with urgent care, and communicable and non-communicable diseases affecting thousands of people in their coverage area, women with maternal morbidities such as fistula are relatively low on the priority list.

Some sustainability challenges relate to the health equity and systems issues mentioned at the beginning of this executive summary. Even in one country known to be doing well for its progress towards the Millennium Development Goals, it was disheartening to visit the second most important university teaching hospital in the country and see pristine, new and well-resourced pediatric, orthopedic and men's surgical wards, while the maternity unit was housed in the old hospital with broken doors, filthy bathrooms, problems with access to running water and more than one woman to a bed. In such circumstances, women will make the rational decision not to give birth in such a facility, and, even in an emergency, to delay going to such a facility. We know from quality improvement work that every satisfied customer will share their experience with two or three peers, while for every dissatisfied customer that number increases to between 8 and 10 individuals who will hear about their negative experience.

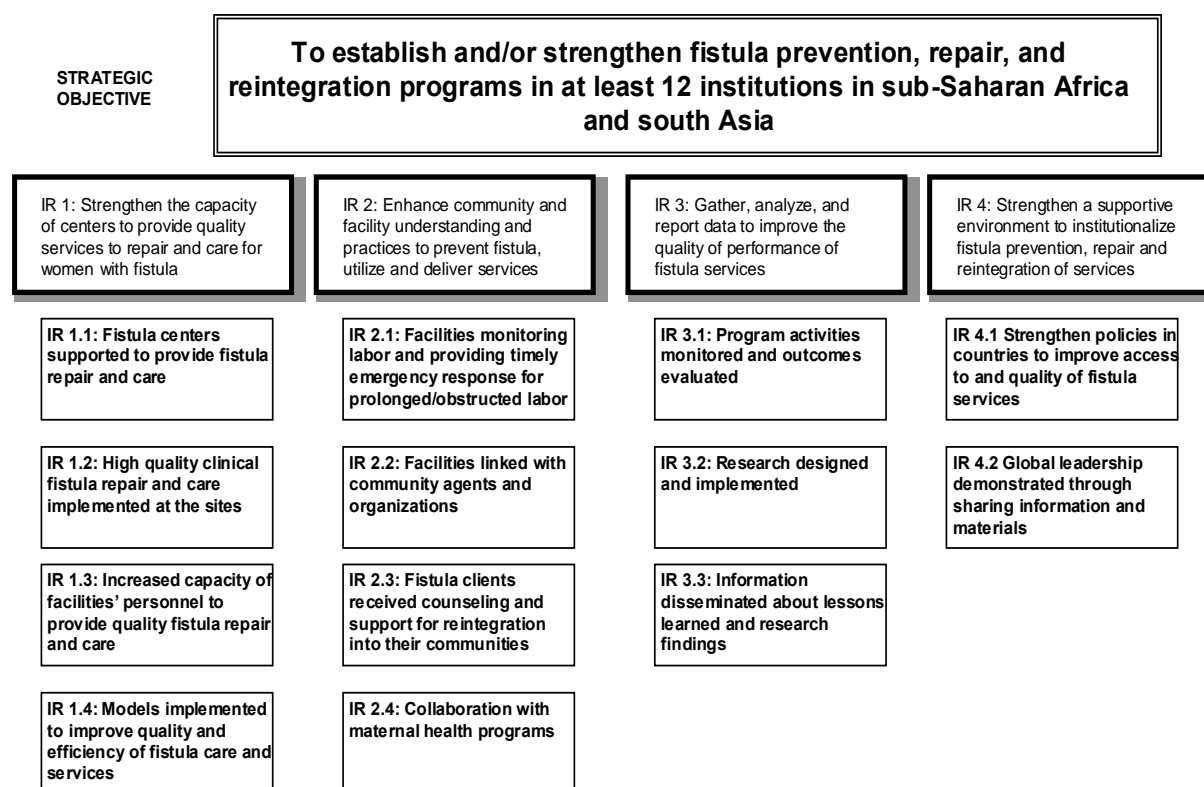
EngenderHealth and IntraHealth are grateful to the United States Agency for International Development and the American people for the opportunity over the past six years to work alongside some of the most dedicated individuals. These surgeons, nurses, health care staff, Ministry officials, institutional managers, community volunteers and other international partners are true heroes dedicated to caring for the most vulnerable of women.

II. INTRODUCTION

USAID support to EngenderHealth for fistula services began in FY04/05 under the ACQUIRE Project, primarily focused on training of surgeons in fistula surgery and strengthening the capacity of sites to provide quality fistula surgery; funding under the AWARE Project was also provided to support activities in two countries: Niger and Ghana. The Fistula Care project was awarded to EngenderHealth, in partnership with IntraHealth International, by the United States Agency for International Development (USAID) through an Associate Cooperative Agreement (No. GHS-A-00-07-00021-00) in September 2007. The original five year project was awarded extensions of one year and then three months, extending the project through December 31, 2013.

With the award of Fistula Care, the scope of work expanded to include prevention activities. The goal of Fistula Care was to increase and strengthen the number of sites providing fistula services, as well as to support prevention through advocacy, increased attention to the provision of emergency obstetric care, the use of family planning, and to identify ways to support fistula clients post-surgery to reintegrate into their families and communities, if that is their desire and their need. The results framework, with four intermediate results (IR), for the project is shown below in Figure 1.

Figure 1: Fistula Care Results Framework

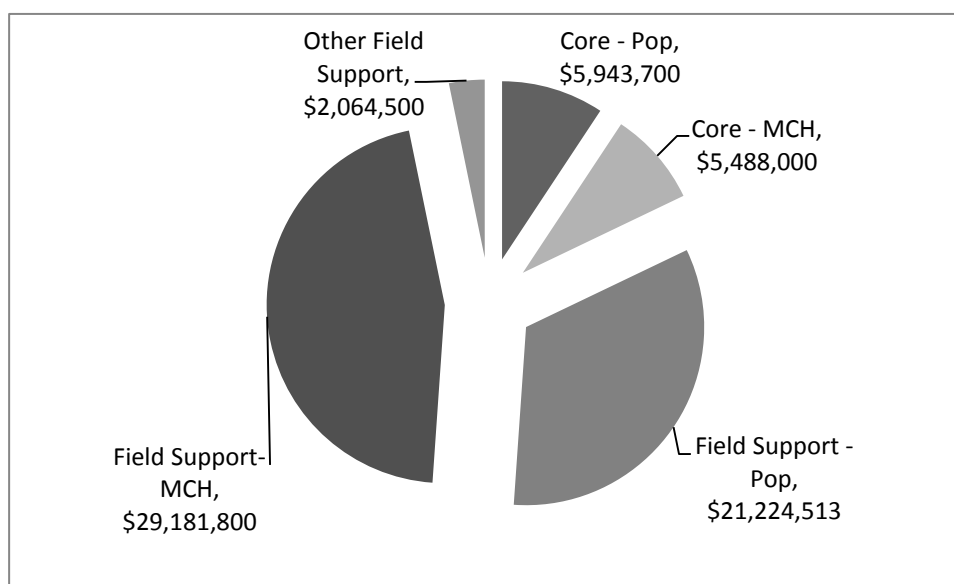


This report summarizes key accomplishments over the life of the project and serves as the final report for the project for the reporting period October 1, 2007-December 31, 2013. The report is organized into two parts: Global Overview (Global Accomplishments by Results, Management) and Country Reports. The country report section includes an overview of accomplishments for each country, by result, through the life of the project.

The Fistula Care Performance Management Plan (PMP) was developed in the first year of the project and included a total of 15 core indicators organized by the four project intermediate results shown in Figure 1⁶. A discussion of the project's overall accomplishments against planned benchmarks is presented in the Global Accomplishment section of this report under each of the results. Details about planned and actual benchmarks for all indicators can be found in Annex 1.

The total obligations from USAID for Fistula Care was \$63,902,513 (see Figure 2). Throughout the life of the project EngenderHealth routinely submitted monthly pipeline reports to USAID/W that described the status of all funds (over the life of the project up to 35 different fund accounts were tracked and monitored) and the SF425 form on a quarterly basis. The monthly monitoring enabled us to track which country projects and /or sub-awardees were on track for implementing planned activities. Over the life of the project \$15,587,153 in field and core funds were obligated through subawards to 31 organizations to support program implementation and research activities. The provisional final financial reports will be submitted in accordance with the Award requirements by March 31, 2014. The final financial report will be submitted when the provisional indirect costs are approved.

Figure 2. Fistula Care total revenue October 2007-December 2013, \$63,902,513



⁶ One indicator from the original list of 15 was dropped after we determined it was not feasible to collect on a routine basis: % of cesareans performed as a result of prolonged/obstructed labor. See Result 2. 2 for more details.

Fistula Care's focus on treatment and prevention interventions was conducted in partnership with institutions in ten countries and a total of 92 facilities (45 treatment and 47 prevention only): 74 public sector facilities (80%), 12 faith-based organizations (13%), and six private or nongovernmental organizations (NGO) (7%), see Table 1.

Table 1. Number of facilities ever supported by USAID for treatment and prevention only by sector 2007-2013

Country	Faith-based organization	Private/ NGO	Public	Total number of sites ever supported
Fistula Care				
Bangladesh	2	3	0	5
DRC	6	1	0	7
Ethiopia	0	0	4	4
Guinea	0	0	9	9
Mali	0	0	8	8
Niger	0	0	8	8
Nigeria	0	0	33	33
Rwanda	1	1	2	4
Sierra Leone	0	1	0	1
Uganda	2	0	10	12
Mercy Ships	1	0	0	1
Total through Fistula Care	12	6	74	92
Bilateral Projects				
DRC	4	0	6	10 ⁷
Ethiopia	4	0	0	4
Pakistan	0	0	1	1
Total Bilateral Projects	8	0	7	15
Total	20	6	81	107

Our work was focused in 10 countries: Bangladesh, the Democratic Republic of the Congo (DRC), Ethiopia, Guinea, Mali, Niger, Nigeria, Rwanda, Sierra Leone, and Uganda. In addition, with Fistula Care support, Mercy Ships' hospital ship the *Africa Mercy* conducted fistula repair services when the ship was docked in Benin, Liberia, and Togo⁸. Dr. Steve Arrowsmith conducted fistula surgery training on board the ship when it was docked in these countries; he also trained two Guinean surgeons when the ship was docked in Guinea in 2012. In all of the core countries, we worked with national, district and/or state governments to address access to fistula treatment services.

During this same time period, USAID missions in DRC, Ethiopia and Pakistan supported activities related to fistula treatment and prevention through bilateral agreements with other organizations. Fistula Care quarterly reports included updates from these USAID bilateral projects, per USAID/Washington's request. The accomplishments in terms of number of repairs conducted and sites supported are reported as applicable and noted in presentation of data throughout the report. In the DRC support for fistula-related activities was provided to 11 sites through the

⁷ Total excludes Heal and Panzi who were also supported by Fistula Care.

⁸ Fistula repair services were also provided in Ghana under EngenderHealth's ACQUIRE Project. Post-October 2007, The *Africa Mercy* is counted as one site. Fistula Care's agreement with Mercy Ships ended in 2010.

International Rescue Committee⁹, and the AXxes and PROSANI bilateral projects. USAID/Ethiopia supported repairs at three sites and one prevention site (through Hamlin Hospital); bilateral support to Hamlin ended in 2012. USAID/Pakistan supported the renovation of an Ob/Gyn and fistula ward at the Jinnah Postgraduate Medical College in Karachi. This 60-bed fistula and Ob/Gyn ward and training institute for 150 undergraduate and postgraduate medical students opened in November 2012. Details about the number of fistula surgeries conducted through these bilateral agreements are included in Table 3 below (IR 1.1). See Annex 2 for a complete listing of all sites ever supported by USAID since FY04/05.

In addition to working with country based partners we collaborated with several international partners in support of training, services, research and engagement in dialogue about strategic issues related to fistula care. These organizations included: Centers for Disease Control (CDC), Direct Relief International, Geneva Foundation for Medical Research, the Fistula Foundation, Harvard Humanitarian Initiative, International Federation of Obstetricians and Gynecologists (FIGO), International Society for Obstetric Fistula Surgeons (ISOFS), International Society of Urogynecologists (SIU), International Obstetric Fistula Working Group (IOFWG), Johns Hopkins University (JHU), Maternal Health Task Force (MHTF), Pan African Urology Association (PAUSA), United Nations Population Fund (UNFPA), the White Ribbon Alliance, Women and Health International (WAHA), Worldwide Fistula Fund (WFF), and the World Health Organization (WHO).

UNFPA was an important partner at the global and country level. At the global level Fistula Care and UNFPA co-sponsored several International Obstetric Fistula Working Group meetings; and collaborated on the development of a compendium of fistula treatment indicators. At the country level UNFPA provided support for fistula treatment in the 10 focus countries. Fistula Care and UNFPA coordinated activities in most countries, to minimize overlap in support to centers providing fistula repair and to ensure that resources were maximized. In most instances, this coordination was conducted in collaboration with the national government authority, usually the Ministry of Health (MOH) or the national fistula technical working group.

Over the life of the Fistula Care project, EngenderHealth has had the opportunity to obtain funding from other donors to support fistula programming in five countries which was above and beyond the required cost share per our agreement with USAID. Donors who supported these activities included for-profit corporations, charitable foundations, individuals, and local businesses making in-kind contributions. In total, Fistula Care leveraged \$886,163 USD in additional resources to support fistula activities (includes some USAID funds in Guinea from the USAID/Guinea mission). In addition to these additional resources, the Ministries of Health and other governmental agencies have contributed to the project's achievements in terms of infrastructure, nursing care, surgeons and staff's time, etc.

Bangladesh: \$76,081. In 2005 EngenderHealth/Bangladesh recognized that facilities offering fistula repair may not have sufficient resources to cover the costs of medicine, surgery, and patient food. To date, it has raised a total of \$76,081 from private

⁹ Two sites supported by the International Rescue Committee became Fistula Care supported sites in 2008 (Heal and Panzi in eastern Congo). These sites are not double counted in the total in Table I.

individuals (including EngenderHealth staff), GETCO Telecommunications, HSBC, Dutch-Bangla Bank, and Nuvista Pharma. The private funds have subsidized fistula treatment costs, patient and attendant transportation, and the costs of other gynecological surgeries, such as for utero-vaginal prolapse or perineal tears.

Democratic Republic of the Congo: \$30,081. Catapult, a crowd-funding website dedicated to girls and women, awarded two projects to Panzi Hospital in 2013. “Journey to the hospital for life-changing surgery” (\$15,000) covered the transportation costs of women with complex fistula living in remote areas of eastern Congo. “Repairing women’s health and dignity in DRC” (\$15,081) equipped Panzi Hospital’s trained surgical teams to conduct outreach fistula repair services at thirteen sites.

Guinea: \$723,336 . The Guinea program successfully raised funds for fistula programming from a range of sources with funds coming directly to EngenderHealth or to supported sites. The Geneva Foundation for Medical Education and Research contributed an estimated \$117,436 for fistula surgeon training, including travel expenses and salaries for expert trainers and the necessary materials, equipment, and supplies for surgery. The American Friends of Guinea donated \$108,550 to remodel a waiting home for fistula clients and provide medical equipment. Arden’s Fund (\$64,665), the Donner Foundation (\$50,000), the Alcoa Foundation (\$35,000), and the Women’s Giving Circle (\$7,500) have all generously supported the expansion and work of the village safe motherhood committees. The Foundation Guinea Solidarité Plus (\$4,500), the Company Ferralux (\$2,558), and DHL Guinea (\$1,310) have contributed to the costs of beds, mattresses, linens, and supplies for fistula patients.

Because of Fistula Care’s presence and support of activities for fistula prevention and treatment, including strengthening of quality improvement systems, Guinea local and national government agencies and the US embassy provided support for fistula. The Guinea government provided solar panels to Labe Hospital, thus ensuring ongoing electricity for hospital services. In Labe and Kissidougou the urban councils were able to successfully secure funding to rent waiting homes for women awaiting fistula surgery. In Kissidougou, the US embassy provided support for the extension of the maternity unit of the Kissidougou hospital (\$25,000), and provision of solar panels at Kissidougou Hospital (\$10,000).

USAID Guinea mission provided a one year grant to EngenderHealth for a project in support of fistula services: Creating a Positive Change in the Lives of Women Disabled by Obstetric Fistula. The objectives of this project were to increase economic opportunities for women disabled by obstetric fistula, Strengthen communication skills for women living with fistula to conduct IEC/BCC campaigns to educate communities on fistula causes and prevention options, and to strengthen advocacy skills of women living with fistula to advocate for full inclusion and equality (\$296,844).

Niger: \$50,000. The Goldman Fund granted EngenderHealth \$50,000 to subsidize the cost of fistula repairs at supported sites in Niger. Between November 2008 and June 2010, 145 fistula repairs were made possible through Goldman Fund support.

Uganda: \$6,695. Concentrated fistula repair sessions require many inputs, and the 2013 effort at Hoima Hospital was no exception. Direct Relief International, Shurik Pharmaceuticals, Star Pharmaceuticals/Johnson & Johnson, Nile breweries/Rwenzori Mineral water, Miss Uganda West Agency, Radio Hoima, and Wavah Broadcasting Services (private television) together donated goods and services worth \$6,695. Donations included drugs such as antibiotics, anaesthetics and analgesics, a blood glucose machine, sanitary items, bottled water, and radio and television broadcasting time to inform women about the availability of fistula repair.

Other funding. UNFPA investments in fistula programming have supported activities in all countries where Fistula Care worked. Other in-kind donations for which we did not record monetary value include Syngenta's provision of mosquito nets and sewing machines in Nigeria in 2007-08. The total does not include the time of volunteers—e.g., the hundreds of village safe motherhood committee members in Guinea and Niger, community volunteers in Ethiopia, religious leaders in Nigeria-- who have advocated for fistula treatment and prevention in their communities. EngenderHealth is grateful to its many generous partners who have complemented the work of Fistula Care through their support.

III. Global Accomplishments

RESULT I: Strengthen the capacity of centers to provide quality services to repair and care for women with obstetric and traumatic gynecologic fistula

The major focus of the project has been on expanding access to fistula repair services by strengthening capacity to provide surgery for women who have experienced obstetric or traumatic fistula, although the project did not collect information about the cause of women's fistulas. The frequency of traumatic fistula from sexual violence is low but varies with spasmodic episodes of violence in conflict settings. It is critical that service providers understand the unique counseling needs of traumatic fistula patients. During the past several years there has been growing concern about iatrogenic fistula resulting from gynecologic and obstetric surgery (e.g. cesarean section, hysterectomy). In FY12/13 we provided technical support to Dr. Thomas Raassen (fistula surgeon and trainer based in East Africa) to analyze data he collected over an 18 year period on iatrogenic fistula. Fistula Care staff helped him prepare a manuscript for publication in a peer reviewed journal about these data; the manuscript will be submitted in early 2014.

Under this result there were five core reporting indicators: number of supported sites; number of fistula repairs; percent of women who had a closed and dry fistula at time of discharge; percent of women who had surgery and experienced complications; and number of people trained by subject. Accomplishments for each of these indicators is described below. Details of annual planned benchmarks and actuals for each of these benchmarks are described in Annex 1.

Summarized below are key achievements in support of this result.

IR1.1 Fistula centers supported to provide fistula repair and care

USAID support for fistula services began in FY04/05 with support to EngenderHealth through the ACQUIRE and AWARE Projects and in FY05/06 through two bilateral agreements in the DRC and Ethiopia. Fistula Care was awarded in September 2007 to a partnership of EngenderHealth and IntraHealth. In addition to reporting on project accomplishments, the project was required to gather data and report on all USAID-supported fistula initiatives. See Annex 2 for a list of sites ever supported by country with USAID funding since FY04/05.

When the project began in 2007 USAID was supporting fistula treatment and prevention at 21 sites (including 4 sites funded by USAID bilateral projects in DRC and Ethiopia). By December 2103 USAID had ever provided support to **92 sites for treatment and/or prevention** managed by Fistula Care and 15 sites by USAID bilateral supported projects in the DRC¹⁰ (n=10), Ethiopia (n=4) and Pakistan (n=1). In total USAID **has supported 107 sites for treatment and prevention between 2007 and 2013**. There was some fluctuation year to year with the number of sites the

¹⁰ Two facilities supported by USAID/DRC included HEAL Africa and Panzi in FY07/08; Fistula Care began direct support to these two sites in FY08/09. PROSANI was supposed to support activities at 4 additional sites (Manika in Katana Province; Kole, Dibindi Mwene Ditu in Kasaii-Oriental Province) however by December 2013 no data on repairs had been reported so they are not included in these totals.

project expected to support and the actual number of supported sites due to changes in mission strategies, delays in funding or political crises, e.g., the coup in Mali in 2012. See Annex 2 for a list of all sites by country that ever received USAID support. Fistula Care support at most of these sites ended in July 2013 as the project prepared to close out. Activities in Bangladesh, DRC, Rwanda and Uganda were extended into the October-December quarter as part of the project's final three-month extension.

Table 2. Number sites ever supported by USAID for repair/prevention and prevention only by country, 2004 to 2013

Country	Repair & Treatment Sites	Prevention only Sites	Total Sites
Fistula Care supported sites			
Bangladesh	5	0	5
DRC	7	0	7
Ethiopia	0	4	4
Guinea*	4	5	9
Mali	4	4	8
Niger	6	2	8
Nigeria	10	23	33
Rwanda	4	0	4
Sierra Leone	1	0	1
Uganda	3	9	12
Mercy Ships ^^	1	0	1
Benin			
Ghana			
Liberia			
Togo			
Total Fistula Care supported sites	45 sites in 13 countries	47 sites in 6 countries	92 sites in 13 countries
USAID Bilateral supported sites			
DRC	10	0	10
Ethiopia	3	1	4
Pakistan	1	0	1
Total bilateral supported sites	14 sites in 3 countries	1 site, 1 country	15 sites in 3 countries
Total sites supported by USAID	59 sites in 14 countries	48 sites in 6 countries	107 sites in 15 countries

*Ignace Deen performed repairs through FY10 then became a prevention only site; counted as a repair site in this table.

^^Mercy Ships' Africa Mercy counts as one site; support in Ghana was under the ACQUIRE Project prior to start of Fistula Care

Fistula repair surgeries. The cumulative planned benchmark for the number of repairs supported by USAID through Fistula Care between October 2007 and December 2013 was 26,675 (see Annex 1 for details by year). In FY12/13 we set a lower than usual benchmark in anticipation of the project ending in September 2013 and most activities ending by June 2013. We however exceeded the planned benchmark (4,500) by 9%, with Fistula Care supported sites reporting 4,911 repairs.

The total number of repairs supported by Fistula Care at 45 sites between October 2007 and December 2013 was 23,860. In this same period USAID bilaterally funded projects supported 5,132 repairs; the cumulative total supported by USAID in between 2007 and 2013 by all funding sources was 28,992. Since 2005, USAID supported 33,510 repairs (through EngenderHealth and bilateral projects), see Figure 3 and Table 3. Details about the number of repairs by site and year are in Annex 3.

There was an overall increase in the number of repairs supported each year, with the exception of the final year of the project when activities were scaled down as project subawards came to an end. Our projected benchmarks and actual achievements were not met in some years for a variety of reasons including: political coups in 2008 in Guinea and in 2012 in Mali; civil unrest in Nigeria and DRC in 2012; delays in funding from USAID/W; and administrative delays in processing subawards. In FY11/12 we suspended services at one site in West Africa because of concerns about quality of services (services were later reinstated once quality issues had been addressed and confirmed by subsequent clinical monitoring visits).

Figure 3. Cumulative number of fistula repairs with USAID funding, FY04/05 to FY12/13

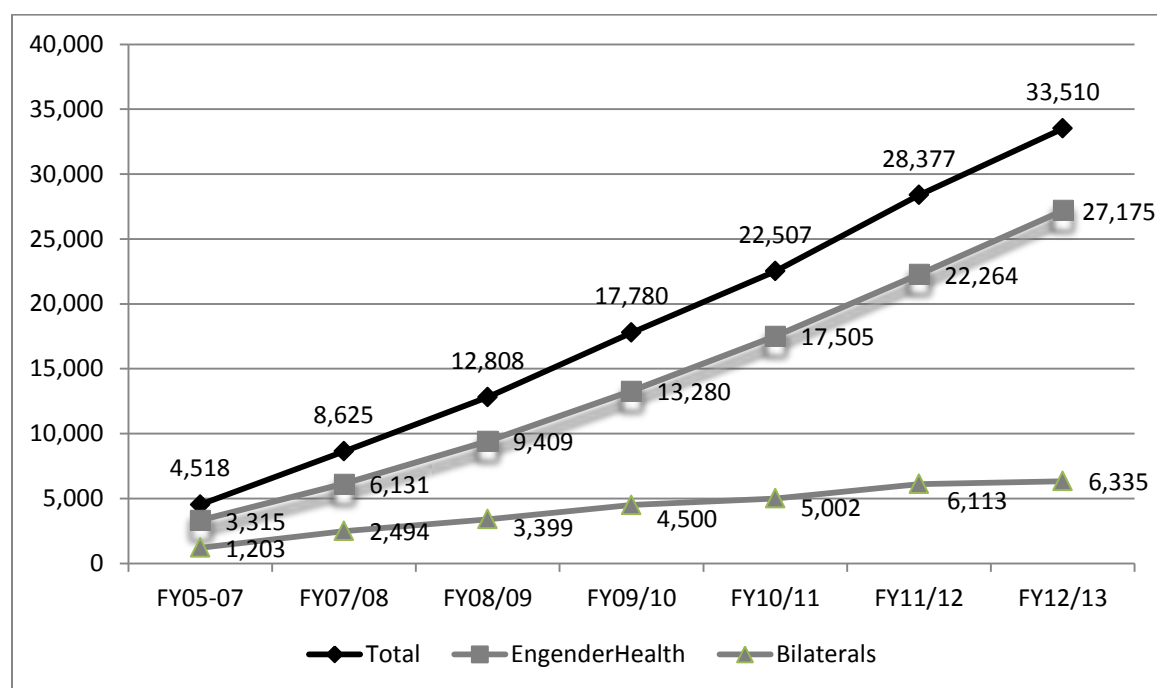


Table 3. Total Number of fistula repair surgeries at USAID supported sites by country and year

	Pre Fistula Care	Fistula Care							
	FY 05 - 07	FY 07/08	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	Total FY08-13 (Fistula Care)	Grand Total FY 05 - FY 13
Bangladesh	232	122	131	143	150	184	267	997	1,229
Benin^a	NS	NS	110	21	20	NS	NS	151	151
DRC Fistula Care	NS	NS	482	472	565	1,221	1,356	4,096	4,096
DRC Bilateral Support ¹¹	639	695	442	514	NS	521	222	2,394	3,033
Ethiopia (Bilateral)	564	596	463	587	502	590	NS	2,738	3,302
Ghana^a	63	NS	NS	NS	NS	NS	NS	NS	63
Guinea	491	229	316	392	459	497	420	2,313	2,804
Liberia^a	NS	59	NS	NS	NS	NS	NS	59	59
Mali	NS	NS	46	40	91	53	230	460	460
Niger	27	213	158	220	333	209	373	1,506	1,533
Nigeria	1,081	1,437	1,347	1,612	1,507	1,720	1,580	9,203	10,284
Rwanda	292	83	167	259	278	114	27	928	1,220
Sierra Leone	272	363	253	166	211	244	115	1,352	1,624
Togo^a	NS	NS	NS	97	NS	NS	NS	97	97
Uganda	857	310	268	449	611	517	522	2,677	3,534
Overall Total	4,518	4,107	4,183	4,972	4,727	5,870	5,133	28,992	33,510
Through EngenderHealth	3,315	2,816	3,278	3,871	4,225	4,759	4,911	23,860	27,175
Through USAID Bilaterals	1,203	1,291	905	1,101	502	1,111	222	5,132	6,335

NS=not supported

^a Repairs were performed on board Mercy Ships hospital ships.

Adjunct surgeries. In addition to supporting fistula repairs, the project supported additional surgical procedures because some women who have a urinary and/or recto vaginal fistula (RVF) may require an additional procedure before or after repair to improve the outcome. Fistula Care began collecting this information in the project database in FY08/09; the number of additional surgeries reported and supported through December 2013 was 4,242. The consistent trend across the years has been that the most frequent types of additional surgeries were examination under anesthesia, urethral lengthening and other operations for concomitant stress urinary incontinence, including sling procedures, and repair of 3rd or 4th degree perineal tears. Pelvic or uterine

¹¹ PROSANI bilateral supported sites reporting in FY12/13 incomplete.

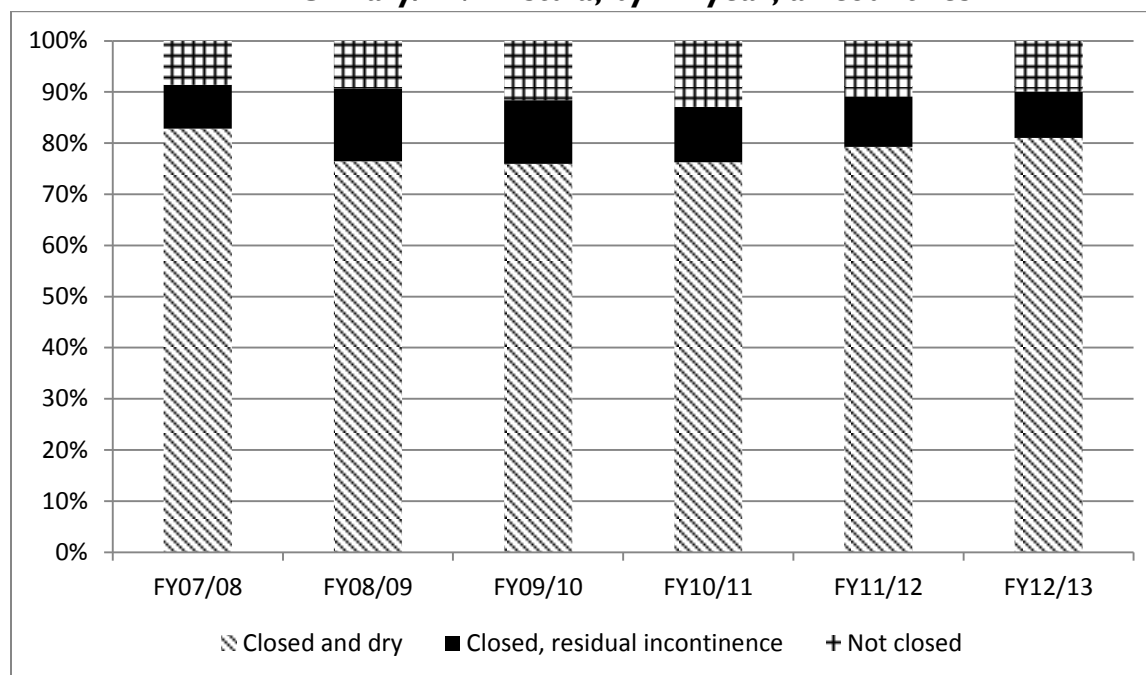
prolapse repair was uncommon in association with fistula repair (n=353; 8% of all adjunct surgeries) among women who presented for repair at project supported sites. These data on prolapse are not an indication of the prevalence of the problem; there was no project mandate to address prolapse alone.

Repair Outcomes. The benchmarks for the percentage of women who were closed and dry at time of discharge remained constant for each year at 75%. The actual average overall closed and dry rates for all sites reporting each year remained fairly constant across years ranging from 74% to 78% except in FY 07/08 when it was 83%; see Figure 4. Some variation in overall rates is expected and was observed across sites and country programs and can be due to several factors:

- The profile of women seeking services—in some instances women have complex fistula, or more than one fistula.
- The proportion of women who had multiple repairs. On a quarterly basis, the number of women presenting having had two or more previous repair surgeries ranged from 10% to 50%. Some of these surgeries may have been done at other facilities and may have been attempted by individuals without specialized training in fistula surgery.
- Co-morbidities which need to be diagnosed and be responsive to management;
- Intraoperative factors related to the site's capacity, especially the skill level of the surgeon and the surgical team. Fistula repair training places emphasis on the trainee surgeon's ability to discern fistula complexity and to only take on cases commensurate with their skill level; they should make appropriate referral or deferral for all other cases, as is practical and realistic. However, misjudgment or otherwise laudable compassion sometimes gets in the way and the surgeon over-reaches in attempting (sometimes unexpectedly) difficult surgery without back-up by a colleague with better skills.
- In the postoperative phase, factors which affect the healing process include:
 - Infrastructure (ward and bed space – to allow appropriate nursing);
 - Furniture (such as beds with mattress, because catheter drainage is not as efficient if the woman is lying on the floor post-op) and utilities (electric power and light, including at night);
 - Providers with fistula skills should be available 24 hours a day, 7 days a week as a routine; and
 - Uninterrupted availability of specific expendables, equipment and medications is needed.

If sites reported low closed and dry rates at 70% or less, Fistula Care clinical staff worked with the sites to identify root systemic issues and possible solutions during regularly or specially scheduled facilitative supervision and clinical monitoring visits. On one occasion the project suspended repair activities at one West African supported site until issues were resolved. Several negative factors had resulted in recurrent poor outcomes that were resistant to resolution in a timely manner. From October 2011 through April 2012, Fistula Care suspended repair funding in order to support the site to take specific agreed on remedial actions and collaborate on improving the quality of services. Remedies were implemented and support for services resumed; the closed and dry rates, as well as other quality indicators, have since been consistently better, and confirmed by follow up clinical monitoring visits.

Figure 4. Status at time of discharge for women with urinary only & Urinary/ RVF fistula, by FY year, all countries



IRI. 2: High quality clinical fistula repair and care implemented at the sites

As part of its support to strengthen facilities' capacity to serve women with fistula, Fistula Care adopted a quality improvement strategy based on the key elements of service that are fundamental to providing quality care:

- Assuring quality and safety of clinical techniques and procedures according to guidelines, protocols, and standards that are routinely updated according to the available evidence
- Ensuring informed and voluntary decision making for women with fistula and equipping providers with the knowledge, tools, and skills to facilitate counseling
- Strengthening mechanisms for ongoing quality improvement and management at the facility level, through medical monitoring and supervision and through the use of tools to engage staff and clients in identifying and collaborating on opportunities to improve services

While these elements are critical for facility-based fistula treatment services, they also serve as the foundation for all quality maternal health services. Standardized tools helped managers implement, monitor and track trends in the services provided. A summary of key global products produced by the project are described below in Table 4. (Additional materials were developed and/or adapted at the country level and are included in the project's Digital Archive – <http://www.fistulacare.org/pages/da/Archive-English.html>).

About half of our focus programs were located in French speaking countries (DRC, Guinea, Mali, Niger, Rwanda) and we made a commitment to ensuring global materials developed by the project were translated into French and disseminated to our partners in these countries. Table 4

lists all the global products produced related to these three elements (products available in French are marked (F)). A complete list of all products produced by the project are listed with citation information in Annex 4. The project also contributed to and/or provided key materials for publications developed by other organizations, such as the *Global Competency-based Fistula Surgery Training Manual*, produced by FIGO and its partners including EngenderHealth, (see IR1.3 for more information); *Obstetric Fistula in the Developing World* produced by the Société Internationale d'Urologie (SIU) and the International Consultation of Urological Diseases; and Brian Hancock's book *Practical Obstetric Fistula Surgery*.

Table 4. Training curricula, guidelines, tools for ensuring fundamentals of care for treatment and prevention

Training curricula, guidelines, tools	Year Produced
Assuring quality	
Quarterly reporting indicators (F)	2007
Facility assessment of fistula treatment and prevention services: Site assessment tool (F)	2009
Facility assessment of fistula treatment and prevention services: Guidelines for planning, conducting, and disseminating findings (F)	2009
Standard fistula facility equipment and supplies list	2012*
Fistula Care training strategy, guidelines, and standards (F)	2012*
Protocol for auditing and reporting mortality related to fistula surgery (F)	2012*
Fistula death reporting form (F)	2012*
Fistula treatment complications: Reporting guidelines (F)	2012*
Job aid: Fistula diagnosis and Fistula Diagnosis poster (F) ¹²	2010
Monitoring Tool for Partograph Review	2011
Prevention and recognition of obstetric fistula training package ⁷	2012
The prevention and management of obstetric fistula: A curriculum for nurses and midwives ¹³ (F)	2012
Informed Choice	
Digital Stories Facilitator's Guide (F)	2007
Informed consent in fistula care (F)	2010
Family Planning for Women and Couples Following Fistula Care	2010
Client-Centered Reproductive Health Counseling Following Fistula Repair (poster)	2010
Quick Reference Chart for Contraceptive Methods (poster)	2010
Counseling the obstetric fistula client: A training curriculum (F)	2012
Counseling the traumatic fistula client: A supplement to the obstetric fistula counseling curriculum (F)	2012
An orientation to informed and voluntary decision making (IVDM) in fistula care	2013
Strengthening mechanisms for quality improvement	
Fistula facilitative supervision and clinical monitoring supplement: For training site and for training follow-up (F)	2012*
Medical waste management compliance checklist (F)	2012*
Data for decision making in fistula care: A supplemental module for facilitative supervision (F)	2011

*second revision

¹² Produced in collaboration with IntraHealth International.

¹³ Produced in collaboration with East, Central, and Southern Africa Health Community

Assuring quality and safety of clinical techniques and procedures. Fistula Care worked to assure quality and safe provision of services by supporting facilities to develop and implement guidelines, protocols, and standards for care and for training. Fistula Care also provided supported sites with equipment—operating tables, operating room lights, fistula kits, etc. to support surgical repair.

During the life of the project Fistula Care developed several products for assuring quality and safety which are described below. In addition, standardized indicators were developed and data gathered to enable service sites and project staff to determine whether there were any areas for concern.

The project trained 256 providers in fistula surgery and 819 in pre- and post-operative care, 1,797 in infection prevention, and 578 in quality assurance (see Table 5 below under IR1.3).

Ensuring informed and voluntary decision making for women with fistula. Women living with fistula have a right to accurate information about their condition, the range of treatment options, and the variety of possible outcomes following treatment.

This information is most often conveyed during one-on-one counseling sessions between health care providers and clients. Counseling women with fistula requires openness, compassion, a willingness and ability to simplify complex terms and concepts, and a genuine desire to make clients feel welcome. Health care workers should provide all of the information that a client needs to make a fully informed decision about fistula-related treatment and then determine whether the client is comfortable and understands the consequences of her decision.



Counseling Training in Uganda

To support this element of care, in consultation with many partners over time, Fistula Care developed training curricula and job aides for providers: *Counseling the obstetric fistula client: A training curriculum* and a companion module, *Counseling the traumatic fistula client: A supplement to the obstetric fistula counseling curriculum* and an orientation module about informed and voluntary decision making (IVDM). These materials are designed to prepare providers to meet the information and counseling needs of obstetric fistula clients before, during, and following treatment, including referral for services and issues which may be outside the scope of providers' responsibilities. The training materials focus on counseling clients with *obstetric fistula* caused by obstructed labor. The traumatic fistula counseling module is designed to help providers counsel women who have experienced traumatic gynecologic fistula due to sexual violence.

While counseling is the process, an informed decision is the intended outcome. Documented informed consent safeguards the client's right to make an informed decision. Informed consent is a critical component of quality fistula care services. The project produced *Informed consent in*

fistula care, a handbook manual for providers and an orientation package for service providers about informed and voluntary decision making.

In total 1,017 persons were trained in fistula counseling (see Table 5, under IR1.3).

Strengthening mechanisms for ongoing quality improvement and management. Fistula Care developed facility assessment guidelines, designed to determine the readiness of a hospital to offer fistula repair services. These guidelines were used during expansion efforts in Bangladesh, DRC, Guinea, Mali, Niger, Nigeria, Rwanda, and Uganda. These guidelines were adapted for assessing facilities in Ethiopia which could serve as pre-repair centers.

Fistula Care worked closely with municipal, district, state, and national governments and healthcare facilities to improve quality by improving and increasing communication between staff and supervisors and monitoring health services to find the gaps between established standards and actual practice. The project developed medical monitoring checklists and trained managers and trainers in the supervision process for both routine service delivery and training programs. The checklists cover important elements to discuss, with forms for making notes and suggesting recommendations for future improvements. Fistula Care also developed training modules and conducted training of clinical supervisors, healthcare providers, and national-level stakeholders in methods and processes for review and interpretation of data in order to strengthen health systems and services. These data for decision making (DDM) modules include guides for discussion and interactive activities, as well as handouts and other tools to teach lessons about data gathering, analysis, and application. The modules supplement EngenderHealth's facilitative supervision curriculum, which emphasize team problem solving and communication.¹⁴

As a result, most supported programs worked with local governments or in-country partners at a national level through technical working groups and partnerships to roll out the tools. Some partners recommended that medical monitoring be integrated into other reproductive and maternal health services (Guinea, Mali, Nigeria, Uganda); see specific country sections for further information. Challenges included sustainability due to frequent staff rotations, and national government buy-in.

In 2010, the project conducted a five-day medical monitoring workshop in Uganda for 28 project staff from seven countries (Bangladesh, Ethiopia, Guinea, Mali, Nigeria, Rwanda, and Uganda). During the workshop participants discussed and reviewed progress made with standardized approaches and tools for improving the quality of fistula services through medical monitoring. At the end of the workshop participants developed implementation plans for further rollout and collaboration with ministries of health and other in-country partners to enable the phased transfer, adaptation, and sustainable institutionalization of medical monitoring tools and approaches. For details about which tools from Fistula Care were adopted for use by country programs see Table 14 under IR 4.2

¹⁴ The ACQUIRE Project. 2008. *Facilitative supervision for quality improvement: Trainer's manual*. New York: EngenderHealth/The ACQUIRE Project.

The project developed protocols for reporting complications and a death investigation protocol. Confidential investigations into all serious complications, including any deaths, allowed facilities to identify causative and contributory factors and establish systems to minimize similar occurrences in the future. Below is a summary of these trends.

Complications Reporting. At the 2008 partners' meeting in Accra, Ghana, Fistula Care and partners developed guidelines for quarterly complication reporting. Reportable complications are in two categories: major complications (e.g., need for blood transfusion), and minor complications associated with anesthesia (e.g., spinal headache), including complications that may be perceived as a failure in the treatment (e.g., residual incontinence).

The expected complication benchmark remained at less than 20% for the term of the project. The overall reported rates have been low across all reporting periods and by supported sites and have varied little across years (from less than 1% to 5% between October 2007 and December 2013). Many sites never reported complications. In 2013 we conducted a review of complications reporting at 10 facilities in five countries (Bangladesh, DRC, Nigeria, Sierra Leone, and Uganda) representing sites which had reported low, medium and high complication rates in previous reporting periods. The purpose of the review was to validate the reported complication rates from the first quarter of 2013. The total sample size of this audit included 249 women undergoing fistula repair surgery. The validation exercise found that the complication rates are generally under 20% but under-reported in the quarterly reports from some sites. The overall complication rate from the 10 sites was 15%, with a range of 2% to 39%. Approximately two-thirds (64%) of the complications were designated as minor complications (associated with perceived failure of the surgery, for example, residual incontinence, or with anesthesia) and just over one third (36%) were defined as major. The audit found some systemic challenges, including lack of diagnostic resources, non-meticulous perioperative follow-up and need for better record keeping.

Mortality audits. All major surgery has inherent risk and, although deaths are rare in fistula surgery, they do occur. Fistula Care identified the need to standardize audit and reporting protocols with inputs from program partners at the 2008 Accra meeting. The confidential inquiry process is facilitative, emphasizing sensitivity, and focusing on systemic issues. This approach helped to determine cause of death, contributing factors, whether the death was preventable or not, and to present recommendations to prevent a future occurrence. Fistula Care has calculated case fatality rates from fistula treatment, produced case reports and an annual summary report for USAID. We have examined trends and case fatality rates by client characteristics, surgical complexity, ancillary procedures concurrent with repair, diagnoses attribution, country/site, surgeon/anesthetist history and germane history. These data were invaluable for follow-up of implementation of post audit recommendations.

The gross case fatality rate (CFR) for fistula surgery from this population is 0.12% and the attributable mortality rate is 0.08%, which is in the same range as mortality given for comparable gynecologic surgery in very large series from high income countries, although fistula surgery is usually performed in very low resource settings. We prepared a manuscript on the findings from these audits and submitted it to a peer review journal in August 2013.

IR1. 3: Increased capacity of facilities' personnel to provide quality fistula repair and care

Sustained and increased access to fistula treatment services depends on training surgical teams to take on the task. It is therefore important to ensure that training is of high quality, with the requisite supervision and follow-up in the context of the program as a whole. Fistula Care's training strategy informs a uniform approach to improve the quality of training and subsequent service delivery. In collaboration with international and regional partners, Fistula Care contributed to the development of surgical and nursing curricula, diagnostic job aides, and developed counseling training materials for fistula care.

- *The Global Competency-Based Fistula Surgery Training Manual*¹⁵. Prior to this training



manual there was no internationally accepted standardized fistula training curriculum. This manual was developed by the International Federation of Gynecology and Obstetrics (FIGO) in collaboration with the International Society of Obstetric Fistula Surgeons (ISOFS), the Pan-African Urological Surgeons Association (PAUSA), Hamlin Hospital, UNFPA, and Fistula Care. Through a sub-award to FIGO, Fistula Care supported two master trainer orientation events in

Anglophone and Francophone Africa. The Anglophone training took place in Dar es Salaam, Tanzania in FY10/11; 16 persons attended this event. The Francophone training was held in FY 11/12 in Dakar, Senegal for 10 master trainers. We also assisted FIGO with the credentialing process for nine training centers in six countries:

- **Cameroon:** Centre Hospitalier Universitaire de Yaoundé in Yaoundé
 - **Ethiopia:** University of Gondar College of Medical Sciences in Gondar; and Hamlin Fistula Hospital in Addis Abba
 - **Niger:** Centre National de Reference des Fistules Obstetricales in Niamey
 - **Nigeria:** Ibadan University Teaching Hospital; Babbar Ruga Fistula Hospital in Katsina; and Laure Fistula Centre in Kano
 - **Sénégal:** Dakar--Hôpital Général de Grand Yoff (*HOGGY*) in Dakar
 - **Uganda:** Mulago Teaching Hospital in Kampala
- *Curriculum on Prevention and Management of Obstetric Fistula for Nurses and Midwives.* With funds from USAID East Africa, the East, Central and Southern Africa Congress of Nurses (ECSACON), in collaboration with Fistula Care, developed this training curriculum for nurses. The purpose of the curriculum is to impart knowledge, attitudes and skills in nursing and midwifery tasks in prevention of fistula, as well as pre-, intra-, and postoperative care for women who receive fistula treatment. The training package includes a facilitator's guide and participant handbook. The Health Ministers of

¹⁵ FIGO, ISOFS, UNFPA, EngenderHealth, and Royal College of Obstetricians and Gynaecologists. 2011. *Global competency-based fistula surgery training manual*. London: FIGO.

http://www.fistulacare.org/pages/dal/files/3/3.1/FIGO_Global_Fistula_Surgery_Training_Manual.pdf

the member countries of East, Central and South Africa Health Community (ECSA-HC) endorsed the curriculum in December 2012 and it has been distributed within the EECSA region. The curriculum has been translated into French and used in the DRC. A presentation about the curriculum was made at the 2012 International Society of Obstetric Fistula Surgeons (ISOFS) in Dhaka.

- *Counseling the obstetric fistula client: A training curriculum* and a companion module, *Counseling the traumatic fistula client: A supplement to the obstetric fistula counseling curriculum*. Fistula Care developed the fistula counseling curriculum as well as a supplement on traumatic gynecologic fistula from sexual violence, especially for programs in conflict and post conflict environments in 2012. Although the proportions of fistula from sexual violence are low, compared to those directly from obstructed labor, there are significant counseling considerations, including the quadruple potential stigma of fistula, rape, unwanted pregnancy or even offspring and actual or potential risk of HIV/STI. Also, providers need particular supervisory support to avoid burnout and personal emotional issues. The supplement was field tested in the DRC, and both the curriculum and supplement are available in French. For the main counseling curriculum, an orientation module to informed and voluntary decision making (IVDM) was developed in 2013.
- *Job Aid: Diagnosis of obstetric fistula*. This was developed by Fistula Care partner IntraHealth for use in screening and diagnosis of women presenting with leakage of urine at primary health care facilities in Ethiopia. The tools have been used in many other countries and are available in French.

Training. The cumulative planned benchmarks for training and/or orientation for prevention and treatment was 24,895; 24,296 persons participated in training or orientation events between October 2007 and December 2013. Nearly 4,500 persons attended training related to fistula treatment: surgical repair, pre-post op care, infection prevention, fistula counseling, and quality assurance (see Table 5); the remaining persons attended training or orientation related to prevention (see Table 7). More detailed discussion about training accomplishments related to prevention are presented below under IR 2.1. Country specific details by year are presented in the country reports.

In FY12/13 we did not meet our planned benchmark for training. Many of the programs had ambitious plans for training in the last year, however FY13 funds were released late which resulted in many of the planned events being canceled and funds reprogrammed for other activities.

Table 5. Number of persons trained by topic related to fistula treatment by country, FY07/08 thru FY12/13

	Bangladesh	DRC	Guinea	Mali	Mercy Ships	Niger	Nigeria	Rwanda	Sierra Leone	Uganda	Total
Fistula surgical repair	14	44	16	19	7	34	56	25	13	28	256
Fistula nursing pre & post op care	71	61	93	202	0	39	69	70	155	59	819
Infection Prevention	309	128	140	109	0	140	208	35	30	698	1,797
Quality Assurance	95	45	16	37	0	89	0	56	0	240	578
Fistula Counseling	273	226	25	184	0	51	97	47	42	72	1,017
Total	762	504	290	551	7	353	430	233	240	1,097	4,467

During the life of the project we conducted three follow- up reviews of fistula surgeons who had been trained (FY09/10; FY 10/11 and FY 12/13). The focus of these follow-up reviews was to determine:

- Trainee's current workplace;
- Number of trainees attending only one training;
- Trainee competency level (highest level of training attained: simple, medium/intermediate complex or complex repairs);
- Whether the trainee had been trained to be a trainer, and, if so, had the trainee provided training for others;
- Whether the trainee is currently providing fistula repairs and, if so, where;
- If not currently providing repairs, why not;
- Estimated number of repairs performed since training; and
- Details on any training follow-up that had been conducted to assess the trainee's skills post-training.

The FY09/10 review included 143 surgeons who had attended at least one training event between 2005 and April 2010. The FY10/11 review included 189 surgeons; and in FY12/13, 244 surgeons who had ever received training between 2005 and March 31, 2013 were included in the follow-up review. The increase in the number of trainees followed up during each review period is attributed to additional surgeons receiving training, and to the data becoming cleaner with each successive review.

Of the 244 surgeons who we followed up for the FY12/13 review we were able to gather information about the current status (providing fistula surgery or not) for 198 surgeons (81%). Of those 198 surgeon trainees, about half (n=95, 48%) reported they were currently providing repair services; and 67% of these active surgeons (n=65) were posted at Fistula Care supported sites (Table 6). Details by country are in Part II of this report (Country Accomplishments).

The greatest proportion of surgeons trained reached simple competency in fistula repair (n=118; 48%). Medium competency was achieved by 18% (n=45), and competency in complex fistula repair was achieved by 14% (n=34). Twenty-six trainees did not achieve competency in repair (11%) and data was not available for 21 trainees (9%).

Table 6. Follow up review of fistula repair surgical trainees, as of March 31, 2013

Training in Fistula Surgery, all trainees, all countries	N
Number of surgeons trained in fistula repair	256
Number of surgeons tracked through training follow-up efforts through March 2013	244
Competency levels achieved by trained surgeons	
Simple	118
Medium	45
Complex	28
No information available	21
Total number of trained surgeons providing fistula repair as of March 2013:	95
Number trained providing services at Fistula Care supported sites	65
Number of trained surgeons who have provided training to other surgeons	19

Other activities

Programming Considerations for Integrating Uterine Prolapse and Fistula Services. In 2011, USAID requested Fistula Care, as part of the annual management review, to prepare a report outlining issues for them to consider about the feasibility and practicality of integrating treatment for genital prolapse with fistula repair services. Our report was based on a literature review conducted by a USAID intern and a consultant; our experience in several countries; and bolstered by a field visit to Nepal in 2012 to learn about how public sector programs address prolapse.

We identified clear and definite potential synergies and overlaps in the clinical and programmatic approaches to both childbirth injuries. For example, access and availability of skilled care is key for prevention for both injuries. Milder cases of prolapse can be treated conservatively without surgery at lower level health facilities by trained non physicians, while more severe cases will require surgery at a higher level facility. A surgeon with skills in vaginal surgery for treating one of the injuries will also have a good foundation to treat the other injury. Infrastructure, ward/theater furniture and equipment are to a great extent similar for treatment of both injuries. Fistula Care's Level of Care Framework can help in planning to address the issue (see below under IR1.4 for a description of this framework). These approaches afford entry and exit points for prevention and treatment to varying degrees at both facility and community levels and by varying provider cadres.

A number of caveats and cautions were also identified. Integrating services has the potential to dilute the attention to and quality of care for women with fistula. Given a landscape of limited resources and the fact that fistula typically affects very poor women, there are important economic issues to consider. There may be solutions to some of the issues raised, especially if care for women with prolapse draws more attention from providers, results in providers being compensated and could, in effect, potentially work synergistically with or even subsidize some part of fistula care.

Program managers and surgeons will need to continue to allocate adequate time and funds to fistula repair. Otherwise there is risk that these women will be pushed to the bottom of surgical waiting lists, thus further marginalizing fistula repair programs and reversing hard won progress achieved by fistula initiatives so far. Also, a concerted effort to deal with some of the cultural and logistical issues, in addition to the availability of well-trained providers and well-resourced institutions is required to address genital prolapse, just as in the case of fistula.

For programming of prolapse services, preliminary data will need to be gathered and if the data do, in fact, point towards integrating care, planning a few small-scale “model” programs in different settings may shed light on whether this direction could work at a larger scale.

Consultative meeting on women deemed incurable. Many women with fistula can have a successful surgery and be able to return to a “normal” life. In other cases, especially when the woman has a very complex injury or cannot access medical care, or where surgical skill levels are low, or resources are insufficient, surgical attempts may fail (sometimes repeatedly). In these situations, a woman is left with a condition of constantly leaking urine and/or feces and is unable to live the life she wants. Often, she is socially stigmatized and struggles to be able to make a living and feed herself.

In September of 2011, a small group of experts (including practitioners, anthropologists, and ethicists) from Africa, Asia, Europe, and the United States met in Boston to identify issues and make recommendations from four (at times, overlapping) perspectives: those of the client; the clinical provider; and the program; as well as cross-cutting ethical issues central to these perspectives.¹⁶ At the core of the discussion was the recognition that women with persistent fistula-related disorder are individuals with agency, able to make informed decisions about their care. Ultimately, the purpose of the meeting was to consider the spectrum of care these women need so that Ministries of Health, professional associations, and other key institutions could use the recommendations as a foundation for developing professional protocols and standards.

Consultative meeting on catheterization for primary or secondary prevention of fistula. The conventional treatment for fistula is surgical repair. However, some data suggests that women with obstetric fistula who present soon after the injury may heal without surgery if the bladder is drained with a catheter. In March 2013, Fistula Care convened a consultative meeting in Abuja, Nigeria, to review current guidelines and practices, to discuss knowledge gaps, and to develop recommendations for standardized approaches to urinary catheterization for prevention and conservative treatment of fistula.¹⁷ The meeting brought together a group of expert Nigerian and international fistula surgeons with experience of catheterization practices, representatives of national and international professional nursing and midwifery associations, and officials from Nigeria’s Federal Ministry of Health (FMOH), as well as national and international staff from Fistula Care. Discussions reached consensus on the following recommendations:

¹⁶ Fistula Care. 2012. *Meeting the needs of women with fistula deemed incurable: Creating a culture of possibility*. New York: Fistula Care/EngenderHealth.

¹⁷ Fistula Care. 2013. *Urinary catheterization for primary and secondary prevention of obstetric fistula: A consultative meeting to review and standardize current guidelines and practice*. New York: Fistula Care/EngenderHealth.

- A simplified, standardized approach to conservative treatment of fistula by catheterization was developed.
- Catheterization during and immediately after prolonged or obstructed labor should be routine.

This meeting was a first step to assist the Nigerian FMOH to develop recommendations leading to finalized national guidelines for urinary catheterization for fistula prevention and treatment and, ultimately, to the dissemination and implementation of the guidelines. It is anticipated that the meeting's conclusions and recommendations will be relevant to a wider audience of stakeholders and may in addition provide a foundation for the development of global guidelines. Following the meeting, the FMOH has included all recommendations in the National EmONC manual so that use of catheter for prevention and treatment of fistula can eventually become part of basic obstetric care.

IRI. 4: Models implemented to improve quality and efficiency of fistula care and services

Levels of care framework. Establishing fistula repair services is complex. Fistula repair is major surgery requiring a high level of surgical skill, even for uncomplicated repairs. Training surgical teams is a necessary, but not sufficient condition, for establishing access to fistula treatment services. Full decentralization of fistula repair services to all sites capable of surgical services is not practical in terms of safe and sustained provision of services, nor is it cost effective or feasible with the resources currently available. It is important, therefore, to partner with local government and site administrations as well as communities to ensure they are fully committed to establishing the environment in which services can effectively be provided continuously. At the same time, it is important to ensure that the service system is capable of responding to identified needs before creating further awareness of service availability.

Fistula surgery usually requires a minimum of three weeks post-operative care in the hospital, in addition to pre-screening and treatment for adjunct conditions, so the capacity to increase the number of surgeries at individual sites is limited by the availability and skill levels of the physicians, the number of operating theaters available for elective procedures (because fistula surgery is almost never an emergency), and the number of beds available to support long-term stays. Many facilities experience supply chain ruptures for items as basic as sutures. Ensuring access for women to quality fistula services is further complicated by the fact that many women are too poor to pay and there are not enough trained providers to handle cases. It is therefore necessary to increase access to quality services in a phased manner.



Fistula Care developed a framework for a network of sites to facilitate prevention, diagnosis, limited treatment and referral (level 1), treatment of simple cases (level 2), treatment of complex cases and the establishment of a site or sites capable of providing training (level 3) (see Annex 5 for more details about specific elements for each level).

The Guinea program embraced this framework and supported six level one facilities and three sites which are considered level two/three where fistula surgery is available. In Uganda we collaborated with partners to build a network of nine level one sites linking them to Kagando and Kitovu Hospitals where fistula repair services are provided. In addition, the Uganda National Fistula Technical Working Group used this approach to harmonize the National Policy Guidelines on Sexual and Reproductive Health and Rights. The approach has also been included in strategy recommendations developed for the Nigerian and DRC programs and was introduced in Bangladesh and Mali to support the development of national strategies for fistula care services.

Country models. Fistula treatment services are provided in a variety of ways depending on the needs and available resources in each program we have supported. Fistula Care has supported surgical repair services in public, private, and faith based organizations, urban and rural locations, and on a floating hospital, in collaboration with Mercy Ships¹⁸ (in Benin, Liberia, Togo). Surgical services are provided in busy regional and national hospitals or in essentially stand-alone fistula centers.¹⁹ In Nigeria the FMOH identified and designated three facilities as Zonal fistula treatment centers and is now supporting the operating costs of these centers (Abakaliki in Ebonyi State, Baba Ruga in Katsina State and Sobi Hospital in Bauchi State) In 2013 in Niger the government opened a National Center in Niamey which is fully dedicated to fistula repair. In Uganda the MOH and Mulago Hospital have developed an outreach team approach to provide fistula repair services in areas where there are no fistula surgeons and begun a mentorship program of senior surgeons working with surgeons who are just beginning their training. In some country programs periodic outreach efforts are organized to bring fistula surgical teams to a facility to provide services over a one to two week period. Other facilities with surgeons only skilled to perform simple repairs will arrange for surgeons with advanced skills to visit for a one to two week period to handle more complex fistula cases and provide periodic training to the resident surgeons to upgrade their skills.

Fistula Care's Technical Brief series included six reports about different approaches developed to enhance access to treatment and care in Ethiopia, Guinea, Kenya, Nigeria, Sierra Leone, Tanzania and Uganda.²⁰

- *Fistula pre-repair center model in the Amhara region of Ethiopia.* Provides an overview of three pre-repair centers in the Amhara Region that are part of a partnership with the Amhara Regional Health Bureau and the Bahir Dar Hamlin Fistula Hospital.
- *Beyond repair: Involving communities in fistula prevention and reintegration—Experience from Kissidougou, Guinea.* This brief discusses engaging local government and community members in treatment and prevention of fistula and reintegration of fistula survivors.

¹⁸ In Ghana under the ACQUIRE Project in 2006.

¹⁹ For example 3 facilities we partnered with provide other specialized services such as tuberculosis and leprosy treatment (Babbar Ruga, in Nigeria), prolapse and gynecologic cancer treatment (Abakaliki in Nigeria) and pediatric and maternity services (Aberdeen in Sierra Leone).

²⁰ A list of all the Technical Briefs produced by the project are listed under Result 3.2

- *Making mobiles phones work for women with fistula: The M-PESA experience in Kenya and Tanzania.* Discusses the work of the Freedom from Fistula Foundation in Kenya and Comprehensive Community Based Rehabilitation in Tanzania using an innovative combination of mobile banking and community education to provide free fistula treatment.
- *A collaborative network to improve access to fistula treatment in Nigeria.* Describes the pooled effort strategy that the Nigeria team has been leading to expand access to fistula repair services.
- *Community-based screening for obstetric fistula in Ebonyi State, Nigeria.* Describes the planning process for conducting community-based screening for obstetric fistula in Ebonyi State and the results of this effort.
- *Creating an enabling environment for fistula prevention and treatment in Uganda.* Explains the rationale behind creating the Fistula Technical Working Group (FTWG), describes how it came into being, and presents important achievements of the Ministry of Health and the FTWG: building an information base for obstetric fistula to better plan for and manage prevention, treatment, and reintegration services; integrating fistula services into the Ugandan health system; and establishing standards, guidelines, and protocols to guide services.

RESULT 2: Enhance community and facility understanding and practices to prevent fistula, utilize and deliver services for emergency obstetric care, and support women's reintegration

Strengthening fistula prevention services is the critical component of addressing fistula. Fistula Care focused on both community and facility level interventions, and emphasized the need for linkages between communities and facilities.

Prevention strategies fall within a spectrum of early, medium and late. Early interventions include addressing nutrition and health of mothers and young girls. Improving childhood nutrition has many benefits for physical, mental and emotional development. For girls, malnourishment resulting in poor physical development may result in a small pelvis, a common precursor to obstructed labor.

Medium term prevention interventions include avoiding early pregnancy. Appropriate legislation and policy actions to increase the age of marriage could help increase age at first pregnancy. Family planning and counseling services are essential for delaying the first pregnancy and promote spacing between pregnancies.

Late prevention interventions are focused on the woman's pregnancy with goal of avoiding the three delays that result in maternal morbidity and mortality: recognizing danger signs of pregnancy, reaching a health facility and receiving appropriate and timely care at the facility. Interventions include improving women and their families' knowledge about pregnancy complications, preparations for birth, improving referral networks and strengthening the availability and quality of obstetric services.

During the life of the project, Fistula Care provided technical assistance to strengthen four key prevention measures at the facility level: family planning, consistent and correct use of the partograph, immediate catheterization for women who experience obstructed labor, and strengthening cesarean delivery services. In parallel, the project also worked to strengthen the capacity of community-based organizations, religious and community leaders, community-level health committees, and volunteers to monitor and promote maternal health care-seeking in their villages.

Six of the PMP indicators relate to enhancing community and facility practices to prevent fistula: number of community outreach events held; number of persons attending outreach events; correct and consistent use of the partograph; number of deliveries at supported sites; number/percent of deliveries by cesarean section (CS); and percentage of cesareans performed as a result of prolonged/obstructed labor. The results are described below.

Between October 2007 and December 2013, nearly 20,000 persons attended training/orientation related to prevention: family planning (FP) counseling, FP method provision, obstetric care services which included training on the partograph and other key functions of emergency obstetric care, including use of catheterization for women who experienced prolonged or obstructed labor; and training of community volunteers to disseminate information about fistula

treatment and prevention (Table 7); see below under IR2.2 for more information about training of community level volunteers. Details about number of persons trained by topic and year for each country are included in the country reports.

Table 7. Number of Persons Trained by Prevention Topic, by Country FY07/08 to FY12/13

	Bangladesh	DRC	Ethiopia	Guinea	Mali	Niger	Nigeria	Rwanda	Sierra Leone	Uganda	Total
FP Counseling	63	10	0	14	0	0	103	30	0	16	236
FP Methods	322	77	0	61	0	30	204	20	3	96	813
Obstetric Care	483	628	84	141	205	135	39	40	311	294	2,360
Community Outreach & Advocacy	627	24	14,083 ²¹	10	0	104	256	0	0	121	15,225
Data Management	65	21	0	37	29	0	270	60	8	150	640
Other	109	0	0	172	0	4	141	0	105	24	555
Total	1,669	760	14,167	435	234	273	1,013	150	427	701	19,829

Summarized below are key achievements by each of the sub results. Our work to integrate family planning with fistula services is described below under IR2.1, facility based interventions.

IR 2.1 Facilities monitoring labor and providing timely emergency response for prolonged/obstructed labor

Prolonged labor and obstructed labor are significant causes of maternal and newborn morbidity and mortality; they can lead to ruptured uterus, postpartum hemorrhage, infection, obstetric fistula, and fetal injury or death. To directly address obstructed labor, the project focused interventions on the correct and consistent use of the partograph and strengthening cesarean section (CS) services.

The partograph is an important decision-making tool for monitoring and managing prolonged and obstructed labor. It is a preprinted one-page form on which observations of labor progress and information about maternal and fetal condition are recorded. The partograph is designed to act as a low-tech early warning system, alerting doctors, midwives, and nurses to the need for action: referral to a higher level facility, labor augmentation, or cesarean section. Correct and consistent use of the partograph has the potential to reduce obstructed labor and its adverse consequences, including fistula. Fistula Care routinely monitored partograph use at supported sites as an indicator of project effectiveness.

²¹ This figure includes nearly 5,000 health post personnel attending training and/or refresher training about fistula prevention and diagnosis; 5,966 community volunteers attending orientation/training about fistula prevention; and 3,073 community volunteers attending refresher training. Details by year are described in the Ethiopia country report.

Safe and timely cesarean section saves the lives of women in obstructed labor and can also prevent fistula. It is vital that providers possess the knowledge and skills to make timely decision for appropriate CS as well as the competency and systemic support to implement their decision safely. In the wrong hands, cesarean section can also cause fistula. For this reason, Fistula Care focused on promoting access to and improving quality of CS through training surgeons, nurses, and midwives in emergency obstetric care, and by providing essential equipment and supplies. Cesarean section is a major surgical intervention, so it must be performed for valid medical reasons. The quality of clinical decision making depends on the availability of accurate information and standardized evidence-based guidelines. Strengthening the production and use of data for decision making to improve the quality and performance of fistula prevention and treatment services is one of Fistula Care's main programmatic strategies. In total 2,360 health providers were trained in topics related to obstetric care (see Table 7).

Summarized below are key accomplishments and lessons learned about our work in strengthening partograph use and cesarean delivery services.

Partograph

Partograph Monitoring. In FY 09/10 the Fistula Care team developed a tool to monitor use of the partograph in supported sites. This tool was developed for Fistula Care staff and/or facility staff to conduct reviews of a sample of partographs. Given that the partograph has been in use for about 40 years, our expectations were that this tool was in continuous use in most programs. Our annual benchmark each year was 80% of all reviewed partographs should be completed correctly. The rates varied by facility and some sites, e.g., LAMB and Ad-Din in Bangladesh had rates higher than 80%.

Between FY09/10 and FY12/13 partograph reviews were conducted at a total of 45 sites in nine countries supported by Fistula Care: Bangladesh, DRC, Guinea, Ethiopia, Mali, Niger, Nigeria, Rwanda, and Uganda (Table 8). The only country where no partograph reviews were completed was in Sierra Leone. We have data points for two or more years for 24 sites. The results of these reviews provided data on which programmatic interventions were developed to improve partograph use and the quality of labor and delivery services.

In FY12/13, seven facilities in Uganda participated in a partograph 'mentoring and coaching' initiative aimed at improving partograph use.²² Partograph monitoring data was collected on all deliveries at these sites over a period of several months. The Uganda team developed a 'grading' system to track trends in rates of correct partograph completion at the sites.

Overall, it is encouraging that the number of partographs found in patient files has increased and that there appears to be a modest increase in the rate of correct partograph completion since the

²² This initiative has been documented as a Fistula Care technical brief: *Improving Partograph Use in Uganda through Coaching and Mentoring*

Table 8. Results of partograph reviews by site, country and fiscal year (FY)

Country/ Facility	FY09/10		FY 10/11		FY 11/12		FY12/13	
	% Records sampled with partograph	% correctly completed	% Records sampled with partograph	% correctly completed	% Records sampled with partograph	% correctly completed	% Records sampled with partograph	% correctly completed
Bangladesh								
LAMB Hospital	100%	80%	100%	68%	100%	84%	100%	100%
Ad-din Hospital, Dhaka	100%	8%	100%	36%	100%	96%	100%	96%
Ad-din Hospital, Jessore	76%	26%	92%	43%	100%	36%	100%	64%
Kumudini Hospital	40%	100%	80%	65%	48%	67%	100%	96%
DRC								
HEAL	-	-	-	-	100%	0%	-	-
HBMM	-	-	52%	0%	-	-	-	-
Panzi	-	-	-	-	76%	0%	-	-
St. Joseph	-	-	-	100%	0%	-	-	-
Ethiopia²³								
Adet	N/A	77%	N/A	94%	N/A	97%	N/A	100%
Dangla	N/A	77%	N/A	94%	N/A	97%	N/A	100%
Woreta	N/A	81%	N/A	88%	N/A	98%	N/A	97%
Sekota	NS	NS	N/A	89%	N/A	96%	N/A	96%
Guinea								
Jean Paul II	-	-	44%	55%	100%	24%	100%	36%
Kissidougou	-	-	32%	13%	100%	50%	92%	43%
Labe	0%	-	100%	23%	100%	27%	100%	52%
IgnaceDeen	-	-	100%	0%	-	-	-	-
N Zerekoke	-	-	72%	17%	-	-	-	-
Faranah	-	-	56%	0%	-	-	-	-
Mamou	-	-	100%	0%	-	-	-	-
Boke	-	-	100%	4%	-	-	-	-
Kindia	-	-	100%	13%	-	-	-	-
Mali								
Gao Hospital	56%	53%	-	-	-	-	-	-
CS Ref Gao	90%	71%	-	-	-	-	-	-
CS Ref Ansongo	66%	63%	-	-	-	-	-	-
CS REF Menaka	17%	50%	-	-	-	-	-	-

²³ Fistula mentors reviewed partographs quarterly. Reports were based on % partographs correctly completed correctly.

	FY09/10		FY 10/11		FY 11/12		FY12/13	
Country/ Facility	% Records sampled with partograph	% correctly completed	% Records sampled with partograph	% correctly completed	% Records sampled with partograph	% correctly completed	% Records sampled with partograph	% correctly completed
CS Ref Bourem	78%	72%	-	-	-	-	-	-
Niger								
Maradi Hospital	NA	-	100%	15%	-	-	100%	8%
Tahoua Hospital	NA	-	100%	33%	-	-	100%	56%
Tera Hospital	NA	-	100%	0%	25	13%	100%	0%
Nigeria								
Faridat Yakuba Hospital	-	-	0%	0%	-	-	-	-
Maryam Abacha Hospital	-	-	0%	0%	12%	0%	-	-
Rwanda								
Kanombe Hospital	86%	<1%	100%	56%	-	-	100%	5%
Ruhengeri Hospital	100%	83%	100%	79%	79%	79%	100%	12%
Uganda								
Kitovu Hospital	23%	17%	100%	52%	100%	0%	100%	16%
Kagando Hospital	81%	<1%	-	-	96%	13%	100%	8%
Bwera Hospital	95%	0%	95%	0%	100%	0%	100%	16%
Hoima Hospital	-	-	-	-	96%	0%	76%	0%
Karambi III	100%	66% ²⁴	12%	0%	100%	0%	100%	8%
Kalungu Hospital	26%	0%	-	-	76%	0%	-	-
Nyanbugando HC III	93%	0%	-	-	-	-	-	-
Masaka Regional Hospital	28%	0%	-	-	-	-	100%	0%
Kalungu HC III	26%	0%	-	-	-	-	100%	24%
Lwengo HC	100%	55%	-	-	-	-	-	-
Rwesande HC IV	85%	0%	-	-	-			
Kasese Town Council	100%	0%	-	-	-			
TOTAL	63%	36%	79%	30%	84%	28%	99%	33%

partograph monitoring tool and review were introduced in FY09/10. In the first two years (FY 09/10 and FY10/11) several facilities did not have partographs in patient records and among those facilities with partographs, the percentage that were completed 100% correctly ranged 0% to 80%. By FY12/13 there was some improvement at several facilities while at other facilities the rates remained the same (low). See Table 8 for complete summary by year and country/facility.

Among the partographs reviewed, which were incorrect, common omissions were noted at many facilities: recording of maternal pulse, blood pressure, management of the third stage of labor, birth outcomes, and neonatal condition.

As part of the partograph review process, questions are asked about levels of staff training in partograph use and on-site supervision. Responses indicated that there were usually a few providers at each site who had received some sort of training but regular supervision was lacking. Most facilities reported that partographs are reviewed on a daily basis by the maternity unit in-charge. LAMB Hospital in Bangladesh holds weekly maternity unit meetings conducted by senior clinicians and monthly maternity coordination meetings involving all level providers where necessary feedback is provided. In the FY12/13 review, staff at the Maternité Issaka Gazobgi in Niger specifically stated that an internal partograph review was planned.



Partograph Training

Many of the findings of the FY12/13 annual review echo those of FY11/12 review. It is clear from the results of all sites monitored that women frequently come to the facility in an advanced stage of labor. In this regard, the extensive data from Ugandan sites is illuminating. At most facilities, a large proportion of women arrived in the second stage of labor or required an emergency cesarean section. These results illustrate the challenges to correct partograph completion, especially when combined with the high volume of births, chronic staff shortages and frequent turnover that are the norm at many of the sites monitored.

While correct completion of the partograph is an important component of labor management, it should be acknowledged that this is not necessarily an indicator of its effective use as a decision-making tool. For example, a significant number of files indicated that although the partograph had been correctly completed, the action line had been crossed without any evidence that appropriate emergency action had been taken (or any information about the outcome). Therefore, it is essential to link partograph data to outcomes to enable analysis of the quality and appropriateness of intra-partum care.

To improve partograph monitoring in the future, it is recommended that the tool be modified to make it more easily understood by providers in order to improve the accuracy of data collection and to place more emphasis on ensuring that information about action taken and labor outcomes is captured. This information is crucial to a better understanding of the reasons underlying low rates of partograph use and for identifying ways to strengthen labor monitoring and management

Literature review completed in 2011. The purpose of the review was to identify and summarize the available literature on the use and efficacy of the partograph (including information on the attitudes of health care providers toward the partograph) and to identify and evaluate training strategies and barriers to its use. This study-- *Use of the Partograph: A Literature Review on Effectiveness, Training, Modifications, and Barriers*--served as the background planning document for the international experts meeting which Fistula Care convened in 2011. Key findings from the literature review include the following²⁵:

- Actual rates of use and levels of knowledge about the partograph among health care facility staff vary greatly from country to country and by cadre and type of facility. In general, levels of knowledge, skill, and implementation are low.
- Only a small number of controlled and quasi-controlled studies have examined the impact of partograph use on labor or cesarean section rates, and evidence of positive impact is limited. However, other noncontrolled and generally smaller studies have provided support for such an effect, as well as evidence of a positive impact on maternal and perinatal health outcomes.
- Evidence supports the need for a strong supervision and monitoring component to be included in any partograph introduction or training activities. Quality assurance is needed to ensure that training translates into ongoing practice.
- The partograph may have benefits that go beyond the evaluation of medical outcome improvements, including the potential to improve quality of care and provider attitudes and to increase knowledge about labor practices.
- Available evidence does not indicate that elimination of the latent phase of the partograph has a significant impact on labor decisions or on maternal or neonatal outcomes.

International expert meeting convened in 2011. Fistula Care partnered with the Maternal Health Task Force (MHTF)²⁶ and brought together international experts in November 2011 to review evidence and make recommendations about the partograph: *Revitalizing the partograph: Does the evidence support a global call to action?* While the partograph is recognized as important decision-making tool for preventing and managing prolonged or obstructed labor and its correct use can prevent serious complications, including ruptured uterus, obstetric fistula, and stillbirth, it still remains underutilized. The report from this meeting explores the major health system challenges to partograph implementation and the evidence in favor of revitalizing its use, not only to manage labor effectively, but also to improve the overall quality of care offered to women and their babies during childbirth. ²⁷Findings from this meeting were disseminated at two international meetings in 2012 (FIGO and the American Public Health Association Meeting).

Realist Review of the evidence for the partograph. One of the recommendations from the 2011 international consultative meeting on the partograph was to conduct a Realist Review of the partograph. EngenderHealth secured funding from the Bill and Melinda Gates Foundation to support a “realist review” of the partograph in collaboration with the University of Manchester.

²⁵ Levin, K. and Kabagema, J. 2011. *Use of the partograph: Effectiveness, training, modifications, and barriers*. New York: Fistula Care/EngenderHealth.

²⁶ The MHTF was managed by EngenderHealth at the time of this meeting.

²⁷ Fistula Care. 2012. *Revitalizing the partograph: Does the evidence support a global call to action?* New York: Fistula Care/EngenderHealth.

Realist reviews aim to provide understanding of the association between context, mechanisms and outcomes (CMO). These aspects are particularly pertinent to complex policy interventions, such as labor progress monitoring. The underlying assumption of a realist review is that configuration of the CMO components influence the success or failure of an intervention or program. Thus, in relation to the partograph, the question posed is not simply does the partograph work? Instead the question is: What is it about the partograph that works (or doesn't work); for whom does it work (e.g. midwives, obstetricians, women); and in what circumstances (e.g. urban/rural setting, country)? The review is being conducted in collaboration with Dame Tina Lavender at the University of Manchester; data synthesis is to be completed in January 2014 and a final report is expected in March 2014.

Technical Brief: *Improving Partograph Use in Uganda through Coaching and Mentoring*. Since 2010, Fistula Care has collaborated with the Reproductive Health Department of the Ugandan Ministry of Health to strengthen partograph use. This technical brief describes the challenges and achievements of developing and implementing a new approach to support partograph use in five facilities across three districts and makes recommendations for future partograph programming at the national, district, and facility levels.

Cesarean Delivery

Safe and timely cesarean section saves the lives of women in obstructed labor and can also prevent fistula. It is vital that providers be clinically competent, because in the wrong hands, cesarean section can also cause fistula. For this reason, Fistula Care focused on promoting access to and improving quality of cesarean delivery services.

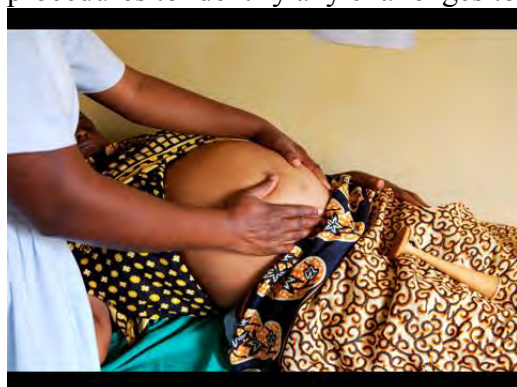
The PMP included three indicators related to delivery: total number of deliveries; percent of deliveries by CS; and percent of CS that were performed as a result of prolonged/obstructed labor. We dropped this last indicator after we determined it was not feasible to collect on a routine basis. We made this determination after completion of a retrospective record review study on cesarean deliveries (see below for more details). We decided that routine collection of these data could be done, but only after work was done to clarify definitions of these terms (prolonged and obstructed labor).

No benchmarks were set for number of deliveries and number of cesarean deliveries. Beginning in FY09/10 we began collecting information from sites where we were working to strengthen cesarean services on the total number of deliveries and proportion that were cesarean. The institutional rates varied greatly by site and are difficult to interpret without more information about the availability of emergency obstetric services in the facility's catchment area nor without knowing more about the indications for cesarean. Many of these sites are regional referral centers which may account for high institutional rates as well as different client profiles. Nearly 320,000 deliveries were reported by 55 facilities between FY09/10 and FY12/13; and institutional cesarean rates ranged from less than 10 % to more than 60%. See Annex 6 for complete details by site, country and year

Fistula Care supported the training of more than 2,000 surgeons, nurses, and midwives in emergency obstetric care and provided essential equipment (e.g., delivery kits) and supplies to sites in five countries (DRC, Ethiopia, Mali, Niger, Uganda).

Cesarean section is a major surgical intervention, so it must be performed appropriately and for valid medical reasons. The quality of clinical decision making depends on the availability of accurate information and standardized evidence-based guidelines. Strengthening the production and use of data for decision making to improve the quality and performance of fistula prevention and treatment services is one of Fistula Care's main programmatic strategies.

Between 2009 and 2010 we conducted a retrospective record review study of cesarean services at nine facilities in five countries (Bangladesh, Guinea, Mali, Niger and Uganda). The purposes of the study were to determine if obstructed labor and related indications for cesarean could be easily retrieved from hospital registers to serve as a routine monitoring indicator; identify key details about the cesarean delivery (e.g., timing of cesarean, use of the partograph, cadre of provider who performed the cesarean), to identify areas for improvement; review data reporting procedures to identify any challenges to recording and reporting quality data on cesarean



indications at facilities; assess providers' perspectives about the organization of cesarean services and data management; and determine the feasibility of using an indication-based classification system for periodic review of trends in cesarean deliveries (i.e., the Impact/FIGO proposed classification²⁸). Findings from each facility that participated in the review were presented at each site and recommendations identified for program improvement. A final report for each study site was prepared and disseminated at each site and a final summary report prepared for USAID.²⁹ Fistula

Care staff have made several presentations of the findings at international meetings and two manuscripts are under review at peer reviewed journals.

While the majority of patient files reviewed had an indication for the cesarean, providers across all sites and countries used a wide range of terminology to describe obstructed labor and prolonged labor. This lack of standardized terminology made it difficult to include this as a routine indicator for annual monitoring and is evidence of the plethora of classification systems and the lack of adoption of a standardized system at any level.

One common finding across all sites was poor utilization of the partograph. This finding along with the annual review of partographs described above has helped garner support from the facilities to improve the use of this important labor monitoring tool.

At the sites in Guinea and Niger, many women were referred from lower level health facilities or arrived very late and had emergency cesareans. In Niger, many women's indication for cesarean was uterine rupture; as result of this study finding, Fistula Care provided technical support to

²⁸ Stanton C., Ronsmans, C. Baltimore Group on Cesarean. 2008. Recommendations for Routine Reporting on Indications for Cesarean Delivery in Developing Countries. *Birth* 35:3, 204-211.

²⁹ Fistula Care. 2012. *Key findings and recommendations: A multi-center retrospective review of data collection procedures and data quality of indications for cesarean deliveries*. New York: Fistula Care/EngenderHealth.

strengthen lower-level (referring) facilities in the use of the partograph and good labor monitoring.

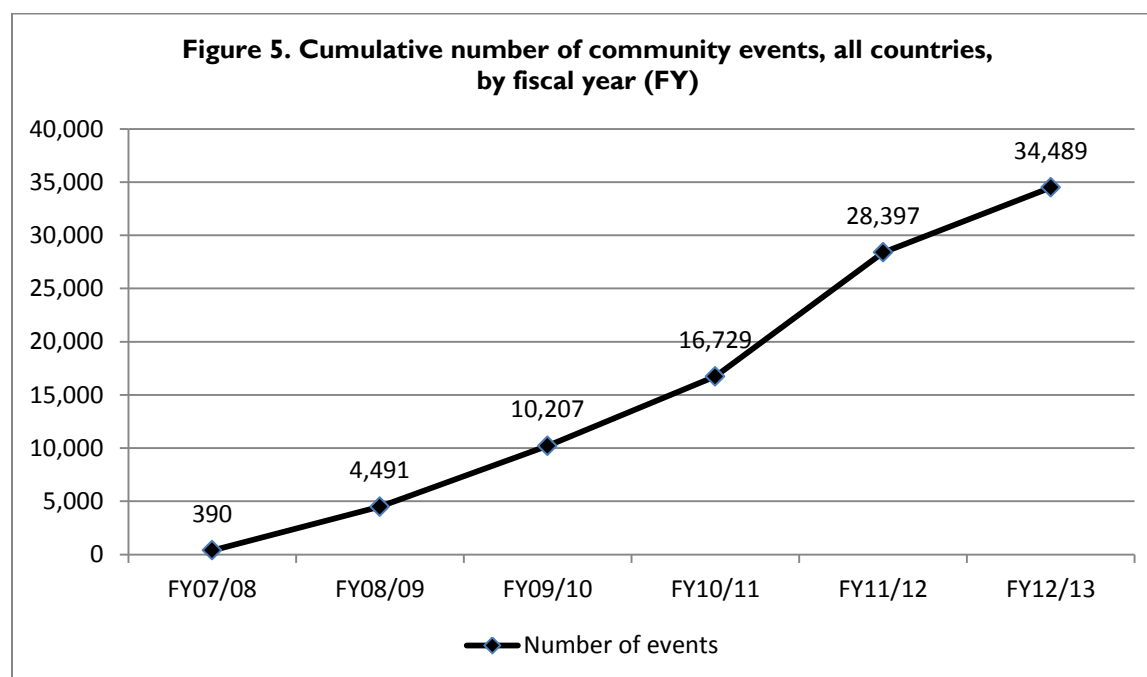
In Bangladesh, in response to the CS study findings, Fistula Care provided technical support to Kumudini Hospital to improve record keeping for cesarean deliveries, including the development of data collection tools and a quality improvement process, based on concepts from the data for decision making process. The overall aim of this technical assistance was to improve routine review of cesarean deliveries in order to reinforce the appropriate use of CS for valid clinical reasons. In addition, the Bangladesh Fistula Care team convened a consultative group to review and recommend a standard approach for recording CS indications, and to review how to strengthen use of the partograph. The consultative group recommended use of a simplified version of the WHO partograph. The recommendations for simplified partograph will be disseminated to government stakeholders in late 2013 or early 2014; this modified partograph will be piloted in 2 or 3 district hospitals to assess its appropriateness, efficiency and effectiveness. The Bangladesh government has agreed to approve the recommendations for CS indications and will provide logistical support for a pilot (WHO has offered funding support for this pilot).

Technical briefs. Fistula Care also produced three technical briefs about program innovations addressing maternity care in Bangladesh and Sierra Leone:

- *Increasing access to maternity services in rural Bangladesh: Sustainable facility-community links.* The Ad-din Hospital for Women and Children and the LAMB Project in Bangladesh have established community-level services for women in rural, underserved communities. This technical brief describes their noteworthy programs, which ensure community ownership and sustainability. One program is integrated into a microfinance program to enable financial independence; the other empowers community members to truly own and manage its services.
- *Low-cost ambulance network to improve access to maternity services in Dhaka, Bangladesh.* Transportation to skilled maternity care is critical. In 2008, the Ad-din Hospital recognized that many women in Dhaka were unable to access emergency obstetric care and established a low-cost ambulance service. This technical brief describes how Ad-din uses mobile phones and global positioning system (GPS) tracking to manage a fleet of ambulances stationed throughout the city.
- *Integrating fistula treatment and prevention: The launch of a maternity unit in Sierra Leone.* The Aberdeen Women's Centre maternity unit began offering delivery services in May 2010. Its dedicated staff provide hundreds of women with high-quality maternity services each year. This brief details the challenges of opening a maternity center and the factors that have led to the success of the clinic.

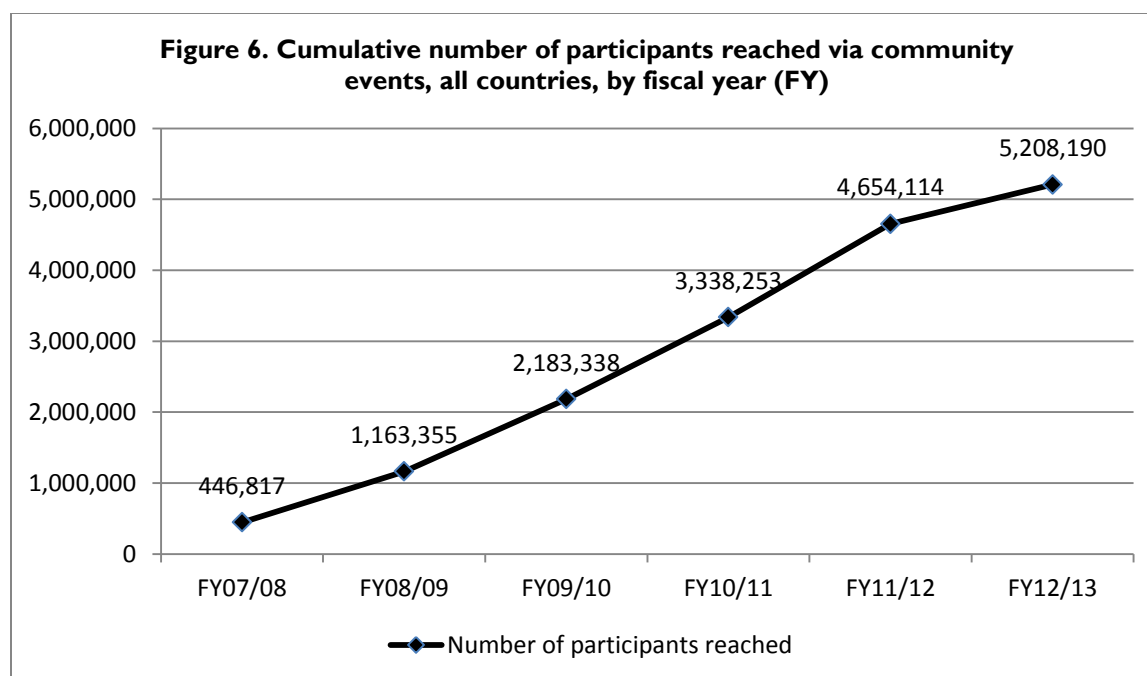
IR 2.2: Facilities linked with community agents and organizations

Community outreach activities to raise awareness about treatment and prevention were important activities in all countries during the six years of the project. There were two PMP indicators related to this work: number of community outreach events held and number of persons reached through the events. The cumulative benchmark for number of outreach events was 14,525 reaching 2.8 million participants. In total over the life of the project more than 35,000 events were held and over 5.2 million participants reached; see Figures 5 and 6.³⁰ In FY12/13 we exceeded the planned benchmarks for community outreach events and number of participants reached.



Fistula Care provided technical assistance and support to strengthen the capacity of community-based organizations, religious and community leaders, community-level health committees, and volunteers to raise awareness about fistula and to promote maternal health care-seeking in their villages. We collaborated with community groups in all 10 focus countries. The community work focused on raising awareness about obstetric fistula (including availability and location for treatment) and other pregnancy-related risks, promoting household preparation for birth and the routine use of skilled maternal health services throughout pregnancy, childbirth, and the postpartum period, and supporting the use of family planning. Over 15,000 persons (many community volunteers) attended training about how to promote messages about fistula prevention and treatment in Bangladesh, DRC, Ethiopia, Guinea, Niger, Nigeria and Uganda. See country reports for more details.

³⁰ The numbers of participants reached through these efforts represents some double counting because it is likely that one person may have attended multiple sessions and we have no way of tracking this information.



In Ethiopia alone, nearly 6,000 community volunteers attended orientation/training about communicating about fistula prevention and treatment and 3,000 attended refresher training. Fistula Care's implementing partner IntraHealth International in Ethiopia developed materials to train health care workers on obstetric fistula prevention, identification, and pre-repair care. Just over 5,000 providers at health posts in the catchment areas of the four pre repair units attended training/refresher training on these topics.

A variety of strategies were used in project countries to heighten awareness about fistula and increase women's access to and use of available treatment. For example in Bangladesh, Sierra Leone, Uganda and Guinea, former fistula clients were trained to provide information about fistula repair services to their respective communities. In Nigeria and Guinea, the project worked with Islamic religious leaders to reach out to their communities about the prevention and treatment of obstetric fistula. In the eastern part of the DRC, Nehemiah Clubs are used to spread prevention messages and identify fistula cases by engaging with communities through religious and community leaders. The clubs offer counseling, skills building, transport, waiting houses, diagnostic tests and referrals.

Fistula Care country teams also partnered with radio stations and newspapers to disseminate information. For the last five years representatives from the project and other fistula advocates were regular guests on *Health Watch*, a program of Radio Nigeria. The program is broadcast every 3rd Monday of the month and reaches out to 14 million listeners in Nigeria and beyond. Similarly, in Guinea, community radio stations donated free air-time so that fistula clients can share their stories and encourage others to seek treatment at repair sites. See country reports for more details about these activities.

In several countries, Fistula Care trained and supported community-level volunteers to raise awareness about obstetric fistula and to identify and refer women with possible fistula. Over time, as these trained volunteers could no longer identify new fistula cases in their communities, the focus of project support shifted increasingly to prevention and maternal health more generally. Toward this end, community volunteers and committees in Guinea, Niger, and Uganda were trained to monitor pregnancies in their respective communities, to promote birth preparedness at the household level, and to encourage the use of professional maternal health care throughout pregnancy, childbirth, and the postpartum period. Community-level cadres were also trained to raise awareness about the health benefits of family planning to delay and space births and to refer interested women to health facilities where family planning counseling and services are available.



Community Gathering, Guinea

Through these efforts, we developed a set of training packages for use with community-level committees and volunteers—in French (based on experiences in Guinea and Niger) and in English based on the work done in Uganda. The training packages are designed to orient community-based cadres—often with low or mixed levels of literacy—to key maternal health topics and to build their skills related to communication and counseling, pregnancy monitoring, and record keeping. While these materials were developed for specific country contexts, they are adaptable to other settings. In Ethiopia, IntraHealth developed materials about obstetric fistula for orienting community volunteers. Country programs developed tools to meet their specific needs; each country program report include a list of these materials and tools.

In Guinea, the project collaborated with local government and community members in treatment and prevention of fistula and the reintegration of fistula clients, as described in one of the project's technical briefs.³¹ In 2011, Fistula Care undertook an in-depth evaluation of the community-level fistula prevention efforts in two communities as part of a larger evaluation of the Guinea program. The purpose of the evaluation was to explore whether the establishment and support of Village Safe Motherhood Committees had led to measurable outputs in terms of enhanced community capacity and support systems and whether enhanced community support systems were associated with desired population-level outcomes, such as knowledge about obstetric risks, birth preparedness, and use of maternal health services. The study showed measureable differences between intervention and comparison villages in terms of community capacity—namely, the knowledge and activities of community-level committees and individuals involved in maternal health promotion. In addition, significant differences were observed at the population level in terms of women's exposure to community-level maternal health promotion

³¹ Fistula Care. 2010. Beyond repair: Involving communities in fistula prevention and reintegration--Experience from Kissidougou, Guinea. New York: Fistula Care/EngenderHealth.

efforts and their knowledge about maternal health and obstetric fistula.³² Importantly, women's use of antenatal care (at least four visits) and institutional delivery care was twice as high in villages with higher levels of community capacity for maternal health promotion as in villages with low levels of community capacity. Evaluation results also highlighted the value of promoting birth preparedness through community- and facility-level fistula prevention efforts. Women's knowledge of birth preparedness was associated with increased preparation for childbirth, which itself was strongly associated with use of institutional delivery care. In contrast, women's knowledge about obstetric risks and danger signs was not associated with increased birth preparedness or with care-seeking during delivery.

Follow-up reviews were conducted in both Uganda³³ and Niger³⁴ to appraise the community-level fistula prevention efforts. In both countries, the pregnancy monitoring visits conducted by trained community volunteers appeared to be perceived as important and effective by facility-based health providers who had observed increases in the use of maternal health services since the community committees were trained to promote birth preparedness and care-seeking during childbirth. In Dosso, Niger, for example, 88% of the women who received pregnancy monitoring visits by the trained committees and who gave birth during the second quarter of FY12/13 delivered in a health facility—a percentage that is considerably higher than the institutional delivery rate for the region, which was estimated to be 33% in the 2012 Demographic and Health Survey (DHS). Considerable increases in family planning caseloads have also been observed in both countries where the committees have been active. In Kasese, Uganda, for example, average monthly caseloads of family clients doubled after the training of village health teams around one of the project-supported fistula prevention sites. Similarly, in Boboye, Niger, there was more than a two-fold increase in the number of new family planning clients at health centers where committees had been established and trained to promote family planning and maternal health.

IR 2.3: Fistula clients received counseling and support for reintegration into their communities

There are varying definitions of reintegration and to date no tested indicators to measure how programs are doing in implementing reintegration activities.³⁵ During the 2008 Accra partners' meeting, participants agreed it was important to differentiate between reintegration and empowerment, and between social reintegration and family reintegration. There is a wide variation in approaches, but there is a need to address the poverty of women with fistula. The meeting participants noted that this concept might include one or more element that can be addressed at the facility, community and policy level; see Table 9 for a summary of these activities.

³² Fistula Care. 2013. *Evaluation of community-level fistula prevention interventions in Guinea*. New York: Fistula Care/EngenderHealth.

³³ Fistula Care. 2013. *Evaluation of community-level fistula prevention interventions in Uganda*. New York: Fistula Care/EngenderHealth.

³⁴ Fistula Care. 2013. *Review of community-level fistula prevention interventions in Niger*. New York: Fistula Care/EngenderHealth.

³⁵ Indicators have been suggested by the International Obstetric Fistula Working Group (IOFWG) sub group on Data and indicators, but none have been finalized nor tested.

Table 9. Reintegration activities by level, Accra Meeting 2008³⁶

Facility Level	Community Level	Policy Level
<ul style="list-style-type: none"> • Intensive counseling – psychosocial, reproductive health/health education, clinical counseling. (Participants likened this kind of counseling to that given for those who experience chronic conditions.) • Motivational speakers – the voices of patient advocates and of former fistula clients themselves • Peer group counseling – to facilitate group discussion • Literacy and numeracy skills – partnerships can be established with an NGO or community-based group to help while women are recuperating 	<ul style="list-style-type: none"> • Community advocacy and sensitization • Community-based interventions such as host families and social immersion • Fistula advocates and networks within the community • Stigma reduction • Partnerships – with microfinance organizations and organizations that support income generating activities 	<ul style="list-style-type: none"> • The involvement of ministries of health and/or social affairs and other ministries • The establishment and maintenance of national coordination bodies and steering committees • Engaging parliamentarians, especially women • Advocacy – a national fistula day, or bringing attention to fistula on Mother's Day

The most important factor to consider is what women want – most importantly to stop leaking and, for many women, to have a child. Reintegration has been defined as the intersection of physical health, mental health, social well-being and economic well-being. Meeting participants defined a minimum package for reintegration: counseling, transportation, health education, cesarean section free of charge, and advocacy within the community.



Discharge Day, Aberdeen Women's Center, Sierra Leone

During the course of the project country programs addressed reintegration in different ways: through community awareness raising to reduce stigma; a focus on counseling and psychosocial services at the facility level during the woman's hospitalization; partnering with micro-credit schemes such as cell phones in Sierra Leone, literacy and numeracy programs, village committees and the concept of social immersion as practiced and described in Guinea (see technical brief), the establishment of National Fistula Days to focus attention on the needs of women with fistula, and in many cases the establishment of dedicated reintegration centers where women can stay for varying periods of time. Further details are provided in the country sections of the report.

³⁶ Fistula Care. 2008. *Fistula Partners Meeting*. Accra, Ghana, April 15-17, 2008. New York: Fistula Care/EngenderHealth.

Integration of family planning with fistula services.

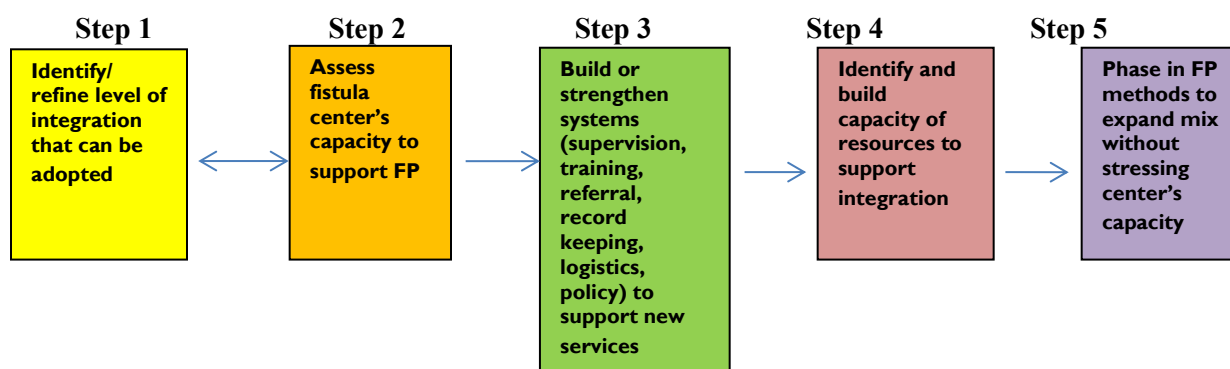
As noted above one of the project's key prevention strategies was integrating family planning counseling and offering/providing methods to women in post fistula repair period. FP contributes to prevention of fistula through delay of early childbearing and, prevention of unintended pregnancy; it contributes to improved health after fistula repair by, ensuring healthy timing and spacing of a desired pregnancy following fistula repair; and provides the opportunity to prevent further pregnancies when family size has been achieved. After fistula repair, FP not only offers women adequate time for complete healing; it also helps couples achieve a desired pregnancy.

Many curative care staff involved in fistula surgery have not been exposed to preventive care and were unfamiliar with many facets of family planning counseling and methods and required training to improve their knowledge and skills. In addition many of these staff may have assumed that a woman who has lost a child at the time her fistula developed will automatically want to become pregnant as soon as possible. While it is true that some women may want another child immediately, this is not what all women want. Recent research by Fistula Care and others suggests that many women are interested in family planning after fistula repair.³⁷

Fistula Care's approach to integrating FP services involves a five-step process, adapted from work that was done by EngenderHealth through the ACQUIRE Project for FP integration with HIV; see Figure 7. This approach identifies the level of FP service that may be successfully sustained, depending on the capacity of the fistula repair site; facilitates the modification of service delivery systems (e.g., training, record keeping, supervision, referral, and commodity logistics), through the implementation of a five-step process. Three job aids and client materials were adapted in 2010 to support the integrated services:

- Quick reference chart for contraceptive methods (job aid)
- Family planning for women and couples following fistula care (booklet)
- Client-centered reproductive health counseling following fistula repair (poster)

Figure 7. Fistula Care approach to integrating FP and fistula services



³⁷Benfield, N. et al. 2011. Fertility desires and the feasibility of contraception counseling among genital fistula patients in eastern Democratic Republic of the Congo. *International Journal of Gynaecology and Obstetrics* 114 (3):265–26; Johnson, K. A. et al. 2010. The role of counseling for obstetric fistula patients: Lessons learned from Eritrea. *Patient Education and Counseling* 80(2):262–265; Fistula Care. 2013. Guinea Program Evaluation.

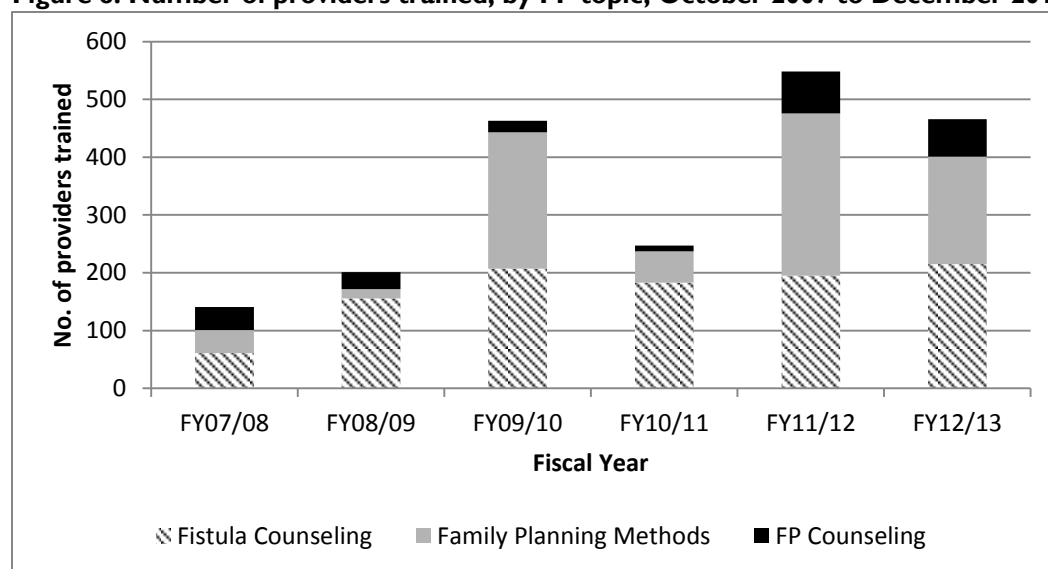
The structured process allows each fistula repair center to opt for the level of integration that it is able to support without overtaxing its capacity to continue to deliver quality fistula services.

During the course of the project we supported training for FP counseling (and fistula counseling which includes a session on FP), contraceptive technology updates and skills acquisition for provision of methods (e.g., implants, IUDs), and provided IEC materials. In total 2,066 persons attended training in FP counseling/method provision (see Figure 8).

In addition we collected data from supported sites about the number of clients counseled for FP and number of clients provided with a method.³⁸ These data were not disaggregated by type of client (e.g., postpartum, post fistula repair). In total 75 sites reported serving more than 240,000 persons with FP services between October 2007 and December 2013; see Figure 9. Trends by country are shown in each country report. A summary of FP services provided by site, country and year can be found in Annex 7.

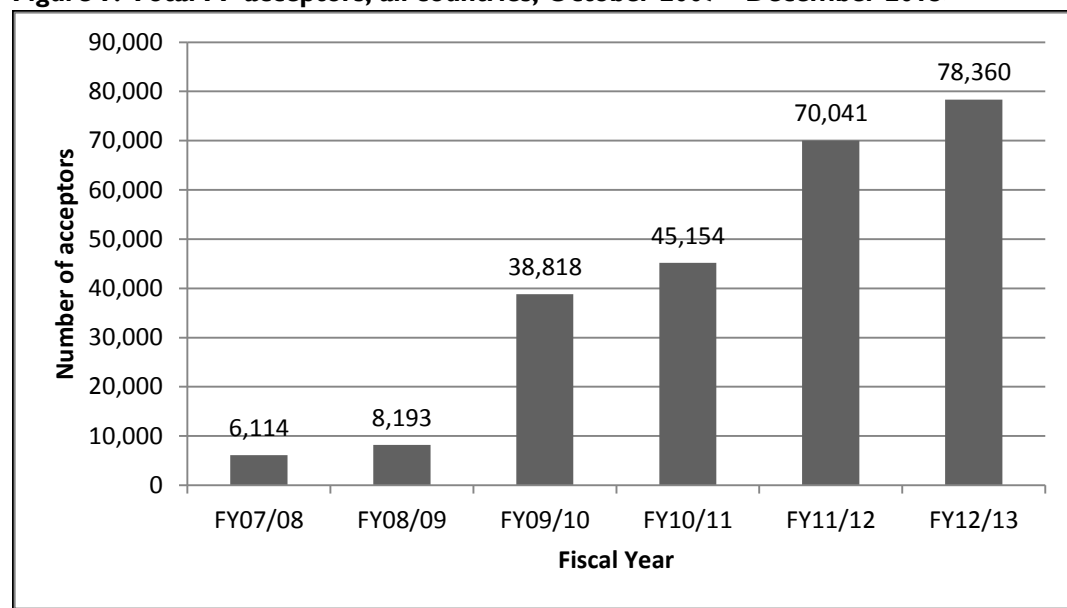
Beginning in 2008 we began a formal process of introducing the FP integration model to country programs. The model was introduced in DRC, Guinea, Mali, Nigeria, Rwanda, and Uganda; Fistula Care staff and partners in Bangladesh, Ethiopia, Niger, and Sierra Leone supported strengthening FP services, but did not participate in the integration model process.

Figure 8. Number of providers trained, by FP topic, October 2007 to December 2013



³⁸ Though not a required reporting indicator as part of the project's PMP.

Figure 9. Total FP acceptors, all countries, October 2007—December 2013³⁹



In 2012 we conducted an in-depth case study evaluation of the Nigeria program’s efforts to integrate FP with fistula services, and a desk review of project documents and interviews with project staff about program experiences in Bangladesh, DRC, Ethiopia, Guinea, Mali, Niger, Rwanda, Sierra Leone, and Uganda.⁴⁰ This study was designed to analyze trends shown in routine monitoring data collected on FP counseling and FP acceptors; review experiences with and impressions of the integration process obtained from key informants and clients; analyze relevant and related results from two studies conducted by Fistula Care; and conduct observations of patient-provider counseling sessions, focus group discussions, and self-assessments followed by group discussions to collect additional in-depth data on the integration process and results. The Nigeria integration experience—having been implemented for the longest period—is featured as a case study to illustrate the interventions and their results. FP integration activities in all other Fistula Care-supported countries are summarized to highlight the interventions undertaken, their experience with the integration approach (when it was introduced), the results achieved, and challenges encountered. Fistula Care staff presented the model and selected findings from this evaluation at the ESCANON nursing conference in August 2013 in Tanzania and at the 2013 International Family Planning Conference in Ethiopia. A summary of the key lessons learned and recommendations are summarized in Annex 8.

³⁹ The number of FP acceptors in FY 2008 and 2009 are undercounted. Nigeria was only reporting couple years of protection in those years (at request of USAID/Nigeria Mission). Subsequent years they reported on number of FP users.

⁴⁰ Caro, D., Farrell, B., Landry, E. and Alalade, E . 2013. *Integrating family planning into fistula services: An evaluation and case study*. New York: Fistula Care/EngenderHealth.

IR 2.4: Collaboration with maternal health programs

At the country level, many of the facilities with which the project partnered were not-for-profit or faith-based organizations that provided comprehensive health care, including maternal health care. Organizations such as LAMB, Kumudini and Ad-din in Bangladesh all provide comprehensive health care, including maternal health programs, both within the walls of the facilities and in terms of outreach to the community. The same is true for Kitovu and Kagando in Uganda, and all the supported sites in the D.R. Congo. In Ethiopia, Guinea, Mali, Rwanda, Niger and Nigeria, the project worked primarily with the public sector. The situation was similar. Most of the fistula units with which we worked were either established or strengthened as part of existing facility services that included or partnered with maternal health programs close by. In Nigeria, the project collaborated with the MCHIP project to conduct surveys in areas where both projects were working and coordinated efforts. In Bangladesh, under the Mayer Hashi project, EngenderHealth implemented its own activities relating to post-partum hemorrhage, and collaborated with MCHIP and others in coordinating activities on maternal health and family planning. In Sierra Leone, the Aberdeen Women's Center provides comprehensive reproductive health services for women, including maternal and child health care, family planning, and fistula treatment. A key collaborator for EngenderHealth in all countries was UNFPA. We worked jointly to ensure that prevention was a key component of all fistula programming. In all instances, the project collaborated with the Ministries of Health, the national technical working groups and other in-country partners such as UNFPA to promote integration of fistula services with broader maternal health programs.

At the global level, the project's early years were spent establishing relationships and partnerships with other national and international organizations specifically focused on fistula prevention, treatment and reintegration. The prevention aspect offered many avenues for collaboration with other maternal health programs, although as noted in the midterm evaluation of the project, the future project should increase such outreach. Organizations with which the project collaborated include:

- International Confederation of Midwives – to provide input on its essential competencies document for midwives and for work on the partograph
- Interagency Working Group on Maternal and Neonatal Health, specifically on emergency obstetric care for humanitarian programs
- Maternal Health Supplies working group – a group of international agencies working to ensure adequate supplies for maternal health services
- Maternal Health Task Force – on information on fistula generally, as well as collaboration on the international Partograph Meeting, jointly convened in 2011
- Royal Tropical Institute of the Netherlands on best practices and experience in improving quality and coverage by community health workers
- White Ribbon Alliance – specifically the Respectful Maternity Care initiative
- UNFPA – on all aspects of maternal health and fistula
- International Obstetric Fistula Working Group
- University of Manchester – on the partograph

RESULT 3: Gather, analyze, utilize and report data to improve the quality and performance of fistula services

At the heart of the project there was a commitment to contribute to the body of knowledge and evidence regarding fistula services through research and routine monitoring and evaluation. Developing routine monitoring systems and reporting indicators and conducting research were key achievements of the project. Fistula Care adapted and used MEASURE Evaluation's framework for data demand and information use to guide the project's work.¹ Data and results lack value unless they are used by stakeholders to improve the quality of services.

Two indicators were used to measure how the project performed for this result: routine review of quarterly fistula monitoring data for improving services at supported treatment sites and number of evaluation and research studies completed; achievements for both of these indicators are described below.

IR 3.1 Program activities monitored and outcomes evaluated

Routine Monitoring. The process of developing and refining the project core monitoring indicators was an iterative process over the life of the project. In the first quarter of the project in 2007, Fistula Care and USAID met to discuss and finalize the project management plan, the project reporting indicators which includes a set of 15 core indicators⁴¹ as well as eight clinical monitoring indicators.⁴² This discussion about indicators continued with our partners at the 2008 Accra meeting. At this meeting we reviewed and came to agreement about language and definition of terms to use for outcomes of fistula surgery, one of the 15 core reporting indicators for the project (as well as other indicators). There has been wide variation in how this is measured and reported as described most recently in an article by Steve Arrowsmith, Mark Barone, and Joseph Ruminjo.⁴³ At the 2008 meeting we agreed with our partners that we would not refer to outcomes of surgery as “successes” or “failures”, but rather as the status of the fistula when the woman is discharged: closed and dry, closed with remaining residual incontinence, or not closed. All Fistula Care supported sites and sites supported by USAID bilateral programs (e.g., DRC, Ethiopia) reported outcomes using this definition.

Another core project monitoring indicator which was reviewed and discussed at length with partners in Accra was complications arising from fistula surgery. During the 2008 meeting we reached agreement about types of complications to report. As discussed under IR 1.1 a complication reporting protocol was developed and we asked partners to report these data on a quarterly basis. Reporting of complications proved challenging to collect. Complications are expected to occur occasionally given the caseload, and nature, of fistula surgery. Some sites were forthcoming in reporting complications. Other sites consistently reported no complications

⁴¹ Complete details about the indicators (definitions, frequency of collection, etc.) can be found in Annex I.

⁴² Number of women seeking services, number requiring fistula repair, number getting surgery, number of previous repair attempts, type of fistula, number women discharged, status of fistula at discharge, number of women experiencing complications (and type of complication)

⁴³ Arrowsmith, S.D., Barone, M.A., and Ruminjo, J. 2013 Outcomes in obstetric fistula care: A literature review. *Current Opinion in Obstetrics and Gynecology* 25(5):399-403.

despite reporting large number of women undergoing surgery. A review of complication reporting was conducted in 2013; see IR1.2 above for more details.

To facilitate the reporting and use of the indicators Fistula Care developed a web-based database to which all partners, including USAID/W, had access. Because not all supported sites had adequate access to quality internet connections to enter the quarterly data in the required time period, we developed paper-based bilingual reports. Partners submitted quarterly reports which were reviewed to identify potential errors and /or trends that warranted follow-up with supported sites.

Through Fistula Care, we have amassed the largest collection of monitoring data on trends of fistula treatment available, using common indicators and definitions. However, it is important to note that we cannot assess certain outcomes at the individual level, (e.g. are all the closed/incontinent outcomes mostly among women with previous repair attempt?). These data are helpful to track trends, but special studies are needed to assess other aspects of care and treatment.

Data for Decision Making. A goal of the project was to strengthen supported sites' ability to review and utilize data for decision making. Our goal was that 80% of all supported treatment sites would meet at least once per quarter to review data for improving fistula services.

Month	Conds	Delays	SDU	Pharm	Home	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Jan	135	3.4	14	13	8	64	882	160	142	18	34	212	35	—	—	—	—	—	—	—
Feb	124	2.6	8	16	2	59	857	74	103	13	21	26	25	—	—	—	—	—	—	—
Mar	116	1.9	7	02	4	67	775	91	131	15	—	—	—	—	—	—	—	—	—	—
Apr	116	2.8	14	13	1	70	931	91	121	14	—	—	—	—	—	—	—	—	—	—
May																				
Jun																				
Jul																				
Aug																				
Sep																				

We encouraged sites to conduct these quarterly reviews and realized early on that they needed technical assistance and support to do these reviews. Staff at the facilities needed orientation to and training in the reporting forms and reporting indications. When introducing new indicators, building consensus and buy-in is critical. It is important to ask whether the chosen indicators are providing valuable, actionable information. The primary data collectors and users must share an understanding of indicator definitions and nuances. With cooperation from stakeholders, it is possible to change indicators over time, if necessary. If data collection and use are to be sustained over time, health facility managers and district authorities should be involved from the start.

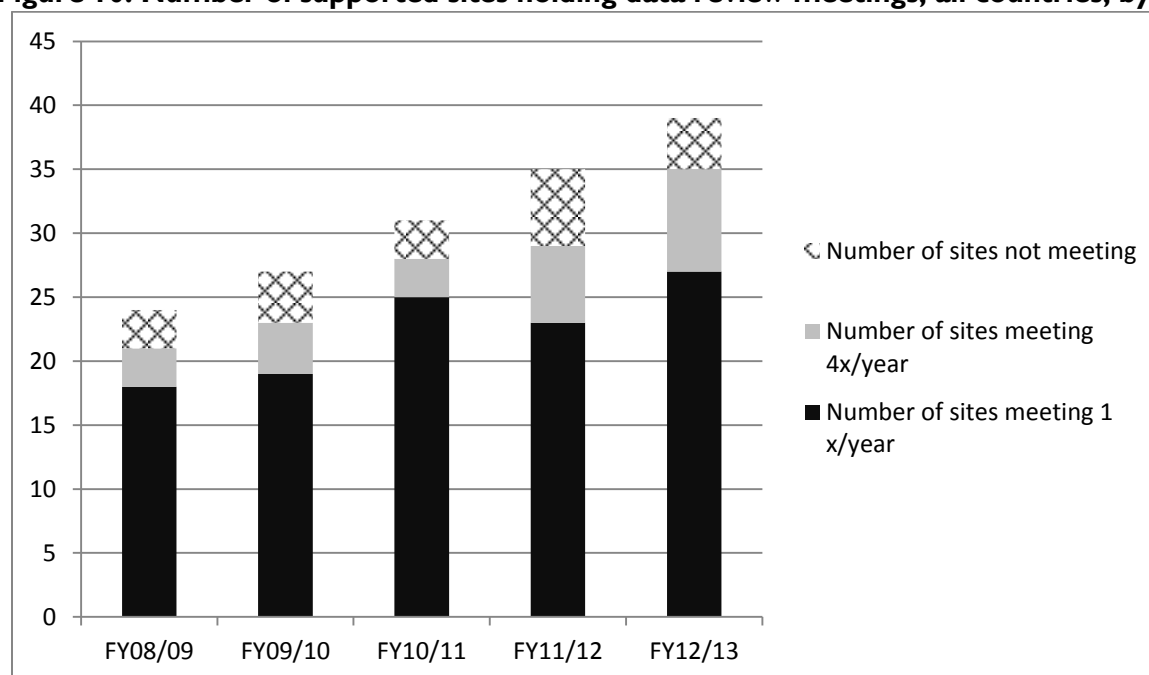
In 2009 we pilot-tested *Data for Decision Making in Fistula Care: A Supplemental Module for Facilitative Supervision*, adapted from EngenderHealth's Facilitative Supervision Manual, with a focus on the fistula clinical monitoring indicators; this was finalized in 2011 and translated into French. The modules are designed to help facility-level providers, supervisors, and national-level stakeholders understand how to effectively assess services and analyze and use their data for effective decision making.

Stakeholders' engagement with data is important. Fistula Care's training resources about data for decision making acquainted partners with indicator definitions, data quality issues, and options for presenting and utilizing data. Moreover, by regularly reviewing and discussing data, facility

staff owned their information and learned how to use data to improve quality of care. Ultimately, a facility's use of data often depended on whether it had someone who championed the importance of data collection and analysis for purposes of improving quality of care and outcomes. When working to strengthen record keeping and data for decision making, we found that identifying and cultivating champions who believe that using data can make a difference was a successful strategy.

As of December 2013 the DDM module has been utilized in the 10 core countries. While our aim was to have site staff meet quarterly to review data, this proved challenging because of heavy staff workloads, scheduling conflicts and data review and analysis meetings often low priorities. The majority of fistula repair sites (>80%) were able to meet at least once during a year, but meeting four times a year proved difficult. In some countries, facilities have standing committees (e.g. scientific or infection prevention committees) that meet routinely. If practical, quarterly review meetings about fistula (and other services) can be incorporated into those existing structures. Figure 10 shows the number of sites holding meetings at least once/year to review data. As the number of Fistula Care supported repair sites increased over time, the proportion of sites holding quarterly review meetings has also increased. The number of sites holding data review meetings every quarter varied, due to a variety of factors including the logistical limitations cited above and the focus of some sites on providing repairs through concentrated repair efforts, which determined when data was available for review.

Figure 10. Number of supported sites holding data review meetings, all countries, by (FY)



IR 3.2: Research designed and implemented

Research and evaluation studies have been a keystone of Fistula Care. When the project was awarded in 2007, a gap existed in the published evidence about factors and operative techniques that influence the outcomes of fistula surgery. In total we planned to conduct 30 studies, two of which included sub studies (e.g., retrospective record review study of cesarean sections was conducted at nine facilities; each study facility was counted as one study; and the Guinea program evaluation which was comprised of two parts: a review of the supply and community components). In collaboration with international and national partners, Fistula Care conducted a total of 22 studies including two multicenter clinical studies to answer some of the most pressing research questions about fistula treatment and care. We have now built a growing network of facilities with the experience and commitment to conduct high quality research.

Three of the studies were literature reviews. Our plans to carry out cost studies in multiple countries did not happen (we conducted only two cost studies, one in Nigeria and one in Ethiopia). A study in Ethiopia about the pre-repair centers was not feasible and we had insufficient funds at the field level to carry out an evaluation of the Uganda and Nigeria programs experiences with the levels of care framework.

Listed below in Table 10 in chronological order of when study reports were completed beginning with the most recent, is the name of each study, the country or countries where research was undertaken, and how findings have been disseminated to date (all final reports and/or peer review manuscripts have been shared with USAID/W and missions as appropriate). A brief summary of key study findings is presented in Annex 9.

Other USAID-supported research. In 2012 Fistula Care produced a Technical Brief about research conducted with USAID mission funding in Bangladesh and the DRC about women's experiences living fistula: *Living with obstetric fistula: Qualitative research findings from Bangladesh and the Democratic Republic of the Congo*. This qualitative research study examines the lives of women suffering from fistula in two very different sociocultural contexts, including the physical and social consequences associated with the condition and women's attempts to obtain care.

In October 2013, Pathfinder International released a study they carried out in Ethiopia about women's experiences post fistula surgery.⁴⁴ This study was carried out in 2011 and was funded by the Integrated Family Health Program (IFHP), a USAID funded FP/MNCH program in Ethiopia. The study examined the experiences of a cohort of women after they develop fistula, obtain repair services, and reintegrate back into their communities. Semi-structured interviews were conducted with a purposive sample of 51 Ethiopian women. Finding showed that these women continued to suffer from the physical, social, and mental health and economic consequences of fistula after repair. The study authors recommend that in order to promote a women's more holistic recovery, programs should prioritize integrating a community-based follow-up system to identify women needing further treatment and sexual, reproductive, and

⁴⁴ Snake, M.A., Donnelly, K., Yewondwossen, T., Oliveras, E. and Belachew, M. 2013. *A Qualitative Analysis of the Experience of Women Supported by the Integrated Family Health Project to Reach Fistula Repair Services: Their Experience of Repair Services and Re-integration. Research and Evaluation Working Paper.* Boston: Pathfinder International. <http://www.pathfinder.org/publications-tools/a-qualitative-analysis-of-the-fistula-repair.html>

Table 10. Summary of Fistula Care studies completed, 2007 to 2013

Study Title/Date completed	Participating Countries	Dissemination
Randomized Clinical Trial: Non-inferiority of short-term catheterization following fistula repair surgery. <i>August 2013</i>	DRC, Ethiopia, Guinea, Kenya, Niger, Nigeria, Sierra Leone, Uganda	<ul style="list-style-type: none"> • Study protocol published in <i>BMC women's Health</i> in 2012. • Study protocol presented at ISOFS 2012 • Preliminary findings presented at Fistula Care's Toward a Fistula Free Generation Meeting, September 2013 • Preliminary findings presented at the 2013 IFC FIGO Africa Regional Conference of Gynecology & Obstetrics • Final study manuscript under development for publication in peer review journal in early 2014
Review of community-level fistula prevention interventions in Niger <i>September 2013</i>	Niger	<ul style="list-style-type: none"> • Final report in English and French shared in country.
Evaluation of Community-Level Fistula Prevention Interventions in Uganda <i>September 2013</i>	Uganda	<ul style="list-style-type: none"> • Final report shared in country. • Results presented at Fistula Care's Toward a Fistula Free Generation Meeting in Uganda, September 2013
Family Planning-Integrated Fistula Care Evaluation and Case Study <i>June 2013</i>	Nigeria for in-depth case study review; other countries included in the review: Bangladesh, DRC, Ethiopia, Guinea, Mali, Niger, Rwanda, Sierra Leone, Uganda.	<ul style="list-style-type: none"> • FP integration approach presented at ESCA pre conference meeting in Dar Es Salam, Tanzania, August 2013 • Country case study findings presented at Fistula Care's Toward a Fistula Free Generation Meeting in Uganda, September 2013 • FP integration approach presented at the 2013 International Conference on Family Planning in Addis Abba, Ethiopia in November as part of a round table discussion • Executive summary of final report available in French.
Community-Based Screening for Genito-Urinary Fistula in Nigeria: A Novel Approach <i>March 2013</i>	Nigeria	<ul style="list-style-type: none"> • Findings presented at the 2012 ISOFS Meeting • Peer review manuscript published in <i>BMC Pregnancy and Childbirth</i>, January 2014⁴⁵ • Executive summary of final report available in French.
Guinea Fistula Care Program Evaluation <i>January 2013</i>	Guinea	<ul style="list-style-type: none"> • Study design presented at Global Symposium on Health Systems Research, 2010. • Finding disseminated in country. Final report available in French.
Evaluation of Community-Level Fistula Prevention Interventions in Guinea <i>January 2013</i>	Guinea	<ul style="list-style-type: none"> • Study design presented at Global Symposium on Health Systems Research, 2010. • Results presented at 2011 APHA meeting • Finding disseminated in country. Final report available in French. • Two manuscripts under review at peer review journals.

⁴⁵ Tuncalp, O., Isah, A., Landry, E., Stanton, C.K. 2014. Community-based screening for obstetric fistula in Nigeria: a novel approach in *BMC Pregnancy and Childbirth*. <http://www.biomedcentral.com/1471-2393/14/44>

Study Title/Date completed	Participating Countries	Dissemination
Key Findings and Recommendations: A Multi-Center Retrospective Review of Data Collection Procedures and Data Quality of Indications for Cesarean Deliveries <i>November 2012</i>	Bangladesh, Guinea, Mali, Niger, Uganda	<ul style="list-style-type: none"> 9 Individual facility reports prepared for each participating study site between 2009 and 2011. Results for each site presented in country with key stakeholders. Uganda results presented at 2010 Global Maternal Health Conference Global results presented: <ul style="list-style-type: none"> ➤ 2011 APHA meeting ➤ 2012 FIGO meeting ➤ 2013 Global Maternal Health Meeting ➤ Fistula Care's 2013 Toward a Fistula Free Generation Meeting Two manuscripts under review at peer review journals.
Determinants of post-operative outcomes in fistula repair surgery <i>Study completed in 2011</i>	Bangladesh, Guinea, Niger, Nigeria, Uganda	<p>5 peer review articles published to date (see Table 11 for a full list of articles). The final and 6th manuscript was submitted to a peer review journal in October 2013. Presentation of preliminary and final results presented at multiple international meetings:</p> <ul style="list-style-type: none"> FIGO 2009 ISOFS 2010 (2 papers) 2012 Société Internationale d'Urologie Congress 2012 FIGO (2 papers) 2012 IFOWG Meeting Global Maternal Health Meeting 2013 Fistula Care's 2013 Toward a Fistula Free Generation Meeting Final results presented in each participating country in 2012.
Estimating Costs to Provide Fistula Services in Nigeria and Ethiopia: Key Findings <i>September 2013</i>	Ethiopia and Nigeria	<ul style="list-style-type: none"> One summary report of findings from both studies prepared for USAID/W. Two country specific reports shared with USAID missions and study sites. Executive summary of summary report available in French.
Strengthening Health Systems Through the Levels of Fistula Care Framework (literature review) <i>December 2011</i>	Not applicable	<ul style="list-style-type: none"> Executive summary available in French.
Programming Considerations for Integrating Uterine Prolapse and Fistula Services <i>April 2011</i>	Not applicable	<ul style="list-style-type: none"> This report was submitted to USAID as part of Fistula Care's 2011 annual management review. Has not been shared more widely. Fistula Care made a presentation at the Woodrow Wilson Center in 2012 about these programming considerations.
Use of the Partograph: A Literature Review on Effectiveness, Training, Modifications, and Barriers <i>April 2011</i>	Not applicable	<ul style="list-style-type: none"> Paper presented at 2010 Global Maternal Health Meeting Findings along with recommendations from the 2011 expert meeting on partograph use presented at APHA and FIGO meetings in 2012 Executive summary available in French.

Study Title/Date completed	Participating Countries	Dissemination
Current Practices in Treatment of Female Genital Fistula: A Cross-Sectional Study 2010	Multiple	Findings presented at: <ul style="list-style-type: none"> • 2009 ISOFs meeting • 2009 APHA meeting • Manuscript published in 2010 <i>BMC Pregnancy and Childbirth</i>.

mental health support, bolstering linkages to income-generation opportunities, and designing metrics that assess each of these aspects.

IR 3.3: Information disseminated about lessons learned and research findings

Fistula Care staff, partners and consultants have disseminated information and lessons learned about the project's work through a variety of channels: publications in peer review journals; presentations at international, national and regional conferences; and the Fistula Care Technical Brief series.

Publications in peer review journals. Fistula Care staff and partners have published 11 peer review articles as of December 2013. Five of the manuscripts are from the prospective determinants study (*); the final and sixth manuscript from this study was submitted in October 2013 and is currently under review⁴⁶. Six additional manuscripts (two from the Guinea community evaluation, two from the cesarean record review, one about the community screening in Nigerian, and a one about fistula mortality analysis) are under review at journals. See Table 11 for list of publications by year of publication (title, author, journal/date published).

Table 11. Peer review publications by year of publication

Title of paper	Authors	Journal/publication date
2013		
*Profiles and experiences of women undergoing genital fistula repair: Findings from five countries	Landry, E., Frajzyngier, V., Ruminjo, J., Asiimwe F., Barry, T.H., Bello A, Danladi, D., Ganda, S.O., Idris, S., Inoussa, M., Lynch, M., Mussell, F., Podder, D.C., Walli, A., Mielke, E. and Barone, M.A.	<i>Global Public Health</i> . September 2013.
Outcomes in obstetric fistula care: a literature review	Arrowsmith, S.D., Barone, M.A., and Ruminjo, J	<i>Current Opinions in Obstetrics and Gynecology</i> . September 2013. 2013.
Striving for excellence: Nurturing midwives' skills in Freetown, Sierra Leone	Ngongo, C., Christie, K., Holden, J., Ford, C., Pett, C.	<i>Midwifery</i> , 29: 1230–1234.
*Development and comparison of prognostic scoring systems for surgical closure of genitourinary fistula	Frajzyngier, V., Li, G., Larson, E., Ruminjo, J., Barone, M.A	<i>American Journal of Obstetrics and Gynecology</i> ; 2013; 208.
2012		
*Factors influencing choice of surgical route of repair of urinary fistula, and the influence of route of repair on surgical outcomes: findings from a prospective cohort study	Frajzyngier, V., Ruminjo, J., Asiimwe, F., Barry, T.H., Bello A, Danladi, D., Ganda, S.O., Idris, S., Inoussa, M., Lynch, M., Mussell, F., Podder, D.C., and Barone, M.A.	<i>BJOG</i> ; 120 (3):524-31.
*Determinants of postoperative outcomes of female genital fistula repair surgery	Barone, M.A., Frajzyngier, V., Ruminjo, J., Asiimwe F., Barry, T.H., Bello A, Danladi, D., Ganda, S.O., Idris, S., Inoussa, M., Lynch, M., Mussell, F., Podder, D.C.	2012. <i>Obstetrics & Gynecology</i> ; 120 (3):524-31.

⁴⁶ Clinical Procedures and Practices Used in the Perioperative Treatment of Female Genital Fistula during a Prospective Cohort Study

Title of paper	Authors	Journal/publication date
*Factors influencing fistula repair outcomes in developing country settings: a systematic review of the literature.	Frajzyngier, F., Ruminjo, J., and Barone, M.	<i>American Journal of Obstetrics and Gynecology</i> ; 207(4):248-58.
Study protocol : Non-inferiority of short-term urethral catheterization following fistula repair surgery: study protocol for a randomized controlled trial	Barone, M., Frajzyngier, V., Arrowsmith, S., Ruminjo, J., Seuc, A., Landry, E., Beattie, K. Hamidou Barry, T. Lewis A., Muleta, M., Nembunzu, D., Olupot, R., Adeoye, I.S., Wakasiaka, W.K., Widmer, M., and Gulmezoglu, A.M	<i>BMC Women's Health</i> 2012, 12:5
2010		
Current practices in treatment of female genital fistula: a cross sectional study	Arrowsmith , S.; Ruminjo, J. and Landry, E	<i>BMC Pregnancy and Childbirth</i> . 2010, 10: 73
2008		
Fistula and Traumatic Genital Injury from Sexual Violence in a Conflict Setting in Eastern Congo: Case Studies	Longombe, A. O.; Claude, K.M. and Ruminjo, J	<i>Reproductive Health Matters</i> (2008;16(31):132–141).
2007		
Obstetric fistula and the challenge to maternal health care systems	Ruminjo, J.	<i>IPPF Medical Bulletin</i> . 2007 (Vol. 41, Number 4)

*Prospective determinants study

Presentations at International Conferences. Between October 2007 and December 2013⁴⁷ Fistula care staff and partners presented 76 papers, posters and participated in round table discussions at 33 conferences. See Annex 10 for list of all presentations.

Technical Brief Series. This series was designed to showcase innovative approaches of fistula prevention and treatment programs. During the life of the project we produced with our partners and collaborators 11 briefs which show case program interventions from Bangladesh, DRC, Ethiopia, Guinea, Kenya, Nigeria, Tanzania, Sierra Leone, and Uganda; see Table 12. All the briefs are available in French.

Table 12. Fistula Care Technical Briefs by year produced

Fistula Care Technical Briefs
2013
<i>Improving partograph use in Uganda through coaching and mentoring.</i> Since 2010, Fistula Care has collaborated with the Reproductive Health Department of the Ugandan Ministry of Health to strengthen partograph use. This technical brief describes the challenges and achievements of developing and implementing a new approach to support partograph use in five facilities across three districts and makes recommendations for future partograph programming at the national, district, and facility levels.
<i>Creating an enabling environment for fistula prevention and treatment in Uganda.</i> In 2003, the Ugandan Ministry of Health established a Fistula Technical Working Group (FTWG). This technical brief explains the rationale behind creating the FTWG, describes how it came into being, and presents three important achievements of the Ministry

⁴⁷ We include a final presentation under Fistula Care, presented at the 1st FIGO Africa Regional Conference Oct 4-6, 2013 about the randomized clinical trial.

Fistula Care Technical Briefs
of Health and the FTWG: building an information base for obstetric fistula to better plan for and manage prevention, treatment, and reintegration services; integrating fistula services into the Ugandan health system; and establishing standards, guidelines, and protocols to guide services.
2012
<i>Community-based screening for obstetric fistula in Ebonyi State, Nigeria.</i> In 2008, prior to the construction of a new obstetric fistula center in the state, MCCI coordinated with local governments to deploy a specialized medical team to conduct community-based screening for obstetric fistula throughout Ebonyi State, to estimate the potential backlog of women needing fistula repair surgery. This technical brief describes the planning process for the community screening and the results of this effort.
<i>Increasing access to maternity services in rural Bangladesh: Sustainable facility-community links.</i> The Ad-din Hospital for Women and Children and the LAMB Project in Bangladesh have established community-level services for women in rural, underserved communities. This technical brief describes their noteworthy programs, which ensure community ownership and sustainability. One program is integrated into a microfinance program to enable financial independence; the other empowers community members to truly own and manage its services.
<i>Living with obstetric fistula: Qualitative findings from Bangladesh and DRC.</i> What are the social consequences of fistula? What affects how women with fistula are treated? This technical brief provides insights into the experiences of women with fistula in Bangladesh and the Democratic Republic of the Congo. This qualitative research examines the lives of women suffering from fistula in two very different sociocultural contexts, including the physical and social consequences associated with the condition and women's attempts to obtain care.
<i>Low-cost ambulance network to provide access to maternity services in Dhaka, Bangladesh.</i> Transportation to skilled maternity care is critical. In 2008, the Ad-din Hospital recognized that many women in Dhaka were unable to access emergency obstetric care and established a low-cost ambulance service. This technical brief describes how Ad-din uses mobile phones and global positioning system (GPS) tracking to manage a fleet of ambulances stationed throughout the city.
2011
<i>Integrating fistula treatment and prevention: The launch of a maternity unit in Sierra Leone.</i> The Aberdeen Women's Centre maternity unit began offering delivery services in May 2010. Its dedicated staff provide hundreds of women with high-quality maternity services each year. This brief details the challenges of opening a maternity center and the factors that have led to the success of the clinic.
<i>Making mobiles phones work for women with fistula: The M-PESA experience in Kenya and Tanzania.</i> This brief discusses the work of the Freedom from Fistula Foundation in Kenya and Comprehensive Community Based Rehabilitation in Tanzania. Both programs use an innovative combination of mobile banking and community education to provide free fistula treatment to women who need it.
2010
<i>Beyond repair: Involving communities in fistula prevention and reintegration—Experience from Kissidougou, Guinea.</i> This brief discusses engaging local government and community members in treatment and prevention of fistula and reintegration of fistula survivors.
<i>A collaborative network to improve access to fistula treatment in Nigeria.</i> This brief describes the pooled effort strategy that the Nigeria team has been leading to expand access to fistula repair services.
2009
<i>Fistula pre-repair center model in the Amhara region of Ethiopia</i> This brief provides an overview of three pre-repair centers in the Amhara Region that are part of a partnership with the Amhara Regional Health Bureau and the Bahir Dar Hamlin Fistula Hospital.

RESULT 4: Strengthen a supportive environment to institutionalize fistula prevention, repair and reintegration programs

To institutionalize fistula prevention, repair, and reintegration programs, Fistula Care collaborated with partners at all levels of government and societies, including ministries of health, national institutions, individual facilities, local governments, community-based organizations, individual providers, international partners, and many others.

A range of interlinked sociocultural, economic, and policy factors influence both the functioning and sustainability of health services, as well as social norms and practices related to health. An enabling environment requires equitable policies; adequate resources; good governance and management; accountability; and supportive social norms.

Through these partnerships, Fistula Care strengthened policies and enabling environments to improve access to fistula services, by partnering with numerous organizations, facilitating and supporting technical working groups, supporting the development of national fistula strategies on fistula prevention and treatment, and coordinating a community of practice for fistula surgeons in the DRC.

The PMP included two indicators to monitor this result: number of countries adopting, revising or initiating policies for fistula prevention and treatment; and number of supported facilities using Fistula Care-produced technical products for improving fistula treatment and prevention services. Details about these accomplishments as well as other key activities are presented below.

IR 4.1: Strengthened policies in countries to improve access to and quality of services

The majority of the work Fistula Care accomplished under this result was at the country level. Project staff was also involved in raising awareness about policies to improve access to quality services in the United States and at a regional level in East Africa. Fistula Care worked in collaboration with ministries of health and other key stakeholders to strengthen policies for fistula in all ten of the focus countries over the life of the project. Details about these accomplishments by country are summarized below.

United States. In June 2010 Dr. Joseph Ruminjo, Fistula Care Clinical Director and Ms. Josephine Elechi, the First Lady of Ebonyi State in southeastern Nigeria and the founder of the Mother and Child Care Initiative, were among a group who briefed members of Congress on obstetric fistula in Washington DC. In May 2011 Ms. Carrie Ngongo spoke at a Congressional briefing about draft legislation for fistula treatment. EngenderHealth staff also participated in a group that was providing information to Congressional staffers for Representative Maloney from New York and Representative Lauro from Connecticut about obstetric fistula.

East Africa. With funding support from USAID/East Africa, Fistula Care provided technical support to the East, Central and Southern Africa-Health Community (ECSA-EH) on two projects and to the Regional Centre for Quality of Health Care (RCQHC).

ECSA-HC. Fistula Care provided technical assistance to develop “*Model Fistula Care Policy for East, Central and Southern Africa Health Community.*” This policy was designed to address regulatory, resources provision and administrative issues around fistula. The overall goal for developing the policy was to provide a framework for leadership and coordination of the ECSA-HC countries’ responses to addressing fistula treatment and prevention. The objectives of this policy were:

- Enhance effective data collection, documentation and information on the size, nature and extent of fistula in the ECSA-HC countries for effective prevention, treatment, care, and social integration.
- Increase access to acceptable, affordable, effective, safe, and timely family planning.
- Establish health care systems which are accessible, comprehensive, and competent in responding to fistula as a major problem in maternal health.
- Enhance effective political will and community participation in the fistula response.

Fistula Care staff participated in and provided technical assistance in all major stages of the policy development process beginning in 2009. In 2010 the working group (which included representatives from the ministries of health from Kenya, Lesotho, Malawi, Mauritius, Swaziland, Uganda, Zambia, Zimbabwe; and representatives from EngenderHealth, AMREF and ECSA-HC) presented the model fistula policy and monitoring and evaluation plan to member countries’ ministers of health at a regional meeting in Harare, Zimbabwe. The health ministers adopted the policy.

Fistula Care also supported (with USAID/East Africa funds) ESCA-HC to develop a nursing curriculum for fistula treatment (see Result 1.3 for more details).

Country Programs. Fistula Care and partners actively contributed to efforts to establish national strategies which address fistula developed in five countries; Guinea, Mali, Nigeria, Sierra Leone and Uganda. An additional two countries developed strategies that await official MOH approval (Bangladesh and Rwanda). Much of this work was accomplished through technical working groups comprised of the leaders in fistula and maternal health in each country, some of which had originally been established by UNFPA and EngenderHealth under funding from the Gates Foundation. Fistula Care provided support to ministries of health to initiate, revitalize and strengthen these technical working groups, in collaboration with UNFPA, in Bangladesh, Guinea, Mali, Nigeria, Sierra Leone and Uganda. The technical working groups are working with national health information management systems (HMIS) to incorporate fistula indicators in Bangladesh, Guinea, Mali, Niger, Nigeria, Rwanda, and Uganda. See Table 13 for a list of indicators these countries intend to or are collecting on fistula treatment and care.

Table 13. HMIS Indicators for fistula treatment by country

HMIS Indicators	Bangladesh	Guinea	Mali	Niger	Nigeria	Uganda
Screening and Treatment						
Number women referred for fistula					X	
Number of women presenting with incontinence			X		X	
Number of women referred for incontinence			X			
Number of fistula cases diagnosed		X ⁴⁸	X	X ⁴⁹		X
Number of women receiving a fistula repair				X	X	X
Number of fistulas repaired	X	X	X	X		
Number of women treated by catheter for fistula				X		
Number of cases of vesico-vaginal fistula				X		
Number of cases of recto-vaginal fistula				X		
Number of new cases of fistula (first repair attempts)				X	X	
Number of women receiving second repair					X	
Number of women discharged					X	
Number of fistulas closed and dry	X	X	X	X	X	X
Number receiving repair who were discharged not closed	X					X ⁵⁰
Number receiving repair who remained with incontinence at discharge	X			X		
Capacity to treat						
Number of staff capable of fistula surgery			X			
Number of staff capable of clinically diagnosing fistula			X			
Reintegration						
Number of women benefitting from a social reintegration program				X		
Total Number of indicators in HMIS	4	3	7	10	7	4

⁴⁸ In Guinea, number of women with fistula registered.

⁴⁹ In Niger, number of women needing fistula repair

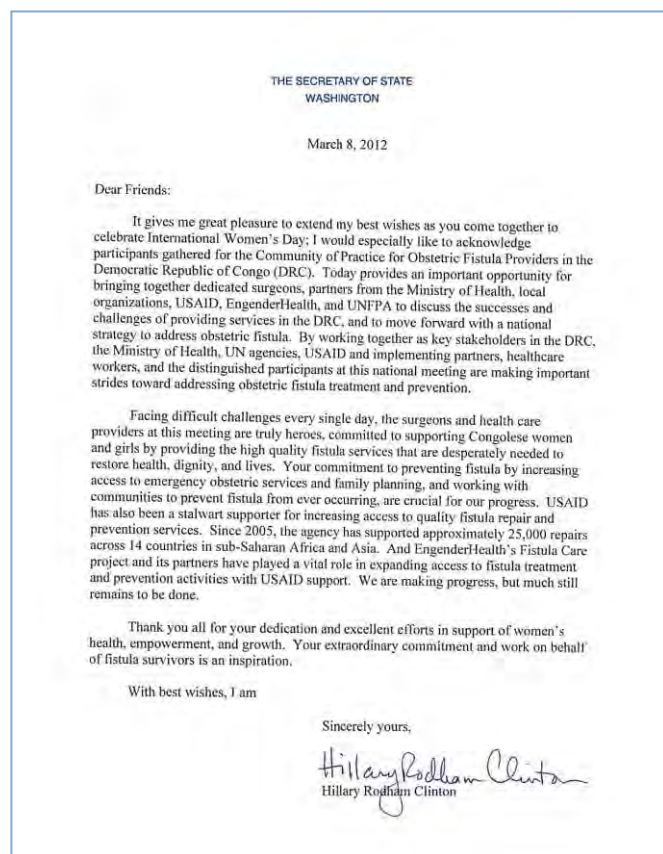
⁵⁰ In Uganda, not closed or closed with some remaining incontinence

Summarized below are key achievements by country. More details for each country are included in the country section of this report.

Bangladesh. Fistula Care, along with local government officials and UNFPA successfully advocated with the Directorate General of Health Services of the Government of Bangladesh to form the National Task Force on Obstetric Fistula in 2008. Fistula Care served as the secretariat of the task force, led by the Directorate General of Health Services of the Government of Bangladesh. The task force brought stakeholders together to develop a national strategic vision and a national action plan for prevention, treatment, and rehabilitation of obstetric fistula cases within the framework of the National Maternal Health Strategy. The task force finalized the National Strategy on Obstetric Fistula ; it was submitted to the Ministry of Health and Family Welfare for their approval in late 2013.⁵¹ The Director of Primary Health Care of DGHS initiated the process to incorporate fistula indicators into the DGHS MIS (see Table 13). In July 2013, the MOH decided to create an online data entry system for these indicators, but the system remains under development at this time

DRC. Fistula Care supported the development of the DRC Obstetric Fistula Community of

Practice (CoP) in partnership with the Ministry of Health (see below under Result 4.2 for more details) which brings together health care providers including surgeons, nurses, midwives and other practitioners, policy makers, nongovernmental organizations, and representatives from the Ministry of Health to discuss fistula treatment and prevention. In 2012, the CoP received a letter of support from Secretary of State Hillary Rodham Clinton about the importance of their work saying, "Facing difficult challenges every single day, the surgeons and health care providers at this meeting are truly heroes." (see box to left). The community of practice has provided valuable space to exchange best practices, research and establish priorities to achieve a fistula-free generation.



The DRC previously had a national strategy⁵² for addressing fistula from 2007-2009, but there is not a current national strategy in place. However, advancing the

⁵¹ The national strategy was approved 21 January 2014.

⁵² Ministère de la Santé Programme Nationale Santé de la Reproduction (PNSR). 2006. Stratégie Nationale de Lutte Contre les Fistules Urogénitales en RDC: 2007-2009. Kinshasa.

http://www.fistulacare.org/pages/da/files/5/5.4/DRC_National_Strategy_strategie.pdf

development and adoption of a new national fistula strategy is an important goal of the community of practice.

Guinea. The Guinea program took a holistic approach to addressing fistula prevention, treatment, and reintegration services in Guinea, involving mayors, numerous ministries, national and international partners, and local communities. In 2005, (under the ACQUIRE Project) EngenderHealth worked with the Ministry of Health and Public Hygiene to form a national steering committee to focus on fistula and ensure the integration of fistula services within the national public health program. A partnership was also formed with the Ministry of Social Affairs to establish a reintegration committee. The first National Fistula Day took place in May 2007. This is now an annual event to raise awareness about maternal health and advocate for women with fistula. These events have received high profile coverage with attendance by the Guinean First Lady, the US Ambassador, EngenderHealth's president, the State Minister of Social Affairs and the Promotion of Women, the Prime Minister's spouse, and other important delegates. Fistula Care participated in the development of the national strategy for fistula prevention and treatment⁵³ led by UNFPA and the Guinean Ministry of Health and Public Hygiene; the strategy was adopted in January 2012 and provides guidance through 2016. In 2010, the Fistula Care team participated in a review of the national health management information system to discuss the inclusion of fistula. Fistula indicators were incorporated into the revised HMIS in 2012. Facilities began reporting on these in April 2013 (see Table 13).

Ethiopia. On the local government level, fistula mentors participated in sub-woreda and woreda-level health committees with Ministry of Health staff, ensuring that fistula is on the agenda and providing awareness and education at that level throughout the life of the project. This increased support from these stakeholders for the community outreach teams, including collaboration in the supportive supervision visits to health posts and health centers. In FY11/12, Fistula Care participated in National Fistula Week at both the state and the federal levels, holding awareness events with diverse audiences to ensure that the problem of obstetric fistula in Ethiopia was prioritized and addressed.

Mali. Fistula Care provided technical assistance for development of the National Strategy for Fistula Prevention, Treatment and Reintegration,⁵⁴ which was disseminated in December 2010. The strategy includes a framework for addressing the need for fistula service services through prevention and access to care, and financial management and cost of fistula prevention and treatment. In March 2011, the Malian Ministry of Health, with support from Fistula Care, began a review process for updating national policies, norms, and procedures (PNP) on fistula and to develop tools and job aids to support fistula services. Workshop participants adapted several tools from Fistula Care, including a site assessment tool, booklets and forms about informed consent and family planning, and other tools on diagnosis and counseling that were included in

⁵³Ministere de la Sante Publique. 2012. *Stratégie Nationale de Prévention et de Prise en Charge des Fistules Obstétricales*. Plan Strategique National 2012-2016. Conakry, Guinea.

http://www.fistulacare.org/pages/da/files/5/5.4/Guinee_Plan_Strategie_Fistule_2012-2016_VF.pdf

⁵⁴Ministere de la Sante. 2009. *Stratégie Nationale de Prévention et de Prise en Charge des Fistules Obstétricales au Mali*. "Zero cas de fistules obsteticales". Bamako, Mali.

http://www.fistulacare.org/pages/da/files/5/5.4/Mali_National_Strategie.pdf

the National Quality Standards on Prevention and Treatment of Obstetric Fistula in Mali. The participants also selected indicators from the Fistula Care quarterly report to track the progress of fistula prevention and treatment. The updated national standards, tools and job aids were disseminated nationally in February 2012. Also in 2011 the Fistula Care team participated in a workshop with participants from the Ministry of Health, national and international NGOs, and other technical and financial partners to review the SLIS (Système Local d'Informations Sanitaires) indicators. The project worked to ensure that fistula indicators were integrated into the SLIS, and those adopted are referenced in Table 13 below.

Niger. Fistula Care's partner REF is the coordinating body for addressing fistula treatment and prevention and is composed of women's groups, civil society associations, public hospitals, development partners, the Ministry of Health, and the Ministry of Women's Promotion. Through these partnerships REF strives to reduce duplication, close gaps, and promote coordination in prevention and treatment of fistula. In collaboration with the Ministry of Health, REF worked to standardize fistula indicators to improve monitoring and evaluation of fistula services. Ten fistula indicators developed by REF, Fistula Care, and other partners were incorporated into Niger's health management information system in February 2012 (see Table 13). The data will allow the Ministry to gain a better understanding of the number of fistula cases and repairs, where they occur, and the success rate of repair for strategic planning and resource allocation.

Nigeria. Fistula Care worked extensively in Nigeria to develop policy and support the institutionalization of fistula services at the national and state level. Fistula Care worked to strengthen and/or establish fistula treatment services in 10 states. Key achievements at the national and state levels have included:

National Level

- In 2008 partnered with the Federal Ministry of Health (FMOH) to convene a stakeholder's meeting, including UNFPA, of the reconstituted National Working Group on Obstetric Fistula (NWGOF). The NWGOF met in 2011 to review and update the National Strategic Framework and Plan for VVF Eradication in Nigeria 2005-2011. During this process, Fistula Care successfully advocated for the inclusion of medical monitoring of sites providing fistula services as part of the draft strategy that was developed. The strategic framework and the standards of fistula practice for doctors and nurses were reviewed and adopted for use at the end of FY12. In November 2012, with support from Fistula Care, the Honorable Minister of Health formally launched the National Strategic Framework for the Elimination of Obstetric Fistula⁵⁵ and the Standards of Practice (SOPS) for doctors and nurses. Similar launches of these materials were carried out at zonal meetings with Fistula Care support.
- In 2010, at the request of USAID/Nigeria, Fistula Care organized a stakeholder's meeting to review progress on implementation of the National Plan for VVF – 2005-2010, to discuss progress and identify gaps and strategies to address them.

⁵⁵ Federal Ministry of Health. 2012. *National Strategic Framework for the Elimination of Obstetric Fistula in Nigeria (2011-2015)*. http://www.fistulacare.org/pages/da/files/5/5.4/Nigeria_National_Strategy_2011-2015.pdf

- Beginning in FY09, the Senate Committee on Health, with support from Fistula Care, has sponsored an annual “Mother’s Night” events to highlight the importance of improving maternal health.
- In FY11, the Federal Ministry of Health (FMOH) formally took over the management of the Southeast Regional VVF Center in Ebonyi, designating it as a national center (National Obstetric Fistula Center Abakaliki) and in FY13, the Ningi General Hospital in Bauchi State. Fistula Care partnered with the Bauchi State Government to establish the first fistula repair center at the hospital in FY11.
- Fistula Care Nigeria also advocated for inclusion of fistula as a line item in the federal budget. In October 2012, President Goodluck Jonathan presented the 2013 budget to a Joint Session of the National Assembly with a budget line item of \$7,675,000 USD for fistula.
- In FY11, Fistula Care worked closely with the NWGOF and UNFPA to develop a compendium of indicators that will be essential in monitoring and evaluating progress on eradicating obstetric fistula. The compendium is contained in the National Strategic Framework.
- In FY12, Fistula Care participated in a stakeholders’ meeting with the MOH on mainstreaming data collection and reporting into state health management information system routine activity. This is one way of ensuring fistula data continues to be collected by the state with upward reporting to the national level for decision making on achieving the strategic goal of eradicating fistula in Nigeria. The national HMIS began including key fistula indicators as part of routine reporting in 2012. See Table 13 for list of indicators.

State Level

- In FY09, supported the establishment of the Zamfara VVF Task Force.
- In FY10, a policy dialogue was conducted with the Sokoto State Commissioner for Women Affairs to discuss the need to establish a state level taskforce on fistula.
- In FY11, Fistula Care supported the Bauchi Ministry of Health to organize a one-day meeting with key stakeholders to establish a working group on fistula. Terms of reference and roles and responsibilities were finalized.

Rwanda. Fistula Care is a member of the National Safe Motherhood Technical Group and serves as the chair of the Fistula Steering Committee. In this capacity, Fistula Care supported the development of a national obstetric fistula strategy which was developed in FY10. Unfortunately the strategy remains in draft form. Despite not having a formal strategy in place, the MOH has included fistula on the list of conditions that health facilities must report on to the National Management Information System. Routine fistula repair services are free to clients and financed by the *Mutuelle des Santes*, Rwanda’s community health insurance scheme.

Sierra Leone. Fistula Care’s partner, Aberdeen Women’s Centre (AWC) has been a partner in the national task force for VVF, established in November 2010. The national task force is led by the Ministry of Health. In 2013 the National Strategy for VVF in Sierra Leone was launched. In FY10, the Ministry of Health and Sanitation held a series of meetings with national NGOs, including AWC and UNFPA to discuss the government strategy “Agenda for Change”. The government wants to promote multi-agency collaboration on fistula prevention and treatment;

AWC has been identified as the leading facility in-country for effective care. The strategy includes developing a wider screening program to sensitize patients and to increase awareness of fistula, its prevention and thus increasing access for patients to the availability of treatment services.

Uganda. Fistula Care collaborated with the National Fistula Technical Working Group (FTWG), comprised of all stakeholders implementing fistula work in Uganda. In 2009, Fistula Care initiated the creation of the Fistula Partnership Forum in collaboration with UNFPA and AMREF. The Fistula Partnership Forum provided coordination and strategic vision for partner organizations and worked with the DHS and the Uganda Bureau of Statistics to include additional fistula questions in the 2011 Uganda DHS. The MOH has adapted/adopted several tools and materials from Fistula Care as part of their goal of strengthening fistula treatment and prevention services:

- In 2011 Fistula Care's Levels of Care Framework for service delivery was adopted and included in the Uganda National Obstetric Fistula Strategy.⁵⁶ The National Obstetric Fistula provides guidance to partners on the implementation of prevention, treatment, and reintegration activities.
- In 2012, the FTWG sub-committee adapted Fistula Care global guidelines and tools, which were subsequently adopted by the Ministry of Health. These guidelines and tools include:
 - [National Training Guidelines and Standards for Treatment of Female Genital Fistula](#)
 - [Site Assessment Tool for Treatment and Prevention of Female Genital Fistula Services in Uganda](#)
 - Support Supervision and Monitoring for Female Genital Fistula Services in Uganda
 - [Fistula Reporting Data Form](#)
 - [Fistula Client Card](#)
 - [Fistula Death reporting Form](#)
 - [Fistula Registration Form](#)
- In December 2012, four fistula related indicators were added to HMIS. The data, collected quarterly at health facilities across the country, will be useful in estimating the burden of obstetric fistula, reveal resource allocation, and assist in planning future services.

In 2012, Fistula Care attended the Annual Joint Review Mission of the Ministry of Health and for the first time, obstetric fistula interventions were given prominence in the 2011/12 annual health sector performance report with a full page devoted to progress achieved. The MOH acknowledged the efforts of its key partners (EngenderHealth, UNFPA, AMREF) who have contributed to the government efforts to prevent, treat and reintegrate women with obstetric fistula into their communities

⁵⁶ Uganda Ministry of Health. 2011. *National Obstetric Fistula Strategy*. Kampala, Uganda.
http://www.fistulacare.org/pages/da/files/5/5.4/Uganda_National_Obstetric_Fistula_Strategy.pdf

IR 4.2. Global leadership demonstrated through sharing information and materials

Fistula Care and UNFPA collaborated on the planning and hosting of several IOFWG meetings and project staff served on IOFWG committees (training; data, research, and indicators). Project staff organized and/or participated in international meetings to address a range of important programmatic issues related to fistula care and treatment, and contributed to the development of global products produced by other organizations (e.g., FIGO's *The Global Competency-Based Fistula Surgery Training Manual*, Société Internationale d'Urologie (SIU)'s *Obstetric Fistula in the Developing World*, a publication from an international consultation meeting on fistula in Morocco in 2010).

Presented below is a summary of Fistula Care's participation in these meetings, followed by a summary of how the project disseminated information and materials about the fistula prevention and repair.

International Consultative Meetings

Fistula Care Consultative Meetings

Fistula Partners Meeting, Accra, Ghana, 2008. This meeting was held in the first year of the project and provided a forum for surgeons and other key stakeholders involved in fistula care working at USAID supported sites. The objectives of the meeting were to have participants share current interventions being used to manage the continuum of comprehensive fistula management services – from prevention to repair to rehabilitation; to analyze the successes and challenges of such interventions, and identify the current gaps; and to identify gaps in fistula programming and to make recommendations about best practices for addressing those gaps. A total of 70 individuals from 16 countries, primarily from the West African region participated in the meeting, including representatives from USAID/W and a few country missions. Throughout the three-day meeting, participants met in small groups to discuss, debate and define the essential elements of a quality of care strategy for fistula treatment; identify key prevention areas for the project to focus on (access to emergency obstetric care services, free cesarean sections, and family planning counseling and services; and the correct and consistent use of the partograph); define a minimum package for reintegration (counseling, transportation, health education, C-section free of charge, and advocacy within the community); and how to improve use of data to improve quality and performance.

Addressing the Needs of Women whose Fistula is Deemed Incurable (WDI) meeting, Boston, Massachusetts, USA. 2011. Fistula Care and the Harvard Humanitarian Initiative convened a meeting of international expert fistula practitioners to identify areas of consensus on minimum global standards for complex fistula care in low-resource settings. The final report from this meeting outlines programmatic and research gaps and priorities and includes specific recommendations to assist ministries of health, professional associations, and other key institutions in developing their own guidelines.

Partograph Meeting, New York New York, 2011. Fistula Care and the MHFT brought together international experts to review evidence and make recommendations about the partograph, a decision-making tool for preventing and managing prolonged or obstructed labor. The meeting report explores the major health system challenges to partograph implementation and the evidence in favor of revitalizing its use, not only to manage labor effectively, but also to improve the overall quality of care offered to women and their babies during childbirth.

Catheterization meeting, Abuja, Nigeria 2013. This consultative meeting brought together a group of experienced Nigerian and international fistula surgeons, representatives of national and international professional nursing and midwifery associations, relevant officials from the Federal Ministry of Health, as well as national and international staff to review current guidelines and practices, to discuss knowledge gaps, and to develop recommendations for standardized approaches to urinary catheterization for prevention and nonsurgical treatment of fistula. In preparation. The meeting report includes recommendations on how to move forward with the development and implementation of standardized national (and global) guidelines.

Towards a Fistula Free Generation, Kampala, Uganda, 2013. To reflect on nearly 10 years of USAID support for fistula activities and to strategize on how to improve fistula programming, training, service delivery, and prevention in the future, Fistula Care hosted a meeting in Uganda, bringing together

partners from 16 countries. Uganda was chosen as the location for the meeting due to the strides made in improving fistula care, the Ministry of Health's initiative to incorporate fistula guidelines and programming into its sexual and reproductive health services



and the innovative approaches taken.

Toward a Fistula Free Generation Meeting Participants

The objectives of the meeting were to:

- Reflect on the impact of Fistula Care
- Describe and share lessons learned in program implementation for the continuum of care (prevention, treatment and reintegration), and in research
- Consider what needs to be done to achieve a fistula-free generation.

The forward-looking discussions focused on working towards a fistula-free generation. With appropriate resources, sufficient knowledge, and strong health systems, fistula can be almost eliminated – or an extremely rare event for the next generation of women, families, and communities as has happened in middle- and high- income countries. By reflecting on successes and lessons learned at the global and country levels, we considered effective investments, existing knowledge gaps, potential partnerships, and other ways to maximize resources. These efforts, combined with those of other organizations working on maternal health issues, should be leveraged to ensure that prolonged or obstructed labor is promptly identified and action taken before fistula can develop.

Stakeholders shared and learned about different programming and policy approaches that have been successful (and pitfalls to avoid) and could potentially be replicated or adapted to different country settings. The bi-lingual meeting also provided an opportunity for south-south exchange between practitioners, government officials, community organizations, and other stakeholders. The report of the meeting is available in the digital archive.

Other Meetings

International Obstetric Fistula Working Group (IOFWG). Between 2007 and 2013 Fistula Care staff were actively engaged in this working group and its committees (Data, Indicators and Research; Partnerships and Advocacy; Treatment and Training; and Reintegration). The IOFWG is comprised of clinicians, managers, researchers and advocates from more than fifty organizations around the world. Fistula Care staff co-chaired the Treatment and Training and Data, Research and Indicators committees. Project staff were actively engaged with the Data committee in the development of a compendium of fistula treatment and prevention indicators. This compendium has not yet been completed. Fistula Care is working with UNPA to determine how best to facilitate and expedite its completion in early 2014.

International Consortium on Classification of Obstetric Fistula. One of the major challenges in pursuing a quality improvement agenda within fistula services is the lack of a standardized classification system on which to base training and research, and to enable comparison of outcomes. In March 2009 Fistula Care, along with UNFPA, the Johns Hopkins Bloomberg School of Public Health, and WHO, co-sponsored the first meeting of the International Consortium on Classification of Obstetric Fistula. The objective of the meeting was to begin the process of a review and validation of an internationally recognized fistula classification system. Regretfully, this process did not continue, although we have recently learned that obstetric fistula will be included in the ICD11 and a group is working on the definitions.

Dissemination of Information and Materials

Fistula Care has shared information and materials about fistula prevention and treatment extensively, including information and materials developed by other organizations (Fistula Care Technical Briefs about programs in Bangladesh, Kenya, Tanzania and Nigeria). Summarized below are key activities undertaken.

The DRC Obstetric Fistula Community of Practice (CoP). This Community of Practice brings together health care providers including surgeons, nurses, midwives and other practitioners, policy makers, nongovernmental organizations, and representatives from the Ministry of Health in the common interest of providing quality prevention, care, and treatment based on current research and international guidelines to women suffering from obstetric fistula. This collaborative initiative started with an expert's meeting in 2009 hosted by HEAL Africa in Goma, DRC.

The initial meeting took place at the request of USAID/DRC and was so successful that additional CoP meetings were held in April 2010 in Kinshasa, in March 2012 in Bukavu, and June 2013 in Kinshasa and an online [message board](#) was created,. These meetings provided a forum for members from across the country to discuss perspectives on opportunities and challenges related to strengthening fistula care services and to exchange best practices to advance obstetric fistula services with local and international key stakeholders. CoP meetings provided face-to-face opportunities for these exchanges and the regularly updated message board available in French and English was a virtual space to share information and comments on meeting announcements, conferences, publications, presentations, articles, and other resources and materials about obstetric fistula. Examples include the dissemination of the newly developed FIGO Competency-Based Fistula Surgery Training Manual, discussing issues of reintegration for clients with fistula deemed incurable, and the role of physiotherapy in care and treatment of women with obstetric fistula. Advancing the development of the National Strategy for Obstetric Fistula was an important part of the CoP since meetings included Ministry directors and other key stakeholders like UNFPA.

The CoP provided valuable space for about 100 members to exchange best practices, research and establish priorities to achieve a fistula-free generation. This Community of Practice advanced global learning and collaboration related to obstetric fistula service delivery among public health professionals in DR Congo as part of a technical priority under the global leadership element (IR4) of Fistula Care: Strengthen a supportive environment to institutionalize fistula prevention, repair and reintegration programs. Communities of Practice take time and sustained interaction. The message board provided a connective arch between meetings but for some members regular access to internet was challenging.

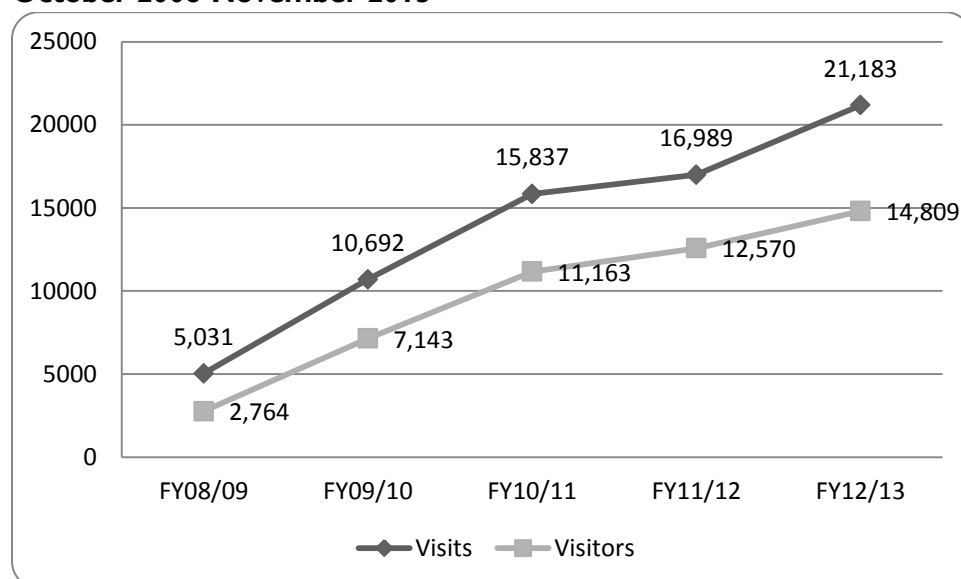
Presentations at international meetings. As described above under Result 3.3, Fistula Care staff, partners and consultants have presented 76 papers, posters and participated in round table discussions at 33 conferences. See Annex 10 for list of all presentations.

Publications in peer review journals. As described above under Result 3, Fistula Care staff and partners have published 11 articles in peer review journals between 2007 and 2008 (see Table 11).

Fistula Care Newsletter. The quarterly newsletter was launched in March 2010 and we emailed 14 issues through July 2013 to nearly 1,000 subscribers. The newsletters were designed to share updates about country programs, new publications, conferences and profile fistula champions.

Fistula Care Website. The bilingual website was launched in 2009. Since its launch, the site has seen steady growth and a total of 69,732 visits from 47,925⁵⁷ unique visitors through November 30, 2013 (Figure 11). Currently the website averages approximately 3,000 unique visitors per month. Visitors have come from 197 different countries and territories recognized in Google Analytics, the vast majority coming from the United States. However, countries where Fistula Care has supported work are in the top ten, including Nigeria, Uganda, Ethiopia, and Bangladesh. Approximately 86.2% of visitors are using computers with English set as the language, 8.7% are French, and 5.1% are other or are not set (Figure 12). The French version of the Fistula Care website accounts for approximately 8.7% of all pageviews.

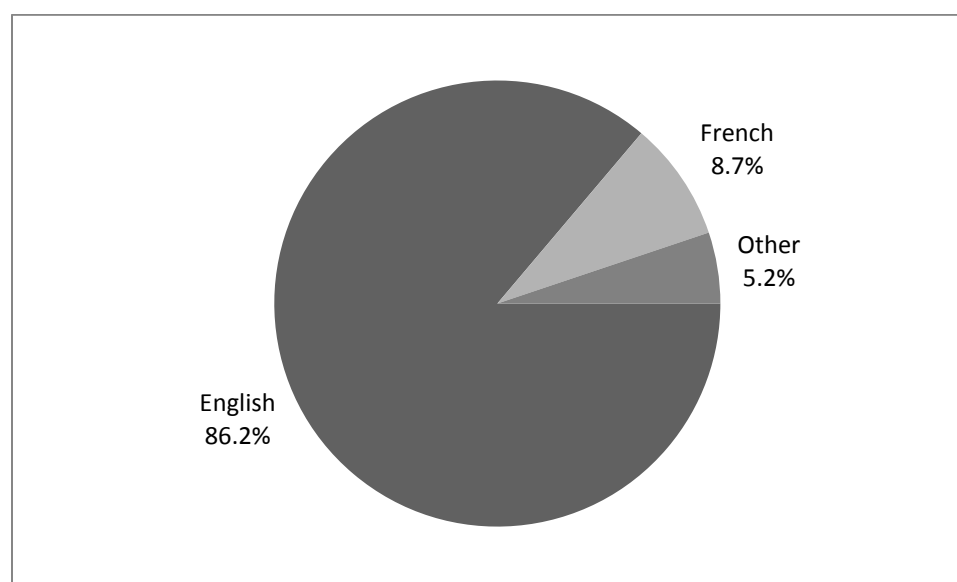
Figure 11. Number of visits and unique visitors to Fistula Care website, October 2008-November 2013⁵⁸



⁵⁷ This number represents the total number of unique visitors, not a sum of unique visitors in each year. A person who visits the site in two (or more) fiscal years is counted in each year, but only counted once in the total.

⁵⁸ October and November 2013 are included in FY12/13 totals.

Figure 12. Language setting for visitors to Fistula Care website (%)



Utilization of Technical Products at Supported Sites

As discussed above under IR 1.2 Fistula Care staff worked with country partners to facilitate a phased transfer, adaptation, and sustainable institutionalization of medical monitoring tools and approaches in support of fistula prevention and treatment. As shown below in Table 14, national programs in Bangladesh, Guinea, Ethiopia, Mali, and Uganda adopted and/or adapted one or more of the tools from Fistula Care.

Table 14. Adaptation and/or adoption of Fistula Care technical tools by country

Country/Site	Bangladesh	Guinea	Ethiopia	Mali	Uganda
Quarterly Reporting Tools				X	X
Levels of Care Framework	X				X
Fistula Site Assessment Tool		X		X	X
Monitoring/ Supervision for Service Delivery Check list					X
Fistula Diagnosis Poster and/or Handout		X	X	X	
Medical waste monitoring tool		X			
Training Strategy		X			X
Death investigation protocol					X
Partograph review tool		X			
Informed consent for Fistula Services Booklet/form		X		X	
Family Planning following Fistula Care job aids		X		X	
Data for Decision making modules		X			
Total tools adapted/adopted by county	1	8	1	5	6

During the life of the project we tracked ever use of any technical product produced by the project for improving fistula treatment and prevention (a core reporting indicator in the PMP). Between 2007 and 2013 a total of 93 facilities used at least one of the project developed tools during the life of the project; see Table 15 for a summary of tools ever used. The most frequently used tools besides the quarterly reporting forms, were the Monitoring and Supervision Check List, Family Planning following Fistula Care, Informed consent for Fistula Services Booklet, Fistula Diagnosis Poster and/or Handout, and Data for Decision Making Modules. Certain tools, such as the Fistula Site Assessment Tool or Training Knowledge Assessment Tool, were used for limited time periods, while others were used continuously throughout the life of the project. Details about ever use by facility are in Annex 11.

Table 15. Number of USAID supported sites using Fistula Care technical tools by country, October 2007-December 2013⁵⁹

Country/Site	Quarterly Reporting Tools	Monitoring/ Supervision for Service Delivery Check list	Training Knowledge Assessment Tool	Monitoring/ Supervision for Training Site	Fistula Site Assessment Tool	Data for Decision Making Modules (ver.1)	Digital Stories Facilitator's Guide	Fistula Diagnosis Poster and/or Handout	Informed consent for Fistula Services Booklet	Family Planning following Fistula Care
Number sites reporting use										
Africa Mercy	1	0	1	0	0	0	0	0	0	0
Bangladesh	5	5	0	3	2	2	0	3	4	4
DRC	9	6	4	5	1	5	1	5	6	6
Ethiopia	7	4	0	0	0	0	0	4	0	4
Guinea	9	7	2	4	3	3	0	3	3	3
Mali	7	1	3	1	3	0	0	6	4	6
Niger	7	5	4	4	4	4	0	5	5	5
Nigeria	31	30	11	7	7	7	0	1	9	8
Rwanda	4	3	3	3	6	3	2	3	3	3
Sierra Leone	1	1	1	1	0	0	1	1	1	1
Uganda	12	7	2	2	2	7	3	3	3	3
Total sites using tools	93	69	31	30	28	31	7	34	38	43

⁵⁹ Includes sites supported by bilateral agreements.

Annex I. Fistula Care results by indicator and benchmarks

RESULT NAME: SO: To establish and/or strengthen fistula prevention, repair & reintegration programs in at least 12 institutions in Sub-Saharan Africa & South Asia		
INDICATOR I: # of sites supported by Fistula Care /USAID support		
YEAR	PLANNED	ACTUAL
2006/2007 (Baseline)	N/A	23 fistula repair only
2007/2008	37 total; 9 repair only; 16FP & Repair; 12 FP only	37 total; 10 repair only; 14 FP & Repair; 12 FP only; 1 unknown
2008/2009	68 Total Repair/prevention: Repair only: 12; Repair & FP: 3; Repair & OC: 2; Repair, OC, FP: 17 Prevention only: OC & FP: 13 FP only: 3; OC only: 18 Unknown: 1	45 Total Repair/prevention: Repair only: 7; Repair & FP: 2; Repair & OC: 2; Repair, OC, FP: 16 Prevention only: OC & FP: 5; FP only: 12 OC only: 0; Community outreach: 1
2009/2010	70 Total Repair/prevention: repair only: 8; Repair & FP: 4; Repair & OC: 3; Repair, OC, FP: 17 Prevention only: OC & FP: 14 FP only: 16; OC only: 7; Community outreach: 1	77 Total Repair/prevention: Repair only: 8; Repair & FP: 2; Repair & OC: 2; Repair, OC, FP: 20 Prevention only: OC & FP: 18; FP only: 22; OC only: 4; Community outreach: 1
2010/2011	85 Total FC supported Repair/prevention: Repair only: 5; Repair & FP: 2; Repair & OC: 3 Repair, OC, FP: 20 Prevention only: OC & FP: 24 FP only: 22; OC only: 4	82 Total all USAID Repair/prevention: Repair only: 2 Repair & FP: 5; Repair & OC: 2; Repair, OC, FP: 25 Prevention only: OC & FP: 21; FP only: 22; OC only: 4; Community outreach: 1
2011/2012	82 Total FC supported Repair/prevention: Repair only: 2; Repair & FP: 5; Repair & OC: 2 Repair, OC, FP: 25 Prevention only: OC & FP: 21 FP only: 22; OC only: 4; Community outreach: 1	90 Total (all USAID) Repair/prevention: Repair only: 2 Repair & FP: 2; Repair & OC: 2; Repair, OC, FP: 39 Prevention only: OC & FP: 21; FP only: 19; OC only: 4 Community outreach: 1
2012/2013	76 Total FC supported Repair/prevention: Repair only: 0; Repair & FP: 2; Repair & OC: 3 Repair, OC, FP: 33 Prevention only: OC & FP: 19 FP only 19	77 Total FC supported Repair/prevention: Repair only: 1 Repair & FP: 2; Repair & OC: 3 Repair, OC, FP: 33 Prevention only: OC & FP: 19 FP only 19

UNIT OF MEASURE: Number

SOURCE: Project reports, annually

INDICATOR DESCRIPTION:

Fistula Care will support facilities for fistula repair and/or obstetric and family planning services disaggregated by type of site:

a. Facilities providing fistula repair services: can include training, equipment, minor renovation or rehabilitation of facilities. Support to clients can include: transport costs to hospitals for surgery, temporary shelter, costs for repair, post-operative hospitalization costs, and client rehabilitation services during post-operative recovery, pre and post operative counseling.

b. Sites providing obstetric services (OC) with immediate interventions to help prevent fistula.

We will track three key immediate term interventions which will be a focus of strengthening at selected sites:

c. Sites providing Family Planning services as a medium term fistula prevention intervention

Sites will be classified as a) Fistula Repair only; b) Fistula Repair & OC; c) Fistula Repair & FP; d)Fistula Repair, OC, & FP; e) OC only; f)FP only; g) OC & FP

FY 2006/2007 (baseline actual all USAID)

23 sites in 10 countries. All sites were classified as fistula repair only sites.

Countries (number sites) included: Bangladesh (3) DRC (2), Ethiopia (4) Guinea (2), Niger (4), Nigeria (5), Rwanda (2), Sierra Leone (1), Uganda (1). Mercy Ships provided support in Ghana.

FY 2007/2008 (actual all USAID):

	Repair only	Repair,, OC & or FP	FP /OC only	Unknown	Total
Bangladesh	0	3	0	0	3
DRC	2	0	0	0	2
Ethiopia*	2	0	3	1	6
Guinea	0	3	0	0	3
Liberia	1	0	0	0	1
Niger	3	0	1	0	4
Nigeria	2	3	8	0	13
Rwanda	0	2	0	0	2
Sierra Leone	0	1	0	0	1
Uganda	0	2	0	0	2
Total	10	14	12	1	37

*One site in Ethiopia, managed by AAFH provides community outreach with prevention messages. No information about other prevention activities.

FY 2008/2009 (actual all USAID):

	Repair only	Repair, OC & or FP	FP /OC only	Unknown	Total
Bangladesh	0	3*	0	0	3*
Benin	1	0	0	0	1
DRC	0	2	0	0	2
Ethiopia**	2	0	3	1	6
Guinea	1	3	3	0	7
Liberia	0	0	0	0	0
Mali	0	1	0	0	1
Niger	0	3	1	0	4
Nigeria	3	3	10	0	16
Rwanda	0	2	0	0	2
Sierra Leone	0	1	0	0	1
Uganda	0	2	0	0	2
Total	7	20	17	1	45

*MCH for only the 1st quarter

** Repair sites and 1 FP/OC site by USAID/Ethiopia.

FY 2009/2010 (actual all USAID):

	Repair only	Repair, OC & or FP	FP/OC only	Other	Total
Bangladesh	0	4	0	0	4
Benin	1	0	0	0	1
DRC*	0	3	0	0	3
Ethiopia**	3	0	3	1	7
Guinea	0	4	5	0	9
Liberia	NS	NS	NS	NS	NS
Mali	0	1	4	0	5
Niger	2	2	1	0	5
Nigeria	2	4	22	0	28
Rwanda	0	3	0	0	3
Sierra Leone	0	1	0	0	1
Togo	1	0	0	0	1
Uganda	0	2	9	0	11
Total	8	24	44	1	77

*1 repair site supported by USAID/DR Congo

**3 Repair sites and 1 FP/OC site by USAID/Ethiopia.

FY 2010/2011 (actual all USAID):

	Repair only	Repair, OC & or FP	FP /OC only	Unknown	Total
Bangladesh	0	4	0	0	4
Benin	NS	NS	NS	0	NS
DRC	0	6	0	0	6
Ethiopia*	2	0	4	1	7
Guinea	0	4	5	0	9
Liberia	NS	NS	NS	NS	NS
Mali	0	1	4	0	5
Niger	2	2	2	0	6
Nigeria	2	5	22	0	29
Rwanda	1	3	0	0	4
Sierra Leone	0	1	0	0	1
Togo	NS	NS	NS	NS	NS
Uganda	0	2	9	0	11
Total	7	28	46	1	82

*2Repair sites and 1 FP/OC site by USAID/Ethiopia.

NS=not supported

FY 2011/2012 (actual all USAID supported):

	Repair only	Repair, OC & or FP	FP /OC only	Unknown	Total
Bangladesh	0	4	0	0	4
Benin	NS	NS	NS	NS	NS
DRC^	0	14	0	0	14
Ethiopia*	2	0	4	1	7
Guinea	0	3	6	0	9
Liberia	NS	NS	NS	NS	NS
Mali	0	1	4	0	5
Niger	0	4	2	0	6

Nigeria	0	9	19	0	28
Rwanda	0	4	0	0	4
Sierra Leone	0	1	0	0	1
Togo	NS	NS	NS	NS	NS
Uganda	0	3	9	0	12
Total	2	43	44	1	90

NS=not supported

^DRC: 8 bilateral sites

*Ethiopia : 2 bilateral repair sites; 1 unknown (community outreach)

FY 2012/2013 (actual all USAID supported):

	Repair only	Repair, OC & or FP	FP /OC only	Total
Bangladesh	0	4	0	4
Benin	NS	NS	NS	NS
DRC^	0	10	0	10
Ethiopia	0	0	4	4
Guinea	0	3	6	9
Liberia	NS	NS	NS	NS
Mali	0	3	0	3
Niger	1	5	2	7
Nigeria	0	10	19	29
Rwanda	0	3	0	3
Sierra Leone	0	1	0	1
Togo	NS	NS	NS	NS
Uganda	0	3	7	10
Total	1	44	38	82

^ 3 repair sites through the bilateral project

RESULT NAME: SO To establish and/or strengthen fistula prevention, repair & reintegration programs in at least 12 institutions in sub-Saharan Africa & south Asia

INDICATOR 2: # of women receiving fistula repair surgery

YEAR	PLANNED	ACTUAL
2006/2007 (Baseline)	N/A	3,437
2007/2008	3,882	4,107
2008/2009	5,075	4,183
2009/2010	4,250	4,972
2010/2011	4,500	4,727
2011/2012	4,468	5,746
2012/2013	4,500	4,911
Total	26,675	23,860 (FY07/08-FY12/13)

UNIT OF MEASURE: Number

SOURCE: Project reports, quarterly

INDICATOR DESCRIPTION: # women undergoing fistula repair surgery at supported sites This includes all types of fistula repairs: urinary and RVF together, and RVF alone. Each time a woman has surgery it will be counted, therefore the number of women getting fistula repair surgery = number of surgeries. It is unlikely that any woman would get more than one repair surgery during a reporting period

	Pre Fistula Care			Fistula Care						
	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	Total
Bangladesh	20	93	119	122	131	143	150	184	267	1,229
Benin	NS	NS	NS	NS	110	21	20	NS	NS	151
DRC	NS	53	586	695^^	924^^	986^^	565	1,742^^	1,576	7,129
Ethiopia	NS	94	470	596	463	587	502	466	NS	3,302
Ghana	NS	21	42	NS	NS	NS	NS	NS	NS	63
Guinea	NS	199	292	229	316	392	459	497	420	2,804
Liberia	NS	NS	NS	59	NS	NS	NS	NS	NS	59
Mali	NS	NS	NS	NS	46	40	91	53	230	460
Niger	NS	NS	27	213	158	220	333	209	364	1,524
Nigeria	NS	NS	1081	1437	1347	1612	1,507	1,720	1,580	10,284
Rwanda	NS	145	147	83	167	259	278	114	27	1,220
Sierra Leone	NS	NS	272	363	253	166	211	244	115	1,624
Togo	NS	NS	NS	NS	NS	97	NS	NS	NS	97
Uganda	121	335	401	310	268	449	611	517	522	3,535
Total	141	940	3,437	4,107	4,183	4,972	4,727	5,746	5,133	33,510

NS=No USAID support.

^^Data from DRC bilateral projects in FY 05/06, 06/07, 07/08, 08/09 and 09/10 include Project AXxes data, in FY11/12 and 12/13 includes ProSani data. These data are included in total counts for each year.

RESULT NAME: IR 1: Strengthen the capacity of centers to provide quality services to repair and care for women with obstetric and traumatic gynecologic fistula

INDICATOR 3: % of women who received fistula surgery who have a closed fistula and are dry upon discharge

YEAR	PLANNED	ACTUAL
2006/2007 (Baseline)	N/A	87%
2007/2008	75%	79%
2008/2009	75%	75%
2009/2010	75%	73%
2010/2011	75%	76%
2011/2012	75%	78%
2012/2013	75%	81%

UNIT OF MEASURE: Number

SOURCE: Project reports, quarterly

INDICATOR DESCRIPTION: # of women who received any type of fistula repair surgery (urinary only, Urinary and RVF) who when discharged, had a closed fistula and were dry at time of discharge.

women who fistula repair surgery (urinary, urinary/RVF) with a closed fistula and dry at time of discharge / # women who had fistula repair surgery (urinary, fistula and/or urinary/RVF) and were discharged X 100

2006/2007: Does not include Niger (missing). Ranges were from 55% (Ghana) to 99% (Nigeria).

2007/2008: Ranges were from 67% (Ethiopia) to 93% (Nigeria). See individual country reports.

2008/2009: Ranges were from 64% (Niger) to 80% or higher (Ethiopia, Guinea, Uganda, Mali and Rwanda). See individual country reports.

2009/2010: Ranges were from 55% (Niger) to 80% or higher (Guinea, Rwanda and Sierra Leone)

2010/2011: Ranges were from 69% (Ethiopia) to 80% or higher (DR Congo, Guinea, Mali, Sierra Leone)

2011/2012: Ranges were from 51% (Niger) to 80% or higher (DR Congo, Guinea, Uganda)

2012/2013: Ranges were from 62% (Mali) to 80% or above (Bangladesh, DRC, Guinea, Nigeria, Rwanda)

Percent women discharged with closed and dry fistula						
	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13
Bangladesh	71%	71%	76%	71%	76%	82%
DRC	81%	60%	67%	87%	87%	90%
Ethiopia	NS	81%	76%	69%	65%	0%
Guinea	75%	80%	87%	89%	80%	80%
Mali	NS	88%	75%	86%	79%	62%
Niger	71%	54%	56%	77%	51%	65%
Nigeria	93%	74%	67%	71%	74%	81%
Rwanda	74%	80%	83%	75%	76%	88%
Sierra Leone	73%	71%	84%	84%	71%	63%
Uganda	79%	87%	79%	75%	81%	78%
Total	83%	74%	73%	76%	78%	81%

RESULT NAME: IR 1: Strengthen the capacity of centers to provide quality services to repair and care for women with obstetric and traumatic gynecologic fistula

INDICATOR 4: % of women who had fistula surgery who experienced a reportable complication⁶⁰

YEAR	PLANNED	ACTUAL
2006/2007 (Baseline)	N/A	9%
2007/2008	20% or less	5%
2008/2009	20% or less	3%
2009/2010	20% or less	3%
2010/2011	20% or less	2%
2011/2012	20% or less	1%
2012/2013	20% or less	1%

UNIT OF MEASURE: Number

SOURCE: Project reports

INDICATOR DESCRIPTION: Reportable Complications can either be major or minor related to the fistula surgery or to anesthesia. Deaths will be reported under complications.

#women who had any type of fistula repair surgery who experienced a reportable complication / total # women discharged after any type of fistula repair surgery X 100

2006/2007 (Baseline): Does not include data for Ethiopia and Niger (missing). Ranges from 1% (Nigeria) to 50% (Sierra Leone)

2007/2008: Ranges were from 0% (Niger) to 15% (Bangladesh). Data not reported from Ethiopia. See individual country reports.

2008/2009: Ranges were from 0% (Mali) to more than 20% (Bangladesh and Benin). See individual country reports.

2009/2010: Ranges were from 0% (Mali, Niger) to 11% (Bangladesh)

2010/2011: Ranges were from 0% (Guinea, Mali, Niger) to 7% (Uganda)

2011/2012: Ranges were from 0% (Ethiopia, Mali, Nigeria, Rwanda) to 4% (Uganda)

2012/2013: Ranges were from to 0% (Guinea, Niger, Rwanda) to 5% (Mali)

Percent women experiencing complications by country and year						
	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13
Bangladesh	15%	31%	11%	5%	1%	1%
DRC	2%	1%	2%	3%	2%	1%
Ethiopia	NA	NA	6%	1%	NA	NS
Guinea	3%	2%	1%	0%	1%	0%
Mali	NS	0%	0%	0%	0%	5%
Niger	0%	1%	0%	0%	1%	0%
Nigeria	5%	1%	1%	2%	1%	1%
Rwanda	5%	1%	1%	1%	0%	0%
Sierra Leone	10%	3%	3%	1%	3%	2%
Uganda	3%	1%	3%	2%	1%	1%
Total	5%	3%	3%	2%	1%	1%

⁶⁰ During the April 2008 meeting in Accra we discussed complications reporting during small group discussion. Based on these discussions we developed guidelines for reporting complications.

RESULT NAME: IR 1: Strengthen the capacity of centers to provide quality services to repair and care for women with obstetric and traumatic gynecologic fistula											
INDICATOR 5: # of people trained, by type of training											
YEAR		PLANNED					ACTUAL ⁶¹				
2006/2007 (Baseline)		N/A					627				
2007/2008		1,800					2,076				
2008/2009		5,000					4,081				
2009/2010		3,050					4,708				
2010/2011		7,545					6,657				
2011/2012		3,600					3,896				
2012/2013		3,900					2,662				
Surgeons (all years)		N/A					256				
Total		24,895					24,296				
UNIT OF MEASURE: Number											
SOURCE: Project reports											
INDICATOR DESCRIPTION: # of persons attending training in support of fistula care. Type of training reported will be for the primary training category. Training in surgical repair will be reported separately. Training will be reported for specific topics such as counseling, use of the partograph, QI, etc.											
Surgeons attended multiple training events to achieve competency sometimes over multiple years. Data are not disaggregated by year but presented below by country for the period October 2007-December 2013.											
FY08-FY13	BGD	DRC	Guinea	Mali	Mercy Ships	Niger	Nigeria	Rwanda	Sierra Leone	Uganda	Total
# surgeons trained in fistula repair	14	44	16	19	7	34	56	25	13	28	256
Training in other topics											
	Baseline		Fistula Care								
Topic	FY04/05 - FY06/07	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total FC	Total EH		
Fistula repair	95							256	95		
Pre /Post op. care	134	129	161	64	235	140	90	819	953		
Infection Prevention	149	151	128	137	797	236	348	1,797	1,946		
Quality assurance	20	60	12	183	182	69	72	578	598		
Fistula Counseling	16	61	156	207	183	195	215	1,017	1,033		
Obstetric Care	91	0	197	505	852	521	285	2,360	2,451		
FP Counseling	71	40	29	20	10	72	65	236	307		
FP methods	0	40	16	236	54	281	186	813	813		
Community Outreach	777	1,415	3,060	3,209	4,241	2,146	1,154	15,225	16,002		
Data management:	87	9	145	91	17	209	169	640	727		
Other	0	171	177	56	86	27	38	555	555		
Total	1,440	2,076	4,081	4,708	6,657	3,896	2,622	24,296	25,736		

⁶¹ Actual numbers for each year do not include surgeons. These tables do not include data on training conducted under bilateral agreements in the DRC and Ethiopia.

RESULT NAME: IR 2: Enhance community and facility understanding and practices to prevent fistula, utilize and deliver services for emergency obstetric care, and support women's reintegration

INDICATOR 6: # of community outreach events for fistula prevention

YEAR	PLANNED	ACTUAL
2006/2007 (Baseline)	N/A	513
2007/2008	625	390
2008/2009	1,500	4,101
2009/2010	4,670	5,716
2010/2011	3,500	6,533
2011/2012	700	11,668
2012/2013	3,200	6,092

UNIT OF MEASURE: Number

SOURCE: Project reports

INDICATOR DESCRIPTION: # events carried out by program partners to provide information about fistula prevention and other safe mother hood issues.

	Number events						Total
	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	
Bangladesh	231	44	140	165	139	147	866
DRC	0	0	0	9	9	16	34
Ethiopia	n/a**	3,631	3,882	5,290	5,590	1,108	19,501
Guinea	0	13	100	105	3,532	1,953	5,703
Mali	0	40	481	7	2	12	542
Niger	38	65	25	29	552	1,645	2,354
Nigeria	121	307	1,040	501	1,799	550	4,318
Rwanda	0	0	0	0	7	1	8
Sierra Leone	0	1	0	1	32	15	49
Uganda	0	0	48	415	6	645	1,114
Total	390	4,101	5,716	6,522	11,668	6,092	34,489

**Actual number of events for Ethiopia for FY07/08 was not reported. Ethiopia data includes only FC-supported activities, not AAFH activity.

RESULT NAME: IR 2: Enhance community and facility understanding and practices to prevent fistula, utilize and deliver services for emergency obstetric care, and support women's reintegration

INDICATOR 7 : # persons reached about fistula prevention at outreach events

YEAR	PLANNED	ACTUAL
2006/2007 (Baseline)	N/A	239,675
2007/2008	350,000	446,817
2008/2009	500,000	716,538
2009/2010	710,500	1,019,983
2010/2011	558,000	1,154,915
2011/2012	300,000	1,315,861
2012/2013	325,000	554,076

UNIT OF MEASURE: Number

SOURCE: Project reports

INDICATOR DESCRIPTION: Number of persons attending fistula prevention outreach events. Numbers of persons reached will be estimates.

	Number persons reached						
	FY 07/08	FY 08/09	FY 09/10	FY10/11	FY11/12	FY12/13	Total
Bangladesh	15,118	2,243	6,697	6,011	4,824	6,159	41,052
DRC	0	0	0	2,270	629	1,827	4,726
Ethiopia	321,056	528,476	529,291	681,651	686,726	152,670	2,899,870
Guinea	0	3,633	55,036	54,227	177,234	61,306	351,436
Mali	0	2,593	5,394	761	141	2,226	11,115
Niger	6,005	2,110	1,965	8,015	20,577	59,205	97,877
Nigeria	104,638	177,477	415,582	356,354	424,810	228,305	1,707,166
Rwanda	0	0	0	0	86	73	159
Sierra Leone	0	6	0	60	200	111	377
Uganda	0	0	6,018	45,566	634	42,194	94,412
Total	446,817	716,538	1,019,983	1,154,915	1,315,861	554,076	5,208,190

* Includes community outreach in Bangladesh & Ethiopia, advocacy in Bangladesh and village safe motherhood committees in Guinea. Persons reached include community members, NGOs and community health workers. NS=not supported

RESULT NAME: IR 2: Enhance community and facility understanding and practices to prevent fistula, utilize and deliver services for emergency obstetric care, and support women's reintegration		
INDICATOR 8: % of all labors at fistula supported sites, for which partographs are correctly completed and managed according to protocol		
YEAR	PLANNED	ACTUAL
2006/2007 (Baseline)	N/A	N/A
2007/2008	N/A	N/A
2008/2009	80%	N/A
2009/2010	80%	ranged from 0% to 83% at 14 sites
2010/2011	80%	ranged from 0% to 100% at 25 sites
2011/2012	80%	ranged from 0% to 96% at 18 sites
2012/2013	80%	ranged from 0% to 100% at 19 sites
UNIT OF MEASURE: percentage of labors monitored (in sub sample) SOURCE: Project reports INDICATOR DESCRIPTION: # of sampled partographs in a given facility in a reference period that are correctly completed and show adherence or a justified deviation from management protocol/ # all sampled labors in a given facility in a reference period X 100 This information will be collected during the medical monitoring supervision visits using the FC medical monitoring tool. A systematic sample of delivery records for the reference period will be reviewed. Instructions for drawing a sample are included in the monitoring tool. Data will <u>only</u> be collected from sites where FC is working to strengthen the correct use of the partograph. Details by supported site are described in Table 8.		

RESULT NAME: IR 2: Enhance community and facility understanding and practices to prevent fistula, utilize and deliver services for emergency obstetric care, and support women's reintegration		
INDICATOR 9: # of births at FC supported sites		
YEAR	PLANNED	ACTUAL
2006/2007 (Baseline)	N/A	N/A
2007/2008	N/A	N/A
2008/2009	N/A	NA
2009/2010	N/A	61,991
2010/2011	N/A	79,581
2011/2012	N/A	88,638
2012/2013	N/A	107,572
*updated in FY 10/11 to include data from Ethiopia. UNIT OF MEASURE: Number SOURCE: Project reports INDICATOR DESCRIPTION: Number of births at FC supported sites that provide delivery service. Data collection began FY09/10		

RESULT NAME: IR 2: Enhance community and facility understanding and practices to prevent fistula, utilize and deliver services for emergency obstetric care, and support women's reintegration

INDICATOR 9: # of births at FC supported sites

Number of facility deliveries by country and year					
Country	FY09/10	FY10/11	FY11/12	FY12/13	Total
Bangladesh	17,005	18,605	19,006	24,409	79,025
DRC	3,522	5,578	10,776	10,606	30,482
Ethiopia	879	1,707	2,408	3,012	8,006
Guinea	11,696	13,958	14,512	12,323	52,489
Mali	1,177	1,277	336	2,967	5,757
Niger	8,438	14,052	15,998	16,986	55,474
Nigeria	3,443	2,505	2,753	5,940	14,641
Rwanda	9,845	10,929	8,602	5,074	34,450
Sierra Leone	217	1,078	1,118	775	3,188
Uganda	5,769	9,892	13,129	25,791	54,581
Overall Total	61,991	79,581	88,638	107,883	338,093

NA: not available. Data collection began in FY09/10

RESULT NAME: IR 2: Enhance community and facility understanding and practices to prevent fistula, utilize and deliver services for emergency obstetric care, and support women's reintegration

INDICATOR 10: Number/Percent of births that were by c section

YEAR	PLANNED	ACTUAL
2006/2007 (Baseline)	N/A	N/A
2007/2008	N/A	N/A
2008/2009	N/A	34%
2009/2010	N/A	40%
2010/2011	N/A	33%
2011/2012	N/A	33%
2012/2013	N/A	32%

UNIT OF MEASURE: Number

SOURCE: Project reports

INDICATOR DESCRIPTION: Number/% of total births for the reporting period that were by c section.

of c-section births/total number of births (indicator 9) X 100

Data collection began in FY09/10.

Country	FY09/10	FY10/11	FY11/12	FY12/13
Bangladesh	55%	52%	52%	57%
DRC	16%	22%	26%	25%
Ethiopia	0%	5%	0%	0%
Guinea	32%	26%	24%	25%
Mali	22%	18%	17%	33%
Niger	50%	34%	36%	29%
Nigeria	10%	7%	6%	5%
Rwanda	32%	32%	37%	46%
Sierra Leone	16%	18%	17%	21%
Uganda	37%	25%	26%	25%
Overall Total	38%	33%	33%	32%

RESULT NAME: IR 2: Enhance community and facility understanding and practices to prevent fistula, utilize and deliver services for emergency obstetric care, and support women's reintegration		
INDICATOR 11: Number/Percent of c-sections that that were a result of obstructed labor		
YEAR	PLANNED	ACTUAL
2006/2007 (Baseline)	N/A	N/A
2007/2008	N/A	N/A
2008/2009	N/A	N/A
2009/2010	N/A	N/A
2010/2011	N/A	N/A**
2011/2012	N/A	N/A
2012/2013	N/A	NA
<p>**In FY10/11 retrospective record review studies completed at 9 sites in 5 countries. Analysis and feasibility of collecting this indicator was discussed with USAID/W. We will not collect this data as part of routine monitoring.</p> <p>UNIT OF MEASURE: number/percent SOURCE: Project reports INDICATOR DESCRIPTION: % of all CS, at fistula supported sites that provide c section services, for reasons of prolonged/obstructed labor Number of c sections for reasons of prolonged/ obstructed labor/# c sections (indicator 10) X100 This was a proposed new indicator. We assessed the feasibility of collecting through a cesarean record review study. We will assess the feasibility of collecting and reporting on this indicator by conducting a small qualitative study in selected countries.</p>		

RESULT NAME: IR 3: Gather, analyze and report data to improve the quality and performance of fistula services		
INDICATOR 12: % of supported sites reporting and reviewing quarterly fistula monitoring data for improving fistula services		
YEAR	PLANNED	ACTUAL
2006/2007 (Baseline)	N/A	N/A
2007/2008	45%	48%
2008/2009	80%	83% met at least 1 x; 20% of sites met 4 times;
2009/2010	80%	97% met at least 1 x; 14% met once per quarter
2010/2011	80%	91% met at least 1 x; 23% met at least once per quarter;
2011/2012	80%	85% met at least 1X; 13% met at least once per quarter;
2012/2013	80%	83% met at least 1 time.
<p>UNIT OF MEASURE: Number/percent SOURCE: Project reports INDICATOR DESCRIPTION: Proportion of supported sites with a functioning process for reporting AND reviewing quarterly fistula monitoring data in order to improve services. Functioning review process is defined as a team of staff from the site who meet once a quarter , with or without outside assistance (e.g., supervisory teams, FC program staff) to review and discuss the data and make program decisions to improve fistula services based on these data. # sites in which quarterly data is reported and reviewed at the facility to assess program progress / # of supported sites X 100 (repair sites only and PRUs in Ethiopia)</p>		

RESULT NAME: IR 3. Gather, analyze and report data to improve the quality and performance of fistula services		
INDICATOR I3: # of evaluation and research studies completed		
YEAR	PLANNED	ACTUAL
2006/2007 (Baseline)	N/A	N/A
2007/2008	1	0
2008/2009	3	1
2009/2010	2	3
2010/2011	13	10
2011/2012	6	2
2012/2013	5	7
Total		23
<p>UNIT OF MEASURE: Number</p> <p>SOURCE: Project reports</p> <p>INDICATOR DESCRIPTION: # of evaluation research studies completed that address fistula care service delivery. This includes evaluation of models of service delivery for fistula. Annual report will list studies by study name, location, ongoing/complete</p> <p>2008/2009: Completed Study: <i>Qualitative Study of Current Practices in Fistula Treatment</i></p> <p>2009/2010: Completed Studies: <i>1) Retrospective Record Review Study of Indications for Cesarean Delivery at Kagando Hospital, Uganda,</i> <i>2) Retrospective Record Review Study of Indications for Cesarean Delivery at Kitovu Hospital, Uganda,</i> <i>3) Use Of The Partograph: Effectiveness, Training, Modifications And Barriers: A Literature Review</i></p> <p>2010/2011: Completed Studies: <i>1. Determinants of Post-Operative Outcomes in Fistula Repair Surgery</i> <i>2. Nigeria Cost Study</i> <i>3. Literature review on Uterine Prolapse</i> <i>Retrospective Record Review Studies of Indications for Cesarean Delivery:</i> <i>4. Kumudini, Bangladesh</i> <i>5. Kinda, Guinea</i> <i>6. Kissidougou, Guinea</i> <i>7. Gao, Mali</i> <i>8. Maradi, Niger</i> <i>9. Dososo Niger</i> <i>10. Tahoua, Niger</i></p> <p>2011/2012 Completed studies: <i>1. Cost study in Ethiopia (and a summary report to USAID/W with results from Ethiopia and Nigeria (completed in FY10/11))</i> <i>2. Comparative analysis of cesarean retrospective record review study</i></p> <p>2012/2013 Completed studies: <i>1. Randomized Clinical Trial for Short Term Catheterization</i> <i>2. Evaluation of Guinea Program (supply side)</i> <i>3. Evaluation of Guinea community interventions</i> <i>4. FPI/Fistula Integration Evaluation</i> <i>5. Community Screening in Nigeria</i> <i>6. Evaluation of Community-Level Fistula Prevention Interventions in Uganda</i> <i>7. Review of community level activities in Niger</i></p>		

RESULT NAME: IR 4: Strengthen a supportive environment to institutionalize fistula prevention, repair and reintegration programs		
INDICATOR I4: Number of countries receiving support from Fistula Care where governments or supported facilities have revised/adopted/initiated policies for fistula prevention or treatment		
YEAR	PLANNED	ACTUAL
2006/2007 (Baseline)	N/A	N/A
2007/2008	TBD	4
2008/2009	5	6
2009/2010	7	7
2010/2011	8	5
2011/2012	7	7
2012/2013	8	7
UNIT OF MEASURE: Number SOURCE: Project reports INDICATOR DESCRIPTION: # of countries or facilities (some private sites may develop their own policies) that have revised/adopted or initiated policies in support of fistula prevention and treatment services. Policies can be part of reproductive and/or maternal health policies. Ideally countries should also include the necessary budgetary and policy frameworks to execute these policies Annual report will include the name of policy, location, status (under development/approved/implemented) <u>2007/2008:</u> Bangladesh, Guinea, Nigeria, Uganda <u>2008/2009:</u> Bangladesh, Guinea, Mali, Nigeria, Rwanda <u>2009/2010:</u> Bangladesh, DRC, Guinea, Nigeria, Rwanda, Sierra Leone, Uganda <u>2010/2011:</u> Bangladesh, Mali, Nigeria, Sierra Leone, Uganda <u>2011/2012:</u> Bangladesh, DRC, Ethiopia, Guinea, Mali, Nigeria, Uganda <u>2012/2013:</u> Bangladesh, DRC, Ethiopia, Guinea, Mali, Nigeria, Uganda		

RESULT NAME: IR 4: Strengthen a supportive environment to institutionalize fistula prevention, repair and reintegration programs		
INDICATOR 15: .Number of facilities using Fistula Care technical products, by product, for improving fistula treatment and prevention services.		
YEAR	PLANNED	ACTUAL
2006/2007 (Baseline)	N/A	N/A
2007/2008	TBD	25
2008/2009	68 sites	36 sites using 9 tools
2009/2010	70 sites	64 sites using 9 tools
2010/2011	85	66 sites using 9 tools
2011/2012	85	78 sites using 10 tools
2012/2013	76	75 sites using 9 tools
UNIT OF MEASURE: Number SOURCE: Project reports INDICATOR DESCRIPTION: Technical products include quality improvement tools, training curricula, supervision tools, program strategies, lessons learned reports, a searchable web site, etc.		

Annex 2. USAID supported sites for fistula treatment and prevention

As of December 31, 2013 sites ever supported with USAID funding through EngenderHealth (ACQUIRE, AWARE and/or Fistula Care) or USAID bilateral projects, by type of facility and country. Dates of support are noted in ().

Country	Supported Sites (FY support began-ended)	Type of Facility (NGO, FBO, public)	Repair and Prevention	Prevention only
Bangladesh	Ad-Din Hospital, Dhaka (FY10-FY13)	NGO	X	
	Ad-Din Hospital, Jessore (FY10-FY13)	NGO	X	
	Kumudini Hospital (FY05-FY13)	NGO	X	
	LAMB Hospital (FY05-FY13)	FBO	X	
	Memorial Christian Hospital (FY05-FY09)	FBO	X	
Benin	Mercy Ships ⁶² - <i>Africa Mercy</i> (FY09)	FBO	X	
DRC	HEAL Africa Hospital, Goma (FY06-FY13)	FBO	X	
	Panzi Hospital, Bukavu (FY07-FY13)	FBO	X	
	Imagerie des Grands Lacs (IGL)– Beni (FY11-FY13)	FBO	X	
	Maternite Sans Risque – Kindu (FY11-FY13)	FBO	X	
	St. Joseph's Hospital, Kinshasa (FY11-FY13)	FBO	X	
	Bianza Marie Mutombo Hospital, Kinshasa (FY11-FY13)	NGO	X	
	Centre Hospitalier de Kisenso , Kinshasa (FY13) ⁶³	FBO	X	
	Sites supported through USAID DRC Bilateral awards⁶⁴			
	Kaziba Reference Hospital (Sud Kivu) (FY12)	FBO	X	
	Katana (Sud- Kivu) (FY13)	FBO	X	
	Uvira (Sud Kivu) (FY12)	Public	X	
	Malemba kulu (Katanga) (FY12)	Public	X	
	Kabongo (Katanga) (FY12)	Public	X	
	Luiza (Kasai-Occidental) (FY12)	Public	X	
	Tshikaji (Kasai-Occidental) (FY12)	FBO	X	
	Katako kombe (Kasai-Oriental) (FY12)	FBO	X	
	Lodja (Kasai-Oriental) (FY12)	Public	X	
	Project AXxes (USAID Bilateral)(FY08-FY10)	Public	X	
Ethiopia⁶⁵	Arba Minch Hospital (USAID Bilateral) (FY10)	FBO	X	
	Bahir Dar Hamlin (USAID Bilateral) (FY06-FY12)	FBO	X	
	Mekelle Hamlin (USAID Bilateral) (FY08-FY12)	FBO	X	
	Yirga Alem Hamlin(USAID Bilateral) (FY08-FY12)	FBO		X
	Adet Health Center (FY07-FY13)	Public		X
	Dangla Health Center (FY07-FY13)	Public		X
	Woreta Health Center (FY07-FY13)	Public		X
	Tefera Hailu Hospital, Sekota (FY11-FY13)	Public		X
Ghana	Mercy Ships – <i>Anastasis</i> (FY07) ⁶⁶	FBO	X	

⁶² In partnership with Mercy Ships, their floating hospital moved between ports approximately once a year. FC supported fistula surgery and training aboard the ship. We count Mercy Ships hospital ships (*Anastasis and Africa Mercy*) as one supported site.

⁶³ This site is affiliated with St. Joseph's.

⁶⁴ Support through USAID/DRC bilateral project PROSANI sites began in January 2012. Site locations by province are in parentheses. Four additional sites were expected to provide fistula repair services, however by December 2013 no repair data had been reported to Fistula Care; we therefore have removed from the list as supported sites: Manika ((Katanga); Dibindi, Mwene Ditu, and Kole in Kasai-Oriental province.

⁶⁵ USAID/Ethiopia support for repair and prevention activities at three Hamlin Fistula Ethiopia facilities (Bahir Dar, Mekelle, and Yirga Alem) ended in September 2012. In FY10 USAID/Ethiopia provided funds to Hamlin Fistula Ethiopia to support repairs at Arba Minch Hospital, a site supported by the Norwegian Church.

⁶⁶ See previous note about partnership with Mercy Ships.

Country	Supported Sites (FY support began-ended)	Type of Facility (NGO, FBO, public)	Repair and Prevention	Prevention only
Guinea	Ignace Deen University Teaching Hospital (FY06-FY13) ⁶⁷	Public		X
	Jean Paul II Hospital, Conakry (FY08-FY13)	Public	X	
	Kissidougou District Hospital (FY06-FY13)	Public	X	
	Labé Regional Hospital (FY09-FY13)	Public	X	
	Boké Regional Hospital (FY10-FY13)	Public		X
	Kindia Regional Hospital (FY10-FY13)	Public		X
	Nzerekore Regional Hospital (FY10-FY13)	Public		X
	Mamou Regional Hospital (FY10-FY13)	Public		X
	Faranah Regional Hospital (FY10-FY13)	Public		X
Liberia	Mercy Ships - Africa Mercy (FY08) ⁶⁸	FBO	X	
Mali ⁶⁹	Kayes Regional Hospital (FY13)	Public	X	
	Sikasso Regional Hospital Regional (FY13)	Public	X	
	Mopti Regional Hospital (FY13; 1 quarter)	Public	X	
	Gao Regional Hospital (FY09-FY12)	Public	X	
	Ansongo District Hospital (FY09-FY12)	Public		X
	Bourem District Hospital (FY09-FY12)	Public		X
	Ménaka District Hospital (FY09-FY12)	Public		X
	Gao District Hospital (FY09-FY12)	Public		X
Niger	Dosso Regional Hospital (FY08-FY13)	Public	X	
	Centre National de Référence pour la Fistule Obstétricale (CNRFO) (FY13) ⁷⁰	Public	X	
	Lamordé Hospital (Niamey) (FY07-FY13)	Public	X	
	Maradi Regional Hospital (FY08-FY13)	Public	X	
	Tassigui Maternity Hospital (Tahoua) (FY11 - FY13)	Public	X	
	Zinder Central Maternity (FY13)	Public	X	
	Issaka Gazoby Maternity Hospital (Niamey) (FY08-FY13)	Public		X
	Téra District Hospital (FY11-FY13)	Public		X
Nigeria	Babbar Ruga General Hospital (Katsina) (FY07)	Public	X	
	National Obstetric Fistula Ctr. Abakaliki ⁷¹ (Ebonyi) (FY09-FY13)	Public	X	
	Faridat Yakubu General Hospital (Zamfara) (FY07-FY13)	Public	X	
	Kebbi Fistula Center (Kebbi) (FY07-FY13)	Public	X	
	Laure Fistula Center at Murtala Mohammed Specialist Hospital (Kano) (FY07-FY13)	Public	X	
	Maryam Abacha Women's and Children's Hospital (Sokoto) (FY07-FY13)	Public	X	
	Ningi Hospital (Bauchi) (FY11-FY13)	Public	X	

⁶⁷ Beginning in FY11 support to Ignace Deen for fistula repair surgery ended due to limited bed space in the hospital. It was supported for prevention activities. Trained surgeons from Ignace Deen are being used for surgical sessions at other sites in Guinea on a periodic basis.

⁶⁸ See previous note about Mercy Ships. Services are now available in Liberia through the JFK Memorial Hospital supported by the Gloag Foundation.

⁶⁹ In FY11/12 support to Gao Hospital and the four district hospitals ended in April 2012 following a coup d'état., FC has provided counseling training to fistula treatment sites in Bamako, Segou, and Mopti in the past to strengthen the quality of services.

⁷⁰ Fistula repair only.

⁷¹ Formerly Ebonyi VVF Center. In May 2011 the center was renamed when it became a designated federal center.

Country	Supported Sites (FY support began-ended)	Type of Facility (NGO, FBO, public)	Repair and Prevention	Prevention only
	Ogoja General Hospital (Cross River) (FY12-FY13)	Public	X	
	Sobi Specialist Hospital (Kwara) (FY12-FY13)	Public	X	
	Ibadan University Teaching Hospital (Oyo) (FY13)	Public	X	
	Prevention only			
	Ogoja MCH Centre (Cross River) (FY12-FY13)	Public		X
	Owutuedda General Hospital (Ebonyi) (FY10-FY13)	Public		X
	Agubia Cottage Hospital, (Ebonyi) (FY10-FY13)	Public		X
	Ebonyi State University Teaching Hospital (FY10-FY13)	Public		X
	Ezangbo Maternity Hospital (Ebonyi) (FY10-FY13)	Public		X
	Azuiyokwu General Hospital, Abakaliki (Ebonyi)(FY10-FY13) ⁷²	Public		X
	Ngbo Primary Health Center (Ebonyi) (FY10-FY13)	Public		X
	Comprehensive Health Center, Kumbotso (Kano)(FY08-FY13)	Public		X
	Takai Community/NYSC Health Center, Takai (Kano)(FY08-FY13)	Public		X
	Tarauni MCH Clinic (Kano)(FY10-FY13)	Public		X
	Ungwa Uku MCH Clinic (Kano) (FY10)	Public		X
	Muhammadu Abdullahi Wase Hospital (Kano)(FY10-FY13)	Public		X
	Byari Jega General Hospital, (Kebbi)(FY10-FY13)	Public		X
	Kamba General Hospital (Kebbi)(FY10-FY13)	Public		X
	Maiyama General Hospital (Kebbi) (FY10-FY13)	Public		X
	Argungum General Hospital (Kebbi) (FY10-FY13)	Public		X
	Dakingari Primary Health Center (Kebbi)(FY10-FY13)	Public		X
	D/D General Hospital (Sokoto) (FY10-11)	Public		X
	Rabah General Hospital (Sokoto) (FY10-11)	Public		X
	Iss General Hospital (Sokoto) (FY10-11)	Public		X
	Jabo Primary Health Center (Sokoto) (FY10-11)	Public		X
	Bakura General Hospital (Zamfara) (FY10-FY13)	Public		X
	Bungudu General Hospital (Zamfara) (FY10-FY13)	Public		X
Pakistan	Jinnah Postgraduate Medical College, Karachi(FY11-13) ⁷³	Public	X	
Rwanda	Central University Hospital, Kigali (CHUK) (FY06-FY13)	Public	X	
	Kanombe Hospital (FY09-FY13)	Public	X	
	Ruhengeri Hospital (FY06-FY13)	Public	X	
	Kibogora Hospital (FY12-FY13)	FBO	X	
Sierra Leone	Aberdeen Women's Centre (FY07-FY13)	NGO	X	
Togo	Mercy Ships Africa Mercy (FY10) ⁷⁴	FBO	X	

⁷² Formerly the Maternal Child Health Initiative FP Center.

⁷³ USAID/Pakistan supported renovation of this hospital which was re-opened in December 2012. USAID/Pakistan will not be supporting services at the site.

⁷⁴ See previous note about Mercy Ships.

Country	Supported Sites (FY support began-ended)	Type of Facility (NGO, FBO, public)	Repair and Prevention	Prevention only
Uganda	Kagando Mission Hospital (FY06-FY13)	FBO	X	
	Kitovu Mission Hospital (FY05-FY13)	FBO	X	
	Hoima Hospital (FY12-FY13)	Public	X	
	Kasese area City Council HC III (FY10-FY13)	Public		X
	Bwera District Hospital (Kasese) (FY10-FY13)	Public		X
	Rwesande HCIV (Kasese) (FY10-FY13)	Public		X
	Karambi HC III (Kasese) (FY10-FY13)	Public		X
	Nyabugando HC III (Kasese) (FY10-FY13)	Public		X
	Masaka Regional Hospital (FY10-FY13)	Public		X
	Kiwangala HCIV (Masaka) (FY10-12)	Public		X
	Kalungu HC III (Masaka) (FY10-FY13)	Public		X
	Kiyumba HC IV (Masaka) (FY10-12)	Public		X
	Total		50 Total 45 FC 15 Bilateral	48 Total 49 FC 1 Bilateral

Annex 3. Number of fistula repair surgeries at USAID supported sites by country, site and year

	FY05- FY07	FY 07 / 08	FY 08 / 09	FY 09 / 010	FY 010 / 011	FY11/ 12	FY 13 Oct 12 - Sep 13					FC	Grand Total
Country	Pre FC	Total	Total	Total	Total	Total	Oct- Dec	Jan- Mar	Apr- June	July- Sep	Total	FY8- 13	FY 05 - FY 13
Africa Mercy													
Benin	NS	0	110	21	20	0	0	0	0	0	0	151	151
Ghana	63	0	0	0	0	0	0	0	0	0	0	0	63
Liberia	NS	59	0	0	0	0	0	0	0	0	0	59	59
Togo	NS	0	0	97	0	0	0	0	0	0	0	97	97
Total	63	59	110	118	20	0	0	0	0	0	0	307	370
Bangladesh													
Ad-Din Dhaka	NS	NS	NS	34	50	53	10	11	10	11	42	179	179
Ad-Din Jessore	NS	NS	NS	2	1	25	3	7	11	27	48	76	76
Kumudini Hospital	53	57	49	37	25	33	12	2	12	22	48	249	302
Lamb Hospital	116	52	81	70	74	73	26	9	37	57	129	479	595
Memorial Christian Hospital (MCH)	63	13	1	NS	0	0	NS	NS	NS	NS	NS	14	77
Total	232	122	131	143	150	184	51	29	70	117	267	997	1,229
DRC													
HEAL Africa Hospital	268	200	214	210	163	288	32	112	120	0	264	1339	1,607
Imagerie Des Grands- Lacs	NS	0	0	0	38	78	22	23	44	0	89	205	205
Maternité Esengo de Kisenso	NS	NS	NS	NS	NS	NS	NS	4	19	4	27	27	27
Maternite Sans Risque Kindu	NS	NS	NS	NS	35	151	34	8	40	0	82	268	268
Mutombo	NS	NS	NS	NS	104	80	18	82	19	0	119	303	303
Panzi Hospital	371	134	268	262	180	500	189	226	51	101	567	1911	2,282

	FY05- FY07	FY 07 / 08	FY 08 / 09	FY 09 / 010	FY 010 / 011	FY11/ 12	FY 13 Oct 12 - Sep 13					FC	Grand Total
Country	Pre FC	Total	Total	Total	Total	Total	Oct- Dec	Jan- Mar	Apr- June	July- Sep	Total	FY8- 13	FY 05 - FY 13
St. Joseph	NS	NS	NS	NS	45	124	39	40	69	60 ⁷⁵	208	377	377
DRC Bilaterals													
Project AXxes	NS	361	442	514	0	0	0	0	0	0	0	1317	1,317
PS Kabongo	NS	NS	NS	NS	NS	50	0	0	0	0	0	50	50
PS Katoko Kombe	NS	NS	NS	NS	NS	87	0	0	0	0	0	87	87
PS HGR Katana	NS	NS	NS	NS	NS	NS	50	0	0	0	50	50	50
PS Kaziba	NS	NS	NS	NS	NS	152	15	60	60	0	135	287	287
PS Lodja	NS	NS	NS	NS	NS	82	0	0	0	0	0	82	82
PS Luiza	NS	NS	NS	NS	NS	28	0	0	0	0	0	28	28
PS Malemba Kulu	NS	NS	NS	NS	NS	60	0	0	0	0	0	60	60
PS Tshikaji	NS	NS	NS	NS	NS	49	0	0	0	0	0	49	49
PS Uvira	NS	NS	NS	NS	NS	13	37	0	0	0	37	50	50
Total	639	695	924	986	565	1742	436	555	422	165	1,578	6,490	7,129
Ethiopia⁷⁶													
Arba Minch Hospital	NS	NS	NS	27	0	0	NS	NS	NS	0	0	27	27
Bahir Dar Fistula Center	564	596	297	383	307	392	NS	NS	NS	0	0	1975	2,539
Mekelle Center	NS	n/a	166	177	195	198	NS	NS	NS	0	0	736	736
Total	564	596	463	587	502	590	0	0	0	0	0	2,738	3,302
Guinea													
Ignace Deen	193	63	49	20	NS	NS	NS	NS	NS	0	0	132	325
Jean Paul II	NS	36	88	126	144	185	35	38	17	0	90	669	669
Kissidougou	298	130	148	132	193	189	50	46	57	20	173	965	1263

⁷⁵ Includes repairs conducted at an outreach event in Oriental Province by staff from St. Joseph's.

⁷⁶ Repairs in Ethiopia performed at Hamlin Fistula Hospitals with direct support from USAID/Ethiopia.

	FY05- FY07	FY 07 / 08	FY 08 / 09	FY 09 / 010	FY 010 / 011	FY11/ 12	FY 13 Oct 12 - Sep 13					FC	Grand Total
Country	Pre FC	Total	Total	Total	Total	Total	Oct- Dec	Jan- Mar	Apr- June	July- Sep	Total	FY8- 13	FY 05 - FY 13
Labe	NS	NS	31	114	122	123	32	27	61	12	132	522	522
Mercy Ships training repairs	NS	NS	NS	NS	NS	NS	NS	25	NS	NS	25	25	25
Total	491	229	316	392	459	497	117	136	135	32	420	2,313	2,804
Mali													
Gao Regional Hospital	NS	NS	46	40	91	53	NS	NS	NS	0	0	230	230
Kayes Hospital	NS	NS	NS	NS	NS	NS	NS	35	35	0	70	70	70
Mopti	NS	NS	NS	NS	NS	NS	20	0	NS	0	20	20	20
Sikasso	NS	NS	NS	NS	NS	NS	35	35	70	0	140	140	140
Total	NS	0	46	40	91	53	55	70	105	0	230	460	460
Niger													
Dosso Regional Hospital	NS	17	15	22	41	21	2	2	0	9	13	129	129
Lamorde Hospital (Niamey)	27	70	84	129	173	110	46	44	2	0	92	658	685
Maradi Regional Hospital	NS	123	59	63	67	45	30	14	3	18	65	422	422
National Obstetric Center, Niamey	NS	NS	NS	NS	NS	NS	NS	NS	31	49	80	80	80
Tahoua	NS	NS	NS	6	52	33	3	17	10	14	44	135	135
Tera District Hospital	NS	3	NS	NS	0	0	0	0	0	0	0	3	3
Zinder	NS	NS	NS	NS	NS	NS	NS	55	4	20	79	79	79
Total	27	213	158	220	333	209	81	132	50	110	373	1,506	1,533
Nigeria													
National Obstetric Fistula Centre Abakaliki	NS	NS	189	330	268	277	85	107	51	73	316	1,380	1,380
Babbar Ruga Hospital (Katsina)	356	536	331	359	330	416	78	124	79	78	359	2,331	2,687
Faridat Yakubu General Hospital (Zamfara)	180	150	187	115	114	116	27	38	31	30	126	808	988

	FY05- FY07	FY 07 / 08	FY 08 / 09	FY 09 / 010	FY 010 / 011	FY11/ 12	FY 13 Oct 12 - Sep 13					FC	Grand Total
Country	Pre FC	Total	Total	Total	Total	Total	Oct- Dec	Jan- Mar	Apr- June	July- Sep	Total	FY8- 13	FY 05 - FY 13
General Hospital Ogoja (Cross River State)	NS	0	0	0	NS	114	0	27	23	0	50	164	164
UTH Ibadan	NS	NS	NS	NS	NS	NS	11	10	9	7	37	37	37
Kebbi Fistula Center (Kebbi)	102	122	151	207	216	215	61	44	28	19	152	1,063	1165
Laure Fistula Center at Murtala Mohammed Specialist Hospital (Kano)	339	473	337	265	379	288	56	91	79	87	313	2,055	2,394
Maryam Abacha Women's and Children's Hospital (Sokoto)	104	156	152	200	137	138	57	38	23	14	132	915	1,019
Ningi General Hospital (Bauchi)	NS	0	0	0	63	78	0	40	34	0	74	215	215
Other	NS	0	0	136	0	43	0	0	0	0	0	179	179
Sobi General Hospital (Kwara State)	NS	0	0	0	0	35	7	14	0	0	21	56	56
Total	1,081	1,437	1,347	1,612	1,507	1,720	382	533	357	308	1,580	9,203	10,284
Rwanda													
CHUK	100	36	51	126	109	4	3	3	3	0	9	335	435
Kanombe Hospital	NS	NS	14	48	38	55	7	5	2	21	35	190	190
Kibogora	NS	NS	NS	NS	NS	21	0	0	0	0	0	21	21
Ruhengeri	192	47	102	85	131	34	1	0	3	0	4	403	595
Total	292	83	167	259	278	114	11	8	8	21	48	949	1,241
Sierra Leone													
Aberdeen	272	363	253	166	211	244	12	61	42	0	115	1,352	1,624
Total	272	363	253	166	211	244	12	61	42	0	115	1,352	1,624
Uganda													

	FY05- FY07	FY 07 / 08	FY 08 / 09	FY 09 / 010	FY 010 / 011	FY11/ 12	FY 13 Oct 12 - Sep 13					FC	Grand Total
Country	Pre FC	Total	Total	Total	Total	Total	Oct- Dec	Jan- Mar	Apr- June	July- Sep	Total	FY8- 13	FY 05 - FY 13
Hoima	NS	NS	NS	NS	NS	184	0	0	102	0	102	286	286
Kagando / Bwera	253	118	85	206	363	143	43	135	59	0	237	1,152	1,405
Kitovu / Masaka	604	192	183	243	248	190	56	105	22	0	183	1,239	1,843
Total	857	310	268	449	611	517	99	240	183	0	522	2,677	3,534
Overall Total	4,518	4,107	4,183	4,972	4,727	5,870	1,244	1,764	1,372	753	5,133	28,992	33,510
EngenderHealth	3,315	2,816	3,278	3,871	4,225	4,759	1,142	1,704	1,312	753	4,911	23,860	27,175
Bilaterals	1,203	1,291	905	1,101	502	1111	102	60	60	0	222	5,132	6,335

Annex 4. Technical materials produced, 2007-2013

Tools, Job Aids, Curriculum; Research and Evaluation Reports; Journal Publications; Technical Briefs; and Project and Meeting Reports

All materials are available at <http://www.fistulacare.org/pages/da/english-pages/english-by-type.html>

TOOLS, JOB AIDS and CURRICULUM

Year	Fistula Care Product	Citation
2007	Digital Stories Facilitator's Guide	Fistula Care. 2007. <i>Obstetric fistula digital stories: Facilitator's Guide</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/1/1.2/Digital-Stories-Facilitators-Guide-English.pdf
2009	Fistula Quarterly Reporting Form	Fistula Care. 2010. <i>Fistula quarterly reporting form</i> . New York: Fistula Care/EngenderHealth.
2010	Family Planning for Women and Couples Following Fistula Care	Fistula Care. 2010. <i>Family planning for women and couples following fistula care</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.3/Family_Planning_booklet.pdf
2010	Client-Centered Reproductive Health Counseling Following Fistula Repair (poster)	Fistula Care. 2010. <i>Client-centered reproductive health counseling following fistula repair</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.3/Counseling_following_Fistula_Repair_Poster_English.pdf
2010	Quick Reference Chart for Contraceptive Methods (poster)	Fistula Care. 2010. <i>Quick reference chart for contraceptive methods</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.3/Quick_Reference_Chart_FP_Method_English.pdf
2010	Informed Consent in Fistula Care	Fistula Care. 2010. <i>Informed consent in fistula care</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/3/3.2/informed_consent_booklet.pdf
2010	Job Aid: Fistula Diagnosis (poster)	Fistula Care and IntraHealth International. 2010. <i>Job aid: Fistula diagnosis poster</i> . New York and Chapel Hill: Fistula Care/EngenderHealth and IntraHealth International http://www.fistulacare.org/pages/da/files/1/1.1/Fistula-Diagnosis-Poster/Diagnosis_Poster_Obstetric_Fistula_English.pdf

Year	Fistula Care Product	Citation
2010	Job Aid: Fistula Diagnosis	Fistula Care and IntraHealth International. 2010. <i>Job aid: Fistula diagnosis</i> . New York and Chapel Hill: Fistula Care/EngenderHealth and IntraHealth International. http://www.fistulacare.org/pages/da/files/1/1.1/Fistula-Diagnosis-Job-Aid/fistula_diagnosis_job_aid.pdf
	Data for Decision Making in Fistula Care: A Supplemental Module for Facilitative Supervision	Fistula Care. 2011. <i>Data for decision making in fistula care: A supplemental module for facilitative supervision</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/3/3.3/Data-for-Decision-Making-English.pdf
2011	Monitoring Tool for Partograph Review	Fistula Care. 2011. <i>Monitoring tool for partograph review</i> . New York: Fistula Care/EngenderHealth.
2012	Counseling the Obstetric Fistula Client: A Training Curriculum	Fistula Care. 2012. <i>Counseling the obstetric fistula client: A training curriculum</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/3/3.1/counseling-curriculum-english.pdf
2012	Counseling the Traumatic Fistula Client: A Supplement to the Obstetric Fistula Counseling Curriculum	Fistula Care. 2012. <i>Counseling the traumatic fistula client: A supplement to the obstetric fistula counseling curriculum</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/3/3.1/TraumaticFistulaCare.pdf
2012	Facility Assessment of Fistula Treatment and Prevention Services: Guidelines for Planning, Conducting and Disseminating Findings	Fistula Care. 2012. <i>Facility assessment of fistula treatment and prevention services: Guidelines for planning, conducting and disseminating findings</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/3/3.1/Site_Assessment_Preparation_and_Report_Guidelines_English.pdf
2012	Facility Assessment of Fistula Treatment and Prevention Services: Site Assessment Tool	Fistula Care. 2012. <i>Facility assessment of fistula treatment and prevention services: Site assessment tool</i> . New York: Fistula Care/EngenderHealth http://www.fistulacare.org/pages/da/files/3/3.1/Facility_Assessment_of_Fistula_Treatment_English.pdf
2012	Fistula Services Facilitative Supervision and Medical Monitoring for Service Delivery	Fistula Care. 2012. <i>Fistula services facilitative supervision and medical monitoring for service delivery</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/3/3.3/Fistula_Facilitative_Supervision_and_Clinical_EN.pdf
2012	Fistula Services Facilitative Supervision and Medical Monitoring for Training Sites and Training Follow-Up	Fistula Care. 2012. <i>Fistula services facilitative supervision and medical monitoring for training sites and training follow-up</i> . New York: Fistula Care/EngenderHealth http://www.fistulacare.org/pages/da/files/3/3.3/Training_Supervision_and_Monitoring_ENGLISH.pdf

Year	Fistula Care Product	Citation
2012	Fistula Treatment Complications: Reporting Guidelines	Fistula Care. 2012. <i>Fistula treatment complications: Reporting guidelines</i> . New York: Fistula Care/EngenderHealth http://www.fistulacare.org/pages/da/files/3/3.1/Fistula_Treatment_Complications_EN.pdf
2012	Medical Waste Management Monitoring Checklist	Fistula Care. 2012. <i>Medical waste management monitoring checklist</i> . New York: Fistula Care/EngenderHealth http://www.fistulacare.org/pages/da/files/3/3.3/MedicalWasteManagementChecklist_English.pdf
2012	Prevention and recognition of obstetric fistula training package: Participant handbook	Fistula Care. 2012. <i>Prevention and recognition of obstetric fistula training package: Participant handbook</i> . Chapel Hill, NC: Fistula Care/IntraHealth International. http://www.fistulacare.org/pages/da/files/3/3.1/prevention_recognition_obfistula-participant handbook.pdf
2012	Prevention and Recognition of Obstetric Fistula Training Package: Facilitator's Manual	Fistula Care. 2012. <i>Prevention and recognition of obstetric fistula training package: Facilitator's manual</i> . Chapel Hill, NC: Fistula Care/IntraHealth International. http://www.fistulacare.org/pages/da/files/3/3.1/prevention_recognition-facilitator-handbook.pdf
2012	Protocol for auditing and reporting mortality related to fistula surgery	Fistula Care. 2012. <i>Protocol for auditing and reporting mortality related to fistula surgery</i> . New York: Fistula Care/EngenderHealth http://www.fistulacare.org/pages/da/files/3/3.1/Protocol_for_auditing_and_reporting_mortality_English.pdf
2012	Fistula Care Training Strategy, Guidelines, and Standards	Fistula Care. 2012. <i>Fistula Care training strategy, guidelines, and standards</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/3/3.1/Fistula-Training-Strategy-Guidelines-Standards-English.pdf
2012	Standard Fistula Facility Equipment and Supplies	Fistula Care. 2012. <i>Standard fistula facility equipment and supplies</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/1/1.2/fistula_surgery_equipment_list.pdf
2012	The Prevention and Management of Obstetric Fistula: A Curriculum for Nurses and Midwives	East, Central, and Southern African Health Community (ECSA-HC) and Fistula Care/EngenderHealth. 2012. <i>The prevention and management of obstetric fistula: A curriculum for nurses and midwives</i> . New York: EngenderHealth/Fistula Care. http://www.fistulacare.org/pages/da/files/3/3.1/Prevention-Management-Nursing-Curriculum-English.pdf

Year	Fistula Care Product	Citation
2013	Guinea Community Training Module	Fistula Care. 2013. <i>Informez et engagez les communautés dans l'amélioration de la santé maternelle: Un guide de formation à l'intention des comités villageois de protection de la mère et de l'enfant</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.1/Guinea-CVPME-Guide-de-formation_FR.pdf
2013	Uganda Community Training Module	Fistula Care. 2013. <i>Promoting maternal health & preventing obstetric fistula: A training curriculum for village health teams</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.2/VHT_training_curriculum.pdf
2013	Niger Community Training Module	Fistula Care. 2013. <i>Informez et engagez les communautés dans l'amélioration de la santé maternelle : Un guide de formation à l'intention des comités villageois pour la promotion de la santé maternelle, Niger</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.2/Niger-Guide-de-formation-Oct2013.pdf
2103	Informed and voluntary decision-making orientation	Fistula Care. 2013. <i>Informed and voluntary decision making in fistula care: An orientation</i> . New York: EngenderHealth

RESEARCH and EVALUATION REPORTS

Year	Research /evaluation study	Citation
2011	Guinea program evaluation	Fistula Care. 2011. <i>Strengthening health systems through the levels of care framework</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/1/1.2/HSS_lit_review_EN.pdf
2011	NA	Levin, K. and Kabagema, J. 2011. <i>Use of the partograph: Effectiveness, training, modifications, and barriers</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.2/partograph_literature_review.pdf
2011	NA	Fistula Care. 2011. <i>Programming Considerations for Integrating Uterine Prolapse and Fistula Services</i> . New York: Fistula Care/EngenderHealth
2012	Multi-Center Retrospective Record Review of Data Collection Procedures and Data Quality of Indications for Cesarean Deliveries	Fistula Care. 2012. <i>Key findings and recommendations: A multi-center retrospective review of data collection procedures and data quality of indications for cesarean deliveries</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.2/Cesarean_Record_Review_Study.pdf
2012	Assessing the Costs of Fistula Treatment Services (Ethiopia and Nigeria)	Fistula Care. 2012. <i>Estimating costs to provide fistula services in Nigeria and Ethiopia: Key findings</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/1/1.1/Estimating_Costs_Fistula_Services.pdf

Year	Research /evaluation study	Citation
2013	Piloting a Community Screening Model for Fistula in Nigeria	Tuncalp, O., Isah, A., Landry, E., Stanton, C.K. 2013. <i>Community-based screening for genito-urinary fistula in Nigeria: A novel approach</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/4/4.2/Nigeria-Community-Screening-Final-Report.pdf
2013	Guinea program evaluation (community)	Fistula Care. 2013. <i>Evaluation of community-level fistula prevention interventions in Guinea</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.1/Guinea-CE-evaluation.pdf
2013	Family Planning Integration evaluation	Caro, D., Farrell, B., Landry, E. and Alalade, E . 2013. <i>Integrating family planning into fistula services: An evaluation and case study</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.3/FP_integration_Evaluation_english.pdf
2013	Guinea program evaluation (facility)	Fistula Care. 2013. <i>Guinea Fistula Care program evaluation</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/1/1.2/Guinea-Fistula-Care-Program-Evaluation-Report.pdf
2013	Evaluation of Uganda community interventions	Fistula Care. 2013. <i>Evaluation of community-level fistula prevention interventions in Uganda</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.2/Evaluation-of-Community-Interventions-in-Uganda-Final-Report-2013.pdf
2013	Evaluation of Niger community interventions	Fistula Care. 2013. <i>Review of community-level fistula prevention interventions in Niger</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.2/Niger-Committee-Evaluation-Report-Nov2013.pdf

JOURNAL PUBLICATIONS

Year	Research study	Journal Citation
2007	N/A	Ruminjo J. 2007. Obstetric fistula and the challenge to maternal health care systems. <i>IPPF Medical Bulletin</i> 41(4):3-4. http://issuu.com/ippfresources/docs/medical_bulletin_december07
2008	N/A	Longombe A.O., Claude, K.M., & Ruminjo J., et al. 2008. Fistula and traumatic genital injury from sexual violence in a conflict setting in eastern Congo: Case studies. <i>Reproductive Health Matters</i> . 16(31):132-41. http://www.rhm-elsevier.com/article/S0968-8080(08)31350-0/abstract

Year	Research study	Journal Citation
2010	Current Practices in Treatment of Female Genital Fistula: A Cross-Sectional Study	Arrowsmith S., Ruminjo, J., & Landry, E. 2010. Current practices in treatment of female genital fistula: A cross sectional study. <i>BMC Pregnancy & Childbirth</i> 10(73). http://www.biomedcentral.com/1471-2393/10/73
2012	Randomized Controlled Trial on Short-Term Catheterization	Barone M., et al. 2012. Non-inferiority of short-term urethral catheterization following fistula repair surgery: Study protocol for a randomized controlled trial. <i>BMC Women's Health</i> 12(5).
2012	Determinants of Post-Operative Outcomes in Fistula Repair Surgery	Barone M., Frajzyngier V., Ruminjo J., et al. 2012. Determinants of postoperative outcomes of female genital fistula repair surgery. <i>Obstetrics and Gynecology</i> . 120(3):524-31. http://www.ncbi.nlm.nih.gov/pubmed/22914460
2012	Determinants of Post-Operative Outcomes in Fistula Repair Surgery	Frajzyngier V., Ruminjo J., & Barone M. 2012. Factors influencing urinary fistula repair outcomes in developing countries: A systematic review. <i>American Journal of Obstetrics and Gynecology</i> , 207(4):248-58. http://www.ncbi.nlm.nih.gov/pubmed/22475385
2012	Determinants of Post-Operative Outcomes in Fistula Repair Surgery	Frajzyngier V., Ruminjo J., Barone M., et al. 2012. Factors influencing choice of surgical route of repair of genitourinary fistula, and the influence of route of repair on surgical outcomes: Findings from a prospective cohort study. <i>BJOG</i> 119(11):1344-53. http://www.ncbi.nlm.nih.gov/pubmed/22900837
2013	Determinants of Post-Operative Outcomes in Fistula Repair Surgery	Frajzyngier V., Ruminjo J., & Barone M. 2013. Development and comparison of prognostic scoring systems for surgical closure of genitourinary fistula. <i>AJOG</i> 208(2):112.e1-11. http://www.ncbi.nlm.nih.gov/pubmed/?term=development and comparison of prognostic scoring systems for surgical closure of genitourinary fistula
2013	NA	Ngongo C., Christie, K., Holden, J., Ford, C., and Pett, C. 2013. Striving for excellence: nurturing midwives' skills in Freetown, Sierra Leone. <i>Midwifery</i> 29(10):1230-34 http://www.sciencedirect.com/science/article/pii/S0266613813000508
2013	NA	Arrowsmith, S., Barone, M., & Ruminjo, J. 2013. Outcomes in obstetric fistula care: A literature review. <i>Current Opinions in Obstetrics and Gynecology</i> . 25(5):399-403.
2013	Determinants of Post-Operative Outcomes in Fistula Repair Surgery	Landry, E., et al. 2013. Profiles and experiences of women undergoing genital fistula repair: findings from five countries. <i>Global Public Health</i> . 8(8):926-42. http://www.tandfonline.com/doi/abs/10.1080/17441692.2013.824018

TECHNICAL BRIEFS

Year	Country	Citation
2009	Ethiopia	Fistula Care. 2009. Fistula pre-repair center model in the Amhara region of Ethiopia. New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/1/1.1/ethiopia_brief_fistula_pre_repair.pdf
2010	Nigeria	Fistula Care. 2010. A collaborative network to improve access to fistula treatment in Nigeria. New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/1/1.1/nigeria_brief_collaborative_effort.pdf
2010	Guinea	Fistula Care. 2010. Beyond repair: Involving communities in fistula prevention and reintegration--Experience from Kissidougou, Guinea. New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/1/1.1/guinea_brief_beyond_repair.pdf
2011	Kenya and Tanzania	Fistula Care. 2011. Making mobile phones work for women with fistula: The M-PESA experience in Kenya and Tanzania. New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/1/1.1/mobile_phone_brief.pdf
2012	Sierra Leone	Fistula Care. 2012. Integrating fistula treatment and prevention: The launch of a maternity unit in Sierra Leone. New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.2/Integrating-Fistula-Treatment-sierra_Leone_tech_brief.pdf
2012	Bangladesh	Fistula Care. 2012. Increasing access to maternity services in rural Bangladesh: Sustainable facility-community links. New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.1/bangladesh_community_links.pdf
2012	Bangladesh	Fistula Care. 2012. Low-cost ambulance network to improve access to maternity services in Dhaka, Bangladesh. New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.1/bangladesh_ambulance_brief.pdf
2012	Nigeria	Fistula Care. 2012. Community-based Screening for obstetric fistula in Ebonyi State, Nigeria. New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/1/1.1/ebonyi_community_screening.pdf
2012	Bangladesh and Democratic Republic of Congo	Fistula Care. 2012. Living with obstetric fistula: Qualitative research findings from Bangladesh and the Democratic Republic of the Congo. New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/1/1.2/living-with-obstetric-qualitative-brief-english.pdf
2013	Uganda	Fistula Care. 2013. Creating an enabling environment for fistula prevention and treatment in Uganda. New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/7/7.4/Uganda_TWG_TB_ENGLISH.pdf

Year	Country	Citation
2013	Uganda	Fistula Care. 2013. Improving partograph use in Uganda through coaching and mentoring. New York: Fistula Care/EngenderHealth http://www.fistulacare.org/pages/da/files/2/2.3/Uganda_Partograph_technical_brief.pdf

PROJECT and MEETING REPORTS

Year	Report	Citation
2009	Levels of Care Framework	Fistula Care. 2009. <i>Levels for facilities-based services for fistula care</i> . New York: Fistula Care/EngenderHealth. D:/files/1/1.1/Levels_of_care_and_prevention.pdf
2012	Women Deemed Incurable Meeting Report	Fistula Care. 2012. <i>Meeting the needs of women with fistula deemed incurable: Creating a culture of possibility</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/1/1.2/EngenderHealth-WDI-Boston-meeting-report.pdf
2012	Partograph Meeting Report	Fistula Care. 2012. <i>Revitalizing the partograph: Does the evidence support a global call to action?</i> New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/2/2.2/Fistula-Care-Partograph-Meeting-Report.pdf
2013	Catheterization Meeting Report	Fistula Care. 2013. <i>Urinary catheterization for primary and secondary prevention of obstetric fistula: A consultative meeting to review and standardize current guidelines and practice</i> . New York: Fistula Care/EngenderHealth. http://www.fistulacare.org/pages/da/files/1/1.2/Catheterization-Fistula-Prevention-Meeting-Report-Nigeria.pdf
2013	Towards a Fistula-Free Generation Meeting Report	Fistula Care 2013. <i>Towards a Fistula-Free Generation: Report of an International Meeting</i> . New York: Fistula Care/EngenderHealth.

Annex 5. Levels for facilities-based services for Fistula Care

Establishing fistula repair services is complex. Fistula repair is major surgery requiring a high level of surgical skill, even for uncomplicated repairs. Training surgical teams is a necessary, but not sufficient condition, for establishing access to fistula treatment services. Full decentralization of fistula repair services to all sites capable of surgical services is not practical in terms of safe and sustained provision of services, nor is it cost effective or feasible with the resources currently available. It is important, therefore, to partner with local government and site administrations as well as communities to ensure they are fully committed to establishing the environment in which services can effectively be provided continuously. At the same time, it is important to ensure that the service system is capable of responding to identified needs before creating further awareness of service availability.

Fistula surgery usually requires a minimum of three weeks post-operative care in the hospital, in addition to pre-screening and treatment for adjunct conditions, so the capacity to increase the number of surgeries at individual sites is limited by the availability and skill levels of the physicians, the number of operating theaters available for elective procedures (because fistula surgery is almost never an emergency), and the number of beds available to support long-term stays. Many facilities experience supply chain ruptures for items as basic as sutures. Ensuring access for women to quality fistula services is further complicated by the fact that many women are too poor to pay and there are not enough trained providers to handle cases. It is therefore necessary to increase access to quality services in a phased manner.

Fistula Care has developed a framework for a network of sites to facilitate prevention, diagnosis, limited treatment and referral, treatment of simple cases, treatment of complex cases and the establishment of a site or sites capable of providing training. In the coming year, Fistula Care will establish a proof of concept for this framework in three or four countries. At the end of the year, we will assess how this framework is contributing to increased access, with a view to developing a programming guide for fistula management. The following is a description of the three levels of facility-based care that we envisage:

Level 1: Diagnosis, limited treatment and referral

Sites at this level would likely be staffed by surgeons and surgical teams who are at the very beginning of their training in fistula surgery, although it would not be essential for a surgeon to be in training for this level. Over time, as the expertise of surgeons in fistula repair increases, the site would be expected to advance to level 2 and ultimately to level 3. At level 1, the site would be expected to:

- Carry out awareness creation activities for fistula prevention and/or link with community-based organizations to support awareness creation. This may include messages to increase girl's education to the completion of secondary school, delaying early childbearing, FP for delaying, spacing or limiting of pregnancies, men's roles in facilitating women's access to safe delivery, and skilled care for delivery.
- Where services permit, carry out the following additional fistula prevention activities:
 - Provide family planning counseling and methods provision during routine ante-natal care and at discharge or at post-operative follow-up visits for fistula clients
 - ANC – to include health education for timely arrival at delivery facility and for signs of obstructed labor, outreach to families/partners for birth planning, including a transport plan
 - Labor and delivery – to include active and continuous use of the partograph for safe labor and delivery; referral for emergency services not provided at the site; and where provided, management of obstructed labor (including prophylactic catheterization); and safe operative delivery (forceps, vacuum, c/section.)
- Carry out selected rehabilitation/reintegration activities such as fistula counseling and physical therapies

- Have staff with the skills to assess women with a complaint of incontinence; diagnose and classify fistula for appropriate management and referral; and refer to sites capable of providing simple or complex surgeries
- Provide adjunct therapies such as nutrition, physical therapy for foot drop, general hygiene, treatment for dermatitis from urinary leaking, urinary tract infections or anemia, assessment and support for emotional disturbances, e.g. depression
- Offer conservative treatment for selected clients (catheterization for women with urinary leakage post-delivery)
- Provide pre-operative care such as fistula counseling, obtaining informed consent for procedure/surgery, laboratory studies and bowel preparation.
- Routine nursing care would be available twenty-four hours, seven days a week for all in-patient services.

Level 2: Repair of simple fistula cases

Facilities at this level would have staff and surgical teams capable of:

- Providing all of the level 1 activities
- Repairing simple fistula cases, with a surgical team skilled in pre, intra- and post-operative functions to support surgery
- Providing long-term post-operative care, in general approximately of three weeks, including the provision of meals
- Routinely and consistently scheduling simple fistula repairs in the theater and/or during regularly scheduled campaigns.
- Diagnosing, classifying and referring or deferring fistula cases that cannot be repaired at that site

Level 3: Repair of complex fistula cases

Facilities at this would be able to:

- Carry out all the level 1 and 2 functions
- Repair simple and complex fistula cases
- Offer practical experiences in support of training for surgeons and nurses (client volume, trainer on site, etc.)
- Offer individuals who could serve as preceptors or coaches on-site to expand support for surgeons and nurses training.

Annex 6. Number of deliveries and percent cesarean, by site, country and year

Country, site	FY 09/10		FY 10/11		FY 11/12		FY12/13	
	Number Deliveries	Cesareans as % of all Deliveries	Number Deliveries	Cesareans as % of all Deliveries	Number Deliveries	Cesareans as % of all Deliveries	Number Deliveries	Cesareans as % of all Deliveries
Bangladesh								
Ad-Din Dhaka	8,580	68%	9,381	64%	9,158	65%	12,466	67%
Ad-Din Jessore	3,189	61%	3,370	53%	3,704	59%	4,281	71%
Kumudini	1,779	44%	2,240	41%	2,327	52%	3,458	47%
LAMB	3,457	24%	3,614	21%	3,817	18%	4,267	19%
DR Congo								
Imagerie Des Grands-Lacs	NS	NS	94	13%	344	8%	79	49%
HEAL Africa Hospital	1,700	8%	1,262	13%	1,440	13%	1,357	12%
Kisenso	NS	NS	NS	NS	NS	NS	1,266	7%
Maternite Sans Risque Kindu	NS	NS	458	8%	1,348	10%	1,090	10%
Mutombo	NS	NS	151	23%	338	33%	218	24%
Panzi Hospital	1,822	24%	2,769	23%	3,821	24%	3,508	28%
St. Joseph	NS	NS	844	42%	3,485	40%	3,088	38%
Ethiopia⁷⁷								
Adet Health Center	244	0	325	0	440	0%	782	0%
Dangla EmOC Center	303	0	569	15%	836	0%	879	0%
Sekota Hospital	NS	NS	392	0	551	0%	650	0%
Woreta Health Center	332	0	421	0	581	0%	701	0%
Guinea								
Boke	1,448	25%	1,418	19%	669	18%	1,482	13%
Farannah	600	26%	832	19%	962	16%	840	17%
Ignace Deen	3,570	35%	3,598	29%	3,423	28%	2,900	30%
Jean Paul II	494	13%	769	10%	899	12%	645	11%
Kindia	1,175	28%	1,834	23%	2,788	23%	1,909	24%
Kissidougou	800	51%	1,325	31%	1,361	28%	1,065	38%
Labe	885	32%	1,143	30%	1,517	26%	1,278	29%
Mamou	1,268	33%	1,672	24%	2,224	26%	1,680	25%
NZerekore	996	42%	1,367	41%	669	18%	524 ⁷⁸	27%

⁷⁷Data on deliveries performed at centers where the pre repair units are located. Dangla Health Center opened an emergency obstetric unit which in September 2010. Two cesareans were performed in September 2010.

	FY 09/10		FY 10/11		FY 11/12		FY12/13	
Country, site	Number Deliveries	Cesareans as % of all Deliveries	Number Deliveries	Cesareans as % of all Deliveries	Number Deliveries	Cesareans as % of all Deliveries	Number Deliveries	Cesareans as % of all Deliveries
Mali								
Gao	1,177	22%	1,277	18%	336	17%	NS	NS
Mopti	NS	NS	NS	NS	NS	NS	260 ⁷⁹	52%
Kayes	NS	NS	NS	NS	NS	NS	1,532	18%
Sikasso	NS	NS	NS	NS	NS	NS	1,175	48%
Niger								
Dosso	1,967	16%	2,064	22%	1,188	24%	1,978	29%
Issaka Gazobi	4,397	66%	5,290	57%	6,192	60%	5,375	44%
Maradi	2,074	46%	1,756	60%	2,281	55%	2,416	42%
Tahoua	NS	NS	4,106	5%	5,280	7%	3,477	9%
Tera District Hospital	NS	NS	836	11%	1,057	11%	839	11%
Zinder	NS	NS	NS	NS	NS	NS	2,219	13%
Nigeria								
Argungu GH (Kebbi)	1,334	18%	NA	NA	467	1%	1,168	3%
Faridat Yakubu GHI (Zamfara)	745	22%	1,219	9%	680	8%	585	6%
Jega GH (Sokoto)	286	8%	NA	NA	NA	NA	NA	NA
General Hospital Dogon Daji (Sokoto)	36	11%	NA	NA	NA	NA	NA	NA
Kamba General Hospital (Kebbi)	212	7%	191	7%	NA	NA	491	4%
Maiyama General Hospital (Kebbi)	277	6%	116	3%	281	6%	473	2%
Maryam Abacha Women's and Children's Hospital (Sokoto)	967	3%	979	4%	882	4%	1,911	4%
GH Ogoja (Cross River)	NS	NS	NS	NS	NS	NS	592	8%
Sobi Hospital (Kwara)	NS	NS	NS	NS	443	13%	572	8%
Rwanda								
CHUK	1,974	49%	2,078	52%	2,190	51%	1,502	49%
Kanombe	3,158	32%	3,383	35%	854	50%	194	48%

⁷⁸ Data only available for the first quarter.

⁷⁹ Data only available for the first quarter.

	FY 09/10		FY 10/11		FY 11/12		FY12/13	
Country, site	Number Deliveries	Cesareans as % of all Deliveries	Number Deliveries	Cesareans as % of all Deliveries	Number Deliveries	Cesareans as % of all Deliveries	Number Deliveries	Cesareans as % of all Deliveries
Ruhengeri	4,713	24%	5,468	24%	5,558	29%	3,378	45%
Sierra Leone								
Aberdeen	217	16%	1,078	18%	1,118	17%	775	21%
Uganda								
Bwera Hospital (Kasese	NS	NS	810	13%	2,171	18%	2,751	25%
Hoima	NS	NS	NS	NS	2,497	25%	3,634	27%
Kagando (Bwera)	3,455	36%	3,348	28%	1,913	32%	1,358	43%
Kitovu (Masaka)	2,315	39%	1,986	38%	1,996	40%	1,069	42%
Kiwangala HC IV(Masaka)	NS	NS	57	0%	87	11%	NS	NS
Kiyumba HC IV - Masaka	NS	NS	59	0%	NS	NS	NS	NS
Masaka Regional Referral Hospital	NS	NS	3,473	20%	3,503	26%	6,370	22%
Rwesande HC IV – Kasese	NS	NS	159	8%	NS	NS	63	33%
Total all sites	61,991	38%	79,581	33%	88,638	33%	107,883	32%

NS=not supported . NA=not available

Annex 7. FP services provided by country, site, year

Number of Persons Counseled for Family Planning and Accepting a Method, by Country and Year, Fistula Care Supported Sites

	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
Bangladesh							
Number of Supported Sites Reporting	3	3	4	4	4	4	4
Number Counseled for FP	5635	3,234	16,970	27,757	29,526	30,689	113,811
Number of FP acceptors	3722	2,959	16,970	18,893	23,824	26,094	92,462
DRC⁸⁰							
Number of Supported Sites Reporting	NA	1	2	4	6	7	7
Number Counseled for FP	NA	1	2,954	9,667	11,543	13,809	37,978
Number of FP acceptors	NA	59	1,633	1,594	6,325	7,582	17,197
Ethiopia⁸¹							
Number of Supported Sites Reporting	NA	3	3	4	4	4	4
Number Counseled for FP	NA	101	156	172	170	124	723
Number of FP acceptors	NA	NA	NA	NA	NA	NA	NA
Guinea							
Number of Supported Sites Reporting	2	7 ⁸²	9	9	9	9	9
Number Counseled for FP	147	1,175	3,458	4,357	3,924	2,956	16,017
Number of FP acceptors	214	912	1,967	2,449	3,109	2,097	10,748
Liberia/Mercy Ships							
Number of Supported Sites Reporting	NS	1	NS	NS	NS	NS	1
Number Counseled for FP	NS	7	NS	NS	NS	NS	7
Number of FP acceptors	NS	103	NS	NS	NS	NS	103
Mali							
Number of Supported Sites Reporting	NS	1	1	1	1	3	4
Number Counseled for FP	NS	119	220	197	58	472	1,066
Number of FP acceptors	NS	119	20	134	51	472	950
Niger							
Number of Supported Sites Reporting	4	4	4	6	5	6	6
Number Counseled for FP	2,998	3,115	3,083	5,774	5,400	5,229	25,599
Number of FP acceptors	1,952	3,546	3,080	4,986	6,768	5,681	25,599
Nigeria⁸³							
Number of Supported Sites Reporting	5	9	28	28 ⁸⁴	26	26	28
Number counseled for FP	8,165	11,959	13,269	10,646	18,231	23,102	85,372
Number FP acceptors	NA	NA	10,249	7,752	15,390	20,299	53,690
Rwanda							
Number of Supported Sites Reporting	2	2	3	3	3	3	3
Number counseled for FP ⁸⁵	NA	2	NA	1,173	NA	449	NA
Number FP acceptor	131	180	1,183	1,173	3,075	384	6,126
Sierra Leone⁸⁶							

⁸⁰ In FY 09/10 in DRC one site did not report on numbers counseled.

⁸¹ Pre Repair centers in Ethiopia do not provide FP. They counsel and refer fistula patients for FP to the nearby health center. In FY 07/08 no data reported; FY 08/09 data were reported for three quarters. Hamlin Fistula Hospitals do not report on FP services.

⁸² In FY 08/09 one site in Guinea did not report on counseling.

⁸³ Nigeria did not report on number of acceptors of methods in FY 07/08 and FY 08/09.

⁸⁴ In FY10/11 21 of the supported sites were dropped in March 2011 and did not report any services for the last two quarters. Support to most of these sites was reinstated in FY11/12.

⁸⁵ In Rwanda the site record keeping systems are not set up to report on number counseled.

⁸⁶ Between September 2008 and January 2010 Marie Stopes provided these services at the center. The center now has trained staff and supplies to provide FP services.

	FY07/ 08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
Number of Supported Sites Reporting	1	1	1	1	1	1	1
Number Counseled for FP	25	130	51	406	712	693	2,017
Number of FP acceptors	6	47	27	404	668	567	1,719
Uganda							
Number of Supported Sites Reporting	2	2	9	11	12	9	12
Number Counseled for FP	379	805	1,017	7,817	NA	NA	NA
Number of FP acceptors	89	267	4,209	7,791	10,840	15,308	37,784
Total All Countries							
Number sites reporting FP services	19	34	64	71	71	73	75
Number Counseled for FP	17,349	20,648	42,361	67,982	79,695	94,377	322,412
Number of FP acceptors	6,114	8,193	38,818	45,154	70,041	78,360	246,680

NA: not available; NS: not supported.

Annex 8. Family integration evaluation: lessons learned and recommendations⁸⁷

Lessons Learned and Effective Practices for Integration

- 1. Postoperative messages that integrate FP into the recovery process were a strong motivation for fistula clients' strong interest in and uptake of FP:** Contrary to conventional assumptions, fistula clients are very interested in FP and greatly appreciate the quality of the counseling and services they receive at the FC-supported fistula repair centers. Monitoring data show the increased number of women counseled and uptake of methods over the course of the project, confirming clients' statements about the value they put on having ready access to FP at the centers. The Nigeria case study indicates that postoperative messages are practical, easy to understand, and coherent for both providers and clients. By incorporating FP into the pre- and postoperative messages, FP becomes an integral part of the healing process and planning for life after fistula surgery. The study's focus on women, without significant access to their partners or other family members, means that it is not possible to draw conclusions about partner and family support for the women's decision to use FP.

Nevertheless the women interviewed in Nigeria, and the 60% uptake of FP documented in the Determinants of Post-operative Outcomes Study, strongly indicate that women are making the decision to select a method before leaving FC-supported facilities or upon their return for their three to six-month checkup. Alternatively, women in Nigeria served by the Sokoto and Zamfara facilities sought refuge among their birth families to avoid having sexual relations with husbands for six months. In Sokoto, there was also community support for the use of FP, attendance at antenatal care, and delivery in hospitals.

- 2. FP counseling is empowering for fistula clients:** By providing fistula clients with choices that are theirs alone to make, FP counseling becomes a process by which women feel respected and empowered. FP counseling provides a different dimension to their care than either the surgery or rehabilitation. While recovery processes include support and care, they do not always support women's agency. FP counseling gives women a sense of freedom and the power to make their own decisions. While the FP integration process did not have an explicit objective to transform gender norms, the approach is rights based. That women appear to internalize their right to make a choice about FP methods means that they have a choice about their reproductive decisions. The women's statements in the FGDs conducted in Nigeria revealed this perspective. Anecdotes related by nurses in group and individual interviews about women who they had encountered serendipitously leaving the hospital also provided information on women's decisions to delay or limit subsequent pregnancies as being empowering. In Uganda, FC supported counseling on reproductive and sexual health with men, which appeared to address men's initial resistance, often a result of their lack of access to information.
- 3. The five-step FP integration approach provided a clear process for identifying the different changes that were necessary to make in the organization of integrated services:** The five-step approach provided the fistula centers with a clear path to

⁸⁷ Caro, D., Farrell, B., Landry, E. and Alalade, E. 2013. *Family planning-integrated fistula care: An evaluation and case study*. New York: Fistula Care/EngenderHealth.

integration, taking the mystery out of how to link the two types of services. It also provided a means for fistula providers and FP providers to work together. The concept of integration as mutual engagement and interaction rather than adding another service is integral to the fistula centers' ability to increase their responsiveness to meet the demand for FP by fistula clients. As a result of staff turnover or reassignment to other parts of the hospital, most of the nursing staff in the fistula centers visited in Nigeria did not recall the process followed to integrate FP and fistula services. Nevertheless, they had an appreciation for the way the process had brought them together under a common set of mutually reinforcing objectives, record keeping systems, and messages in support of their shared clients, though unclear if the approach and framework were used over the long term for further diagnosis or problem solving. In countries where integration was strongest, according to key informants in Nigeria and Mali, women were more likely to receive FP information and counseling both pre- and postoperatively. Nurses on the fistula wards and those in the FP clinics tended to communicate more continuously about clients than is apparent in countries that received less technical support for integration from FC project staff.

4. **Successful integration depends on three interrelated processes:** These processes include necessary changes in: (i) infrastructure, reorganization of work, and training in FP; (ii) policy changes supportive of FP integration; and (iii) monitoring service statistics to provide feedback to facility staff. The Nigeria case study provides strong evidence that supportive policies are critical to FP integration, both at the federal and state levels. The policy changes, along with modifications in service delivery (e.g., record keeping, referral, logistics management, and supervision) were necessary to achieve integration and for integration to be functional. The fact that the policies in Nigeria made a link between access to FP and fistula prevention and that FP was endorsed as part of the recovery protocol, strengthened the process of integration at the facility level. In addition, strong monitoring systems reinforce accountability for integrating FP into fistula care. This can be further strengthened by disaggregating data reported on fistula and other clients. Similar changes occurred in other countries as well.
5. **Skills development and building confidence in new practices take time:** In many settings, staff do not have access to continuing education and skills development beyond their basic or preservice training. Practices and knowledge are often dated and as a result, trainees may need more time to demonstrate the safe practice of new skills. In the DRC, more time and basic FP training with skills building and practice were needed in order for personnel to develop competence and confidence. The competence and confidence needed to take place before the integration of FP into fistula repair services could take place.
6. **Integrated services need a functional logistics management system:** In resource-constrained settings, the FP commodity distribution system faces challenges in satisfying FP service-delivery needs. Integrating FP with other services, such as fistula care, creates an additional demand on a system that is already compromised. In each country, the FP commodity logistics system faced difficulties, such as the use of incorrect procedures for ordering commodities, and the inability of getting commodities from central stores to service-delivery points, resulting in stock-outs. In DRC, extremely poor road infrastructure made FP commodity distribution very problematic. The cost of moving commodities by air from Kinshasa to service delivery sites is approximately \$800USD,

making this option highly impractical and unsustainable. However, while several FC-supported sites faced difficulties in obtaining FP commodities, there are examples of donor organizations working with the MOH and district level staff to address root causes. As a result, dramatic improvements were seen in many countries, e.g., Guinea, Mali, Nigeria, and Uganda. Despite the DRC's challenges, USAID stepped in to provide FP commodities.

Recommendations

1. *All FC programs should continue to build strong supervision systems to ensure service quality. In addition, supervision tools should be updated periodically to ensure that the FP component is consistent with the WHO's recommended practices.*

The absence or limited functionality of a formal supervision system compromises the quality of integrated FP-fistula care services. FC staff should continue to work with service sites to strengthen the structure, supervision practices, and performance of supervisors through interventions, such as facilitative supervision training and support following training.

2. *Senior-level FC staff should consider: engaging the human resource health leadership to explore the feasibility of delaying reassignment of staff trained by FC for a period sufficient to establish solid integrated FP-fistula repair services; training replacement staff before FC-trained staff are redeployed; and fostering consistency of service integration through the preservation of institutional memory about the integration approach.*

Several of the supported sites have lost FC-trained personnel to reassignment or professional advancement opportunities resulting in a repeated need to train replacement staff and the loss of institutional memory about the integration approach. Although meant to address human resource distribution needs, staff reassignments pose an impediment to maintaining optimal service-delivery quality and drain already limited resources.

3. *Fistula repair sites need to strengthen provider skills to offer and supervise FP services. Specifically:*
 - *All staff, especially surgeons, should receive training in the following areas: FP update; the principles of informed and voluntary decision making, including attitudinal exercises to enhance the effectiveness of FP counseling and provision of methods; and preparing surgeons to promote and discuss FP with husbands/partners prior to discharge, if not earlier. Additional counseling content (e.g., GBV, STI) should be incorporated into training curricula based on client-responsive service-delivery needs. Where appropriate, bi-directional FP and fistula information sharing and/or training should be made possible.*
 - *For FC-supported sites with satisfied IUD users, provider experiences and client satisfaction data should be used to show the appropriateness of this method in the absence of evidence-based precautions.*
 - *FC technical staff should continue to coach supervisors and central level staff to support post-training knowledge and skills..*
 - *To satisfy the need for data on the use of FP and reproductive health outcomes following fistula repair, programmers and donors should explore options for how best to secure longitudinal data on FP use and RH outcomes.*

The newness of FP integration as an integral element of fistula repair services has not yet allowed the health system to incorporate integrated tasks into the job descriptions of each cadre of personnel (Nigeria). Institutionalizing integrated service tasks will standardize practice, support the supervision system to ensure quality practice, and help shift staff's attitudes to embrace a woman's right to actively manage her reproductive intentions.

Some staff providing fistula repair services do not have an obstetrics and gynecology background, consequently they may not be familiar with FP and its current recommended practices. In Nigeria, one of the fistula surgeons disputed the need for women to delay becoming pregnant for one year following repair surgery due to the absence of evidence. Other staff believe that inserting an IUD will re-open the fistula and/or believe that the IUD is inappropriate for women following fistula repair. Staff at fistula repair sites expressed a desire and a need to have more training on contraceptive technology and FP staff felt the need to learn more about fistula. Training needs identified during patient-provider observations included: basic counseling skills; addressing ways to explore the client's situation, e.g., network of support (friends/family); gender-based violence; STIs; sexual relationships; and socioeconomic circumstances (Nigeria).

4. *All Fistula Care programs should include interventions to help men access reproductive health information. Options are to include men in FP counseling, if the woman desires it, and engage men/men's groups as advocates for preventing fistula at the community and household levels.*

Men play a key role in decision making and a woman's ability to take action. While most women interviewed in Nigeria stated that their partners support their decision about FP, nurses said that partners are often a major obstacle to a woman's decision to use FP. In Uganda, the fistula repair facility involves men in FP counseling before and after the surgery, and also created sessions for men to discuss reproductive health.

5. *The FC team should continue to promote the practice of using data for decision making by facility staff through the implementation of the Data for Decision Making module. Consistent use of this module will strengthen the use of service statistics to monitor the quality of FP services and integration.*

In several of the FC-supported countries, some FP statistics (e.g., numbers counseled for FP) are not consistently recorded nor are data disaggregated between fistula and non-fistula clients. As a result, it is difficult to accurately determine the performance of services sites, and the data collected has limited value in making decisions to improve services.

6. *Referral systems should be assessed more fully to determine the appropriateness of their replication in other FC program countries.*

Bangladesh and Uganda have each developed a mechanism to facilitate referral with feedback. Bangladesh uses a client number system and Uganda uses a client card that the woman keeps (adopted by Uganda's MOH). The client card has pertinent client and fistula repair information that helps to ensure continuity of care.

7. *A focus on ensuring consistency of prevention messages and discharge instructions/information should be accommodated in program implementation and training.*

Among the FC-supported programs, variance in the prevention messages and discharge information/instructions was observed. Inconsistencies were noted in: (i) duration of abstinence post-repair, (ii) duration of the wait to conceive, and (iii) provision/non-provision of FP methods at discharge.

8. *FC country programs should consider conducting COPE® for commodity security in each setting to systematically address the root causes and generate sustainable solutions.*

FP commodity logistic challenges exist in all FC-supported countries. For several of the countries, FC has been able to leverage support from donors and sister project partners to make methods available.

Annex 9. Summary of research and evaluation studies, 2007-2013

Study reports completed in 2013

1. Non-Inferiority of Short-Term Urethral Catheterization Following Fistula Repair Surgery: Study Protocol for a Randomized Controlled Trial

The study protocol was published in 2012 [*BMC Women's Health*](#). The final outcomes manuscript is under development and expected to be published in early 2014.

A vaginal fistula is a devastating condition, affecting an estimated 2 million girls and women across Africa and Asia. There are numerous challenges associated with providing fistula repair services in developing countries, including limited availability of operating rooms, equipment, surgeons with specialized skills, and funding from local or international donors to support surgeries and subsequent post-operative care. Finding ways of providing services in a more efficient and cost-effective manner, without compromising surgical outcomes and the overall health of the patient, is paramount. Shortening the duration of urethral catheterization following fistula repair surgery would increase treatment capacity, lower costs of services, and potentially lower risk of healthcare associated infections among fistula patients. There is a lack of empirical evidence supporting any particular length of time for urethral catheterization following fistula repair surgery. This study will examine whether short-term (7 day) urethral catheterization is not worse by more than a minimal relevant difference to longer-term (14 day) urethral catheterization in terms of incidence of fistula repair breakdown among women with simple fistula presenting at study sites for fistula repair service.

This study was a facility-based, multicenter, non-inferiority randomized controlled trial (RCT) comparing the new proposed short-term (7 day) urethral catheterization to longer-term (14 day) urethral catheterization in terms of predicting fistula repair breakdown. The primary outcome was fistula repair breakdown up to three months following fistula repair surgery as assessed by a urinary dye test. Secondary outcomes included repair breakdown one week following catheter removal, intermittent catheterization due to urinary retention and the occurrence of septic or febrile episodes, prolonged hospitalization for medical reasons, catheter blockage, and self-reported residual incontinence. This trial was conducted among 524 women with simple fistula presenting at 8 study sites for fistula repair surgery over the course of 24 months at each site.

Seven day urethral catheterization after repair of simple fistula was non-inferior to 14 day catheterization. It is safe and effective for managing women following simple fistula without a significant increased risk of repair breakdown, urinary retention or residual incontinence through 3 months after surgery. Advantages of removing the catheter at 7 days include: less discomfort for women, reduced hospital stays, lower cost per repair, and increased capacity for treating fistula patients.

Barone M., et al. 2012. Non-inferiority of short-term urethral catheterization following fistula repair surgery: Study protocol for a randomized controlled trial. *BMC Women's Health* 12(5).

2. **Review of community level fistula prevention interventions in Niger.**

In 2012, based on observations that the village safe motherhood committees had reached a saturation point in identifying women with fistula, REF and Fistula Care launched a new strategy for community-level fistula prevention with the existing village committees. The committees were expanded to include a teacher from each community, and additional training was provided to enable the committees to focus their activities on promoting maternal health and family planning service use and on monitoring care seeking among currently-pregnant women in their communities. Fifteen new committees were established in early 2013 in Boboye District in Dosso Region. Quarterly review meetings were initiated to provide an opportunity for the village committees to report on activities and achievements and to share experiences, challenges, and lessons learned. Regular supervision visits were initiated by the staff of each CSI to monitor and support the committees in their respective catchment areas.

Follow-up visits to review progress of the committees were conducted in July 2013—approximately 18 months after the restructuring and retraining of the village committees. During the follow-up visits, the three-person review team conducted in-depth interviews and group discussions with a range of key informants. Data were also compiled on the committees' awareness raising and pregnancy monitoring activities; and data on maternal health service utilization were extracted from district databases for the three CSIs where the committees were newly established. The findings from this review highlighted success factors with this approach, including:

1. **The complementarity of the committees' awareness raising and pregnancy monitoring activities.** Stakeholders uniformly noted that the two activities were important and contributed jointly to the observed increases in women's use of maternal health and family planning services.
2. **The importance of the quarterly review meetings.** The review meetings provide appeared to have provided a forum for strengthening linkages between the committees and local officials (e.g. representatives of the Mayor's Office), as well as between the committees and the health facility staff.
3. **The importance of strengthened linkages between the health facility staff and village committees.** Both the quarterly meetings and regular supervision visits by the CSI staff appeared to have contributed to strengthened teamwork between facility staff and the committees.

In addition, gaps and challenges were identified, including the need for complementary interventions at the health facility level to ensure the availability and quality of skilled maternity care and ensuring and supporting informed and voluntary decision-making at the individual and household level regarding health care seeking.

Fistula Care. 2013. *Review of community-level fistula prevention interventions in Niger*. New York: Fistula Care/EngenderHealth

3. Evaluation of Community-Level Fistula Prevention Interventions in Uganda

In late 2012, to complement facility-level fistula prevention strategies, Fistula Care piloted two community-level initiatives at Karambi Health Center III in Kasese District in Western Uganda. The overall aim of this nine-month initiative was to strengthen linkages between the health center and the communities it serves in order to promote the use of maternal and reproductive health services (e.g., family planning, antenatal care, and institutional delivery care). Launched in October 2012, the activities included:

- Organizing and hosting a “site walk-through” to strengthen community-facility linkages and to foster “ambassadors” for maternal health and available services among local leaders and community members.
- Providing training and tools to enable village health teams in the catchment area to promote the use of family planning and maternal health services.

A follow-up evaluation was conducted in July 2013, nine months after the launch of the two activities. Evaluation activities included in-depth interviews and group discussions with a range of key informants; data on maternal health service utilization was extracted from service delivery registers at the health center to assess trends in service utilization; and VHTs’ quarterly reports were reviewed to compile information on their awareness-raising activities and to observe their skills and ability to monitor and document maternal health care-seeking at the community level.

Although the intervention period was very short, quantitative and qualitative findings from the evaluation suggest that two pilot activities—the SWT and the training and support to VHTs—are promising approaches, and that, together, the two activities contributed to improved community-facility linkages, as well as strengthened community capacity and commitment to maternal health and family planning.

Service statistics at Karambi Health Center reflected noticeable increases in the use of both maternal health and family planning services; a two-fold increase in average monthly caseloads for family planning services was observed during the nine months after the intervention, compared to the same period during the previous year. Similarly, average monthly delivery caseloads increased by 23% during the same period and the number of women attending their fourth antenatal care visit increased by 32%. In addition to these findings, qualitative feedback from various stakeholders suggested that encouraging changes in community norms and practices related to birth preparedness and male partner involvement in maternal health issues had been effected.

The evaluation highlighted two “success factors”: 1) engaging local leaders in the effort to improve maternal health through the SWT approach; and 2) quarterly review meetings with the VHTs.

While it is not possible to distinguish the separate effects of the two interventions, respondents uniformly noted that both activities had contributed significantly to increased utilization of health services as well as to improvements in male partner involvement and household-level preparation for birth. Both interventions were also seen to have resulted in changes in community perceptions about the health facility and service providers, as well as changes in the rapport between health facility staff and community partners and stakeholders at all levels. Thirdly, the two interventions appeared to have fostered leadership—among VHT members and community leaders alike—for maternal health and family planning.

Fistula Care. 2013. *Evaluation of community-level fistula prevention interventions in Uganda*. New York: Fistula Care/EngenderHealth.

4. Family Planning-Integrated Fistula Care Evaluation and Case Study

The prevention component of the Fistula Care project has included family planning (FP) as an important measure for helping women and couples affected by fistula. Fistula Care's approach to integrating FP services involves a five-step process that is adaptable to each facility's capacity for integration. The FP integration approach:

- Identifies the level of FP service that may be successfully sustained, depending on the capacity of the fistula repair site.
- Facilitates the modification of service delivery systems (e.g., training, record keeping, supervision, referral, and commodity logistics), through the implementation of a five-step process. Job aids and client materials are adapted to support the integrated services.

In 2012 an in-depth case study of the Fistula Care Nigeria program's efforts to integrate FP with fistula services was undertaken, as well as a desk review of project documents and interviews with project staff about program experiences in Bangladesh, DRC, Guinea, Mali, Niger, Rwanda and Uganda. This study was designed to: analyze trends shown in routine monitoring data collected on FP counseling and FP acceptors; review experiences with and impressions of the integration process obtained from key informants and clients; analyze relevant and related results from two studies conducted by FC; and conduct observations of patient-provider counseling sessions, focus group discussions, and self-assessments followed by group discussions to collect additional in-depth data on the integration process and results. The Nigeria integration experience—having been implemented for the longest period—is featured as a case study to illustrate the interventions and their results. FP integration activities in all other FC-supported countries are summarized to highlight the interventions undertaken, their experience with the integration approach (when it was introduced), the results achieved, and challenges encountered.

Selected key lessons learned from this review include:

- The integration of FP into messages delivered during the postoperative and recovery periods was correlated with the strong uptake of FP methods.
- The five-step integration approach provided a clear process for making system modifications and reorganizing work so that integrated FP-fistula services could function.
- Integrated FP-fistula services need a well-functioning contraceptive logistics system.
- It may take more time than expected for providers to become competent and confident in their new knowledge and skills.

Selected major recommendations include the following:

- FP should continue to be an integral component of fistula repair services.
- Staff at supported sites need regular FP updates
- All FC programs should include interventions to help men access RH information. Options are to include men in FP counseling, if the woman desires it, and engage men/men's groups as advocates for preventing fistula at the community and

Fistula Care. 2013. *Integrating family planning into fistula services: An evaluation and case study*. New York: Fistula Care/EngenderHealth.

5. Community-Based Screening for Genito-Urinary Fistula in Nigeria: A Novel Approach

To help fistula treatment centers and state and federal ministries of health reduce the backlog of women needing fistula repair, Fistula Care, in partnership with state and community stakeholders, conducted this study to quantify the backlog of cases within two local government areas in Kebbi and Cross River states via community-based clinical screenings. In addition, the study explored the feasibility of reporting minimum estimates of prevalence and incidence of fistula (at the individual district level, and, if possible, extrapolated to the state level) and assessed the questions in the Demographic and Health Survey fistula module by comparing women's self-reported fistula symptoms to results from the medical assessment. The community screening intervention model is based on the experiences in Ebonyi State, which are described in a [technical brief](#) produced by Fistula Care.

In total, four week-long screening events were conducted (two per state) between July and November 2012. A total of 268 women were screened; the most common diagnoses were cytotocle/rectocle (45 women, 16.8%), a urinary and/or rectal fistula (38, 14.2%), and uterine prolapse (28, 10.5%). The screening events in Kebbi State were considered more successful than those in Cross River, primarily as a result of Fistula Care's longer history working with the community groups. A calculation of the minimum estimates of fistula prevalence at the individual district was not possible because of lack of data at the community level about women who had been identified with fistula.

To verify the reporting of the fistula-like symptoms from the DHS fistula module with the actual diagnosis of fistula, we calculated the number of women reporting current fistula-like symptoms in the questionnaire and compared it with the number of women clinically diagnosed with fistula at the screening. The DHS fistula module includes a series of questions to assess if the woman has experienced fistula like symptoms, including when and how it may have occurred. The prevalence in our study for fistula-like symptoms was 28% (n=75). Verification assessment by clinical exam shows that the DHS question has 92% sensitivity and 83% specificity, with 47% positive predictive value and 98% negative predictive value, suggesting that this questionnaire can be used as a pre-examination tool in such community screening programs where only the women who are identified as potentially having fistula would be medically examined. It should be noted that these estimates of sensitivity, specificity and positive/negative predictive value do not represent the validity of DHS fistula module questions as the assessment was restricted to women with perceived fistula-like symptoms and not to a sample of women of reproductive age.

This strategy for identifying the backlog of women in need of fistula repair surgery seems feasible, including use of trained nurse-midwives to conduct the screening. A few key lessons learned include:

- Transportation of women to screening centers and those identified with fistula to surgical facilities should be an essential element of community-based fistula screening programs.
- Strong ties with communities and clear messaging strategies are crucial for success in identifying fistula cases in community-based fistula programs.
- Future fistula programs (including training programs for surgeons) should consider providing care for women afflicted by related urogynecological problems, such as uterine prolapse, and should identify appropriate treatment regimens for women with postsurgery leakage.

Fistula Care. 2013. *Community-based screening for genito-urinary fistula in Nigeria: A novel approach*. New York: Fistula Care/EngenderHealth.

6. Guinea Fistula Care Program Evaluation

In 2011, Fistula Care undertook a two-part evaluation of the Guinea program: 1) to assess the accomplishments and effectiveness of the facility-based prevention and treatment services (i.e., the supply side); and 2) to explore whether the establishment and support of village safe motherhood committees at the community level had led to measurable change in knowledge and use of maternal services at the population level. Findings from the community evaluation are presented in a separate report (see below).

The supply-side evaluation used multiple data collection methods, including site assessments, observation of services, record reviews, interviews with key stakeholders, and interviews with a convenience sample of fistula patients. A three-person team from Fistula Care's global group and three staff from the Guinea Fistula Care team visited the nine supported facilities in May and June 2011. They conducted site assessments to determine the facilities' readiness to provide services and interviewed 70 key informants about the program. A research firm was contracted to conduct record reviews at the treatment sites. Nurses at the treatment sites conducted interviews with a convenience sample of women who were being discharged and returning for follow-up visits.

Findings from this review show that capacity for fistula treatment has increased over time, and there is some evidence of an increased enabling environment for sustaining services at the policy and program levels. Financial sustainability remains an issue at the present time. Between 2006 and 2011, more than 1,800 repair surgeries have been performed, and more than half (and an increasing proportion) of these procedures were performed by Guinean surgeons.

Many key informants cited the medical monitoring and facilitative supervision led by the Guinea team as a strength of the program. It is, however, resource-intensive, and monitoring processes and tools need to be streamlined. Interrater reliability issues emerged when the evaluation team used the quality score checklists that are more routinely used by local supervisors. Increased resources dedicated to review and analysis of supervision reports and action plans would facilitate longitudinal analysis.

Providers may need continued training to strengthen their skills to help women assess their reproductive health needs and need for FP.

Introduction of FP at regional hospitals and linkages with supplies to avoid stock-outs is clearly a program accomplishment. Overall, the number of clients accepting an FP method increased at all sites. Method mix could most likely be further expanded to include more long-acting and permanent methods of contraception. Observations of counseling undertaken during routine medical monitoring and facilitative supervision visits indicate that providers need refresher training to be able to effectively discuss side effects; ensure that clients are understanding the information provided; and make better use of job aids.

The Guinea team has worked to strengthen the ability of district-level hospitals to provide quality fistula prevention services such as FP and partograph monitoring. This work needs to be replicated at the primary health care level with appropriate and timely referral to district and regional health facilities for obstetric complications and emergencies.

Fistula Care. 2013. *Guinea Fistula Care program evaluation*. New York: Fistula Care/EngenderHealth.

7. Evaluation of Community-Level Fistula Prevention Interventions in Guinea

Since late 2007, in collaboration with local officials in the urban commune of Kissidougou Region, Fistula Care began supporting community-level efforts to prevent fistula and to improve maternal health. Village safe motherhood committees (VSMCs) were established, and members were trained to promote maternal health care seeking through community-level awareness-raising sessions and through pregnancy monitoring visits at the household level in the regions of Kissidougou and Labe. In 2011, Fistula Care undertook an in-depth evaluation of the community-level fistula prevention efforts to explore (1) whether the establishment and support of the VSMCs in the intervention areas had led to measurable outputs in terms of enhanced community capacities and support systems related to maternal health, as well as (2) whether enhanced community support systems were associated with desired population-level outcomes, such as knowledge about obstetric risks, birth preparedness, and use of maternal health services.

The evaluation used a post-intervention quasi-experimental design with purposively sampled intervention and comparison villages in each region. Intervention villages were selected based on their duration of exposure to the intervention. Comparison villages were selected by the National Institute of Statistics, based on their access to maternal health services; efforts were made to exclude communities known to have been exposed to the activities undertaken by the VSMCs. In-depth interviews were conducted with community-level leaders and health resource persons and a population-based household survey was conducted among women of reproductive age and their co-resident husbands in intervention areas and comparison areas.

The study showed measurable differences between intervention and comparison villages in terms of community capacity—namely, the knowledge and activities of community-level committees and resource persons involved in maternal health promotion. In addition, significant differences were observed at the population level in terms of women's exposure to community-level maternal health promotion efforts and their knowledge about maternal health and obstetric fistula. Significant differences between intervention and comparison villages were also observed in the percentage of women living in villages with a community support system for maternal health. The study identified several important determinants of care seeking during childbirth. Where effective community-level support systems for maternal health promotion existed, they had a strong and positive influence on maternity care seeking. Women living in a village with strong community support systems for maternal health were more than twice as likely to deliver at a facility than were women living in a community without such support networks. Living in such a community appeared to have a much stronger effect than household wealth status and was nearly comparable to the influence of women's literacy levels and distance to a health facility—two known determinants of maternity care seeking. In addition, women who reported making at least three advance preparations for childbirth were almost two times as likely to deliver at a health facility as women who did not. Birth preparedness was considerably more important than knowledge about obstetric risks, danger signs and fistula causes, which was not associated with delivery at a facility.

Women's individual exposure to community-level maternal health resource persons was significantly associated with household preparation for birth, as was exposure to counseling on birth preparedness during antenatal care. Given the strong effect of a high level of preparation for birth on facility delivery, this finding highlights the importance of increased attention to birth preparedness in both community-level and facility-based interventions to promote maternity care seeking.

Fistula Care. 2013. *Evaluation of community-level fistula prevention interventions in Guinea*. New York: Fistula Care/EngenderHealth.

Study reports completed in 2012

8. Determinants of Postoperative Outcomes of Female Genital Fistula Repair Surgery⁸⁸

Five papers have been published as of September 2013 from this multi center study (full citations for each paper are included under Result 3, Table 10). . The study was carried out between 2007 and 2010 at centers in Bangladesh, Guinea, Niger, Nigeria and Uganda. Summarized below are the findings from these manuscripts. . A sixth and final manuscript is under review.

A. Determinants of Postoperative Outcomes of Female Genital Fistula Repair Surgery

Published in 2012 in *Obstetrics and Gynecology*.

The objective of this paper is to determine predictors of fistula repair outcomes 3 months postsurgery. Outcomes, measured 3 months postsurgery, included fistula closure and residual incontinence in women with a closed fistula. Potential predictors included patient and fistula characteristics and context of repair. Women who returned for follow-up 3-month postsurgery were included in predictors of closure analyses (n=1,274). Small bladder size, prior repair, severe vaginal scarring, partial urethral involvement, and complete urethral destruction or circumferential defect predicted failed fistula closure. Women with a closed fistula at 3-month follow-up were included in predictors of residual incontinence analyses (n=1,041). Prior repair, severe vaginal scarring, partial urethral involvement, and complete urethral destruction or circumferential defect were significantly associated with residual incontinence.

The prognosis for genital fistula closure is related to preoperative bladder size, previous repair, vaginal scarring, and urethral involvement.

Barone M., Frajzyngier V., Ruminjo J., et al. 2012. Determinants of postoperative outcomes of female genital fistula repair surgery. *Obstetrics and Gynecology*. 120(3):524-31.

B. Factors Influencing Choice of Surgical Route of Repair of Urinary Fistula and the Influence of Route of Repair on Surgical Outcomes: Findings from a Prospective Cohort Study

Published in 2012. *BJOG*

The abdominal route of genitourinary fistula repair may be associated with longer term hospitalisation, hospital-associated infection and increased resource requirements. We examined: (1) the factors influencing the route of repair; (2) the influence of the route of repair on fistula closure 3 months following surgery; and (3) whether the influence of the route of repair on repair outcome varied by whether or not women met the published indications for abdominal repair. This analysis includes 1274 women with genitourinary fistula.

Published indications for abdominal route of repair (extensive scarring or tissue loss, genital infibulation, ureteric involvement, trigonal, supratrigonal, vesico-uterine or intracervical location or other abdominal pathology) predicted the abdominal route. A vaginal route of repair was associated with increased risk of failed closure; stratified analyses suggested elevated risk among women meeting indications for the abdominal route.

Additional studies powered to test effect modification hypotheses are warranted to confirm whether the abdominal route of repair is beneficial for certain women.

⁸⁸ Three of the papers from this study were published in 2012 and two in 2013.

Frajzyngier V., Ruminjo J., Barone M., et al. 2012. Factors influencing choice of surgical route of repair of genitourinary fistula, and the influence of route of repair on surgical outcomes: Findings from a prospective cohort study. *BJOG* 119(11):1344-53.

C. Factors Influencing Urinary Fistula Repair Outcomes in Developing Country Settings: A Systematic Review Published in 2012 in *American Journal of Obstetrics and Gynecology*

This paper summarized a literature review which examined predictors of urinary fistula repair outcomes in developing country settings, including fistula and patient characteristics, and perioperative factors. Twenty articles were included. Surgical outcomes included fistula closure, residual incontinence after closure, and any incontinence (dry vs wet). Scarring and urethral involvement were associated with poor prognosis across all outcomes. Results from randomized controlled trials examining prophylactic antibiotic use and repair outcomes were inconclusive. Few observational studies examining perioperative interventions accounted for confounding by fistula severity. We conclude that a unified, standardized evidence-base for informing clinical practice is lacking.

Frajzyngier V., Ruminjo J., & Barone M. 2012. Factors influencing urinary fistula repair outcomes in developing countries: A systematic review. *American Journal of Obstetrics and Gynecology*, 207(4):248-58.

D. Development and comparison of prognostic scoring systems for surgical closure of genitourinary fistula Published in 2013 *American Journal of Obstetrics and Gynecology*

The purpose of this paper was to test the diagnostic performance of 5 existing classification systems (developed by Lawson, Tafesse, Goh, Waaldijk, and the World Health Organization) and a prognostic scoring system that was derived empirically from our data to predict fistula closure 3 months after surgery. The sample included Women with genitourinary fistula (n = 1274). Using one-half of the sample, we created multivariate generalized estimating equation models to obtain weighted prognostic scores for components of each existing classification system and the empirically derived scoring system. With the second one-half, we developed receiver operating characteristic curves using the prognostic scores and calculated areas under the curves (AUCs) and 95% confidence intervals (CIs) for each system.

Among existing systems, the scoring systems that represented the World Health Organization, Goh, and Tafesse classifications had the highest predictive accuracy. The empirically derived prognostic score achieved similar predictive accuracy; it included significant predictors of closure that are found in the other classification systems, but contained fewer, nonoverlapping components. The differences in AUCs were not statistically significant. The prognostic values of existing urinary fistula classification systems and the empirically derived score were poor to fair. Further evaluation of the validity and reliability of existing classification systems to predict fistula closure is warranted; consideration should be given to a prognostic score that is evidence-based, simple, and easy to use.

Frajzyngier V., Ruminjo J., & Barone M. 2013. Development and comparison of prognostic scoring systems for surgical closure of genitourinary fistula. *AJOG* 208(2):112.e1-11.

E. Profiles and Experiences of Women Undergoing Genital Fistula Repair: Findings from Five Countries Published in 2013 in *Global Public Health*.

This article presents data from 1354 women who were interviewed at the time of admission, discharge, and at a 3-month follow-up visit. While women's experiences differed across countries, a similar picture emerges across countries: women married young, most were married at the time of admission, had little education, and for many, the fistula occurred after the first pregnancy. Median age at the time of fistula occurrence was 20.0 years (interquartile range 17.3–26.8). Half of the women attended some antenatal care (ANC); among those who attended ANC, less than 50% recalled being told about signs of pregnancy complications. At follow-up, most women (even those who were not dry) reported improvements in many aspects of social life, however, reported improvements varied by repair outcome. Prevention and treatment programmes need to recognise the supportive role that husbands, partners, and families play as women prepare for safe delivery. Effective treatment and support programmes are needed for women who remain incontinent after surgery.

Landry, E., et al. 2013. Profiles and experiences of women undergoing genital fistula repair: findings from five countries. *Global Public Health*. 8(8):926–42.

9. Key Findings and Recommendations: A Multi-Center Retrospective Review of Data Collection Procedures and Data Quality of Indications for Cesarean Deliveries⁸⁹

Obstructed labor is a major cause of maternal and neonatal mortality and morbidities, including obstetric fistula. Quality and timely cesarean delivery services can ease the obstruction and prevent fistula. Although data are available about cesarean rates, few data are available about the factors that lead clinical staff to recommend cesarean sections. This retrospective record review sought to determine the leading indications for cesarean delivery, as well as to assess the quality of services provided. Data collection was completed in 2010 at 11 facilities that received support from Fistula Care in five countries (Bangladesh, Guinea, Niger, Nigeria, and Uganda). In total 2,941 cesarean delivery records from 2008 were randomly selected and reviewed.

At all study sites staff did a good job of recording indications in client records, while other key aspects of patient care were not as well documented: correct and consistent use of the partograph ranged from < 1% to 65%; timing of key events such as decision to do the cesarean, < 1% to 51%; birth outcomes was missing in many records (<1% to 40%); documentation of informed consent for surgery was not found in patient files at five sites; and documented administration of prophylactic antibiotics ranged from 64% to 99%.

Documented use of any cesarean classification system, while accepted as necessary, was not the norm at eight of the nine study sites. Staff at the study sites were unanimous about the need for each cesarean client record to include a clearly documented, standardized indication, to facilitate clinical audit and improve clinical practice. However, there was a wide range of terminology utilized by providers across sites and countries included in this review to describe obstructed labor and prolonged labor. This lack of standardized terminology is evidence of the plethora of classification systems and the lack of adoption of a standardized system at any level.

⁸⁹ This study counts as a total of 9 completed studies as each study site was considered an individual study. Study reports with key findings and recommendations were prepared for each participating site.

We applied the Immpact/FIGO classification of absolute maternal and nonabsolute categories to the primary indication data found in the records. Overall, 51% of all cesareans at the nine sites were done for absolute maternal indications, 43% were done for nonabsolute indications, and 6% were classified as other. While most providers at the study sites thought this simple system for periodic review of indication trends seemed reasonable, terms need to be used consistently to ensure that reviews are conducted in an efficient manner. If sites are going to routinely review indications, the development and use of tools to facilitate data extraction and aggregation using standardized definitions needs to be balanced against the need not to sacrifice space in client records and record-keeping systems for capturing individual-level clinical information. We would recommend that a review of indications be part of ongoing periodic quality audits and be conducted, minimally, at least once per year.

Fistula Care. 2012. *Key findings and recommendations: A multi-center retrospective review of data collection procedures and data quality of indications for cesarean deliveries*. New York: Fistula Care/EngenderHealth.

10. Estimating Costs to Provide Fistula Services in Nigeria and Ethiopia: Key Findings⁹⁰

The purpose of this study was to introduce a cost analysis tool, developed by UNFPA, to assist facility managers in assessing the costs for fistula repair services, which could then help them make decisions about resource allocation. Measuring, understanding, and documenting the costs of services can help health managers improve the cost-efficiency of services and demonstrate funding needs to facilities, governments, and donors. Analyzing financial inputs is an important step in increasing the institutional and financial sustainability of fistula services.

The study was conducted in collaboration with selected FC supported sites in Nigeria and Ethiopia in 2011. The UNFPA tool is designed to assess direct costs of services; it does not address management, supervision, and overhead operating costs, which means that projected costs are underestimated. Nevertheless, documenting direct expenses is an important first step in understanding service provision costs. The study did not set out to determine a standard cost for fistula repair since each facility will have its own set of caveats.

Findings, analysis, and implications were discussed with site staff and with local and national authorities. The results can facilitate improved coordination with other donors and provide standardization in the approach to calculating the costs of fistula care services. The results from these two studies are not intended to compare costs across sites, nor to provide an average cost for fistula repair, but rather to demonstrate an approach for managers at sites to estimate the costs of providing fistula care services, for planning purposes.

The costing tool was able to provide a high level of detail about the components of care. The tool and the process for estimating costs can therefore help program and facility managers to understand the financial requirements of fistula repair (or pre-repair) service. Assuming that facility-level managers budget separately for overhead costs, these data could prove useful for budgeting purposes, in estimating the additional, fistula-specific costs that would be incurred. This study suggests that cost components vary significantly between sites, a fact that could be masked by considering only the total cost estimates. This variation makes it difficult to generalize which cost elements contributed the most to the direct cost of fistula repair.

⁹⁰ Two separate reports were prepared for each country. This report summarized key findings from both studies.

This study was undertaken as a first step to understanding fistula treatment costs and was not designed to include indirect costs, which is an important limitation. Other limitations included insufficient data on client flow to adequately determine required level of effort for staffing and consumable supplies use per patient treated; variability in reported salaries; influences of seasonal variations in patient load at facilities; and estimates of dosage and cost for drug regimens for certain preoperative conditions.

It is important for facilities and their managers to have simple tools and a standardized approach for estimating costs for training, service delivery, and maintenance of facilities, to enable them to forecast and plan for their needs on an annual basis. The cost study demonstrates that the costing tool can be adapted to provide cost estimates for direct costs associated with fistula care, hospitalization, and transport.

Fistula Care. 2012. *Estimating costs to provide fistula services in Nigeria and Ethiopia: Key findings*. New York: Fistula Care/EngenderHealth.

Study reports completed in 2011

11. Strengthening Health Systems Through the Levels of Fistula Care Framework

Strengthening health systems in developing countries is essential to improving global health outcomes and central to meeting Millennium Development Goal targets in maternal health. There has been renewed focus and increasing interest in health systems strengthening in recent years. It is particularly important to establish a common set of guidelines and work towards improving health systems in regions such as sub-Saharan Africa, where maternal mortality ratios are the highest. Strengthening health systems is critical to fistula treatment and prevention efforts.

This literature review was designed to identify peer-reviewed and grey literature that would assist Fistula Care explore the application of the Levels of Fistula Care Framework (repair, prevention and reintegration) as a health systems strengthening group of interventions. The key health systems strengthening domains that emerged from the analysis of the literature are: health system structure (including decentralization and referral systems), financing, surgery, and workforce. Analysis of the literature shows that in order to address fistula care and health systems strengthening, careful consideration of these domains is essential. There is no blanket solution but rather an integrated and comprehensive approach, which incorporates these different components of health systems building.

Findings from the literature reviewed suggest that the first level of the Levels of Fistula Care Framework provides a package of prevention interventions that strengthens maternal health systems. The evidence is less clear as to whether the repair services outlined in levels two and three of the framework should be delivered within existing health systems or individual standalone fistula repair centers. Research is needed to explore this question further.

Fistula Care. 2011. *Strengthening health systems through the levels of care framework*. New York: Fistula Care/EngenderHealth.

12. Programming Considerations for Integrating Uterine Prolapse and Fistula Services

At request of USAID this review was conducted to identify areas of opportunities for working on uterine prolapse. Uterine prolapse (UP) is a reproductive health morbidity, that exists all over the world, but is suspected to be more common in developing than developed countries. It is a type of pelvic organ prolapse (POP) that occurs when women's weakened pelvic floor muscles and stretched or weakened ligaments allow the uterus to drop from its normal position.

Fistula Care. 2011. *Programming Considerations for Integrating Uterine Prolapse and Fistula Services*. New York: Fistula Care/EngenderHealth

13. Use of the Partograph: A Literature Review on Effectiveness, Training, Modifications, and Barriers

Improving labor monitoring to reduce obstructed labor is an important component of efforts to prevent the occurrence of obstetric fistula. The partograph is recognized as a monitoring tool that can contribute to the quality of care provided to a woman in labor. The literature review was carried to identify and summarize the available literature on the use and efficacy of the partograph (including information on the attitudes of health care providers toward the partograph) and to identify and evaluate training strategies and barriers to its use.

Actual rates of use and levels of knowledge about the partograph among health care facility staff vary greatly from country to country and by cadre and type of facility. In general, levels of knowledge, skill, and implementation are low.

Only a small number of controlled and quasi-controlled studies have examined the impact of partograph use on labor or cesarean section rates, and evidence of positive impact is limited. However, other noncontrolled and generally smaller studies have provided support for such an effect, as well as evidence of a positive impact on maternal and perinatal health outcomes.

Evidence supports the need for a strong supervision and monitoring component to be included in any partograph introduction or training activities. Quality assurance is needed to ensure that training translates into ongoing practice.

Available evidence does not indicate that elimination of the latent phase of the partograph has a significant impact on labor decisions or on maternal or neonatal outcomes.

Variations in the rates of use and the cadres of staff using the partograph must be taken into account when planning to introduce the partograph or train staff in its use. Effective supervision and monitoring are a crucial component for success. Overall improvement in knowledge and skills development for labor monitoring is needed to best provide meaningful obstetric care and reduce obstructed labor and poor maternal and neonatal outcomes.

Fistula Care. 2011. *Use of the partograph: Effectiveness, training, modifications, and barriers*. New York: Fistula Care/EngenderHealth.

Study reports completed in 2010

14. Current Practices in Treatment of Female Genital Fistula: A Cross Sectional Study

Published in 2010 in *BMC Pregnancy & Childbirth*

Fistula treatment and care are available in many countries across Africa and Asia, but there is a lack of reliable data around clinical factors associated with the success of fistula repair surgery. Most published research has been retrospective. While these studies have provided useful information about the care and treatment of fistula, they are limited by the design. This study was designed to identify practices in care that could lead to the design of prospective and randomized controlled trials.

Self-administered questionnaires were completed by 40 surgeons known to provide fistula treatment services in Africa and Asia at private and government hospitals. The questionnaire was divided into three parts to address the following issues: prophylactic use of antibiotics before, during, and after fistula surgery; urethral catheter management; and management practices for patients with urinary incontinence following fistula repair.

The results provide a glimpse into current practices in fistula treatment and care across a wide swath of geographic, economic, and organizational considerations. There is consensus in treatment in some areas (routine use of prophylactic antibiotics, limited bed rest until the catheter is removed, nonsurgical treatment for postsurgical incontinence), while there are wide variations in practice in other areas (duration of catheter use, surgical treatments for postsurgical incontinence). These findings are based on a small sample and do not allow for recommending changes in clinical care, but they point to issues for possible clinical trial research that would contribute to more efficient and effective fistula care.

The findings from the survey allowed us to consider clinical practices most influential in the cost, efficacy, and safety of fistula treatment. These considerations led us to formulate recommendations for eight randomized controlled trials on the following subjects: 1) Efficacy/safety of short-term catheterization⁹¹; 2) efficacy of surgical and nonsurgical therapies for urinary incontinence; 3) technical measures during fistula repair to reduce the incidence of post-surgery incontinence; 4) identification of predictive factors for "incurable fistula"; 5) usefulness of urodynamic studies in the management of urinary incontinence; 6) incidence and significance of multi-drug resistant bacteria in the fistula population; 7) primary management of small, new fistulas by catheter drainage; and 8) antibiotic prophylaxis in fistula repair.

Arrowsmith S., Ruminjo, J., & Landry, E. 2010. Current practices in treatment of female genital fistula: A cross sectional study. *BMC Pregnancy & Childbirth* 10(73).

⁹¹ USAID funded this study; see study number 1 listed in this annex.

Annex 10. Presentations at International Meetings October 2007 thru December 2013

October 2012-December 2013		
Conference/Title of Presentation	Presenters	Format
International Family Planning Conference, Addis Ababa, Ethiopia, November 12-15, 2013		
Roundtable discussion on FP integration with Fistula	Carrie Ngongo	Roundtable discussion
1st FIGO Africa Regional Conference, Addis Abba, Ethiopia October 2-5, 2013		
Non-inferiority of short-term catheterization following fistula repair surgery: preliminary results	Dr. Mark Barone and RCT study group	Presentation
Société Internationale d'Urologie Congress, Fukuoka, Japan October 2012		
Clinical Procedures, Practices and Post-operative Outcomes in Surgical Repair of Female Genital Fistula: A Prospective Cohort Study	Dr. Mark Barone, Dr. Veronica Frajzyngier, Dr. Joseph Ruminjo	Presentation
FIGO World Congress of Gynecology and Obstetrics, Rome, Italy October 2012		
Determinants of Fistula Repair Post-Operative Outcomes: A Prospective Cohort Study	Dr. Mark Barone, Veronica Frajzyngier, Dr. Joseph Ruminjo	Presentation
Development and Test of Prognostic Scoring Systems for Surgical Urinary Fistula Closure	Dr. Veronica Frajzyngier, Dr. Joseph Ruminjo, Dr. Mark Barone	Presentation
Meeting the Needs of Women with Fistula Deemed Incurable in Low Resource Settings	Dr. Joseph Ruminjo	Presentation
Results of a Record Review Study of Data Collection Procedures and Indications for Cesarean Delivery in Nine Hospitals in Bangladesh, Guinea, Mali, Niger and Uganda	Evelyn Landry, Renee Fiorentino, Joseph Ruminjo, Mieke McKay, Cristina Mattison	Presentation
Revitalizing the Partograph in Low Resource Settings: Does the Evidence Support a Global Call to Action?	Celia Pett	Presentation
American Public Health Association Meeting, San Francisco, CA October 2012		
Ethical Perspectives on Meeting the Needs of Women with Obstetric Fistula Deemed Incurable in Low Resource Settings	Celia Pett, Julia Van Rooyen (Harvard Humanitarian Initiative)	Presentation
Experiences of Women Seeking Treatment for Obstetric Fistula: Findings From Bangladesh, Guinea, Niger, Nigeria and Uganda	Evelyn Landry, Vera Frajzyngier, Joseph Ruminjo, Mark Barone	Presentation
Revitalizing the Partograph for Effective Labor Monitoring and Management in Low Resource Settings	Celia Pett	Presentation
International Obstetric Fistula Working Group (IFOWG), Dhaka, Bangladesh November 2012		
Experiences of Women Seeking Treatment for Obstetric Fistula: Findings From Bangladesh, Guinea, Niger, Nigeria and Uganda	Karen Beattie	Presentation
International Society of Obstetric Fistula Surgeons, Dhaka, Bangladesh November 2012		
Characteristics of Fistula Patients at Lamb Hospital	Dr. Beatrice Ambauen-Berger, LAMB Hospital, Bangladesh	Presentation
Community Based Screening of Genito-Urinary Fistula in Nigeria	Dr. Adamu Isah	Presentation

October 2012-December 2013		
Conference/Title of Presentation	Presenters	Format
De-Centralization of Obstetric Fistula Treatment Services in Niger	Moussa Fatima, Fistula Eradication Network (REF) Niger	Presentation
Developing Global Guidelines to Meet the Needs of Women With Fistula Deemed Incurable	Dr. Joseph Ruminjo	Presentation
Fistula Repair and Re-Integration	LAMB Hospital, Bangladesh	Poster
Implementation of the FIGO Competency-Based Fistula Surgery Training Manual	Dr F. Kirya and EHCO Uganda	Presentation
Non-Inferiority of Short-Term Urethral Catheterization Following Fistula Repair Surgery: Study Update	Dr. Joseph Ruminjo , Dr. Mark Barone, Dr. Veronica Frajzyngier, Evelyn Landry, Karen Beattie	Presentation
Outcome of Surgical Repair of 43 Complicated Obstetric Fistula Cases in a Tertiary Care Centre in Dhaka City	Dr. Fedousi Chowdhury, Ad-din Hospital, Bangladesh	Presentation
Prevention and Management of Obstetric Fistula: A New Curriculum for Nurses and Midwives	Celia Pett	Presentation
Repair of Genito-Urinary Fistula: A Review of 76 Operations in 71 cases	Dr. Begum, Kumudini Hospital, Bangladesh	Presentation
Global Maternal Health Conference, Arusha, Tanzania, January 2013		
Using Data in Hospital Decision-Making: The Case of Obstetric Fistula	Carrie Ngongo, Evelyn Landry, Bethany Cole, Iretioluwa Sutton, Simon Ndizeye, Demba Traoré, Mamadou Saidou Barry, Renée Fiorentino	Presentation
Community-Owned Data Collection to Prevent Maternal Mortality and Morbidities in Niger	Ahmed Mamane (Fistula Eradication Network, REF) , Mariama Moussa (REF), Ellen Brazier, Carrie Ngongo, Renée Fiorentino	Presentation
Experiences of Women Seeking Fistula Treatment from Five Countries: Implication for Prevention and Treatment Services	Karen Beattie , Evelyn Landry, Joseph Ruminjo, Mark Barone	Presentation
Indications, Quality of Care and Outcomes for Cesarean Delivery: Results from a Five-Country Retrospective Record Review	Evelyn Landry , Renée Fiorentino, Joseph Ruminjo, Jeanne Kabagema, Celia Pett	Presentation
Integrating Family Planning into Obstetric Fistula Treatment Services: Experiences from Gao, Mali	Demba Traoré, Ingrid Martens, Betty Farrell, Mieke McKay, Cheick Touré, Laura Hurley	Presentation
Mortality Audits in Fistula Programs	Joseph Ruminjo , Karen Beattie, Evelyn Landry	Presentation
The Partograph Mentoring and Coaching Pilot in Uganda	Lucy Asaba, Simon Ndizeye, Edith Mukisa, Karen Levin	Presentation

October 2012-December 2013		
Conference/Title of Presentation	Presenters	Format
Women Deliver, Kuala Lumpur, May 2013		
The International Obstetric Fistula Working Group	Karen Beattie	Presentation
ESCANON Pre Conference Meeting, Dar Es Salam, Tanzania, August 2013		
Integrated Provision of Services	Betty Farrell	Presentation
Conference/Title of Presentation	Presenters	Format
October 2011 – September 2012		
International Obstetric Fistula Working Group (IFOWG), Maputo, Mozambique, October 2011.		
Meeting the needs of women living with fistula that is deemed incurable	Joseph Ruminjo	Presentation
International Society of Urogynecologists (SIU), Berlin, Germany, October 2011		
Women deemed incurable	Joseph Ruminjo	Presentation
American Public Health Association Meeting,, Washington DC November 2011		
Retrospective Record Review of Cesarean Deliveries at 9 Hospitals in Bangladesh, Guinea, Mali, Niger and Uganda)	Evelyn Landry, Renee Fiorentino, Joseph Ruminjo, Mieke McKay, Cristina Mattison	Presentation
Evaluating a Community Engagement Intervention to Improve Maternal Health and Prevent Fistula in Guinea	Ellen Brazier, Renee Fiorentino, Moustapha Diallo, Yaya Kasse, Sita Millimono	Presentation
Woodrow Wilson International Center for Scholars, September 2012		
Integrating Fistula and Prolapse Services: Programming Considerations	Celia Pett	Presentation

October 2010 – September 2011		
Conference/Title of Presentation	Presenters	Format
USAID Global Health Mini-University, Washington, D.C. October 2010		
Why Aren't We Better Using the Partograph that Saves Women's Lives?	Karen Levin, Jeanne Kabagema and Peter Mukasa	Presentation
First Global Symposium on Health Systems Research in Montreux, Switzerland November 2010		
Evaluating a Model for Integrating Fistula Care Services in Guinea	Karen Beattie, Moustapha Diallo, Evelyn Landry, Joseph Ruminjo, Mieke McKay, Renée Fiorentino	Poster
International Society of Obstetric Fistula Surgeons Third Annual Meeting, Dakar, Senegal December 2010		
Facility-level predictors of urinary fistula repair outcomes: Preliminary results of a multi-center prospective cohort study	Dr. Mark Barone, Veronica Frajzyngier, Dr. Joseph Ruminjo	Presentation

October 2010 – September 2011		
Conference/Title of Presentation	Presenters	Format
Factors influencing fistula repair outcomes in developing countries: a systematic review of the literature	Veronica Frajzyngier, Dr. Joseph Ruminjo, Dr. Mark Barone	Presentation
Mapping Fistula Services in Uganda Using GIS Techniques	Joslyn E. Meier; Bernard T. Opar; Richard Okello Peter Mukasa and Edith Mukisa.	Presentation
An Overview of Training Models	Dr. Joseph Ruminjo, Dr. Isaac Achwal	Presentation
National Council of Women of the United States' 55th Commission on the Status of Women		
Fistula: A Worldwide Problem	Karen Beattie	Presentation
International Midwives Conference – Bamako Mali, June 2011		
Le rôle de la Sage Femme dans la prévention des fistules obstétricales	Fatoumata Fofana	Presentation
La fistule obstétricale et les inégalités en sante maternelle	Dr. Cheick Toure,	Presentation
Global Health Council Meeting, Washington DC June 2011		
On-the-job companion training for fistula surgeons: a training strategy adapted to low access areas in Mali	Dr. Demba Traore	Presentation

October 2009-September 2010		
Conference/Title of Presentation	Presenter(s)	Format
FIGO World Congress of Gynecology and Obstetrics, Cape Town October 4th-October 9th, 2009		
Determinants of Postoperative Outcomes in Fistula Repair Surgery - Preliminary Results	Joseph Ruminjo, Mark Barone, Veronica Frajzyngier	Presentation
Social Immersion Strategy for Reintegration and Empowerment of Obstetric Fistula Survivors	Moustapha Diallo, Yaya Kassé	Presentation
Network of Clinical Providers Improves Management of Obstetric Fistula Treatment Programs	Adamu Isah	Poster
Prevention and Treatment of Obstetric Fistula: Community Work Makes a Difference	Dr. S. M. Shahidullah, Dr. Abu Jamil Faisel	Poster
Ninth Annual Global Health Mini University, Washington D.C. October 9th, 2009		
Networking to Improve Fistula Treatment in Nigeria	Evelyn Landry and Erin Mielke	Presentation
APHA 137th Annual Meeting, Philadelphia November 7th-11th, 2009		
Identification of Current Practices in Fistula Treatment: A Qualitative Review	Joseph Ruminjo, Steven Arrowsmith, Evelyn Landry	Poster
Pre Repair Centers for Fistula Care in Ethiopia	Evelyn Landry, Marsha Hamilton	Presentation
ISOFS Third Annual Meeting, Nairobi November 25th-November 27th, 2009		
Identification of Current Practices in Fistula Treatment: A Qualitative Review	Joseph Ruminjo	Presentation
Unite for Sight 7th Annual Global Health & Innovation Conference, Yale University April 17th-April 18th, 2010		
Holistic Prevention, Treatment, Reintegration, and Governance Program for Fistula	Mieko McKay	Poster

October 2009-September 2010		
Conference/Title of Presentation	Presenter(s)	Format
Survivors in Kissidougou, Guinea		
Women Deliver Conference, Washington D.C. June 7th-June 9th, 2010		
Innovations in Fistula Prevention, Treatment, and Reintegration	Karen Beattie (moderator), Josephine Elechi, Mariama Moussa, Suzy Elneil, Cindy Berg	Panel
37th Annual International Conference on Global Health, Washington, D.C. June 15th, 2010		
Integrating Family Planning into Fistula Repair Services in Nigeria	Betty Farrell	Poster
Maternal Health Taskforce Global Maternal Health Conference, New Delhi, India, August 30th-September 1st, 2010		
Use of the partograph: what do we know and what do we need to find out	Jeanne Kabagema	Presentation
The necessity of waiting houses for pregnant women in the DRC	Ahuka Longombe	Presentation
Ruptured Uterus in Western Uganda, a 2 year retrospective review ⁹²	Peter Mukasa	Presentation
Identifying research needs and priorities for obstetric and gynecologic fistula	Joseph Ruminjo	Presentation
Improving the use of the partograph – a case study from a rural integrated health and development project	Kris Prenger	Presentation
Strengthening cesarean section services: a case from a rural integrated health and development project in Bangladesh	Kris Prenger	Presentation
Retrospective record review of cesarean deliveries at two hospitals in Uganda	Evelyn Landry	Presentation
Engagement of clerics improves fistula prevention and reintegration efforts in northern Nigeria	Adamu Isah	Poster
Evolution of maternal mortality in a conflict area	Manga Pascal	Poster
October 2008-September 2009		
Title of Presentation	Presenter(s)	Format
American Public Health Association Meeting, November 2008.		
Digital Stories for Public Health.: an emerging strategy for participatory media-making”. The Fistula Care-produced digital stories DVD “Learning from My Story: Women Confront Fistula in Rural Uganda”	Joseph Ruminjo, co facilitator of discussion panel	Panel
Global Health Conference Washington, D.C. June 2009		
For the Common Good: Good Governance and Democracy Improve Maternal Health Systems	Moustapha Diallo	Round table discussion
Counseling of Women With Traumatic Genital Fistula From Sexual Violence; Development of an Evidence-Based Counseling Module.	Joseph Ruminjo, Elizabeth Rowley, Mieke McKay	Panel

⁹² Paper presented by Fistula Care Uganda Medical Associate; research was conducted prior to Dr. Mukasa joining Fistula Care.

October 2007-September 2008		
Title of Presentation	Presenter(s)	Format
Mini University, Washington, D.C. October 2007		
Addressing Fistula through the use of digital stories	Katie Tell	Presentation/ Discussion
Women Delivery Conference, London, England October 2007.		
Community, NGO and Government collaboration on Fistula: The Zamfara experience”	Dr. Sa’ad and Dr. Adamu Isah	Paper
Digital stories: the Uganda experience	Dr. Henry Kakande	Paper
French College of Ob/Gyns Annual Meeting, Paris, France, December 20007.		
Fistula care: The Guinea experience	Professor Namory Keita	Paper
Reproductive Health in Emergencies Conference, Kampala, Uganda, June 2008		
Traumatic Gynecologic Fistula in Reproductive Health Emergencies	I. Achwal, J. Ruminjo, C. Ngongo	Paper
Voices from the field: Community research on the experiences of survivors and perpetrators of sexual violence	H. Akullu [Uganda]	Paper
La prise en charge des fistules génitales de la femme en RDC: Contexte, ampleur et perspectives	M.A. Kalume, L. Ahuka [DRC]	Paper
Psychosocial effects of sexual violence in conflict situations	M. Mungherera [Uganda]	Paper

Annex II. Use of Fistula Care Technical tools by Country and Site, October 2007-December 2013

Country/Site	Quarterly Reporting Tools	Monitoring/ Supervision for Service Delivery Check list	Training Knowledge Assessment Tool	Monitoring Supervision for Training Site	Fistula Site Assessment Tool	Data for Decision Making Modules (ver.1)	Digital Stories Facilitator's Guide	Fistula Diagnosis Poster and/or Handout	Informed consent for Fistula Services Booklet	Family Planning following Fistula Care
Africa Mercy	1	0	1	0	0	0	0	0	0	0
Benin, Liberia, Togo	X		X							
Bangladesh	5	5	0	3	2	2	0	3	4	4
Kumudini	X	X		X				X	X	X
LAMB	X	X		X					X	X
Ad-Din Dhaka	X	X		X	X	X		X	X	X
Ad-Din Jessore	X	X			X	X		X	X	X
MCH	X	X								
DRC	9	6	4	5	1	5	1	5	6	6
HEAL Africa	X	X	X	X		X		X	X	X
IGL	X	X	X	X		X		X	X	X
Kisenso	X									
MSRK	X	X	X			X	X		X	X
Mutombo	X	X		X		X		X	X	X
St. Joseph's	X	X		X	X	X		X	X	X
Panzi	X	X	X	X				X	X	X
PROSANI	X									
Project AXxes	X									
Ethiopia	7	4	0	0	0	0	0	4	0	4
Bahir Dar Ctr	X									
Mekelle Center	X									
Yirga Alem	X									
Adet HCtr	X	X						X		X
Dangla HC	X	X						X		X
Woret HC	X	X						X		X
Sekota	X	X						X		X
Guinea	9	7	2	4	3	3	0	3	3	3

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Ignace Deen	X	X		X						
Jean Paul II	X	X		X	X	X		X	X	X
Kissidougou	X	X	X	X	X	X		X	X	X
Labé	X	X	X	X	X	X		X	X	X
Mamou	X	X								
Kindia	X	X								
Boke	X	X								
Faranah	X									
N'Zerekore	X									
Mali	7	1	3	1	3	0	0	6	4	6
Gao	X	X	X	X	X			X	X	X
Mopti	X							X	X	X
Kayes	X		X		X			X	X	X
CHU Point G	X							X		X
Gao District	X									
Segou	X							X		X
Sikasso	X		X		X			X	X	X
Niger	7	5	4	4	4	4	0	5	5	5
Dosso	X	X	X	X	X	X		X	X	X
Tahoua	X		X	X	X	X		X	X	X
Tera	X	X		X				X	X	X
Lamordé	X	X	X		X	X		X	X	X
Maradi	X	X	X	X	X	X		X	X	X
Issaka Gazoby	X	X								
Zinder	X									
Nigeria	31	30	11	7	7	7	0	1	9	8
Babbar R.	X	X	X	X	X	X		X	X	X
Ebonyi Center	X	X	X	X	X	X			X	X
Faridat Yak.	X	X	X	X		X			X	X
Kaduna					X					
Kebbi	X	X	X	X	X	X			X	X
Laure Fist. C	X	X	X	X		X			X	X

Country/Site	Quarterly Reporting Tools	Monitoring/ Supervision for Service Delivery Check list	Training Knowledge Assessment Tool	Monitoring Supervision for Training Site	Fistula Site Assessment Tool	Data for Decision Making Modules (ver.1)	Digital Stories Facilitator's Guide	Fistula Diagnosis Poster and/or Handout	Informed consent for Fistula Services Booklet	Family Planning following Fistula Care
Maryam Abacha	X	X	X	X		X			X	X
Ningi General Hospital	X	X	X	X	X	X			X	X
Ogoja Hospital	X	X	X		X				X	
Sobi Hospital	X				X				X	
Prevention only sites :										
Bakura General Hospital, Zamfara	X	X								
Takai Community HC, Kano	X	X								
Comp. HC, Kano	X	X								
Tarauni MCH, Kano	X	X								
Unguku MCH, Kano	X	X								
Muhammadu A. Wase Specialist Hosp. Kano	X	X	X							
General Hospital, Arugungu	X	X	X							
General Hospital Dakingari	X	X								
General Hospital Maiyama	X	X	X							

Country/Site	Quarterly Reporting Tools	Monitoring/ Supervision for Service Delivery Check list	Training Knowledge Assessment Tool	Monitoring Supervision for Training Site	Fistula Site Assessment Tool	Data for Decision Making Modules (ver.1)	Digital Stories Facilitator's Guide	Fistula Diagnosis Poster and/or Handout	Informed consent for Fistula Services Booklet	Family Planning following fistula Care
General Hospital Kamba	X	X								
Bungudu General Hospital, Zamfara	X	X								
MCCI FP Clinic	X	X								
Ezangbo Maternity Hospital	X	X								
Mgbo PHC	X	X								
Owutu Edda General Hospital	X	X								
Cottage Hospital	X	X								
General Hospital D/D	X	X								
Ebonyi State University Teaching Hospital	X	X								X
Iss General Hospital	X	X								
Jabo PHC	X	X								
General Hospital, Jega	X	X								
MCH Ogoja	X	X								
Rwanda	4	3	3	3	6	3	2	3	3	3
CHUK	X	X	X	X	X	X	X	X	X	X
Ruhengeri	X	X	X	X	X	X	X	X	X	X
Kanombe	X	X	X	X	X	X		X	X	X
Kibagora	X				X					

Country/Site	Quarterly Reporting Tools	Monitoring/ Supervision for Service Delivery Check list	Training Knowledge Assessment Tool	Monitoring Supervision for Training Site	Fistula Site Assessment Tool	Data for Decision Making Modules (ver.1)	Digital Stories Facilitator's Guide	Fistula Diagnosis Poster and/or Handout	Informed consent for Fistula Services Booklet	Family Planning following Fistula Care
Nyamata					X					
Butare					X					
Sierra Leone	1	1	1	1	0	0	1	1	1	1
Aberdeen	X	X	X	X			X	X	X	X
Uganda	12	7	2	2	2	7	3	3	3	3
Kagando	X	X	X	X		X	X	X	X	X
Kalungu	X									
Karambi	X	X								
Kitovu	X	X	X	X		X	X	X	X	X
Kiwangala	X									
Kiyumba	X									
Hoima	X	X			X	X	X	X	X	X
Masaka	X	X				X				
Mbale					X					
Nyabugando	X	X				X				
Rwesande	X					X				
Kasese Town Council	X					X				
Bwera	X	X								
Total sites using tools FY07/08-December 2013	93	69	31	30	28	31	7	34	38	43