Fistula Care
Associate Cooperative Agreement
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Final Project Report
October 2007 to December 2013
Part II: Country Accomplishments

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USAID FROM THE AMERICAN PEOPLE

FistulaCare

EngenderHealth for a better life

Fistula Care c/o EngenderHealth
440 Ninth Avenue
New York, NY 10001 U.S.A.
Telephone: 212-561-8000
Fax: 212-561-8067
email:fistulacare@engenderhealth.org
www.fistulacare.org

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CONTENTS, Part II

ACRONYMS AND ABBREVIATIONS

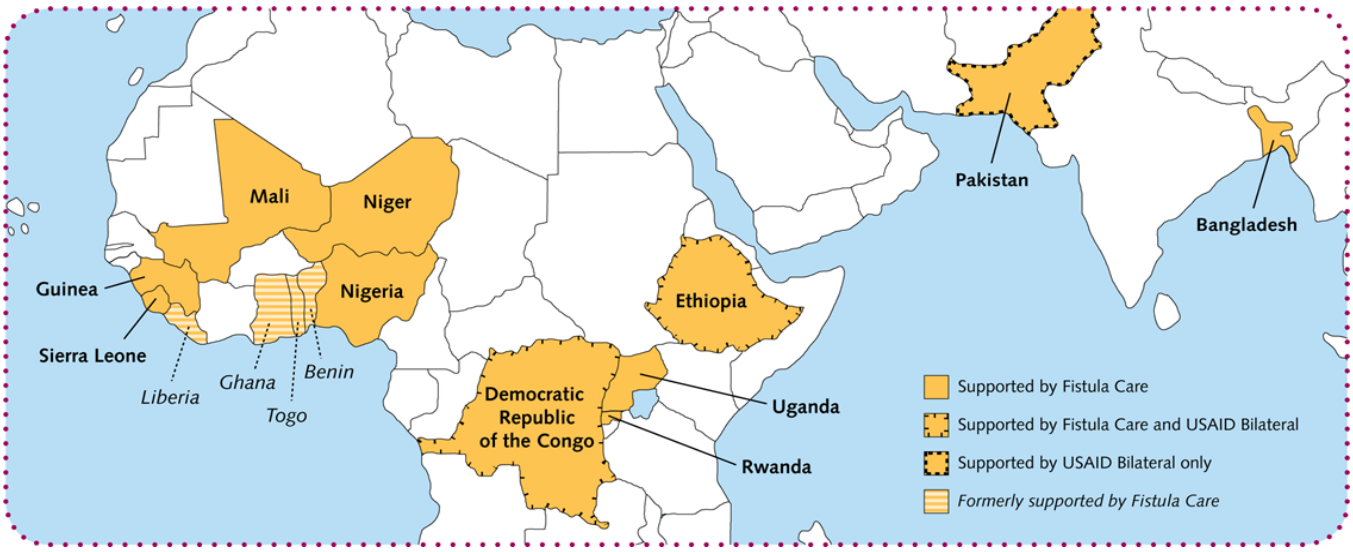
AMREF	African Medical and Research Foundation
AMSTL	active management of the third stage of labor
ANC	antenatal care
ARHB	Amhara Regional Health Bureau
AWC	Aberdeen Women's Centre
CBO	community-based organization
CDC	U.S. Centers for Disease Control
CFR	case fatality rate
CHUK	Central University Hospital 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

Introduction

Part II of the final Fistula Care report summarizes the key accomplishments by each of the ten countries that comprised the main portfolio of programs supported between October 2007 and December 2013: Bangladesh, DRC, Ethiopia, Guinea, Mali, Niger, Nigeria, Rwanda, Sierra Leone, and Uganda. Each country report includes the year USAID support for fistula services began; selected demographic information (population, total fertility rate, maternal mortality rate) and key maternal health indicators from the latest Demographic and Health Survey (DHS) (e.g., female literacy, skilled birth attendance, etc.); names of supported sites and dates of USAID support; key accomplishments by each of the four project results; and ideas generated during each country's 2013 symposium to address Toward a Fistula Free Generation.

Figure 1. Countries ever supported for fistula treatment and prevention by USAID, 2005-2013

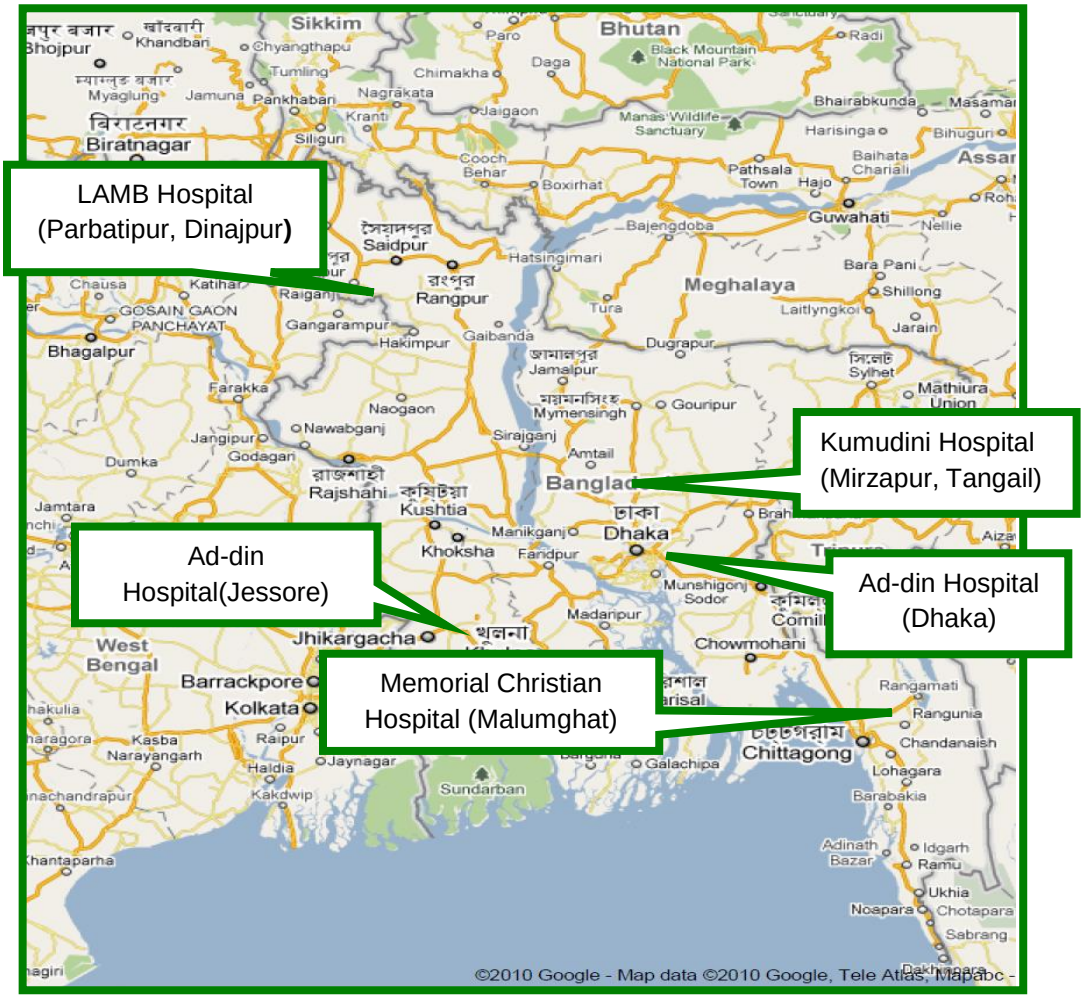


In each of the country reports, we cross reference to Part I, Global Accomplishments for discussion about key reporting indicators, e.g., closed and dry rates (IR.1.1); complication reporting (IR1.2); cesarean deliveries (IR2.1). Supported sites in Bangladesh, Guinea, Ethiopia, Mali, Niger, Nigeria, Sierra Leone and Uganda participated in global research studies. Summaries of those study findings are found in Part I of this final report, Annex 9. All referenced annexes can be found in Part I of this report.

Throughout these country reports we include links to materials posted in the Fistula Care Digital Archive: http://www.fistulacare.org/pages/da/Archive-English.html. Full citations for these materials can be found in Annex 4 in Part 1 of this report.

In addition to supporting fistula repair and prevention services in these 10 countries, Fistula Care supported services and advanced training on board Mercy Ships hospital ship the *Africa Mercy*. A summary of the collaboration with Mercy Ships follows the Uganda report.

Bangladesh


LAMB Hospital
(Parbatipur, Dinajpur)
Kumudini Hospital
(Mirzapur, Tangail)
Ad-din
Hospital(Jessore)
Ad-din Hospital
(Dhaka)
Memorial Christian
Hospital (Malumghat)
Sikkim
Bhutan
Meghalaya
Bangladesh
Dhaka
Chittagong
Kolkata
West
Bengal
Rajshahi
Rangpur
Saidpur
Guwahati
Sundarban
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Bangladesh, Summary of Achievements

Start date with USAID funds: 2005

Background

Bangladesh Demographic Data	
Population (2012)[1]	154.7 million
Total fertility rate (2011)[2]	2.3 children/woman
Maternal mortality ratio (2010)[3]	194
Median female age at first marriage (2011)[4]	15.5 years
Percent literate (married women aged 15-49)(2011)[5]	62.9%
Female primary school completion (2011)[6](married women aged 15-49)	11.6%
Skilled attendance at birth (2011)[7]	31.7%
Contraceptive prevalence rate (2011)[8] (any method, currently married women, 15-49)	61.2%
Estimated number of women living with obstetric fistula (2003)[9]	1.69/1,000

Bangladesh Supported Sites	Dates of Support	Treatment	Prevention
Ad-din Hospital Dhaka	2009-2013	X	X
Ad-din Hospital Jessore	2009-2013	X	X
Kumudini Hospital	2005-2013	X	X
LAMB Hospital	2005-2013	X	X
Memorial Christian Hospital	2005-2008	X	X

Overview of Fistula Care in Bangladesh

In 2003, EngenderHealth's Bangladesh Office and UNFPA carried out an assessment to develop a better understanding of obstetric fistula in Bangladesh. It estimated that the number of women living with fistula was 1.69 per 1,000 ever-married women. The report also assessed the capacity to treat fistula at a number of facilities, outlining needs for equipment, supplies, and skilled professionals.[10]

EngenderHealth, with funding under the ACQUIRE Project, began working with the Ministry of Health in July 2005 to support fistula services at three private facilities: Kumudini Hospital, LAMB Hospital and Memorial Christian Hospital. Support to Memorial Christian Hospital

[1] The World Bank. 2013. Bangladesh data. Retrieved from: http://data.worldbank.org/country/bangladesh
[2] National Institute of Population Research and Training (NIPORT), Mitra and Associates, and ICF International. 2013. Bangladesh Demographic and Health Survey 2011. Dhaka, Bangladesh and Calverton, Maryland, USA: NIPORT, Mitra and Associates, and ICF International. P.60. (http://www.measuredhs.com/pubs/pdf/FR265/FR265.pdf)
[3] National Institute of Population Research and Training (NIPORT), MEASURE Evaluation, and icddr,b. 2012. Bangladesh Maternal Mortality and Health Care Survey 2010. Dhaka, Bangladesh: NIPORT, MEASURE Evaluation, and icddr,b. p. 33 http://www.cpc.unc.edu/measure/publications/tr-12-87
[4] NIPORT and ICF, op. cit., p.51(see reference 2)
[5] Ibid., p.35
[6] Ibid., p.32
[7] Ibid., p.131
[8] Ibid., p.86
[9] EngenderHealth and UNFPA. 2003. Situation Analysis of Obstetric Fistula in Bangladesh. Dhaka: EngenderHealth. P. 7 http://www.fistulacare.org/pages/da/files/8/8.3/bangladesh-fistula-report.pdf
[10] Ibid., p. 7

ended in December 2008. Support to two additional private facilities, Ad-din Dhaka and Ad-din Jessore, began in November 2009. UNFPA supports fistula repairs at 10 public sector facilities, including Dhaka Medical College which serves as a training center.

Fistula Care Bangladesh worked with these five private hospitals to identify and repair women with fistula, link them with rehabilitation and reintegration activities, and reach out to the surrounding communities to provide information on the causes and signs of fistula as well as safe birth practices. Kumudini and Ad-din Dhaka Hospitals provided routine repair services, while Ad-din Jessore conducted periodic outreach repair services, relying on outside consultants. LAMB Hospital performed routine simple fistula surgery and organized concentrated repair efforts for complex fistula cases. Memorial Christian Hospital (MCH) provided treatment and prevention services until support was discontinued due to the departure of the fistula surgeon. In addition to fistula treatment, each hospital provided a range of maternity services including antenatal care (ANC) family planning services and deliveries, including cesarean sections and conducted reach activities to raise awareness about fistula treatment prevention.

Fistula Care served as the secretariat for the National Fistula Task Force, which meets quarterly and has been developing Bangladesh's National Strategy on Obstetric Fistula; see Result 4 below for more details. Fistula Care collaborated with the Ministry of Health and Family Welfare (MOHFW), Director General of Health Services (DGHS) and UNFPA on policy and advocacy issues related to fistula prevention and treatment.

The EngenderHealth Bangladesh office raised private funds totaling $$76,081 from local corporations and individuals to support some patient care and transportation costs. Major contributors included GETCO, HSBC, UK and Nuvista Pharma Ltd., with the remaining donations coming from individual donors.

Fistula Care worked with the National Fistula Centre at Dhaka Medical College Hospital to conduct basic and refresher training on fistula repair surgery and management for doctors and nurses. Dr. Sayeba Akhter, formerly of the National Fistula Center, served as a consultant to the program for training and complex repairs and Dr. Mahendeka from Tanzania provided training in fistula repair in the last two years of the project.

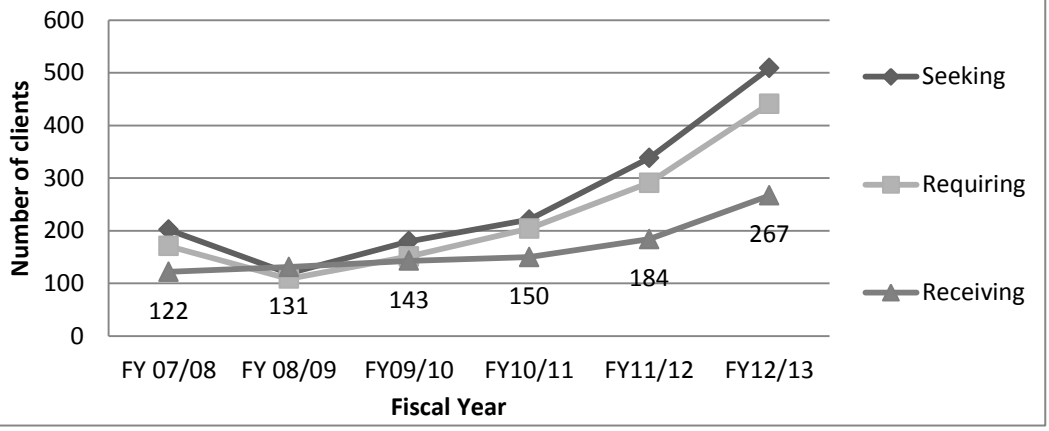
Key Achievements, by Result

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

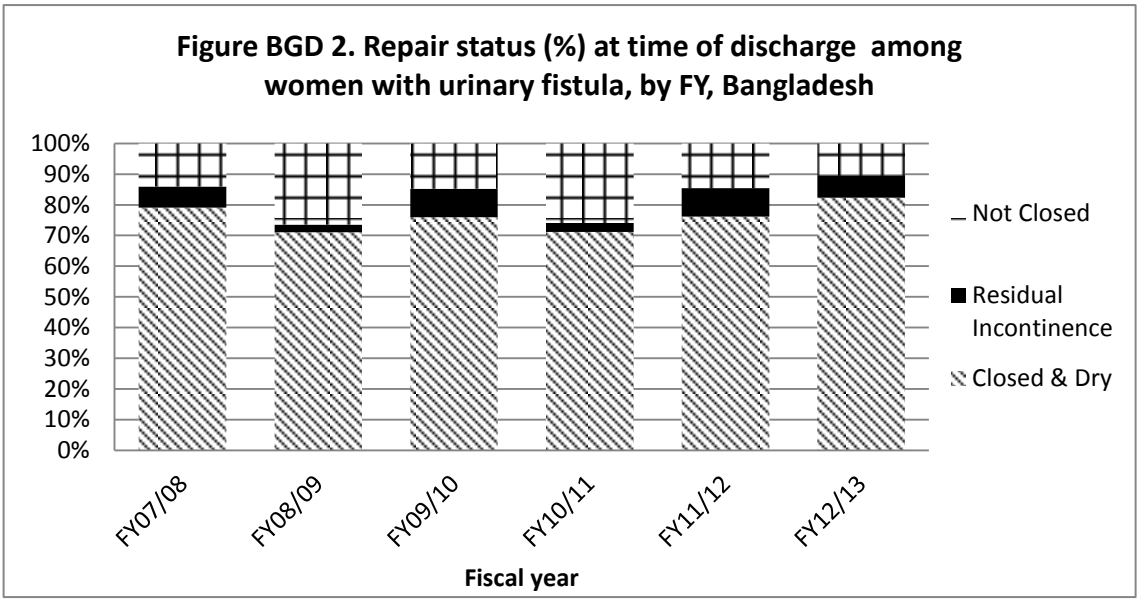
The number of repairs steadily increased over the life of the project, as did the number of women seeking and requiring repairs. The gap between those receiving repairs and those requiring them grew in the last few years of the project, due to the success of community outreach efforts outpacing increases in surgeon and site capacity to address these cases. In particular, the needs of women with more complex fistula are more difficult to meet due to inadequate numbers of surgeons able to perform complex-level repairs. Additionally, staff turnover was a challenge at supported sites, particularly among Ob/Gyns who are currently the only cadre of staff authorized to provide fistula treatment services. As a result, a backlog developed at LAMB for clients who needed to wait for national expert surgeons or expatriate surgeons to be available for concentrated repair efforts for more complex cases. Ad-din Hospital Jessore referred complex cases to Ad-din Hospital Dhaka and Kumudini Hospital referred these cases to the National Fistula Centre or Ad-din Hospital Dhaka.

Since October 2007, 997 repairs were supported at five sites in Bangladesh (Fig BGD1). Closed and dry rates at time of discharge ranged from 71% to 82% (Fig BGD2). Further discussion of closed and dry rates can be found in the Global Accomplishments section of this report, under IR1.1. As described earlier, sites experienced backlogs due to the complexity of the cases presenting and the dearth of available surgeons to provide repairs. Expert outside consultants were brought in as often as possible to provide repair services for the more complex cases as well as to mentor junior surgeons and provide training for providers during concentrated outreach services. However the gap between those needing and those receiving surgery remains large.

Figure BGD 1. Demand for services by FY, October 2007 - December 2013, Bangladesh



Reports on complications arising from fistula surgery varied by supported sites. The annual overall reported complication rates ranged from less than one percent to 15% over the life of the project. A discussion of complication reporting is presented in the Global Accomplishments section of the report, under IR1.2



Fistula Care supported fistula repair trainings to strengthen the capacity of providers and facilities, providing both didactic and practical training to surgeons, nursing staff and anesthetists. From October 2007 to the end of the project, 14 surgeons participated in fistula repair training, five of whom received multiple trainings (Table BGD1). As of September 2013, six of these surgeons are providing routine surgical repair in Bangladesh at Fistula Care supported sites. Analysis and discussion of surgeon training data and retention are presented in the Global Accomplishments section of this report, under IR1.3.

Table BGD1. Bangladesh surgeon training in fistula repair FY07/08 to FY12/13

Training in Fistula Surgery, Bangladesh	N
Number of surgeons trained in fistula repair	14
Number of surgeons tracked through training follow up efforts through March 2013	13
Competency levels achieved by trained surgeons	
Simple	9
Medium	1
Complex	2
No information available	1
Total number of trained surgeons providing fistula repair as of March 2013:	7
Number trained providing services at Fistula Care supported sites	6
Number of trained surgeons who have provided training to other surgeons	0

Training in fistula counseling, infection prevention and quality assurance also took place reaching 677 individuals (See Table BGD2). 71 nurses and anesthetists received training in pre- and post-operative care. Fistula Care also developed a poster on postoperative care for obstetric

fistula clients to give guidance (in Bangla) to providers about caring for postoperative fistula clients.

Table BGD2. Number of staff trained in fistula repair related topics by FY, Bangladesh

	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
Pre and postoperative care	35	16	9	8	0	3	**71**
Infection Prevention	0	58	77	54	69	51	**309**
Quality Assurance	0	12	23	24	26	10	**95**
Fistula Counseling	30	45	75	56	39	28	**273**
Total	**65**	**131**	**184**	**142**	**134**	**92**	**748**

To increase capacity to provide quality fistula diagnosis and repair, Fistula Care provided equipment for a 20 bed fistula ward at Kumudini Hospital, including an incinerator for medical waste disposal in 2012. Fistula Care also provided a new incinerator in FY12/13 for medical waste disposal to LAMB Hospital. Fistula Care provided fistula repair kits to all supported sites.

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

During the life of the project, over 1,600 health care workers attended training related to fistula prevention interventions; see Table BGD3.

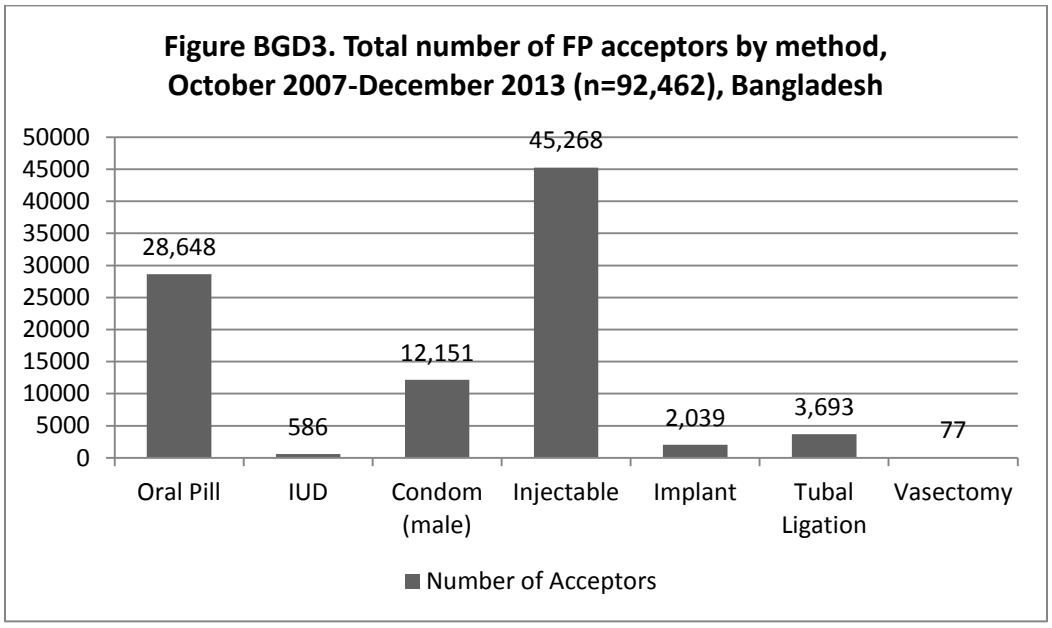
Table BGD3. Number of staff trained in fistula prevention related topics by FY, Bangladesh

Type of Training	FY 07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
FP Counseling	0	0	20	0	30	13	**63**
Family Planning Methods	0	0	42	16	122	142	**322**
Obstetric Care	0	45	94	244	54	46	**483**
Community Outreach & Advocacy	0	86	18	0	231	292	**627**
Data Management	0	0	47	0	5	13	**65**
Other	0	51	16	32	0	10	**109**
Total	0	182	237	292	442	516	**1,669**

Family Planning Integration. In 2011, Fistula Care Bangladesh adapted and translated into Bangla the FP materials produced by the global project: FP methods quick reference chart and the chart on client-centered reproductive health counseling following fistula repair. Orientation sessions on obstetric fistula counseling have included family planning and utilize these charts. All Fistula Care sites have the government approved FP manual for ready reference. The project provided orientations to site staff on counseling about obstetric fistula and family planning, provided information on pregnancy, safe birth practices and the use of family planning methods following fistula repair, incorporated informed choice/informed consent into orientation sessions on counseling for obstetric fistula and family planning; and provided informed consent forms for use by Fistula Care -supported sites for fistula repair services. In total, 63 individuals

participated in FP counseling training, and 322 individuals with an update about FP method provision training (See Table BGD3).

All supported sites in Bangladesh provided family planning services as part of their approach to prevention of obstetric fistula. In total between FY07/08 and FY12/13, there were nearly 90,000 FP acceptors (see Fig BGD3). Injectables were the most popular of the methods provided, followed by oral pills and male condoms.



Obstetric Care. All five Fistula Care supported sites in Bangladesh provide a range of maternity services, including ANC, deliveries, and cesarean sections (CS). A discussion about cesarean deliveries can be found in the Global Accomplishments section of this report under IR2. 1; Annex 6 includes details about the number of deliveries and CS reported by supported sites by FY. Fistula Care strongly emphasized the importance of available high quality maternity care as a fistula prevention strategy and improving linkages between facilities and the communities they serve. Bangladeshi efforts in this area were documented in two technical briefs:

- *Increasing Access to Maternity Services in Rural Bangladesh: Sustainable Facility-Community Links*, which describes efforts by Ad-din Hospital and LAMB to establish community-level services for women in rural, underserved communities. LAMB's safe motherhood program included training of traditional birth attendants and community-based skilled birth attendants, as well as the provision of technical assistance to community-run safe delivery units. Ad-din Jessore ran satellite clinics to bring safe motherhood services to rural populations. The two programs are noteworthy for their efforts to ensure community ownership, and in turn sustainability. Ad-din is integrated into a microfinance program to enable financial independence for the program; LAMB empowers community members to truly own and manage its services.
- *Low-Cost Ambulance Network to Provide Access to Maternity Services in Dhaka, Bangladesh* which describes Ad-din Hospital's efforts to establish a low-cost ambulance service to address the fact that many women in Dhaka were unable to access emergency

obstetric care and. Ad-din uses mobile phones and global positioning system (GPS) tracking to manage a fleet of ambulances stationed throughout the city.

Nearly five hundred (n=483) health care workers participated in trainings on providing quality obstetric care including emergency obstetric care (EmOC), partograph use, active management of the third stage of labor (AMSTL), management of pre-eclampsia and eclampsia and referral (see Table BGD3).

Annual partograph monitoring was conducted at supported sites. It is most encouraging to note the high rates of correct partograph completion at the Bangladesh sites in FY12/13: three of the four facilities had rates above 96% (see Table 8 in Global Accomplishments section of this report, IR2.1). However, to enable a more comprehensive analysis of the quality and appropriateness of labor management at these facilities in the context of rapidly rising national rates, this data needs to be linked to rates of and indications for cesarean delivery. The latest Demographic and Health Survey (DHS) indicated that 17.1% of all births were by cesarean, and 28.8% of births are at facilities indicating that 59% of institutional births are by cesarean.[11]

Based on findings from a cesarean record review study, Fistula Care worked with Kumudini to strengthen cesarean recordkeeping and decision-making. In addition, in 2013, using findings on the use of the partograph from the CS study and results of annual partograph monitoring, the Bangladesh Fistula Care team, in collaboration with the President of the Obstetrics and Gynecology Society of Bangladesh (OGSB), developed a strategy paper on the institutionalization of prevention interventions, including the partograph and CS indications. This strategy paper includes recommendations for how facilities in Bangladesh can more consistently use the partograph and apply standardized indications for CS. This list will guide providers in ensuring rational use of CS for safe motherhood.

Several materials were developed over the life of the project to increase capacity of health care workers to provide safe birth practices and identify and refer fistula clients. In FY08/09, a flip chart on obstetric fistula for birth attendants was developed and ddisseminated in Fistula Care supported sites in 2012 to distribute health care providers at field level. In November 2013 Hamlin Hospital in Addis Ababa requested permission from Fistula Care to adapt this tool for their program.

A draft training package for emergency obstetrics was developed and field tested at the sites. The training package has not yet been approved by an affiliating body, but has been used for EmOC training Fistula Care - supported sites. In FY09/10, a pictorial partograph was developed at LAMB hospital, in

[11] NIPORT and ICF, op. cit., p.128 (see reference 2)

collaboration with Emory University, and is currently being pilot tested. In order to be used more widely, this tool would require advocacy efforts, dissemination and endorsement by the government of Bangladesh and professional bodies.

Community-Level Interventions. Community outreach efforts by each facility have been extensive. Community outreach events were organized by an outreach team from each hospital. Each outreach team was composed of 5 to 6 persons—physicians, nurses, paramedics, field coordinators. Target audiences included NGOS, schools, health workers, religious leaders, locally elected officials, men, and mothers-in-laws. Key messages at these events were focused on causes of maternal morbidity and mortality, importance of male involvement, danger signs of pregnancy, causes of fistula, prevention of fistula and importance of reintegrating women with fistula back into their communities. Outreach also emphasized identification of probable fistula cases and shared information on availability of treatment.

Table BGD4. Number of community outreach and advocacy events and participants reached by FY, Bangladesh

	Events	Participants
FY07/08	231	15,118
FY08/09	44	2,243
FY09/10	140	6,697
FY10/11	165	6,011
FY11/12	139	4,824
FY12/13	147	6,159
Total	**866**	**41,052**

Fistula Care increased awareness of fistula treatment and prevention and safe motherhood practices through nearly 900 community outreach activities reaching over 41,000 participants (see Table BGD4).

In FY10/11, the community outreach strategy in Bangladesh was restructured to be more effective and accessible to its target audience. Changes include use of simple maternal child health messages as well as training former fistula patients to act as community volunteers as part of reintegration into their communities. More than 60 former patients were identified and trained to serve as community educators to raise awareness about fistula treatment and prevention services.

Fistula Care collaborated with the rehabilitation center of the National Fistula Center to ensure that fistula clients were referred to Ad-din Hospital Dhaka for repair. They also provided rehabilitation support to fistula clients post-repair which included skills training in tailoring, knitting and weaving.

Several information, education and communication (IEC) materials were developed and distributed throughout the life of the project. These included:

- A booklet of fistula survivors' stories, highlights the importance of prevention and designed to raise awareness about the magnitude of the fistula burden and the solutions needed to reduce maternal mortality and morbidity.
- A brochure that explains what fistula is, the scope of the problem, and EngenderHealth activities in Bangladesh that address obstetric fistula.
- A document (in Bangla) that explains what obstetric fistula is, why it occurs, and where treatment and rehabilitation can be sought. It also provides images and explanations for methods to prevent fistula.

- An obstetric fistula care identification checklist poster, aimed at providers, that provides three questions (Woman delivered? Labor pains persisted for more than 12 hours? Continuous leaking of urine or feces through vaginal passage after delivery?) for which positive answers for all three means the client should be referred to a facility. It also listed the names and locations of four Fistula Care partner sites and 10 government hospitals where treatment can be received for free.
- A picture book designed to support health service providers and field-level workers in raising awareness among local leaders and the general population about obstetric fistula and engaging these audiences in the effort to prevent obstetric fistula and improve maternal health in their communities. This teaching aid is available in English and Bangla.
- A poster, in Bangla, which explains causes and symptoms of fistula and lists four Fistula Care partner sites and 10 government hospitals where free care is available.

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

Data for Decision Making. The DGHS decided to incorporate fistula indicators into their health MIS. On July 25, 2013, the MIS decided to create an online data entry system for these indicators, but the system remains under development at this time. Four indicators were identified for inclusion in the MIS; see Table BGD5.

Data for Decision-Making workshops were carried out at four supported sites reaching 65 health care staff (see Table BGD3). In FY11/12, Kumudini, LAMB, and Ad-Din Dhaka Hospitals conducted data quality assessments. Between FY07/08 and FY12/13, a total of 60 data review meetings were held by supported sites.

Table BGD5. Indicators incorporated into Bangladesh's HMIS

Women receiving genital fistula repair
Number receiving repair who were discharged closed and dry
Number receiving repair who were discharged not closed
Number receiving repair who remained with incontinence at discharge

Research. Fistula Care supported sites in Bangladesh participated in two global research studies (both completed in FY09/10): the prospective observational study on outcomes of repairs and the retrospective cesarean record review. The observational and cesarean study findings were disseminated nationally in FY11/12. A summary of the findings from these studies are located in Annex 9.

Qualitative research, conducted by Lauren Blum (with USAID funding) looked at the social consequences of fistula and what factors affect how women with fistula are treated. Findings from this research are presented in the technical brief: *Living with Obstetric Fistula: Qualitative Findings from Bangladesh and the DRC*. 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.

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

The Fistula Care team, along with local government officials and UNFPA successfully advocated with the DGHS of the Government of Bangladesh to form the National Task Force on Obstetric Fistula. The task force was formed in 2008, led by the DGHS and with Fistula Care serving as the secretariat. 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. Fistula Care helped the DGHS and UNFPA to organize and hold national advocacy meetings in Dhaka during December 2009 and August and September 2010. These meetings included stakeholders from the public and private sectors, providers, managers and development partners. Their work focused on identifying and developing the terms of reference for the national consultants to develop the strategic vision. In addition, the meetings facilitated the establishment of referral linkages between the National Fistula Center/Director of Maternal and Child Health (DMCH) and other fistula treatment sites located in Dhaka. The DGHS submitted the "National Strategy on Obstetric Fistula" to the MOHFW on December 5, 2013. Prior to submission, at the request of the DGHS the strategy was reviewed by an expert team which included the Director of Primary Health Care, DGHS; DMCH, Director General of Family Planning (DGFP); UNFPA Country Representative; the President OGSB; and EngenderHealth's Country Representative. [12]

Over the life of the project, Fistula Care developed several tools and products designed for improving fistula treatment and prevention care. See Annex 11 in Part I of this report for a list of the tools which were used by supported sites during the life of the project.

Resources Developed in Bangladesh

- Increasing Access to Maternity Services in Rural Bangladesh: Sustainable Facility-Community Links
- Living with Obstetric Fistula: Qualitative Findings from Bangladesh and the DRC
- Low-Cost Ambulance Network to Provide Access to Maternity Services in Dhaka, Bangladesh
- Enabling to Ensure Women's Rights: Help an Obstetric Fistula Patient
- Obstetric Fistula Brief
- Obstetric Fistula Care Identification Checklist
- Obstetric Fistula: A Devastating Maternal Injury
- Obstetric Fistula: A Tragic Experience
- Poster on Obstetric Fistula
- Poster on Postoperative Care for Obstetric Fistula Clients

Towards a Fistula-Free Generation

In August 2013, Fistula Care Bangladesh hosted a symposium to bring together stakeholders working on fistula treatment and prevention in Bangladesh to discuss lessons learned over the life of the Fistula Care project and prioritized future activities to work towards a fistula-free generation. The symposium brought together 150 participants including representatives of the

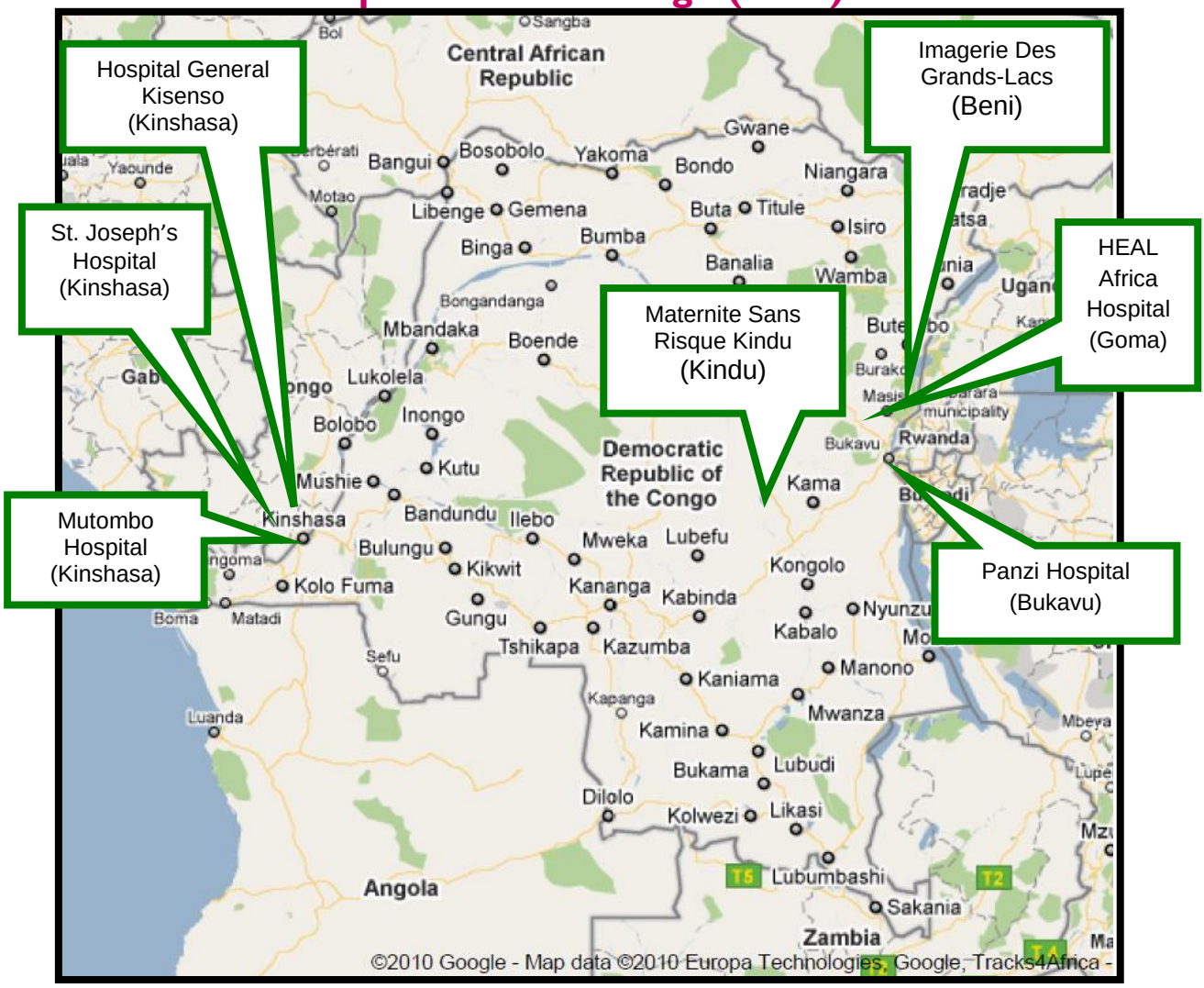
[12] The strategy was approved 21 January 2014.

DGHS, DGFP, USAID, UNFPA, National Fistula Centre, Fistula Care sub-awardees, OGSB, Bangladesh Nursing Council, social corporate sector, private hospitals providing fistula care services and other NGO/ development partners.

The participants suggested an extensive list of recommendations, which included the following:

1. Finalize and disseminate the National Strategy on Obstetric Fistula and development of National Action Plan for Obstetric Fistula.
2. Ensure a sustainable fistula care project through political commitment and continuous financial support.
3. Advocate for multi-sectoral involvement, including other ministries (e.g., Ministry of Women Affairs, the Ministry of Information etc.) and the private/corporate sector.
4. Eliminate vertical/ isolated programs and have a comprehensive approach, i.e. comprehensive safe motherhood rather than a vertical fistula program.
5. Carry out a National Fistula Awareness Raising Campaign through a multisectoral approach.
6. Update the 2003 national situation analysis on obstetric fistula in Bangladesh.
7. Strengthen safe motherhood services including birth planning, skilled birth attendant, using partograph to monitor progress of labor, appropriate referral and access to EmOC; CS when indicated.
8. Strengthen family planning awareness and services.
9. Establish early catheterization in cases of obstructed prolonged labor.
10. Improve the midwifery training program with a focus on facilitative supervision and mentoring and standardization of trainers' skills.
11. Build upazila health complex capacity for fistula screening and referral.
12. Implement the Levels of Care Framework.
13. Increase the number of fistula service sites
14. Build surgeon capacity and improve clinical quality through a comprehensive training program, developing champions/ mentors and using them to motivate providers.
15. Include fistula surgery in post graduate courses on gynecology & obstetrics.
16. Educate fistula clients on pelvic floor exercises.
17. Expand fistula care services in the private sector.
18. Focus efforts to increase retention of skilled providers.
19. Establish a satellite fistula surgery program and in those district/ medical college hospitals located in different locations other than established fistula centers, and where fistula surgeons are not available or not confident enough to perform fistula surgery.
20. Conduct research on iatrogenic fistula
21. Work to prevent iatrogenic fistula through improving skills of providers performing CS and other lower abdominal surgery.
22. Strengthen reintegration of fistula clients with family and community, through collaboration with the Ministry of Social Welfare, Women Affairs, CBOs, micro-credit based organizations and field workers of the health and family planning department. Develop community fistula advocates (trained cured fistula clients) to identify, refer and reintegrate fistula clients.

Democratic Republic of the Congo (DRC)



Democratic Republic of Congo, Summary of Achievements

Start date with USAID funding: 2005

Background

DRC Demographic Data	
Population (2012)[13]	65.7 million
Maternal mortality ratio (2010)[14]	540
Total fertility rate (2007)[15]	6.3 children/woman
Median female age at first marriage (women 25-49) (2007)[16]	18.6 years
Female literacy (women aged 15-49) (2007)[17]	58.9%
Skilled attendance at birth (2007)[18]	74%
Contraceptive prevalence rate (any method, married women, 15-49)[19]	20.6%

DRC Supported Sites	Dates of Support	Treatment	Prevention
HEAL Africa Hospital	2006-2013	X	X
Panzi Hospital	2007-2013	X	X
Imagerie des Grands Lacs (IGL)	2011-2013	X	X
Maternité Sans Risque (MSRK)	2011-2013	X	X
Hôpital Saint Joseph	2011-2013	X	X
Biamba Marie Mutombo Hospital	2011-2013	X	X
Centre Hospitalier de Kisenso	2013	X	X

Overview of Fistula Care in DRC

USAID support for fistula treatment and prevention in the Democratic Republic of Congo (DRC) began in 2005 under a USAID/DRC bilateral agreement with the International Rescue Committee. This work focused on fistula repairs at two facilities in Eastern Congo, HEAL Africa and Panzi Hospitals. In 2008, EngenderHealth began work with these two facilities under the Fistula Care project and continued to expand the program, adding four new sites in FY10/11. In July 2012, Fistula Care conducted an assessment of three facilities in Oriental Province (Hopital General Reference (HGR) Makiso, Centre de Sante de reference (CRS) Al-Waleed, Makiso, and HGR Ubundu). The assessment team recommended working with Ubundu, a faith based organization that would be supported for training by St. Joseph's in FY12/13. The planned outreach to Ubundu did not take place as planned as they had not identified sufficient patients for surgery; the outreach event was reprogrammed to HGR Makiso; the repairs done during that outreach in FY12/13 are counted under the repairs reported by St. Joseph. By July 2013, Fistula Care had provided support to seven facilities for comprehensive fistula treatment services (see

[13] World Bank (2012). http://www.worldbank.org/en/country/drc
[14] World Health Organization. 2012. Trends in maternal mortality: 1990 to 2010.Geneva. http://www.unfpa.org/public/home/publications/pid/10728 p. 33.
[15] Ministère du Plan et Macro International. 2008. *Enquête Démographique et de Santé, République Démocratique du Congo 2007.* Calverton, Maryland, U.S.A. : Ministère du Plan et Macro International. p.44. http://www.measuredhs.com/pubs/pdf/SR141/SR141.pdf
[16] Ibid., p.80
[17] Ibid., p.28
[18] Ibid., p.114
[19] Ibid., p.61

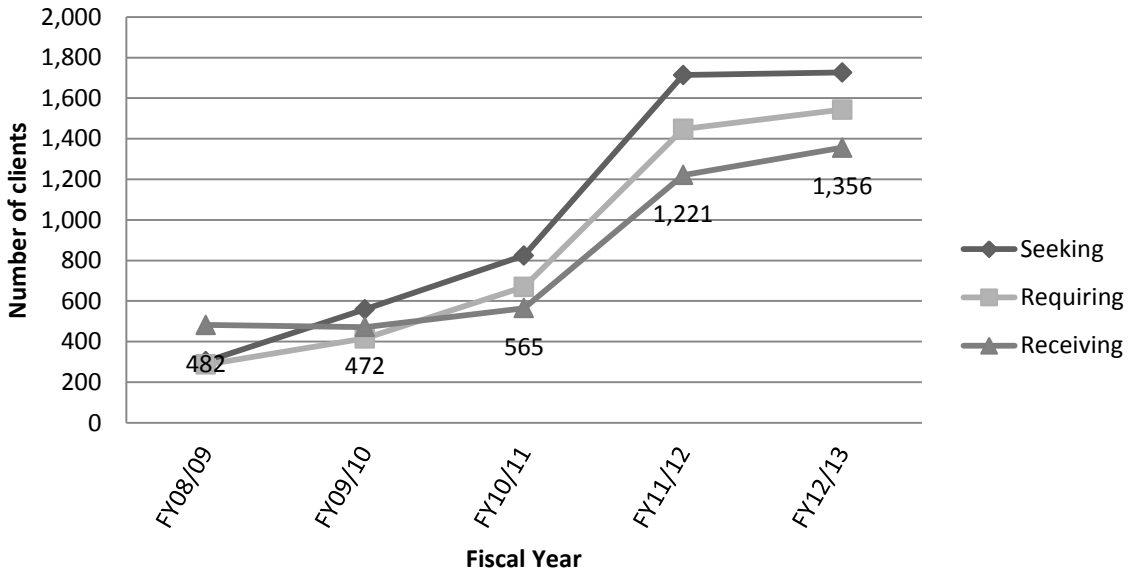
map). The Harvard Humanitarian Initiative, through a subaward from Fistula Care, provided advanced training to surgical teams and helped local teams address the backlog of cases by enhancing surgical capacity. EngenderHealth raised $30,081 private funds to support fistula repairs at Panzi Hospital. USAID has also supported fistula services through the bilateral projects Project AXxes and PROSANI.

Key Achievements, by Result

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

Demand for services grew, along with the number repairs performed at Fistula Care supported sites over the life of the project. Figure DRC1 shows the demand for treatment and the number of repairs at Fistula Care supported sites by fiscal year; supported sites have not had large backlogs of women waiting for surgery. Between October 2008 and September November 2013 USAID supported 4,096 fistula repair surgeries at Fistula Care supported facilities. Additional repairs were supported through bilateral agreements during the 2007 to 2013 period, accounting for an additional 1,735 surgeries[20]. In total USAID funds have supported 6,490 repairs in the DRC since FY 2006/07.

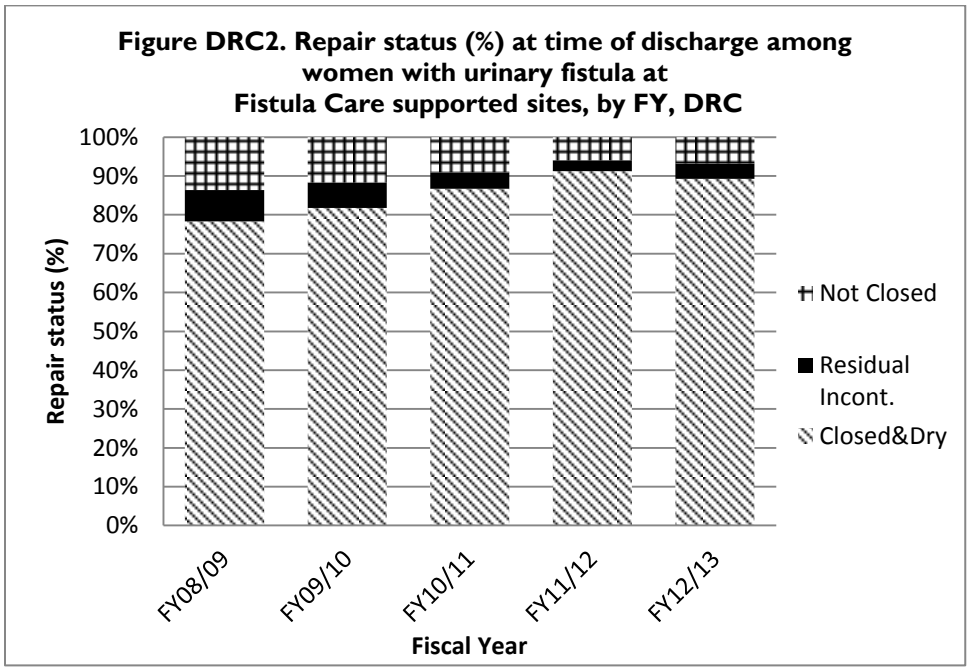
Figure DRC1. Demand for services, October 2008-December 2013 by FY, Fistula Care supported sites, DRC



The closed and dry rates at supported sites have also generally increased each year; see Figure DRC2. During FY12/13, 90% of women undergoing surgical repair were closed and dry at the time of discharge at Fistula Care supported sites. Further discussion of closed and dry rates can be found in Global Accomplishments section report, under IR1.1. Reports on complications arising from fistula surgery varied by supported site. The annual overall reported complication

[20] This is underreported. The data for the bilateral project was not available for the last quarter of FY12/13.

rates ranged from 1% -3% over the life of the project. A discussion of complication reporting is presented in the Global Accomplishments section of the report, under IR1.2.



Since 2007, 44 surgeons have attended training in fistula repair; see Table DRC1. Twenty-five surgeons were trained as trainers and 17 have the skills to repair complex fistula cases. As of March 2013, 18 of these surgeons were providing repairs, seven at Fistula Care supported sites. Fistula Care provided resources to Panzi Hospital to support their training of surgeons in fistula repair. Analysis and discussion of surgeon training data and retention are presented in the Global Accomplishments section of this report, under IR1.3. In total, 460 health providers attended training in treatment-related topics (e.g., pre-, post-operative care, infection prevention, quality assurance) (see Table DRC2).

Table DRC1. DRC surgeon training in fistula repair, October 2007-December 2013

Training in Fistula Surgery	N
Number of surgeons trained in fistula repair	44
Number of surgeons tracked through training follow up efforts through March 2013	44
Competency levels achieved by trained surgeons	
Simple	22
Medium	5
Complex	17
No information available	0
Total number of trained surgeons providing fistula repair as of March 2013:	18
Number trained providing services at Fistula Care supported sites	7
Number of trained surgeons who have provided training to other surgeons	10

Table DRC2. Number of staff trained in fistula repair related topics by FY, DRC

	FY07/08[21]	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
Pre and Postoperative Care	8	0	0	34	12	4	**58**
Infection Prevention	0	0	0	105	23	0	**128**
Quality Assurance	0	0	0	0	10	35	**45**
Fistula Counseling	0	46	48	60	0	72	**226**
Total	**8**	**46**	**48**	**199**	**45**	**114**	**460**

Significant strides have been made in quality assurance, medical monitoring, medical waste management, and infection prevention at supported sites. For example, all sites adopted EngenderHealth's COPE® model for quality assurance[22] and one site, MSRK, developed and implemented a medical waste management plan where previously none existed.

Fistula Care also supported facilities to increase their physical capacity to provide surgical repair. Kisenso Hospital in Kinshasa carried out improvements to the facility in 2012 to allow for fistula repair surgeries to occur. As a result, client privacy is ensured for consultations and counseling, and the facility now has a fully equipped operating theater.

Sexual violence during conflict in the DRC has been heavily documented in Eastern Congo. One consequence of sexual violence can be traumatic fistula, "an abnormal opening between the reproductive tract of a woman or girl and one or more body cavities or surfaces caused by sexual violence, usually but not always in conflict or post-conflict settings."[23] In 2008 Fistula Care partners and staff published a paper about women's experiences from sexual violence in *Reproductive Health Matters*.[24] To address the needs of women who have suffered from

[21] Through USAID bilateral project.

[22] EngenderHealth. 2003. *COPE® Handbook: A process for improving quality in health services.* Revised Edition. New York.

[23] Addis Ababa Fistula Hospital, EngenderHealth/The ACQUIRE Project, Ethiopian Society of Obstetricians and Gynecologists, and Synergie des Femmes pour les Victimes des Violences Sexuelles. 2006. *Traumatic gynecologic fistula: A consequence of sexual violence in conflict settings—A Report of a Meeting Held in Addis Ababa, Ethiopia, September 6 to 8, 2005*. New York: EngenderHealth/The ACQUIRE Project. p. 3 Available: http://www.fistulacare.org/pages/da/files/8/8.3/tf-report-english.pdf

[24] Longombe, A. O.; Claude, K.M. and Ruminjo, J. 2008. Fistula and Traumatic Genital Injury from Sexual Violence in a Conflict Setting in Eastern Congo: Case Studies, *Reproductive Health Matters* (2008;16(31):132–141).

traumatic fistula, Fistula Care supported counseling training for 102 providers using *Counseling the Traumatic Fistula Client: A Supplement to Obstetric Fistula Counseling Curriculum*.

In 2013, EngenderHealth secured approximately $30,000 from Catapult, a crowd funding website dedicated to girls and women, to support treatment at Panzi Hospital. The funds were used to equip surgical teams to conduct outreach fistula repair services and to cover the costs of transportation for women with complex fistula living in remote areas of eastern DRC.

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

Fistula Care's effort to prevent fistula in the DRC focused on efforts to integrate family planning services, build facility capacity through obstetric care training, and increase awareness of fistula at the community level.

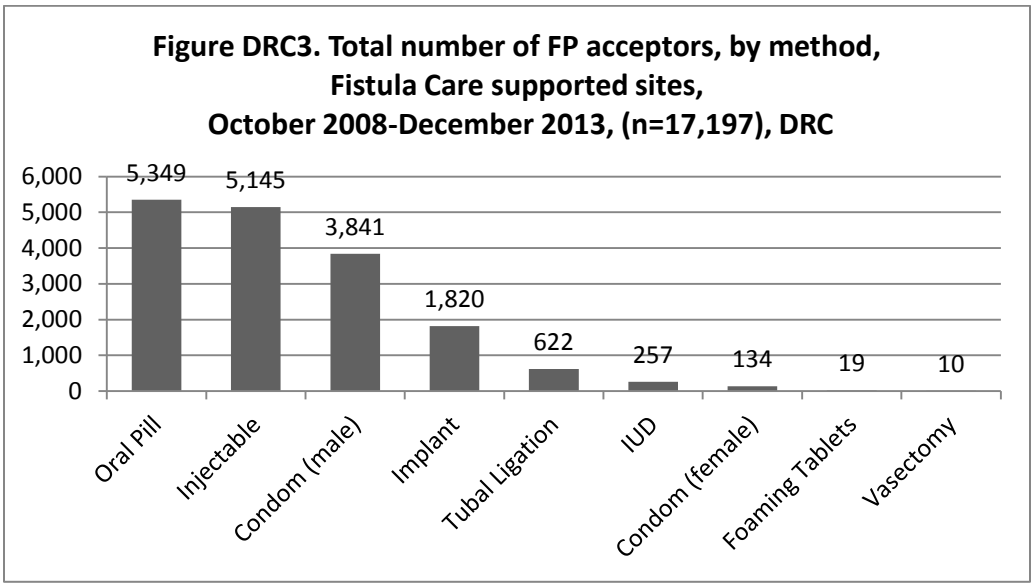
Family Planning Integration. Family planning services were supported at all Fistula Care supported sites. An August 2011 needs assessment conducted by Fistula Care found limited knowledge of and limited access to family planning methods. To address this gap, training of staff took place on family planning methods and counseling and on fistula counseling, including at sites affiliated with the Catholic Church.

The number of clients served with methods and/or counseled about family planning steadily increased each year. Prior to support from Fistula Care, IGL had never provided family planning services and other sites, such as St. Joseph's Hospital and Panzi Hospital provided extremely limited family planning services. To address the needs of facilities, Fistula Care supported training for 77 staff in family planning methods and 10 in family planning counseling (see Table DRC3). In addition to building staff capacity, Fistula Care provided family planning books and posters and worked with sites to link them with contraceptive supplies through USAID/DRC or other sources.

Table DRC3. Number of staff trained in fistula prevention related topics by FY, DRC

	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
Family Planning Counseling	0	0	0	0	10	**10**
Family Planning Methods	0	0	0	77	0	**77**
Obstetric Care	73	167	55	222	111	**628**
Community Outreach & Advocacy	0	0	0	0	24	**24**
Data Management	0	0	0	10	11	**21**
Total	**73**	**167**	**55**	**309**	**132**	**760**

All fistula clients receive counseling on family planning methods and are given a choice of methods to select from before discharge. More than 17,000 clients accepted a family planning method while nearly 38,000 were counseled on family planning between October 2008 and September 2013; male condoms, injectables and oral pills are the most common choices (see Figure DRC3). During FY12/13, approximately 13,600 clients received counseling with over 7,500 opting for a family planning method. Some of the gap between clients counseled and acceptors is due to the difficulty of ensuring that supplies and commodities are in stock in remote locations.



None of the Fistula Care supported sites provide surgical contraceptive methods, but five sites – HEAL Africa, Kinsenso, St. Joseph's, Mutombo, and Panzi – now have the capacity to accept referrals and provide IUDs and hormonal implants. Community engagement activities at two sites: HEAL Africa and Panzi, have included messages about the benefits of family planning. More details regarding the integration of family planning into fistula services at Fistula Care supported sites can be found in *Integrating Family Planning into Fistula Services: An Evaluation and Case Study*.[25]

Obstetric Care Training. Fistula Care supported strengthening cesarean delivery services. A discussion about cesarean deliveries can be found in the Global Accomplishments section of this report under IR2. 1; Annex 6 (in Part I of the report) includes details about the number of deliveries and CS reported by supported sites by FY.

Reviews of client records in DRC found a lack of correct and consistent partograph use during FY11/12; records at two sites found partographs in most records (43 out of 49), but none were completed 100% correctly. To address incorrect use of the partograph and other labor, delivery, emergency obstetric care issues, a total of 628 providers were trained at five supported sites (St. Joseph's Mutombo, MSRK, IGL, and Panzi) since FY08/09. Trainings covered topics including correct and consistent use of the partograph, emergency obstetric care, catheterization, active management of the third stage of labor, and cesarean deliveries to prevent fistula (see Table DRC3).

Community-Level Intervention. Fistula Care's community level activities in the DRC generally involved outreach and sensitization. In total 34 events reached nearly 5,000 participants (see Table DRC4). Many partner facilities conduct outreach activities, such as the Nehemiah Clubs at HEAL Africa in Goma, but not all of these activities are directly supported by Fistula Care and

[25] 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.

therefore are not reported here. Nehemiah Clubs are used to spread prevention messages and identify fistula cases in eastern DRC by engaging with communities through religious and community leaders. At present, the 116 clubs act as an entry point for health projects to access women in communities who are vulnerable. The clubs offer counseling, skills building, transport, waiting houses, diagnostic tests and referrals.

Table DRC4. Number of community outreach and advocacy events and participants reached by FY, DRC

	Events	Participants
FY10/11	9	2,270
FY11/12	9	629
FY12/13[26]	16	1,827
Total	**34**	**4,726**

In one instance Fistula Care supported Saint Joseph's Hospital in Kinshasa to conduct outreach in Bas Congo. Over a series of radio interviews and meetings with community leaders, the mobile number of a clinician was provided for prospective clients to call. Over the phone, a clinician asked women about fistula-like symptoms to determine the likelihood of having fistula. If the clinician's assessment that the woman had continuous leaking following obstructed labor, she was invited to one of the partner facilities where she would be screened and referred for treatment if needed. This screening helped avoid a potentially lengthy and expensive trip for women who did not have obstetric fistula.

St. Joseph's Hospital engaged numerous radio and television networks at local, provincial and national levels to increase awareness of fistula prevention and treatment. In 2011 and 2012, St Joseph's Hospital broadcasted programs on two of Kinshasa's principal religious radio stations, Radio Catholique de Kinshasa and Radio Protestante de Kinshasa. In Bandudu and Bas Congo provinces local radio stations made communities aware of fistula treatment services available at St Joseph's Hospital. In FY12/13, radio messages were broadcasted over a two week period in Orientale Province to inform the community about surgical outreach activities.

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

Data for Decision Making. Twenty-one doctors, nurses, and data managers at four facilities in DRC attended DDM training between October 2011 and June 2013 (see Table DRC2). Participants learned how to detect quality-related problems, determine the nature or cause of a problem and compare trends over time using the data generated from there facility as well on general record keeping. Data review has subsequently been incorporated into quarterly meetings at sites with the national coordinator. Between October 2008 and September 2013, a total of 37 data review meetings were held at supported sites, with 17 occurring in FY12/13.

Research. St. Joseph's Hospital was one of eight hospitals participating in the Fistula Care/WHO randomized controlled trial on short-term catheterization. A discussion of the study results can found in Annex 9.

Fistula Care published a 2012 technical brief, "Living with Obstetric Fistula: Qualitative Research Findings from Bangladesh and the Democratic Republic of Congo," which examined

[26] Data available through June 2013.

the lives of women with fistula, the impact of the condition on them, both physically and socially, and their attempts to access care. This research was carried by Lauren Blum with funding from USAID (non Fistula Care). The brief fills a knowledge gap relating to the social consequences of fistula and how social structures impact women's experiences.

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

Fistula Care supported the development of the DRC Obstetric Fistula Community of Practice (CoP) in partnership with the Ministry of Health. The CoP brings together health care providers including surgeons, nurses, midwives and other practitioners, policy makers, nongovernmental organizations, and representatives from the Ministry of Health. The CoP promotes the common interest of providing quality prevention, care, and treatment based on current research and international guidelines to women suffering from obstetric fistula.

Fistula Care supported the CoP by supporting face-to-face meetings, hosting a bilingual blog and message board to allow the community to communicate virtually, disseminating training materials, and providing support for the development of the national obstetric fistula strategy. The CoP has provided valuable space to exchange best practices, research and establish priorities to achieve a fistula-free generation. On International Women's Day in 2012, U.S. Secretary of State Hillary Clinton commended the work of the CoP in a letter noting the importance of its work in bringing together stakeholders to address obstetric fistula in the DRC.

Over the life of the project, Fistula Care developed several tools and products designed for improving fistula treatment and prevention care. See Annex 11 for a list of the tools which were used by supported sites during the life of the project.

The DRC previously had a national strategy for addressing fistula from 2007-2009; there is no current national strategy in place.[27] However, advancing the development and adoption of a new national fistula strategy is an important goal of the community of practice.

[27] Ministere de lat Sante Programme Natioinale Sante de la Reprodcution (PNSR). 2006. Strategie Nationale de Lutte Contre les Fistules Urogentiales en RDC: 2007-2009. Kinshasa.

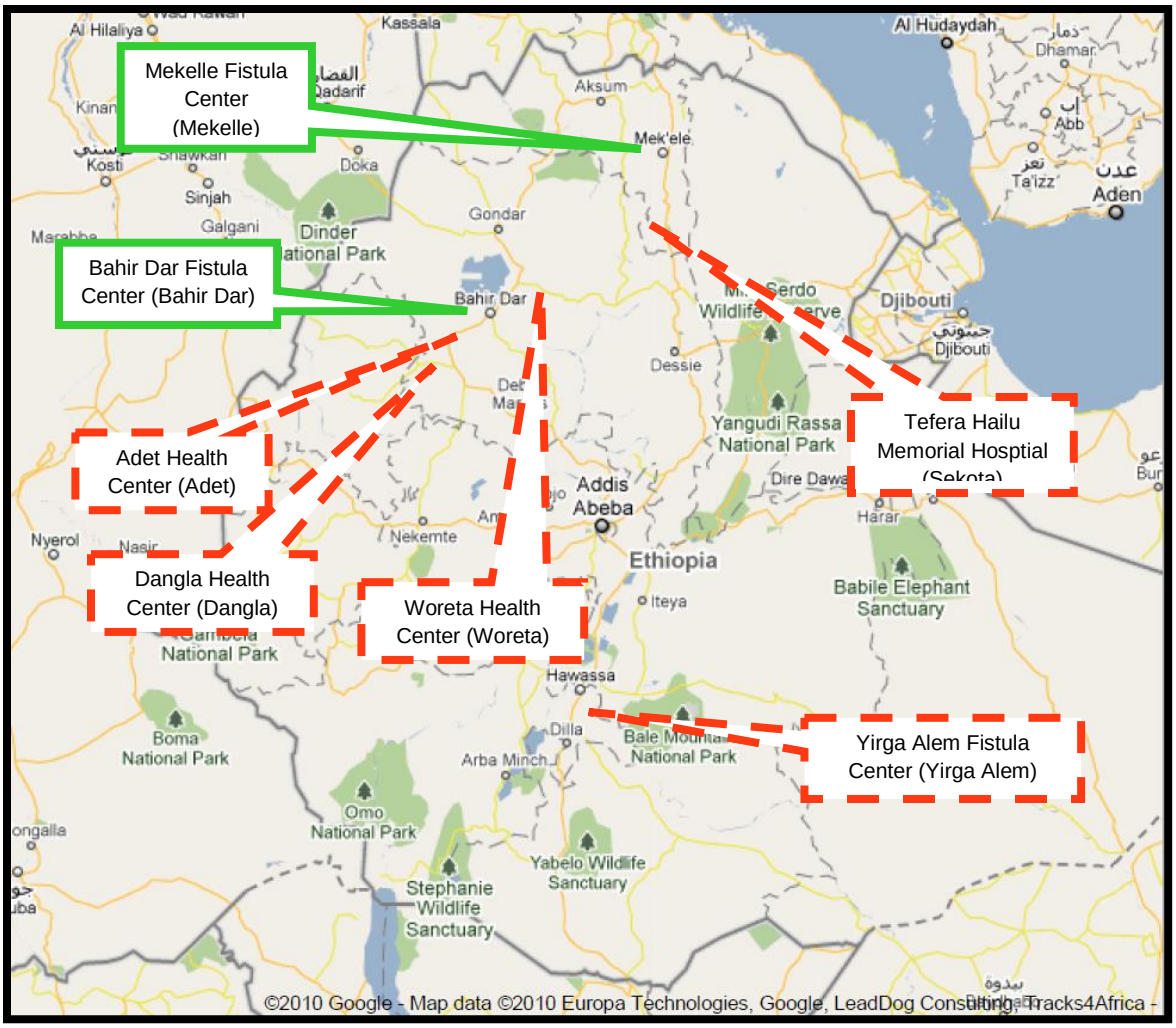
Toward a Fistula Free-Generation

Over three days in June 2013, Fistula Care hosted a series of meetings for stakeholders in the DRC to reflect on the achievements of Fistula Care and discuss what steps are needed to work toward a fistula-free generation in DRC.

The DRC CoP participants developed the following recommendations:

1. Make recommendations for a national classification system.
2. Prioritize and develop the national strategy.
3. Conduct research to accurately understand the prevalence and incidence of fistula in DRC.
4. Create a common understanding of fistula indicators, classifications and a definition of a "successful" fistula repair.
5. Improve use of family planning, partograph, and cesarean delivery as prevention.
6. Improve commitment of national and local government to creating a fistula-free generation.
7. Increase community awareness about prevention and treatment of fistula.
8. Implement standards of training across all fistula providers in DRC.
9. Develop mechanisms for successful socio-economic reintegration of fistula clients.
10. Address issues of security and sexual violence, particularly in the East.
11. Identify solutions to help overcome infrastructure and transportation barriers.

Ethiopia


Mekelle Fistula Center (Mekelle)
Bahir Dar Fistula Center (Bahir Dar)
Adet Health Center (Adet)
Dangla Health Center (Dangla)
Woreta Health Center (Woreta)
Tefera Hailu Memorial Hosptial (Sekota)
Yirga Alem Fistula Center (Yirga Alem)
Al Hilaliya
Kassala
Al Hudaydah
Dhamar
Aksum
Mek'ele
Kosti
Sinjah
Galgani
Dinder National Park
Gondar
Bahir Dar
Doka
Abb
Ta'izz
Aden
Djibouti
Dessie
Yangudi Rassa National Park
Dire Dawa
Harar
Addis Abeba
Ethiopia
Nekemte
Nyerol
Iteya
Babile Elephant Sanctuary
Hawassa
Dilla
Arba Minch
Bale Mountains National Park
Boma National Park
Omo National Park
Yabelo Wildlife Sanctuary
Stephanie Wildlife Sanctuary
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Ethiopia, Summary of Achievements

Start date with USAID funds: 2006

Background

Ethiopia Demographic Data	
Population (2012)[28]	91.73 million
Total fertility rate (2011)[29]	4.8 children/woman
Maternal mortality ratio (2011)[30]	676
Median female age at first marriage (2011)[31]	16.5 years
Female literacy (2011)[32]	38.4%
Female primary school completion (2011)[33]	4%
Skilled attendance at birth (2011)[34]	10%
Contraceptive prevalence rate (2011)[35] (any method, currently married women,15-49)	28.6%
Estimated incidence of obstetric fistula, among women ever giving birth (2013) [36]	10.6/1000 women

Ethiopia Supported Sites	Dates of Support	Treatment	Prevention
Adet Pre Repair Unit	2007-2013		X
Dangla Pre Repair Unit	2007-2013		X
Sekota Pre Repair Unit	2010-2013		X
Woreta Pre Repair Unit	2007-2013		X
Bahir Dar Hamlin Fistula Center[37]	2006-2012	X	
Mekelle Hamlin Fistula Center	2007-2012	X	
Yirga Alem Hamlin Fistula Center	2007-2012	X	

[28] The World Bank. 2013. Ethiopia data. Retrieved from: http://data.worldbank.org/country/ethiopia
[29]Central Statistical Agency [Ethiopia] and ICF International. 2012. Ethiopia Demographic and Health Survey 2011. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistical Agency and ICF International. p.70 (http://www.measuredhs.com/pubs/pdf/FR255/FR255.pdf)
[30] Ibid,p. 270.
[31] Ibid, p.63.
[32] Ibid, p.40.
[33] Ibid, p.38.
[34] Ibid, p.128.
[35] Ibid, p.96.
[36] Biadgilign,S, Lakew Y, Reda AA and Deribe, K, 2013. A population based survey in Ethiopia using questionnaire as proxy to estimate obstetric fistula prevalence: results from demographic and health survey. *Reproductive Health*. 10:14. http://www.ncbi.nlm.nih.gov/pubmed/23432944?dopt=Abstract&holding=f1000,f1000m,isrctn
[37] The Hamlin Fistula Centers were supported directly by USAID/Ethiopia. Women diagnosed with fistula at the pre repair centers were referred to Bahir Dar or Mekelle Centers.

Overview of Fistula Care in Ethiopia

USAID has provided support to fistula-related activities in Ethiopia through several global mechanisms. Support through EngenderHealth began in 2006, with funds provided through the ACQUIRE project to support activities implemented by ACQUIRE partner, IntraHealth International, to collaborate with the Addis Ababa Fistula Hospital (now named Hamlin Fistula Ethiopia (HFE)) in selected facilities outside of Addis Ababa. In April 2007, the USAID Mission directed funds to IntraHealth International through the Expanding Service Delivery (ESD) Project and continued direct funding to the Addis Ababa Fistula Hospital. ESD funding ended in 2008. Since that time, Fistula Care supported the pre-repair center work implemented by IntraHealth at the Adet, Dangla and Woreta pre-repair units (PRUs) in the Amhara region. In 2010 Fistula Care conducted an assessment of four facilities in eastern Amhara to identify a fourth pre-repair site in order to increase the number of women being referred for repair to HFE's Mekelle Hamlin Fistula Center, which was not operating at full capacity. Tefera Hailu Memorial Hospital in Sekota was chosen for establishment of a new PRU.

Each of the aforementioned global projects collaborated with HFE, which received bilateral funding from USAID/Ethiopia to provide fistula treatment. In-country partners have included local NGOs such as the Amhara Development Association, Women's Associations, community leaders and other health projects including the Urban Family Health Partnership, and Women Hope International.

Fistula Care supported efforts to extend access to fistula care services in rural areas, well outside the communities served by the Hamlin Hospitals, through training and community outreach in the catchment areas of the four PRUs in Adet, Dangla, Sekota and Woreta. The Amhara region has a population of just over 17.2 million,[38] comprising approximately one-quarter of the national population. In the country as a whole, the population is primarily rural, with only 17%[39] living in urban areas.

Sign for Adet Pre Repair Unit

Fistula Care partner IntraHealth International, in collaboration with Amhara Regional Health Bureau (ARHB) and Hamlin Fistula Ethiopia, supported prevention outreach, identification and referral of fistula patients, pre-repair care, postsurgical care, and community reintegration activities.

The PRUs were staffed by fistula mentors (nurses trained in fistula diagnosis and care) and nurse aides (former fistula patients) who provided a range of pre- and post-operative services to fistula patients. Fistula mentors conducted training and outreach to health workers and communities in the Amhara region covered by more than 540 health centers and health posts. The PRU model

[38]Central Statistical Agency of Ethiopia. 2010. 2007 Census Report: Part 1: Population Size and Characteristics. Page 7. Retrieved from: http://www.csa.gov.et/newcsaweb/images/documents/surveys/Population%20and%20Housing%20census/ETH-pop-2007/survey0/data/Doc/Reports/STATISTICAL_AMHARA/Statistical_Amhara_Partl.pdf p.7.
[39] Ibid. p.7.

was described in detail in the 2009 Technical Brief "*Fistula Pre-Repair Center Model in the Amhara Region of Ethiopia".*

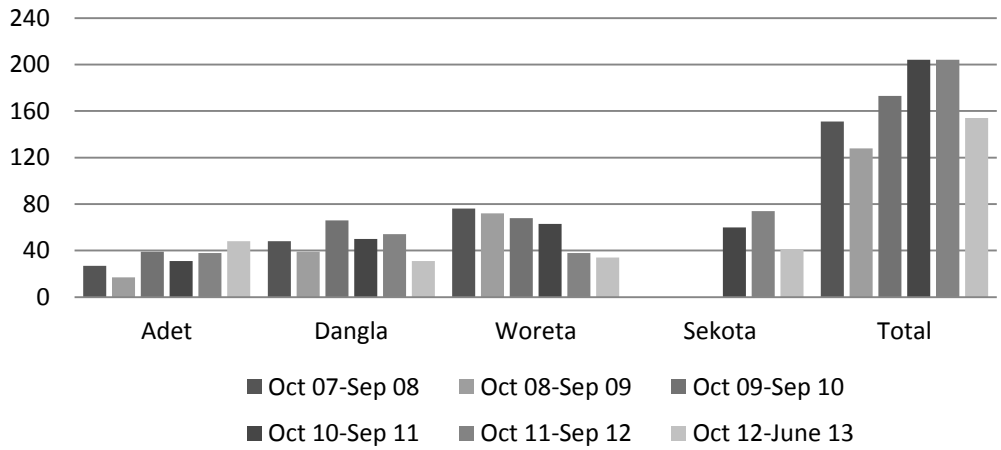
In April 2013, USAID published the results of a situation analysis conducted to assess the current fistula situation in Ethiopia[40]. Findings from this assessment indicated that accurately estimating incidence is difficult without a well-executed community survey. Case detection and referral remain the main bottlenecks to achieving greater access to treatment. The report found that the great majority of all fistula cases repaired had been detected by identification and referral efforts supported by Fistula Care and the USAID bilateral project managed by Pathfinder, but that coverage remains insufficient to detect all cases and pay for their transport to fistula centers.

Key Achievements, by Result

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

Between 2007 and 2013, more than 1,500 women arrived at the four PRUs seeking care for obstetric complications, many of whom had already been pre-screened at the community level and identified as fistula patients. In total 1,014 women were referred by the PRUs to HFE centers in Bahir Dar and Mekelle for first or repeat fistula repair (see Fig. ETH1[41]). Numbers for referral were highest in FY10/11 when support for the Sekota PRU began, as there was an influx in newly identified cases with this geographic expansion. Funding delays negatively impacted program activity in the final two years of the project.

Figure ETH 1. Total number of referrals for fistula repair surgeries by site and FY, Ethiopia



Community volunteers identified and referred fistula patients to the four pre-repair units, where patients received care prior to being referred to the Hamlin Hospitals in Bahir Dar or Mekelle for

[40] USAID, 2013. Restoring Happiness: An Assessment of the Fistula Situation in Ethiopia in 2013 (Report No. 13-B3-007). GH Tech 3 Project: Washington DC.
[41] During the final year of the project, support ended in June 2013, covering a time period of 9 months.

surgery. The PRUs provided nutritional support, treatment of infections, pre-repair counseling, transport to the hospital for repair, and post-repair visits to ensure that women were well integrated back into their communities.

To strengthen the capacity of the health centers in the PRU woredas (districts), Fistula Care implemented regular joint supportive supervision (JSS) visits in collaboration with woreda health officers, fistula mentors, and health facility staff using a checklist adopted from an IntraHealth supportive supervision tool. The checklist included assessing the quality of health facility services and amenities, management of the health facility, outreach programs and activities, maternity services, waste management and infection prevention activities, reporting and record-keeping, and quality of ANC, labor and delivery services. For centers within relatively close distance, these visits were done on a quarterly basis. For those requiring more extensive travel, visits occurred semi-annually. Over 127 JSS visits were carried out between FY07/08 and FY12/13. During FY12/13, oversight of JSS activities transitioned from IntraHealth to the woreda health offices for the target woredas.

In 2009, Fistula Care in Ethiopia developed and introduced job aids to assist health care providers to diagnose obstetric fistula in women who present with urine leakage. A brochure and poster were produced with a flowchart aimed at accurately diagnosing whether the woman has obstetric fistula, whether she requires surgical repair, and the complexity of the repair. It also provides advice for preparing for obstetric fistula repairs. These job aids have been translated into French and distributed for use by other country programs.

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

Health facility. In keeping with the programmatic emphasis on pre-repair efforts, the majority of Fistula Care training activities in Ethiopia focused on obstetric fistula prevention and referral (see Table ETH1). Fistula mentors conducted new and refresher trainings for over 4,000 health workers at the facility level in the catchment areas of the four pre repair centers. These trainings covered emergency obstetric care skills, correct use of the partograph, and how to identify, screen, and refer women with obstetric fistula and issues related to post-repair reintegration, including family planning. In May 2011, IntraHealth introduced a standardized, 3 day training curriculum--*Prevention and Recognition of Obstetric Fistula Training Package*--for health workers on obstetric fistula prevention, identification and pre-repair care.

Over 2,200 health care workers at 449 health centers were trained using the curriculum. The project team successfully advocated for the Fistula Care training package to be integrated into 19 health science colleges' midwifery courses to ensure that fistula and partograph use are emphasized during in-service training. The training package is also available in the colleges' libraries for students to use as reference materials. Hamlin Prevention Officers are also using the training materials for their trainings.

Table ETH1. Total number of health facility persons trained and orientated in fistula prevention by FY, Ethiopia

Type of Training	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
Partograph	0	5	79	0	0	0	84
Health post workers	0	355	758	1,485	737	717	4,052
Health post worker refresher training	0	372	294	297	29	0	992
Total	**0**	**732**	**1,131**	**1,782**	**766**	**717**	**5,128**

Emergency obstetric care services (EmOC) were started at the Dangla Health Center under the ESD Project in collaboration with the Hamlin Fistula Ethiopia Hospital, which funded renovations and equipment to create an operating theater for cesarean sections. At USAID's request, Fistula Care funded the EmOC service for a transitional period between 2010 and 2011. Dangla's EmOC center depended on collaboration between IntraHealth, Hamlin Fistula Ethiopia, and the Amhara Regional Health Bureau. According to the memorandum of understanding, the Dangla EmOC center was furnished with equipment and an ambulance by Hamlin Fistula Ethiopia and the ARHB was responsible for hiring staff for the unit (the two trained health officers, three midwives and an anaesthetist). The center opened in 2010 and operated for one year. The intent was that the Amhara Regional Health Bureau would have taken over its management, but the EmOC service ended due to staffing challenges and a lack of adequate funding to maintain the service. During its year of operation, emergency obstetric care services were offered 24 hours a day, seven days a week. The Dangla EmOC center provided a total of 89 CS. See Annex 6 in Part I of this report for a summary of the number of deliveries and CS reported by supported sites by FY.

There was steady increase over the life of the project in the number of women giving birth at a health facility in the target woredas (from 347 in FY07/08 to 3,780 in FY12/13). Correct and consistent partograph use at supported sites also improved (from 86% in FY09/10 to 97% in FY12/13). During joint supportive supervision visits, the mentors routinely reviewed partographs to determine whether they were completed accurately and fully, and crosschecking the partographs against the log books for accuracy. On-the-job training on use of the partograph was provided for 84 health care staff (see Table ETH1). Partographs were reviewed annually to assess quality of completion; see Table 8, under IR2.1 of the Global Accomplishments report for a summary of these reviews by FY.

PRUs provided family planning counseling for all women post-repair. In total, between FY07/08 and 12/13, 691 fistula clients took part in family planning counseling. Methods were not provided within the pre-repair units themselves, but were available at the co-located health centers.

Community activities. In addition to facility-based activities, Fistula Care raised communities' awareness of fistula causes and prevention by training health extension workers, community-based reproductive health agents and community volunteers, who during the life of the project were incorporated into the national Health Development Army; see Table ETH 2. Volunteers included respected members of the communities—local village elders, teachers, women's association members, and religious leaders who shared messages through drama, posters, and other media. These individuals were responsible for conducting outreach activities in their communities using existing gatherings and institutions (schools, churches, mosques, markets, and formal and informal community meetings). Fistula Care stressed the importance of communication between health posts, centers, and hospitals. Emphasis was also placed on the important role of health extension workers and traditional birth attendants in recognizing danger signs and referring obstetric emergencies so that women receive care before a fistula can develop. In May 2011 a tool for orienting community volunteers--*Safe Motherhood and Obstetric Fistula: Orientation for Community Members* (PowerPoint presentation) was completed. This tool is designed for a one-day orientation for community members on safe motherhood, the causes and prevention of obstetric fistula, and their role in assisting potential fistula patients.

Table ETH2. Total number of community volunteers trained and orientated in fistula prevention by FY, Ethiopia

Type of Training	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
Community volunteers	1,359	347	1,487	2182	591	0	**5,966**
Refresher training for community volunteers	0	1,753	579	193	548	0	**3,073**
Total	**1,359**	**2,100**	**2,066**	**2,375**	**1,139**	**0**	**9,039**

As a result of extensive community volunteer training efforts, Fistula Care increased awareness of fistula treatment and prevention and safe motherhood practices by supporting over 19,500 community outreach events reaching nearly 2.9 million participants (See Table ETH3).

During FY12/13, transition workshops were conducted by the Fistula Care team for Amhara Regional and Woreda health staff, government, and non-government partners. These workshops were designed to hand over the community outreach activities from IntraHealth to the management of the Woreda health offices and health facilities. A memorandum of understanding was signed with each of the Woreda health offices for the target woredas.

In July and August 2013, in consultation with Woreda Health Offices, the Amhara Regional Health Bureau, and the USAID/Ethiopia mission, Fistula Care successfully distributed 214 delivery kits, 214 sterilizers, 60 neonatal heaters and 80 vacuum extractors to health centers in the Amhara region. Over the life of the project, these health centers have all received support from Fistula Care in the form of training on fistula prevention, case identification, and referrals.

Table ETH3. Number of community outreach and advocacy events and participants reached by FY, Ethiopia

	Events	Participants
FY07/08	n/a	321,056
FY08/09	3,631	528,476
FY09/10	3,882	529,291
FY10/11	5,290	681,651
FY11/12	5,590	686,726
FY12/13[42]	1,108	152,670
Total	**19,501**	**2,899,870**

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

In FY11/12, Fistula Care completed a costing study in Ethiopia, and published a summary of the results: *Estimating Costs to Provide Fistula Services in Nigeria and Ethiopia: Key Findings.* [43] The purpose of the study was to introduce a cost analysis tool to assist facility managers in assessing the costs for fistula repair and pre-repair services, which could then help them make decisions about resource allocation. Fistula Care adapted a tool developed by UNFPA as part of the Global Campaign to End Fistula: "The Obstetric Fistula Prevention and Treatment Resource Requirement Guide." The Ethiopia study included two pre-repair units.

The study demonstrated that the costing tool can be adapted to provide cost estimates for direct costs associated with fistula care, hospitalization, and transport, but that cost components vary significantly between sites, a fact that could be masked by considering only the total cost estimates. Although the modified UNFPA costing tool can generate detailed cost information, it lacked sufficient guidance about interpretation and would be a challenge for overstretched facilities to easily implement on their own. The costing tool requires a high level of effort, which, given many managers' workload, may require an outside consultant's involvement. Simplifying the tool in superficial ways (e.g., linking cells between spreadsheets) could make it more user-friendly. Findings from the study were shared with Ministry of Health officials at the national, regional, and woreda levels, conveying what it would take for them to offer a pre-repair service and facilitating discussion about which aspects of the program will be sustained after the end of project funding.

In 2010, the fistula mentors from Adet, Dangla and Woreta participated in Data for Decision Making Training. Each PRU held data review meetings on a quarterly basis to discuss data and apply findings to programming. A total of 93 data review meetings were held by the PRUs between FY08/09 and FY12/13.

Gondar University Hospital, with support from WAHA International, was one of the eight RCT study sites. Implementation of this study helped broaden the field of actors in the world of

[42] Data available through June 2013.

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

fistula-related research in Ethiopia. The final results of this study will be published in early 2014. A summary of the findings from this study is located in Annex 9, Part I of this report.

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

On the local government level, fistula mentors participated in sub- 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. This increased support from these stakeholders for the community outreach teams, including collaboration in the supportive supervision visits to health posts and health centers.

Over the life of the project, Fistula Care developed several tools and products designed for improving fistula treatment and prevention care. See Annex 11 in Part I of this report for a list of the tools which were used by supported sites during the life of the project.

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.

Resources Developed in Ethiopia

- Fistula Pre-Repair Center Model in the Amhara Region of Ethiopia
- Estimating Costs to Provide Fistula Services in Nigeria and Ethiopia: Key Findings
- Job Aid: Fistula Diagnosis
- Job Aid: Fistula Diagnosis Poster
- Training Session for Health Workers on Prevention and Recognition from Ethiopia
    - Facilitator Manual
    - Participant Handbook
    - All 10 module presentations
- Safe Motherhood and Obstetric Fistula: Orientation for Community Members

Towards a Fistula-Free Generation

In June 2013, Fistula Care held an end-of-project meeting in Bahir Dar. The meeting was attended by 71 participants, including representatives from the ARHB, Women, Children and Youth Bureau, Women's Association and the League of Amhara National Regional State, zonal health departments and Woreda health offices' heads, and the management of PRU affiliated facilities. Representatives of non-governmental partners included EngenderHealth, Bahir Dar Hamlin Fistula Hospital, and DSW.

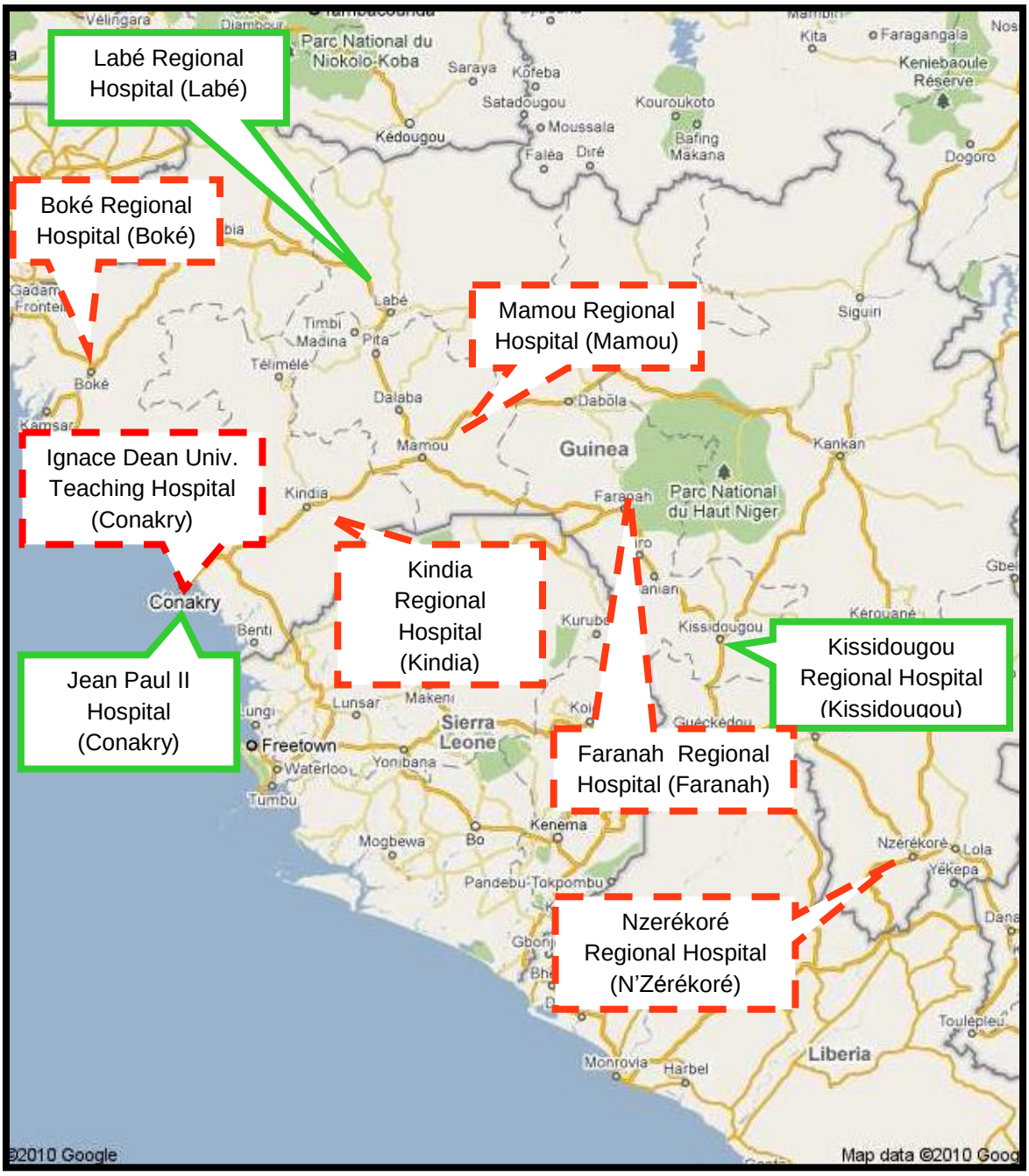
The meeting included presentations by EngenderHealth and IntraHealth, as well as three repaired women who told their stories. One of the women had served as a fistula nurse aide and had benefitted enormously from being employed by the project and enjoyed caring for other women during their pre and post repair care at the PRU.

The discussion that followed the presentations focused on the need for fistula care activities to continue. The Hamlin Hospital representative in particular was concerned that referrals to their

hospitals would decline in the absence of the project. The ARHB, woreda, zonal and health center managers all expressed their appreciation for the project and its achievements. Although the RHB is committed to continue supporting women with fistula, competing health priorities and limited resources will continue to remain challenges.

The Sekota Hospital has made commitments to keep the PRU ward open by admitting fistula cases to the hospital and providing care and referral to Mekelle Hamlin Hospital using its ambulance. They also committed to continuing the health education sessions on fistula prevention to its clients in the hospital.

Guinea


Labé Regional Hospital (Labé)
Boké Regional Hospital (Boké)
Mamou Regional Hospital (Mamou)
Ignace Dean Univ. Teaching Hospital (Conakry)
Kindia Regional Hospital (Kindia)
Jean Paul II Hospital (Conakry)
Kissidougou Regional Hospital (Kissidougou)
Faranah Regional Hospital (Faranah)
Nzerékoré Regional Hospital (N'Zérékoré)
Parc National du Niokolo-Koba
Parc National du Haut Niger
Guinea
Sierra Leone
Liberia
Conakry
Freetown
Monrovia
Kissidougou
Kankan
Siguiri
Dabola
Mamou
Labé
Pita
Boké
Kindia
Faranah
Kérouané
Nzérékoré
Kenema
Bo
Kédougou
Satadougou
Moussala
Kouroukoto
Dogoro
Kita
Faragangala
Keniebaoule Réserve
Timbi Madina
Dalaba
Télimélé
Lunsar
Makeni
Waterloo
Yonibana
Tumbu
Mogbewa
Pandebu-Tokpombu
Yekepa
Lola
Toulépleu
Harbel
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Guinea, Summary of Achievements

Start date with USAID funds: 2005

Background

Guinea Demographic Data	
Population (2012)[44]	11.5 million
Total fertility rate (2012)[45]	5.1 children/woman
Maternal mortality ratio (2010)[46]	610
Median female age at first marriage (women aged 20-49) (2005)[47]	16.3 Years
Female literacy (women aged 15-49) (2012)[48]	33%
Female primary school completion (2012)[49]	19.2%
Skilled attendance at birth (2012)[50]	45%
Contraceptive prevalence rate (any method, married women 15-49)(2012)[51]	5.6%

Guinea Supported Sites	Dates of Support	Treatment	Prevention
Boké Regional Hospital	2010-2013		X
Faranah Regional Hospital	2010-2013		X
Ignace Deen University Teaching Hospital[52]	2006-2013	X	X
Jean Paul II Hospital	2008-2013	X	X
Kindia Regional Hospital	2010-2013		X
Kissidougou District Hospital	2006-2013	X	X
Labé Regional Hospital	2009-2013	X	X
Mamou Regional Hospital	2010-2013		X
Nzerekore Regional Hospital	2010-2013		X

Overview of Fistula Care in Guinea

USAID support for fistula treatment services in Guinea began in 2005 through the EngenderHealth-led ACQUIRE Project in partnership with the Ministry of Health and Public Hygiene (MOHPH) and the Ministry of Women and Social Affairs. This partnership led to the formation of a National Steering Committee to collaborate with EngenderHealth to plan fistula activities, coordinate the training process, and monitor and supervise clinical activities.

[44] The World Bank. 2013. Guinea data. Retrieved from : http://data.worldbank.org/country/guinea.
[45] Institut National de la Statistique (INS), Ministère du Plan, Ministère d'Etat de la Santé et de l'Hygiène Publique (MSHP), MEASURE DHS, ICF International. 2012. Enquête Démographique et De Santé et À Indicateurs Multiples (Eds-Mics) 2012 Rapport Préliminaire (Guinea). Calverton, Maryland, U.S.A. p.7 http://www.measuredhs.com/pubs/pdf/PR20/PR20.pdf
[46] World Health Organization. 2012. op. cit. p.33. (see reference 13).
[47] Direction Nationale de la Statistique (DNS) and ORC Macro. 2006. Demographic and Health Survey 2005: Key Findings. Calverton, Maryland, U.S.A.: DNS and ORC Macro. p.99. http://www.measuredhs.com/pubs/pdf/FR162/FR162-GN05.pdf
[48] INS, MSHP and ICF, op. cit. p.6
[49] Ibid., p.6
[50] Ibid., p.11
[51] Ibid., 10
[52] Ignace Deen University Teaching Hospital was supported for treatment and prevention from 2006 to 2010 and prevention only from 2010 to 2013.

With the award of Fistula Care support grew to nine facilities across Guinea, four for treatment and prevention – Ignace Deen University Teaching Hospital[52], Jean Paul II Hospital, Kissidougou District Hospital, and Labé Regional Hospital – and five for prevention only interventions. The supported sites served as referral centers for more than 85% of Guinea's population. Fistula Care worked closely with the Guinean Ministry of Health, the Ministry of National Solidarity and Promotion of Women's and Children's Affairs, and the Ministry of Decentralization and Local Development. A partnership was also formalized with the Geneva Foundation for Medical Education and Research (GFMER) to support experienced international surgeons to train Guinean surgeons and to provide equipment and supplies.

Guinea embraced the Levels of Care Framework developed by Fistula Care in 2009 (more information about the Levels of Care Framework can be found in Section III Global Achievements, Result 1 of the global report). The program worked to strengthen the services available at Level 1 facilities where prevention interventions, including family planning, partograph use, immediate catheterization, and timely cesarean sections would be available.

Fistula Care supported training of health providers and facility staff in case identification and treatment and worked with communities to prevent fistula and reintegrate women after repair. Staff at the supported facilities in Guinea were important partners in data collection and research studies. Government officials from several ministries were critical in supporting and enhancing the enabling environment for fistula services.

In August 2011, EngenderHealth/Guinea received a one-year, $296,844 bilateral grant from USAID/Guinea to support reintegration services for women whose fistula was deemed incurable. In October 2012, through a request from the Mayor of Kissidougou, USAID/Guinea supported the development of a new 14-bed fistula ward, creating allows for greater access to treatment for the backlog of women living with fistula.

In April 2013, EngenderHealth/Guinea received $270,000 from the USAID/West Africa Regional Program (WARP) to implement additional Fistula Care activities. The WARP funds covered 77 fistula repairs, paid for outreach sensitizations leading to 254 women being referred for treatment, and enabled two joint medical monitoring visits. WARP funding also covered VSMC training updates, and the national workshop to review and appropriate Fistula Care tools. Additional details are below.

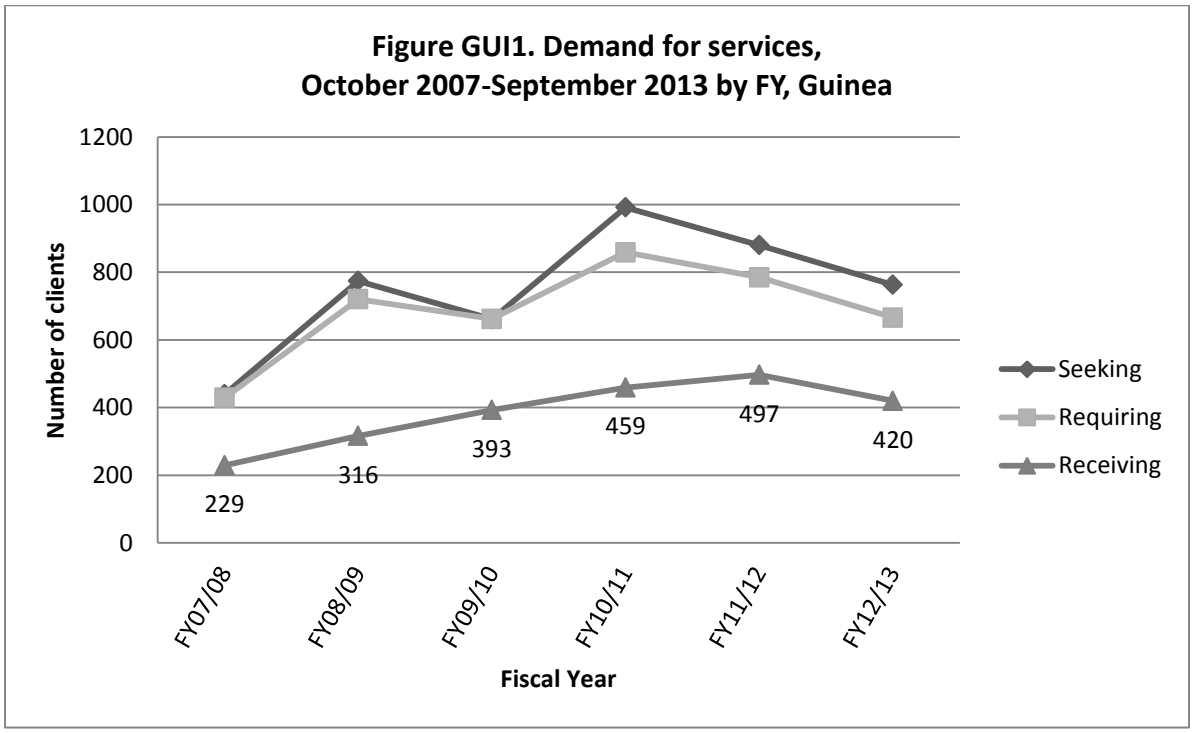
In addition to support from USAID, EngenderHealth successfully raised funds for fistula programming from a range of sources with funds coming directly to EngenderHealth or directly

to supported sites. Just over $391,000 was raised from non-governmental organizations, private and corporate foundations, and Guinean local and national government agencies. Additional details on leveraged resources in Guinea are described in the Introduction in the Global Accomplishments report.

Key Achievements, by Result

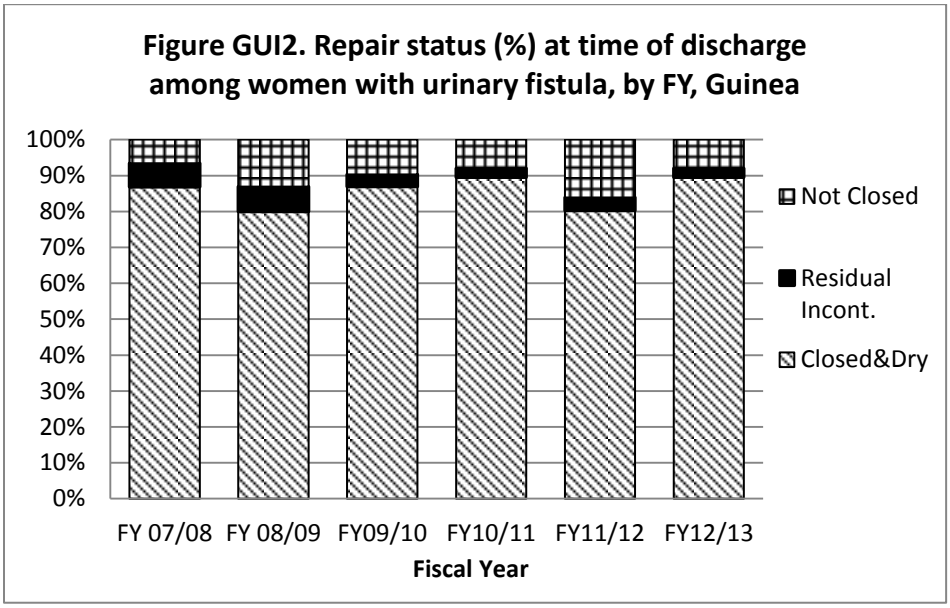
Result 1: Strengthen the capacity of centers to provide quality services to repair and care for women with obstetric and traumatic gynecologic fistula

Access to fistula treatment services steadily grew from 2005. In FY07/08, Fistula Care supported 229 repairs with the number of annual repairs, doubling by FY11/12 (497). During the last year of the project 395 repairs were conducted; support in the last quarter of FY12/13 was much reduced as the project was closing down. Figure GUI1 shows the number of women seeking, requiring, and number of repairs during each fiscal year. During the six years of Fistula Care support (2007-2013), a total of 2,313 surgeries were performed, including 77 repairs performed with the 2013 additional funds from WARP. An additional 491 surgeries were supported by USAID before Fistula Care through the ACQUIRE Project; the total number of repairs supported in Guinea between 2005 and 2013 was 2,804.



Of the women repaired at USAID-supported sites in FY12/13, 80% were closed and dry at the time of discharge; see Figure GUI2. The annual closed and dry rates ranged from 75% to 90% between FY07/08 and FY12/13. A more in-depth discussion of closed and dry rates can be found in the Global Accomplishments section of the report, under IR1.1. Reports on complications arising from fistula surgery varied by supported site. The annual overall reported complication rates ranged from less than one percent to 2% over the life of the project. A

discussion of complication reporting is presented in the Global Accomplishments section of the report, under IR1.2.



The surgical training approach in Guinea involved on-going training for surgeons and mentorship to continuously build their skills. GFMER surgeons traveled to Guinea on a quarterly basis to lead training sessions and monitor progress of trainees. Sixteen surgeons received training with support from Fistula Care attending an average of 22 training sessions, with 12 continuing to provide surgery at Fistula Care supported sites as of March 2013. Analysis and discussion of surgeon training data are presented in the Global Accomplishment section of the report under IR1.3.

Table GUI1. Guinea surgeon training in fistula repair, October 2007–June 2013

Training in Fistula Surgery	N
Number of surgeons trained in fistula repair	16
Number of surgeons tracked through training follow up efforts through March 2013	16
Competency levels achieved by trained surgeons	
Simple	12
Medium	2
Complex	0
No information available	0
Total number of trained surgeons providing fistula repair as of March 2013:	12
Number trained providing services at Fistula Care supported sites	12
Number of trained surgeons who have provided training to other surgeons	0

Fistula Care supported other training to strengthen and build capacity for fistula treatment. These training topics included pre and postoperative care, infection prevention, quality assurance, and fistula counseling (see Table GUI2).

Table GUI2. Number of staff trained in fistula repair related topics by FY, Guinea

	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13[53]	Total
Pre and Postoperative Care	41	47	0	0	0	5	**93**
Infection Prevention	45	51	0	0	44	0	**140**
Quality Assurance	0	0	16	0	0	0	**16**
Fistula Counseling	0	10	0	0	15	0	**25**
Total	**86**	**108**	**16**	**0**	**59**	**5**	**274**

In collaboration with the Ministry of Public Health and Hygiene (MOHPH), Fistula Care staff conducted at least one medical monitoring meeting per year at each supported site. The purpose was to observe facility staff at work, check availability and functionality of equipment and supplies, and monitor infection prevention, counseling, and family planning practices using standardized checklists to assess services. The FY12/13 WARP funding allowed for additional medical monitoring visits at Labé and Kissidougou in June 2013. These visits were led by Dr. Mamady Kourouma, the National Director for Family Health & Nutrition (or his delegate) and included Pr. Namory Keita (consultant) and Dr. Sita Millimono, Fistula Care's Medical Advisor. The team checked the sites' readiness, observed processes and assessed among others the clinical examinations and procedures, the informed and voluntary decision making process, the clients and providers' interaction , the counseling of FP clients, the infection prevention (including waste management) approach, and the facility data collection system. The team provided feedback to health providers and managers of the Kissidougou hospital. In addition to the staff of the hospital, the District Health Managers of Labé and Kissidougou participated in the exit meetings where recommendations were discussed with regard to the strengths and weaknesses observed during the visits.

In 2011, Fistula Care undertook a two-part evaluation of the Guinea program: 1) to assess the accomplishments and effectiveness of the facility-based treatment and prevention 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 (the community evaluation is discussed below under Result 2). 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. Findings from this review show that capacity for fistula treatment has increased over time. While the monitoring checklists used to assess quality of services had not been tested for inter-rater reliability, they "appear to indicate increased competence in compliance with service protocols." There is some evidence of an increased enabling environment for sustaining services at the policy and program levels, but financial sustainability continues to be a challenge.[54]

In June 2013, Fistula Care and the MOHPH (with funding from WARP) held a national meeting to review tools developed by the project for their appropriation and integration into the health system. The workshop recommended the adoption of a number of tools developed by Fistula Care for distribution and use at the operational level (see Table GUI3). In addition the *Global*

[53] Data available through September 2013.
[54] Fistula Care. 2013. *Guinea Fistula Care program evaluation*. New York: Fistula Care/EngenderHealth.

Competency-based Fistula Surgery Training Manual, produced by FIGO[55] and its partners including EngenderHealth was recommended for adoption.

Table GUI3. Fistula Care tools recommended for use in Guinea, June 2013

Visual aids
Provider job aid: Diagnosis of obstetric fistula: Women presenting with urinary incontinence at primary health centers
Picture book for use by the Village Safe Motherhood Committees
Client-focused psycho-social support for women following fistula repair surgery
Quick reference guide for contraceptive methods
Service delivery
Training curriculum: Counseling women suffering from obstetric fistula
Informed consent form
Training strategy for fistula repair surgeons
Training guide for Village Safe Motherhood Committees
Birth preparedness brochure
Partograph analysis
Supervision checklist for medical waste management
Data for decision making modules
Site assessment/evaluation
Site evaluation for facility services for fistula prevention and treatment: Facility assessment tool

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

Fistula Care supported training for prevention, including family planning counseling, FP method provision, obstetric care and men as partners, as part of the community engagement activities; see Table GUI4.

Table GUI4. Number of staff trained in fistula prevention related topics by FY, Guinea

	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
FP counseling	0	14	0	0	0	0	**14**
FP Methods	0	0	61	0	0	0	**61**
Obstetric Care	0	20	67	0	54	0	**141**
Data Management	0	11	4	0	22	0	**37**
Community outreach & advocacy	0	0	0	0	10	0	**10**
Men as Partners	120	0	0	0	0	0	**120**
Other	0	52	0	0	0	0	**52**
Total	**120**	**97**	**132**	**0**	**86**	**0**	**435**

[55] International Federation of Gynecology and Obstetrics et al. 2011. *Global Competency-Based Fistula Surgery Training Manual*.

The 2011 Guinea supply side evaluation found that the Fistula Care Guinea team had helped to strengthen the ability of district-level hospitals to provide quality fistula prevention services, such as family planning and partograph monitoring. The recommendations from this evaluation noted that the prevention 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.

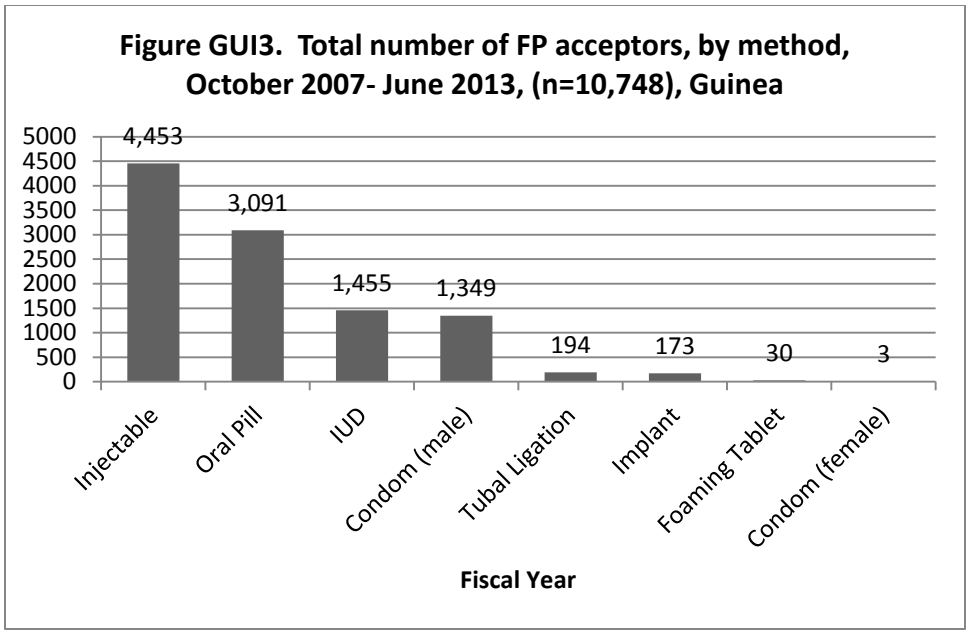
Summarized below are key accomplishments in prevention.

Family Planning Integration. Fistula Care supported family planning services at all nine sites in Guinea. The VSMCs also included key family planning messages in their work regarding the importance of birth spacing, protection from HIV/AIDS, and family planning during ANC. Between 2009 and 2011, Fistula Care worked with the USAID-funded project Extending Service Delivery (and in collaboration with MCHIP since 2012) to ensure family planning services were available and accessible at Fistula Care sites.

Seventy-five providers were trained in family planning counseling and methods; 25 providers who attended fistula counseling training were also trained about FP (the fistula counseling curriculum includes a session on family planning) (Table GUI3). In September 2013, the Fistula Care Guinea team, with the WARP funds, planned to conduct an IUD training. However, the MCHIP project notified Fistula Care Guinea they were planning to do the same training for providers from its implementation zone including three Fistula Care supported sites (Kissidougou, N'Zérékoré and Faranah). In addition, the AGBEF (International Planned Parenthood Federation affiliate) was also conducting IUD training for providers from its intervention areas including the Fistula Care supported sites of Labé and Kindia. Therefore, to avoid duplication of efforts, Fistula Care did not proceed with the training. MCHIP and AGBEF trained 13 providers in IUD insertion and removal.

Between October 2007 and June 2013, a total of 16,017 clients were counseled on family planning at supported sites with 10,748 accepting a family planning method. Injectables and oral pills were the most common methods chosen (see Figure GUI3).

As part of the 2011 Guinea program evaluation, a convenience sample of 194 women who had undergone fistula repair surgery were interviewed at time of discharge and at a three or six month follow-up visit to assess their experiences pre and postsurgery. Women were asked about their fertility intentions and desire to use FP. Approximately half of women at both discharge and follow up said they wanted to have a child or another child, and wanted to wait approximately two years. About one quarter of these women were provided with a FP method postsurgery.



Obstetric Care. Just over 200 providers were trained in obstetric care, including correct and consistent use of the partograph, catheterization, and emergency obstetric care; see Table GUI4. Fistula Care supported strengthening cesarean delivery services; a discussion about cesarean deliveries can be found in the Global Accomplishments section of this report under IR2. 1; Annex 6 in Part I of this report includes details about the number of deliveries and CS reported by supported sites by FY.

Two facilities in Guinea were included in a global retrospective review study of the quality of cesarean records for calendar year 2008. The Guinea sample included 653 CS records; none of the records reviewed included a partograph. Based on these findings, Fistula Care worked with sites to improve the correct and consistent use of the partograph and developed job aides to assist providers. During annual monitoring of partographs at supported sites some improvement has been seen: at three sites for which we have monitoring data for three consecutive years the number of files review which include a partograph has increased however the proportions which were completed correctly ranged was less than 53% in FY12/13; see Table 8, under IR2.1, in Part I of this report for details by site and year.

Community-Level Interventions. The project worked extensively with the local governments in Kissidougou and Labé to gain support for fistula treatment, prevention, and reintegration activities. In 2007, Fistula Care began support for community-level prevention efforts and interventions to improve maternal health and promote reintegration. In 10 villages, village safe motherhood committees were established and individuals were trained to promote care-seeking behavior. A 2010 technical brief, *Beyond Repair: Involving Communities in Fistula Prevention and Reintegration—Experience from Kissidougou, Guinea,* describes Fistula Care efforts to engage local governments and community members through four main prevention and reintegration interventions: the market town approach; village safe motherhood committees; waiting homes for fistula clients; and social immersion with host families.

Working with VSMCs and other community groups, over 300,000 persons attended meetings about fistula prevention and treatment between FY08/09 and FY12/13 (see Table GUI 4). With the additional FY12/13 WARP funding, Fistula Care and the MOHPH conducted several outreach activities in 11 districts (Kindia, Boke, Dinguiraye, Mali, Tougue, Lelouma, Mamou, Beyla, Macenta, N'Zerekore and Gueckedou). The district health managers selected focal points to work with the Fistula Care team to enhance the referral system of fistula clients. Joint teams comprised of Fistula Care staff and focal points conducted community sensitization sessions at rural market places and during community social events. A total 254 women were identified and referred for fistula care to Kissidougou, Labé, or Jean Paul II in Conakry.

In 2011, as noted above, Fistula Care conducted a two part evaluation of the Guinea evaluation. The community level evaluation assessed whether (1) the community interventions resulted in measurable differences in community capacity for maternal health promotion and (2) whether such capacity was associated with increased maternal health care-seeking at the population-level.

Table GUI4. Number of community outreach and advocacy events and participants reached by FY, Guinea

	Events	Participants
FY08/09	13	3,633
FY09/10	100	55,036
FY10/11	105	54,227
FY11/12	3,532	177,234
FY12/13[56]	1,953	61,306
Total	**5,703**	**351,436**

Study findings showed that living in a village with high community capacity for maternal health promotion was significantly associated with women's use of health facilities for delivery. Similarly, women's knowledge about birth preparedness was strongly associated with their actual preparation for birth, which itself was positively lined with use of institutional delivery care. Surprisingly, women's knowledge about obstetric risks and danger signs was not associated with increased preparation for birth or with use of health facilities for delivery. Key recommendations arising from the study include: investing in community-level cadres and structures who can promote maternal health care-seeking and increasing attention to birth preparedness messaging in both community-level interventions and during antenatal care counseling.[57]

In FY12/13 Fistula Care's global team worked with the Guinea team to produce a training manual for community volunteer groups.[58] In August 2013, Dr. Yaya Kasse, EngenderHealth's Community Engagement Specialist, conducted field supervision visits to Kissidougou and Labé and provided a training update for members of the VSMCs to acquaint village committee members with new tools such as birth preparedness counseling card and new record keeping forms, using this new trainig resource.

[56] Data available through June 2013

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

[58] Fistula Care. 2013. *Informer et engager les communautés dans l'amelioration de la santé maternelle: Un guide de formation à l'intention des comités villageois de protection de la mère et de l'enfant.* New York: Fistula Care/EngenderHealth

In 2011, with a one-year grant from USAID/Guinea, EngenderHealth's Guinea office collaborated with the USAID-funded project *Projet rural intègre pour le développement de l'entreprise* [PRIDE] to address poverty among women affected by fistula by providing training in entrepreneurship.[59] The project created Women Living with Fistula Organizations (WLFO) to raise awareness and advocate on their behalf. Twenty-six WLFOs were created in 17 prefectures with 217 women as members. A total of 157 women were trained by PRIDE in entrepreneur skills. Upon completion of the PRIDE entrepreneurship training, 146 women were enrolled in productive activities for 3 to 4 weeks (soap making, dying, etc.) aimed at enhancing their self-sufficiency and economic position in the community.

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

Data for Decision Making. To strengthen reporting and use of data to improve services, the program helped sites put into place record-keeping systems and registers where gaps were identified. For example, the program assisted with the development of family planning registers, fistula patient records, and fistula equipment registers.

Forty-three providers and hospital staff were trained in data management using Fistula Care's *Data for Decision Making in Fistula Care: A Supplemental Module for Facilitative Supervision* to ensure the use of data to inform the organization of services. Between 2008 and September 2013, supported sites held 26 data review meetings focused on fistula services. New York-based Fistula Care staff led workshops on data for decision making for the Guinea Fistula Care team, who in turn led these workshops for partners.

Research. Fistula Care-supported sites in Guinea were partners on three global research studies:

- Determinants of Post-Operative Outcomes in Fistula Repair Surgery (Kissidougou District Hospital)
- Multi-Center Retrospective Record Review of Data Collection Procedures and Data Quality of Indications for Cesarean Deliveries (Kindia Regional Hospital and Kissidougou District Hospital)
- Randomized Controlled Trial on Short-Term Catheterization (Kissidougou District Hospital)

A summary of these study findings can be found in Annex 9, Part I of this report. As noted above under Results 1 and 2, Fistula Care also conducted a two part in-depth evaluation to examine the supply side of the program and the community-level fistula prevention efforts.

[59] EngenderHealth. 2012. *Creating a positive change in the lives of women disabled by obstetric fistula. Final Report*. New York: EngenderHealth.

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

Fistula Care took a holistic approach to addressing fistula prevention, treatment, and reintegration services in Guinea, involving local government officials (e.g., mayors), numerous ministries, national and international partners, and local communities.

In 2005, EngenderHealth worked with the MOHPH 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. These committees meet regularly to coordinate fistula related activities throughout the country.

The first National Fistula Day took place in May 2007 as a collaboration between Fistula Care and a number of partners. The event has taken place each year since to raise awareness about maternal health and advocate for women with fistula. In recent years, commemorative events were attended 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 treatment led by the MOHPH and UNFPA.[60] The strategy was adopted in January 2012 and provides guidance through 2016 for fistula prevention, surgical treatment for women suffering from obstetric fistula, socioeconomic reintegration of women whose fistula has been repaired, and support for research and monitoring and evaluation of fistula prevention and treatment efforts.

With support from Fistula Care, national partners have taken action to improve the availability of data related to fistula in Guinea through the inclusion of fistula indicators in the HMIS and the DHS. In July 2010, Fistula Care met with health officials in charge of the HMIS to discuss the inclusion of fistula indicators into the HMIS. Fistula Care staff were invited to participate in a national review of the HMIS after participating in technical review meetings and an informal request to present fistula indicators in 2012. In November 2012, indicators were incorporated into the revised HMIS after workshops to review indicators and data collection tools (see Table GUI6). Facilities began reporting fistula services with these indicators in April 2013.

Table GUI6. Indicators incorporated into Guinea's HMIS

Number of women with fistula registered
Number of surgeries for urinary or rectal fistula
Number of women who are closed and dry

As noted above under Result 1, the MOHPH agreed to adopt and/or adapt several tools developed by Fistula Care for use nationally in support of fistula treatment and prevention services (see Table GUI3). Over the life of the project, the Guinea supported sites used several

[60] Ministere de le Sante Publique. 2012. *Stratégie Nationale de Prévention et de Prise en Charge des Fistules Obstétricales, 2012-2016* http://www.fistulacare.org/pages/da/files/5/5.4/Guinee_Plan_Startegie_Fistule_2012-2016_VF.pdf

tools developed by Fistula Care; see Annex 11 in Part I of this report for a list of the tools which were used by supported sites during the life of the project.

The 2012 Guinea DHS will include the fistula module which will provide the first population assessment of the scope of the fistula problem. A final report from the 2012 survey is expected in late 2013 or early 2014.

Resources Developed in Guinea

- Beyond Repair: Involving Communities in Fistula Prevention and Reintegration—Experience from Kissidougou, Guinea
- Birth Preparedness Card
- Fistula Care Postcard
- Flip Charts for Community Health Workers
- Informer et engager 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 (CVPME), Guinée
- Obstetric Fistula is Treatable
- The Causes of Obstetric Fistula
- To Reduce Maternal and Infant Mortality, Go to the Health Center
- Evaluation of community-level fistula prevention interventions in Guinea.
- Guinea Fistula Care program evaluation

Towards a Fistula-Free Generation

In June 2013, Fistula Care held a series of meeting in Guinea to discuss what is needed to ensure a fistula-free generation in Guinea. Forty stakeholders from around the country representing the MOHPH, facilities, non-governmental organizations, and other institutions, identified a number of activities and interventions that should be prioritized in Guinea to progress toward a fistula-free generation. Three main areas were identified which need attention:

1. Address socio-economic factors
   - Assure that young girls attend school
   - Revitalize community health insurance (*mutuelles*) to improve physical and financial access to care
   - Ensure that obstetric patients are exempt from paying for care
   - Stimulate community-level management of the health system
   - Accelerate the decentralization of the health system
   - Intensify behavior change communications to shift harmful norms and attitudes regarding maternal health
2. Address the dysfunction and burden of the health system:
   - Ensure that prenatal care is accessible and adapted
   - Improve the referral system
   - Improve provider skills in surgery (cesarean section, laparotomies), anesthesia, and assisted delivery
   - Assure the uninterrupted availability of emergency medicines and blood transfusion in health facilities

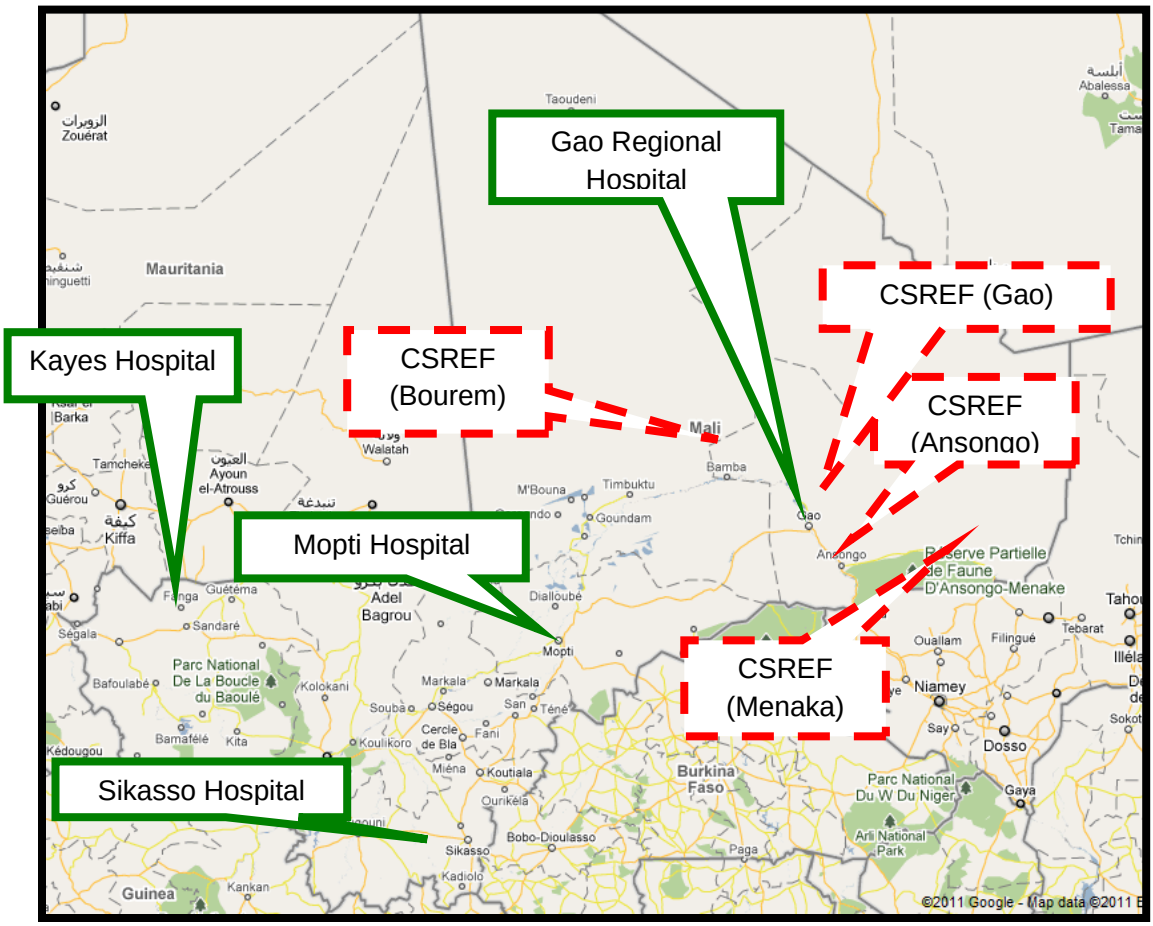
- Strengthen and integrate family planning services

3. Address socio-cultural factors:
   - Reduce the number of high-risk pregnancies (high parity and unwanted pregnancies) by providing information to youth, women, and men about birth spacing, male involvement in reproductive health services
   - Fight against illiteracy at all levels
   - Support the adoption of the family code giving equality to women

The next steps identified by participants are to:

1. Divide these key activities into three categories, for implementation in the short-, medium-, and long-term.
2. Develop a road map/action plan in each category
3. Establish a multi-sectorial committee to monitor progress on the road map.

Mali


Gao Regional Hospital
CSREF (Gao)
CSREF (Bourem)
CSREF (Ansongo)
Kayes Hospital
Mopti Hospital
CSREF (Menaka)
Sikasso Hospital
Mauritania
Mali
Burkina Faso
Guinea
Taoudeni
Zouérat
Abalessa
Barka
Tamchekett
Ayoun el-Atrouss
Guérou
Kiffa
Walatah
Timbuktu
M'Bouna
Goundam
Bamba
Gao
Ansongo
Réserve Partielle de Faune D'Ansongo-Menake
Adel Bagrou
Dialloubé
Mopti
Sandaré
Ségala
Guétéma
Parc National De La Boucle du Baoulé
Bafoulabé
Kolokani
Markala
Ségou
Ténè
Koulikoro
Cercle de Bla
Fani
Kita
Bamafélé
Kédougou
Miéna
Koutiala
Ourikèla
Sikasso
Bobo-Dioulasso
Kadiolo
Kankan
Ouallam
Filingué
Tebarat
Niamey
Say
Dosso
Parc National Du W Du Niger
Arli National Park
Gaya
Paga
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Mali, Summary of Achievements

Start date with USAID funds: 2008

Background

Mali Demographic Data	
Population (2012)[61]	14.85 million
Total Fertility Rate (2013)[62]	6.1 children/woman
Maternal Mortality Ratio (2006)[63]	464
Median female age at first marriage (2006)[64]	16.6 years
Female literacy (2006)[65]	17%
Female primary school completion (2006)[66]	1.8%
Skilled attendance at birth (2013)[67]	58.6%
Contraceptive Prevalence Rate (2013)[68] (any method, currently married women,15-49)	10.3%
Women who have heard of fistula (2006)[69](women, 15-49)	16.3%
Women who have had fistula (2006)[70](women, 15-49)	0.2%

Mali Supported Sites	Dates of Support	Treatment	Prevention
Gao Hospital	2008-2012	X	X
Kayes Hospital	2012-2013	X	X
Sikasso Hospital	2012-2013	X	X
Mopti Hospital	2012	X	
Ansongo District Referral Health Center	2008-2012		X
Bourem District Referral Health Center	2008-2012		X
Gao District Referral Health Center	2008-2012		X
Menaka District Referral Health Center	2008-2012		X

[61]The World Bank. 2013. Mali data. Retrieved from: http://data.worldbank.org/country/mali
[62]Cellule de Planification et de Statistiques (CPS), Institut National de la Statistique du Mali (INSTAT) and ICF International. 2013. *Enquête Démographique et de Santé du Mali EDSM-V 2012-2013: Rapport Préliminaire.* Bamako, Mali: CPS and INSTAT and Calverton, MD: ICF International Inc. p.9 (https://www.measuredhs.com/pubs/pdf/PR33/PR33.pdf)
[63] Cellule de Planification et de Statistique du Ministère de la Santé (CPS/MS), Direction Nationale de la Statistique et de l'Informatique du Ministère de l'Économie, de l'Industrie et du Commerce (DNSI/MEIC) et Macro International Inc. 2007. *Enquête Démographique et de Santé du Mali 2006*. Calverton, Maryland, USA : CPS/DNSI et Macro International IncCPS/MS. DNSI/MEIC and Macro International, op. cit., p.199 http://www.measuredhs.com/pubs/pdf/FR199/FR199.pdf)
[64]Ibid., p.85
[65]Ibid., p.36
[66]Ibid.:p.17
[67]CPS, INSTAT and ICF, op. cit., p.15
[68]Ibid., p.11
[69] CPS/MS, DNSI/MEIC, Marcro, op. cit., p.124
[70]Ibid., 124

Overview of Fistula Care in Mali

Fistula Care supported training, service provision and advocacy for fistula treatment and prevention in Mali through its implementing partner, IntraHealth International. Fistula treatment and prevention efforts were carried out by four supported facilities and prevention-only efforts at an additional four facilities. Prior to the military coup in 2012, technical support was also provided to Segou Regional Hospital and Point G National University Hospital to improve the delivery of fistula services throughout the country.

Fistula Care's fistula work in Mali began in 2008, when Fistula Care partnered with the Gao Regional Hospital and a local NGO, the Groupe de Recherche, d'Étude et de Formation Femmes-Action (GREFFA) to strengthen the availability of quality fistula treatment services in the region of Gao. Fistula Care also worked with four district referral health centers around the Gao Hospital - Bourem, Menaka, Ansongo and Gao - to reinforce the capacity of these facilities to prevent fistula, as well as diagnose and refer fistula clients for treatment to the regional hospital.

In March 2012, there was a *coup d'état* in Bamako, followed by an attack and takeover of Gao by rebel forces. Gao Regional Hospital and the district-level referral health centers were looted and damaged during the fighting, and many health workers fled as insecurity remained spread across northern Mali. USAID temporarily suspended support and activities restarted in September 2012 with support provided to public sector hospitals in Kayes and Sikasso, and short-term support to Mopti Hospital (October –December 2012 to serve women who had been displaced from Gao Hospital). Despite significant insecurity in Gao, GREFFA was able to find almost all of the women who had been lost to follow up during the pillaging of the Gao Hospital, as well as some new women in need of care, and ensure their transport to and from the treatment site in Mopti.

The Fistula Care Mali program emphasized training health workers in fistula identification and treatment as well as prevention, partnering with local organizations for community outreach and transport, and advocating for the inclusion of fistula in the National Roadmap for Maternal, Newborn and Child health.

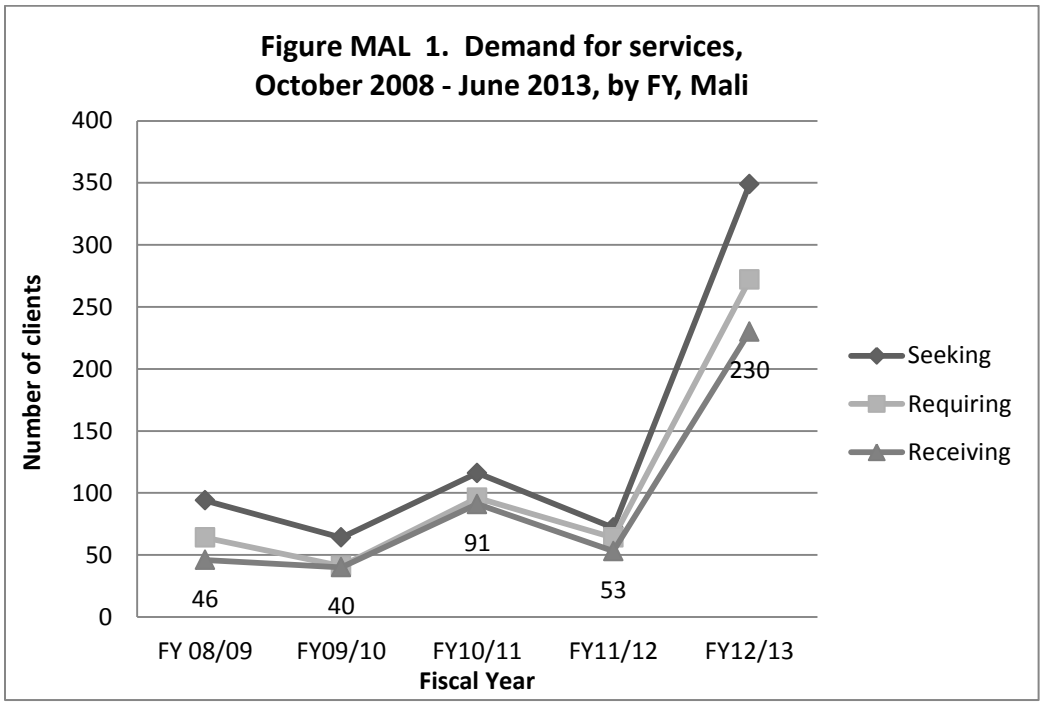
Through its partnership with the Ministry of Health, Fistula Care worked towards the development and dissemination of the national fistula prevention and treatment strategy, national norms, protocols and tools for fistula prevention and the inclusion of fistula data in the HMIS. Fistula Care also worked at the local government level through a steering committee of stakeholders for fistula.

Key Achievements, by Result

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

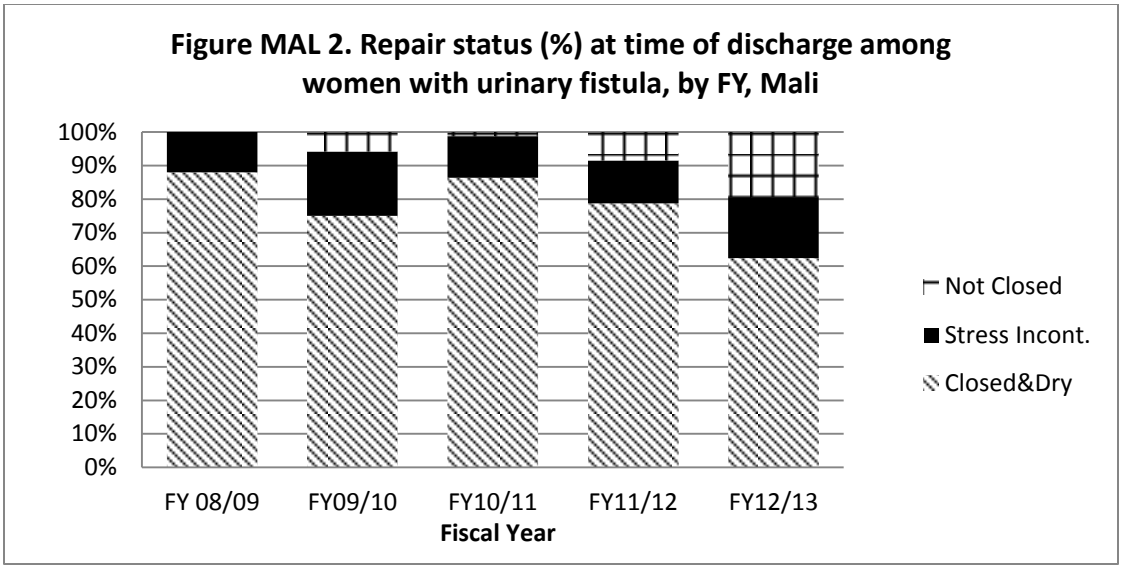
The number of women seeking treatment varied across years; the political situation in the country had an impact on both service provision and the ability of women to seek treatment. Figure MAL1 shows the number of women seeking, requiring and number of repairs in Mali

between FY08/09 and FY12/13[71]. Fistula Care, in partnership with the MOH, supported 460 surgeries at four facilities: Gao Regional Hospital, Kayes Hospital, Mopti Hospital and Sikasso Hospital. The addition of the Kayes, Mopti and Sikasso treatment facilities in the final year of the project, as well as an increase in the frequency of repair campaigns, enabled support for more repairs than Gao was able to accommodate alone in previous years of Fistula Care support.



Among the women repaired at USAID-supported sites from FY08/09 to FY12/13, 72% were closed and dry at the time of discharge from the facility; see Figure MAL2. As shown, the percentage of women with closed and dry outcomes was lowest in the final year of the project, due primarily to the high number of complicated and repeat repair cases. Clients were older with long-standing fistula resulting in many secondary issues that affected the outcome of surgery. Additionally, as services were newly started at these sites, staff were inexperienced with some aspects of post-operative care, leading to increased postoperative complications, including repair breakdown. Further discussion of closed and dry rates can be found in the Global Accomplishments section of this report, under IR1.1. Reports on complications arising from fistula surgery varied by supported site. The annual overall reported complication rates ranged from zero to 6% over the life of the project. A discussion of complication reporting is presented in the Global Accomplishments section of the report, under IR1.2.

[71] Services were supported through June 2013, so FY12/13 data covers a 9-month period.



Early in the project, Fistula Care Mali shifted from providing fistula repair services solely during concentrated repair efforts to providing routine surgery for simple cases. Fistula Care supported fistula repair trainings to strengthen the capacity of providers and facilities, providing both didactic and practical training to surgeons, nursing staff and anesthetists. From FY07/08 to FY12/13, 19 surgeons participated in fistula repair training (Table MAL1). As of March 2013, nine of these surgeons were providing routine surgical repair and one surgeon had reached competency as a trainer and gone on to train others. Analysis and discussion of surgeon training data and retention are presented in the Global Accomplishments section of this report, under IR1.3.

Table MAL1. Mali surgeon training in fistula repair October 2008-June 2013

Training in Fistula Surgery, Mali	N
Number of surgeons trained in fistula repair	19
Number of surgeons tracked through training follow up efforts through March 2013	18
Competency levels achieved by trained surgeons	
Simple	5
Medium	6
Complex	1
No information available	6
Total number of trained surgeons providing fistula repair as of March 2013:	9
Number trained providing services at Fistula Care supported sites	9
Number of trained surgeons who have provided training to other surgeons	1

Training in fistula counseling, infection prevention and quality assurance also took place at the national level, including staff and NGOs supporting fistula services. This was followed by a cascade training of health providers at the regional level in Gao (See Table MAL2). Over 200 individuals received training in pre- and post-operative care.

Table MAL2. Number of staff trained in fistula repair related topics by FY, Mali

Type of Training ↓	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
Pre- and Postoperative Care	0	0	54	93	55	**202**
Infection Prevention	0	0	0	40	69	**109**
Quality Assurance	0	0	17	20	0	**37**
Fistula Counseling	36	18	15	115	0	**184**
Total	**36**	**18**	**86**	**268**	**124**	**532**

In 2009, to reinforce the sustainability of the routine surgical repairs taking place at Gao Hospital, GREFFA installed a permanent team in the hospital reception center to welcome and support the women who arrived seeking fistula services. Fistula Care also introduced COPE® trained providers in facilitative supervision (see Table MAL2) and supported training follow-up.

Also in 2009, Fistula Care Mali and the MOH organized training on fistula to raise awareness of nurses at the Gao Nursing School and to engage health providers in fistula prevention. The project developed a two-day training module for this intervention, designed for third-year nursing students, that provides an overview of the types and signs of fistula. It also explores the cause, contributing factors and the social/economic consequences of fistula. Finally, the module delves into the role of nurses in fistula prevention including use of the partograph, catheterization and early evacuation for prolonged/obstructed labor to sites providing cesarean delivery. The third class of nursing students who benefitted from this training graduated in the spring of 2011. Due to the current political situation in northern Mali and the destruction of the nursing school, this activity has ceased.

To strengthen capacity to provide quality fistula diagnosis and repair, Fistula Care provided operating theater equipment at Gao Hospital. Kayes and Sikasso Hospitals received needed surgical and medical supplies including fistula surgical kits, sutures and needles.

During FY10/11, Fistula Care conducted an assessment of general infection prevention measures and biomedical waste management at Gao Hospital. Following this evaluation, hospital staff generated a workplan for building capacity at the site for biomedical waste management.

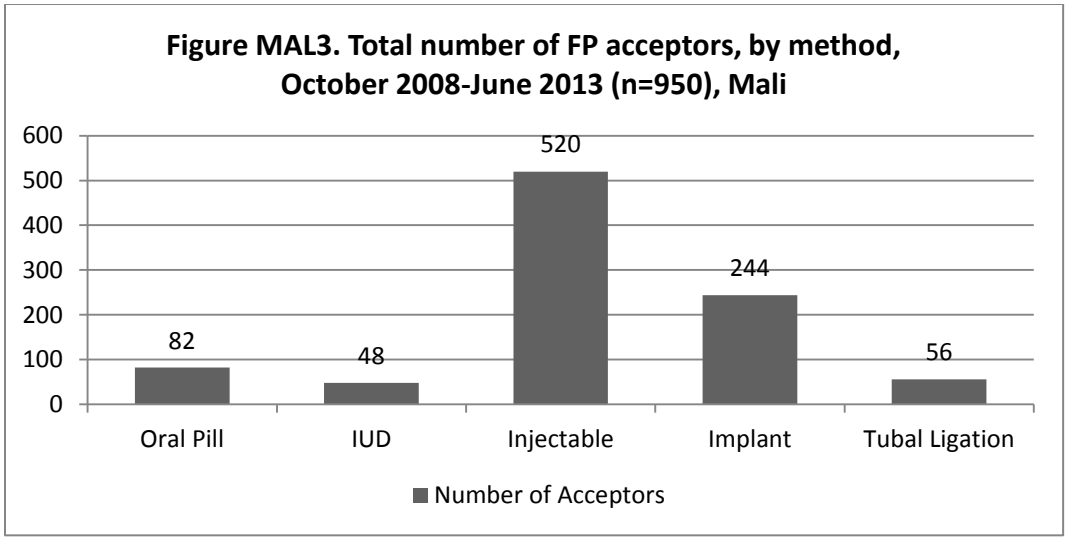
Result 2: Enhance community and facility understanding and practices to prevent fistula, utilize and deliver services for emergency obstetric care, and support women's reintegration

Family Planning Integration. In January 2010, the Fistula Care Mali program initiated FP-integration activities at Gao Hospital, in collaboration with the MOH with the goal of then expanding to the other four fistula treatment sites in Mali (supported by other donors).Fistula Care staff conducted an orientation on the EngenderHealth/Fistula Care integration model for

selected government, NGO, and donor representatives (stakeholders' group). FP integration plans were developed for five facilities, including Gao Hospital. Prior to its partial destruction, Gao had integrated FP counseling and method provision as part of the repair service package, including oral contraceptives, condoms, injectable hormones, and implants.

In October 2011, a National Family Planning and Obstetric Fistula Integration Workshop was held in Bamako, bringing together stakeholders from the five fistula repair sites in the country (Point G University Hospital Center, Gabriel Touré University Hospital Center, Segou Hospital, Mopti Hospital, and Gao Hospital) along with their technical and financial partners totaling 20 participants. The objective of the workshop was to determine the level of FP integration in fistula treatment at each site based on information exchanged and discussions held. Additionally, discussions focused on the obstacles and challenges to creating an environment supportive of the integration itself, as well as its sustainability. By the end of the workshop, each site had committed to developing a specific and realistic action plan within the next year.

Between FY08/09 and FY12/13, family planning counseling and methods were provided at 4 supported sites in Mali (Gao, Kayes, Mopti and Sikasso); a total of 950 FP acceptors were served, with over 1,000 women receiving family planning counseling (See Figure MAL3)[72].The injectable was the most popular of the methods offered with implants and oral pills following. Most family planning provision does not take place at the hospital level, but rather at the more local health centers within the region.



Obstetric Care Training. The project worked with the district referral health centers in the Gao region to prevent fistula by raising awareness of the causes of fistula among providers, training them in fistula diagnosis, and training providers to improve normal delivery and emergency obstetric care practices. Over the life of the project Fistula Care supported strengthening cesarean delivery services; a discussion about cesarean deliveries can be found in the Global Accomplishments section of this report under IR2.1; Annex 6 includes details about the number of deliveries and CS reported by supported sites by FY.

[72] Data through June 2013 when support for services ended.

The project also collaborated with the nursing school in Gao to integrate fistula prevention and to strengthen emergency obstetric care in the school's curriculum. A total of 205 health care workers participated in obstetric care training from FY08/09 to FY12/13 (see Table MAL3).

During FY10/11, the 14th Annual Midwives Day in Mali focused on the role of the midwife in preventing obstetric fistula. Approximately 500 people were reached through ceremonies and discussions.

Table MAL3: Number of staff trained in fistula prevention related topics by FY, Mali

	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
Obstetric Care	50	31	124	0	0	**205**
Data Management	0	2	0	27	0	**29**
Total	**50**	**33**	**124**	**27**	**0**	**234**

Community Level Interventions. Fistula Care Mali collaborated with local organizations in Gao, Kayes, and Sikasso to increase awareness in communities about the causes of fistula and the availability of services. A total of 542 community outreach efforts were held between FY08/09 and FY12/13, reaching over 11,000 participants (see Table MAL4).

Table MAL4. Number of community outreach and advocacy events and participants reached by FY, Mali

	Events	Participants
FY08/09	40	2,593
FY09/10	481	5,394
FY10/11	7	761
FY11/12	2	141
FY12/13[73]	12	2,226
Total	**542**	**11,115**

As part of community outreach efforts, radio messages were broadcast in 6 languages (Sonrhai, Tamacheq, Arabic, Bambara, Peulh and Soninké), to raise awareness on the causes and the prevention of fistula as well as available treatment. In Gao, local authorities spoke about the importance of delaying marriage and the dangers of fistula related to early marriage/childbirth.

Group and individual awareness raising sessions took place at Gao Hospital for women and their companions covering the causes of fistula, risk factors, prevention strategies and family planning. The group sessions were mostly sensitization/education sessions about the causes of fistula, which includes dispelling myths about witchcraft/fidelity and included information on prevention and treatment. These sessions were conducted in addition to one-on-one sessions between the nurse counselors and the women focus on their specific cases pre and post repair surgery.

Many factors impacted community outreach over the life of the project, including drought, famine and political unrest. GREFFA's efforts reached out into very remote areas across the districts of Gao and Menaka, and though largely successful in reaching women from the most remote and affected areas of the region, GREFFA faced challenges of getting to nomadic groups on poor roads and paths and increasing security issues in those areas. The CBO IAMANEH was

[73] Data available through June 2013

able to identify large numbers of women with fistula around Kayes and Sikasso, creating a backlog of women in need of repair.

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

Data for decision making. .A summary data tool, part of the fistula standards developed with technical assistance from Fistula Care, is used by the MOH to develop its annual action plan. Fistula Care also developed a fistula patient recordkeeping template, with different indicators used for different facility levels (community health center, referral health center, hospital). Training in data management and use of data for decision making reached 29 health providers (see Table MAL3). Between FY08/09 and FY11/12, Gao Hospital held 8 data review meetings to discuss fistula data and apply findings to programming.

Research. Gao Hospital participated in the *Multi-Center Retrospective Record Review of Data Collection Procedures and Data Quality of Indications for Cesarean Deliveries*. In FY12/13, the final report was shared with Gao Hospital and the National Fistula Technical Committee for dissemination. A summary of the findings from this study is located in Annex 9.

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

Fistula Care began supporting the MOH's fistula program in October 2008 providing technical assistance for development of the National Strategy for Fistula Prevention, Treatment and Reintegration, which was disseminated in December 2010.[74] The strategy provides guidance on Mali's demographic data and the country's maternal health indicators, causes of obstetric fistula in Mali, as well as 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 the Fistula Care project, held a workshop in Selingue, Mali to update its national policies, norms, and procedures on fistula and to develop tools and job aids to support fistula services. Workshop participants adapted several tools from the Fistula Care project, 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 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.

Over the life of the project, Fistula Care developed several tools and products designed for improving fistula treatment and prevention care. See Annex 11 for a list of the tools which were used by supported sites during the life of the project.

[74] Ministere de la Sante Mali. 2009. Stragegie Nationale de Prevention de de Prise end Charge des Fistules Obstricales au Mali. "Zero cas de fistules obstricales'. Bamako.

Fistula Care contributed to Mali being one of the first countries to explicitly track fistula treatment indicators in its national health information system. The Fistula Care team participated in a September 2011 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, or regional equivalent to the HMIS) indicators. The project worked to ensure that fistula indicators were integrated into the SLIS; the seven indictors which were adopted are shown in Table MAL5.

Table MAL5. Indicators incorporated into Mali's SLIS

Number of women presenting with incontinence
Number of women referred for incontinence
Number of staff capable of clinically diagnosing fistula
Number of fistula cases diagnosed
Number of fistulas repaired
Number of fistulas closed and dry
Number of staff capable of fistula surgery

Resources Developed in Mali

- Mali: National Strategy for the Prevention and Management of Obstetric Fistula in Mali
- Emergency Obstetric Care and Obstetric Fistula Prevention Manual
- Facilitator's Handbook: Training Health Providers in the Treatment and Prevention of Obstetric Fistula
- Health Provider Supervision Form and Checklist
- Patient Record Form
- Pre Operative and Post Operative Protocols for Nurses
- Quality Standards for Prevention and Treatment of Obstetric Fistula
- Training Health Providers in Infection Prevention: Participant Handbook
- Understanding Obstetric Fistula in Sixteen Questions (Comprendre la Fistule Obstétricale)
- Voices from the Mali Fistula Care Project

Working towards a Fistula-Free Generation

In June 2013, Fistula Care hosted a symposium to bring together 75 stakeholders working on fistula treatment and prevention in Mali to discuss lessons learned over the life of the Fistula Care project and prioritize future activities to work towards a fistula-free generation. Participants included representatives from USAID/Mali, the Ministry of Health, implementing health facilities, the project's technical and financial partners and local journalists. Seven Fistula Champions were awarded certificates for their contributions in the fight against obstetric fistula in Mali. Recommendations for future priorities/activities to achieve a fistula free generation included:

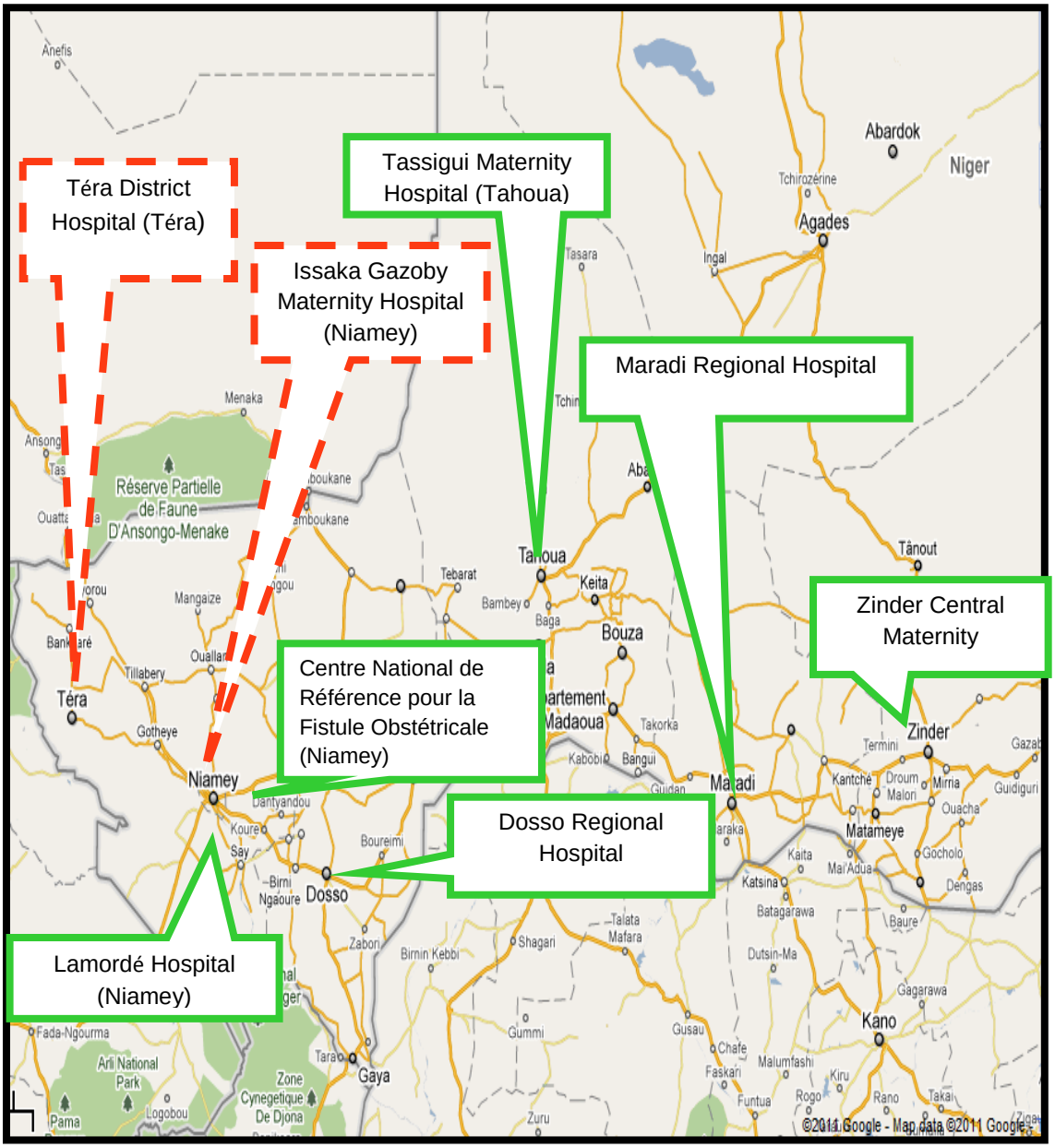
1. Strengthen community awareness.
2. Conduct IEC activities at the community level, exchanges at the country level (like National Fistula Day)
3. Strengthen the referral/emergency transportation system at the village level
4. Improve provider capacities in the management of pregnancy and childbirth, according to national standards
5. Strengthen the skills of providers at the district level for early clinical diagnosis of fistula and treatment of certain fistulas with catheterization.
6. Develop income-generating activities for women suffering from fistula

7. Involve local women's organizations in the socio-economic reintegration of women
8. Establish a partnership with telephone operators for the creation of a free helpline for referral/emergency transportation for obstetric emergencies
9. Involve the National Transportation/Road Workers' Syndicate to transport women experiencing obstetric emergencies.

Participants identified several areas for future research, including:

1. Issues surrounding monitoring of pregnancies and childbirth assistance
2. The prevalence of fistula in Mali, and particularly iatrogenic fistula
3. Incontinence after fistula treatment/surgery

Niger


Téra District Hospital (Téra)
Tassigui Maternity Hospital (Tahoua)
Issaka Gazoby Maternity Hospital (Niamey)
Maradi Regional Hospital
Zinder Central Maternity
Centre National de Référence pour la Fistule Obstétricale (Niamey)
Dosso Regional Hospital
Lamordé Hospital (Niamey)
Anefis
Abardok
Niger
Tchirozérine
Agades
Tasara
Ingal
Menaka
Réserve Partielle de Faune D'Ansongo-Menake
Tahoua
Tebarat
Keita
Bambey
Baga
Bouza
Tânout
Mangaize
Tillabery
Téra
Gotheye
Niamey
Dantyandou
Koure
Say
Boureimi
Birni Ngaoure
Dosso
Madaoua
Takorka
Kabobi
Bangui
Maradi
Zinder
Termini
Kantché
Droum
Malori
Mirria
Ouacha
Guidiguri
Matameye
Gocholo
Dengas
Kaita
Mai'Adua
Katsina
Batagarawa
Baure
Dutsin-Ma
Gagarawa
Kano
Talata Mafara
Shagari
Zabori
Birnin Kebbi
Gummi
Gusau
Chafe
Faskari
Malumfashi
Kiru
Rogo
Rano
Takai
Funtua
Zuru
Fada-Ngourma
Arli National Park
Pama
Logobou
Zone Cynegetique De Djona
Tarao
Gaya
©2011 Google - Map data ©2011 Google

Niger, Summary of Achievements

Start date with USAID funds: 2007

Background

Niger Demographic Data	
Population (2012)[75]	17.2 million
Maternal mortality ratio (2010)[76]	590
Total fertility rate (2012)[77]	7.6 children/woman
Median female age at first marriage (2006)[78]	15.5 years
Female literacy (2016)[79]	11.6%
Female primary school completion (2012)[80]	16.4
Skilled attendance at birth (2012)[81]	29.3%
Contraceptive prevalence rate (any method among married women, 15-49) (2012)[82]	13.9%

Niger Supported Sites	Dates of Support	Treatment	Prevention
Centre National de Référence pour la Fistule Obstétricale, Niamey	2013	X	X
Dosso Regional Hospital, Dosso	2008-2013	X	X
La Maternité Issaka Gazoby, Niamey	2008-2013		X
La Maternité Tassigui, Tahoua Regional Hospital, Tahoua	2011-2013	X	X
Lamordé National Hospital, Niamey	2007-2013	X	X
Maradi Regional Hospital, Maradi	2008-2013	X	X
Maternité Centrale de Zinder, Zinder	2012-2013	X	X
Téra District Hospital, TilLabéri	2011-2013		X

Overview of Fistula Care in Niger

In 2002, EngenderHealth, in collaboration with UNFPA, undertook a nine country fistula needs assessment which included Niger. The assessment found "obstetric fistula in Niger is an extremely common phenomenon."[83] EngenderHealth began supporting fistula services in Niger in 2005 through a grant from the Bill & Melinda Gates Foundation.

[75] The World Bank. 2013. Niger data. Retrieved from : http://data.worldbank.org/country/niger
[76] World Health Organization. 2012, op. cit. p. 34 (See footnote 13).
[77] Institut National de la Statistique (INS) and ICF International. 2012. Enquête Démographique et de Santé et à Indicateurs Multiples du Niger EDSN-MICS-IV 2012 Rapport Préliminaire. Calverton, Maryland, USA. p. 7. http://www.measuredhs.com/pubs/pdf/PR28/PR28.pdf.
[78] Institut National de la Statistique (INS) et Macro International Inc. 2007. *Enquête Démographique et de Santé et à Indicateurs Multiples du Niger 2006*. Calverton, Maryland, USA : INS et Macro International Inc. P. 98. http://www.measuredhs.com/publications/publication-FR193-DHS-Final-Reports.cfm
[79] INS and ICF, op. cit., p. 6
[80] INS and Macro International, op. cit., p.36
[81] INS and ICF, op. cit., p.12
[82] Ibid., p. 9-10
[83] UNFPA and EngenderHealth. 2003. Obstetric Fistula Needs Assessment Report: Findings from Nine African Countries. New York: UNFPA and EngenderHealth. P.47. http://www.fistulacare.org/pages/da/files/8/8.3/fistula-needs-assessment.pdf

USAID's support for fistula began in 2007 through the AWARE-Reproductive Health Project. In 2008, as the AWARE Project ended, Fistula Care support to four facilities began. The Richard and Rhoda Goldman Fund also provided support to subsidize the cost of fistula repairs at supported sites in Niger from 2008-2010. Support eventually grew to cover six treatment and prevention sites and two prevention-only sites, and building the capacity of the *Réseau pour l'eradication des fistules (REF)* to manage and coordinate fistula activities in Niger. REF serves as a coordinating body comprised of women's groups, civil society organizations, hospitals, development partners, the Ministry of Health, and the Ministry of Women's Promotion. Fistula Care supported work in Niger was managed in partnership with REF to move the fistula agenda forward through building repair and prevention capacity at supported sites. To achieve this, Fistula Care invested in developing REF's management capacity so that REF was able to play its role as the national coordinating body for fistula program implementation. In 2013 the Ministry of Health, with support from UNFPA, opened a 35-bed national center for fistula training and treatment in Niamey (Centre National de Référence pour la Fistule Obstétricale or CNRFO). The CNRFO will provide all future fistula repairs in Niamey, bringing together the teams from the National Hospital (which was previously supported by UNFPA) and Lamordé University Hospital (a Fistula-Care supported site). Lamordé University Hospital continued to repair fistulas until April 2013, at which point its trained fistula surgeons and support team were transferred to work exclusively at the CNRFO. Fistula Care supported repairs at the CNRFO between April and July 2013.

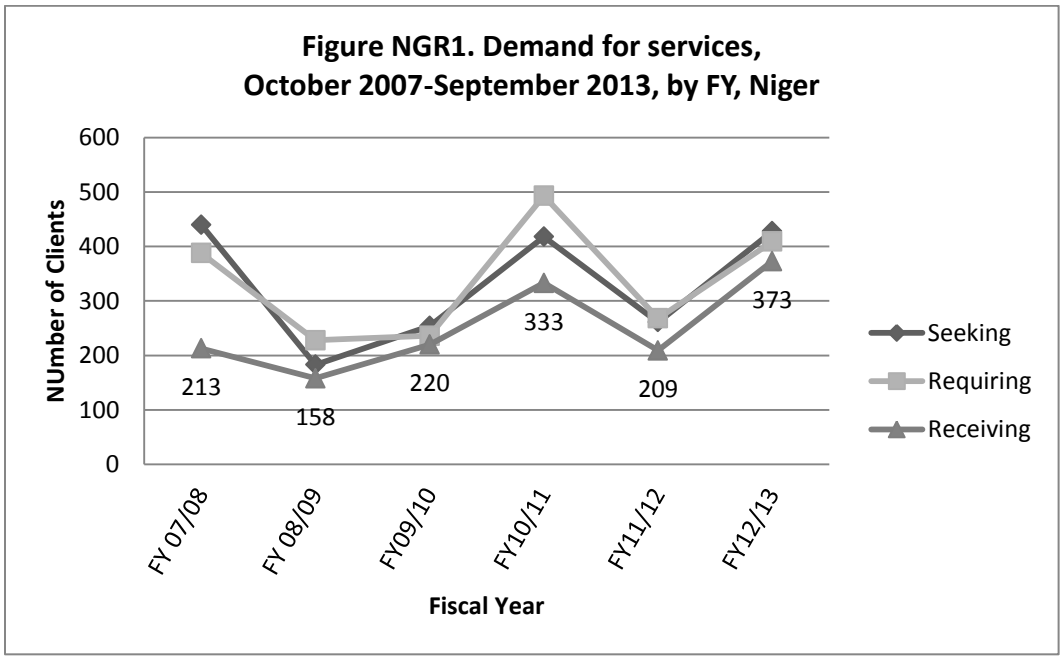
Fistula Care's efforts in Niger focused on strengthening fistula repair services, particularly through ongoing training and supervision, and on building linkages between facilities and the people they serve through community engagement for safe motherhood. At facilities, Fistula Care promoted quality improvement, infection prevention, the use of the partograph, immediate catheterization, and family planning. The project also worked to improve recordkeeping and local data analysis and use.

Key Achievements, by Result

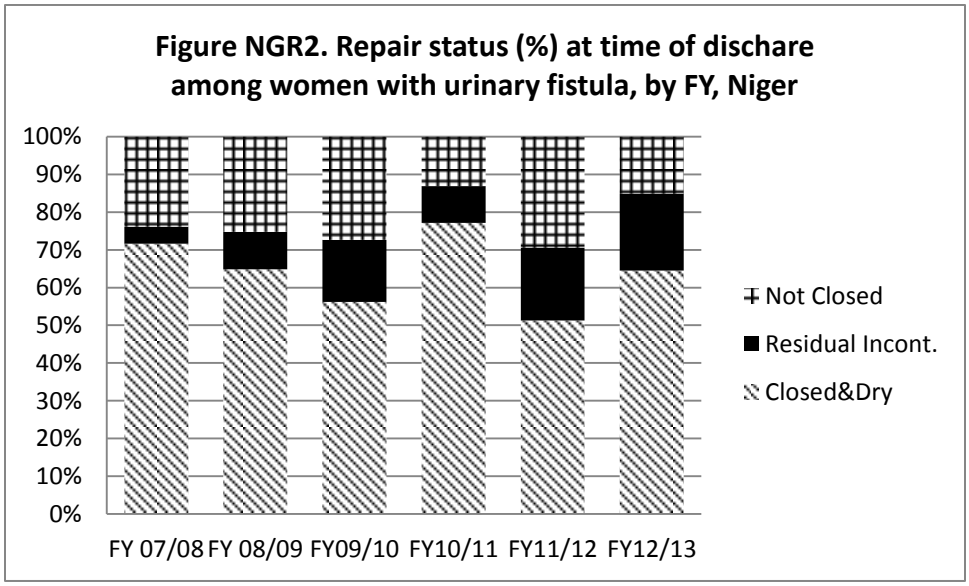
Result 1: Strengthen the capacity of centers to provide quality services to repair and care for women with obstetric and traumatic gynecologic fistula

Since the beginning of the project, Fistula Care has supported 1,506 surgeries at six sites. Twenty-seven surgeries were supported during FY06/07 through the AWARE Project. Figure NGR1 shows the demand for services at Fistula Care supported sites including the number of women seeking, requiring, and number of repairs by FY.

During FY12/13, 64% of women with urinary fistula were closed and dry at the time of discharge from the facility. Figure NGR2 shows closed and dry rates at the time of discharge for each fiscal year. The Nigerien rates for closed and dry are relatively lower than other supported countries because the supported sites handle highly complex cases (clients with multiple



previous repair attempts, or complex cases). Of the 1,506 repairs, 328 (21.8%) were the second repair attempt while 470 (31.2%) were the third or higher attempt. Further discussion of closed and dry rates can be found in Global Accomplishments section report, under IR1.1. Reports on complications arising from fistula surgery varied by supported site. The annual overall reported complication rates ranged from zero to 7% over the life of the project. A discussion of complication reporting is presented in the Global Accomplishments section of the report, under IR1.2.



Capacity building in Niger has focused on a holistic approach to improve practices of all parties involved in providing fistula repair and prevention activities, including surgeons, nurses, counselors, administrators, and community leaders.

The 2002 needs assessment found six surgeons providing services at three sites, one of whom had not received formal, technical training.[84] To address this shortfall, Fistula Care supported the training of 34 surgeons in fistula repair surgery; see Table NIG1. The majority of the trainees achieved competency to do simple repairs; three surgeons developed skills to repair complex fistula cases. In 2013, six trained surgeons continued to provide repairs at Fistula Care supported sites. Analysis and discussion of surgeon training data and retention are presented in the Global Accomplishments section of this report, under IR1.3.

Table NIG1. Niger surgeon training in fistula repair, October 2007 to September 2013

Training in Fistula Surgery, Niger	N
Number of surgeons trained in fistula repair	34
Number of surgeons tracked through training follow up efforts through March 2013	31
Competency levels achieved by trained surgeons	
Simple	19
Medium	9
Complex	3
No information available	0
Total number of trained surgeons providing fistula repair as of March 2013:	6
Number trained providing services at Fistula Care supported sites	6
Number of trained surgeons who have provided training to other surgeons	1

Between October 2007 and June 2013, Fistula Care supported training for over 300 health care workers in a variety of topics related to fistula care and treatment; see Table NIG2. Fifty-one nurses were trained in counseling for obstetric fistula clients using Fistula Care's *Counseling the Obstetric Fistula Client: A Training Curriculum*, through a cascade training model. Nurses, midwives, and other cadres were trained in topics such as infection prevention, quality assurance, and pre and postoperative care.

Table NGR2. Number of staff trained in fistula repair related topics by FY, Niger

	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
Pre and Postoperative Care	12	0	0	23	4	0	**39**
Infection Prevention	80	0	60	0	0	0	**140**
Quality Assurance	60	0	19	0	0	10	**89**
Fistula Counseling	0	0	0	0	0	51	**51**
Total	**152**	**0**	**79**	**23**	**4**	**61**	**319**

REF developed and implemented a training model that brought surgical teams together in concentrated fistula repair sessions. Surgeons and nurses were trained simultaneously, as teams. The concentrated sessions allowed for knowledge sharing between practitioners. After the concentrated training sessions, trainers and other advanced fistula surgeons traveled to mentor developing fistula surgeons on location, reinforcing the skills learned.

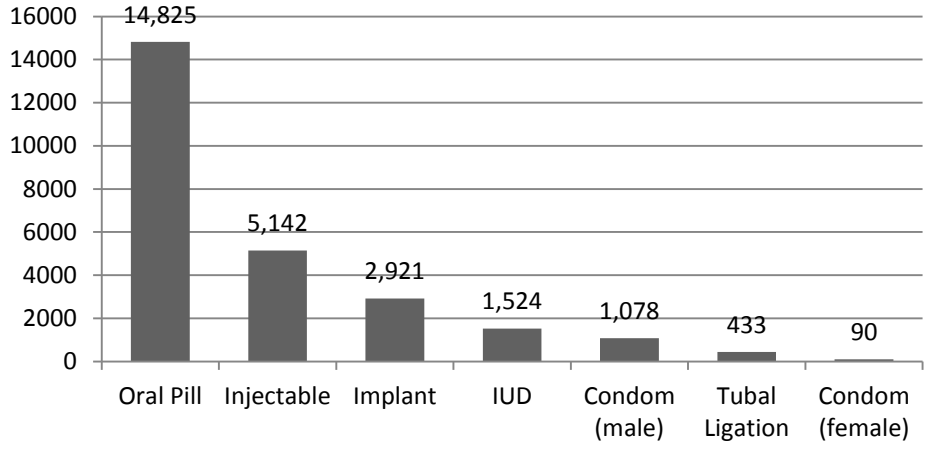
[84] Ibid., p. 47

Fistula Care provided significant medical equipment to supported sites so that they would be able to offer high-quality fistula treatment and emergency obstetric services. Donated equipment included fistula repair kits, delivery kits, specialized scissors and retractors, lamps, sterilizers, blood pressure machines, suction machines, oxygen concentrators, catheters, and more.

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

Family Planning Integration. Family planning services were provided at all treatment and prevention sites in Niger. All women who received fistula repair were counseled and given the option to choose a family planning method prior to discharge. At Fistula Care supported sites, over 26,000 clients received a family planning method, with the oral pill being the most popular of the methods offered. Injectables and implants were also popular (see Figure NGR3). Thirty providers were trained in FP during the life of the project (Table NIG3).

Figure NGR3. Total number of FP acceptors, by method, October 2007-September 2013 (n=26,013), Niger



Family planning was also a part of community-level prevention activities through the village health committees. Committee members sensitized their neighbors about contraceptive methods using maternal health picture books. In 2013, the committees began directly distributing pills and condoms through a community-based distribution scheme, in close collaboration with local health centers. More details regarding the integration of family planning into fistula services at Fistula Care supported sites in Niger can be found in *Integrating Family Planning into Fistula Services: An Evaluation and Case Study*. [85]

Obstetric Care Training. A total of 135 providers were trained in obstetric care to prevent fistula (see Table NGR3). Staff at Dosso Regional Hospital underwent training in quality improvement and the correct and consistent use of the partograph. The facility also partnered with community radios to spread messages about prevention and treatment availability. The project also supported

[85] Caro et al., op. cit. (see footnote 25)

strengthening cesarean section services during the life of the project. A discussion about cesarean deliveries can be found in the Global Accomplishments section of this report under IR2.1; Annex 6 includes details about the number of deliveries and CS reported by supported sites by FY.

Table NGR3. Number of persons trained in fistula prevention related topics by FY, Niger

	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	**Total**
Family Planning	0	0	30	0	0	0	**30**
Obstetric Care	0	0	0	60	75	0	**135**
Community outreach and advocacy	20	0	0	84	0	0	**104**
Other	4	0	0	0	0	0	**4**
Total	**24**	**0**	**30**	**144**	**75**	**0**	**273**

REF trained 60 providers in correct and consistent use of the partograph, 15 from each region where Fistula Care supports work. Three facilities in Niger participated in the global study on cesarean records; in this study nearly all the records reviewed included a partograph however at two of the sites, fewer than 3% of the completed partographs were done correctly.[86] Using these study findings, REF and Fistula Care took steps to improve partograph completion and supported sites. A district supervisor and emergency obstetric care trainer made quarterly visits to each of the health centers participating in community outreach to review client records for partograph completion using Fistula Care's monitoring tool for partograph review, review family planning uptake and delivery statistics, and discuss these findings with facility staff. They also used data for decision making principles to facilitate a conversation with staff to improve quality of care and data collection. To follow up and address this gap in partograph completion, an additional 75 providers were trained in obstetric care including partograph use. For further details about Fistula Care's annual monitoring of partograph use, see IR2.1 under the Global Accomplishments section of this report and Table 8.

In FY12/13, Fistula Care supported REF to host training on facilitative supervision for the regional reproductive health focal points of Dosso, Maradi, Tahoua, and Tillabéri. One clinician from each supported site, and two supervisors from the national referral maternity hospital attended the training.

Community Level Interventions. Community-level health workers were trained in pregnancy monitoring and other topics in order to raise awareness of fistula and support safe birth practices at the community level. In total, Fistula Care-supported community outreach and advocacy efforts reached nearly 98,000 participants through more than 2,300 events (see Table NGR4).

In 2009, to complement facility-level fistula interventions, Fistula Care supported the establishment of 30 village safe motherhood committees located in the catchment areas of six integrated health centers in the Dosso and Maradi regions. Members of the committees were

[86] 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.

trained to raise awareness about fistula in their respective communities and to identify and refer women with fistula to treatment.

In 2012, based on observations that the village committees appeared to have lost momentum and 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.

Table NGR4. Number of community outreach and advocacy events and participants reached by FY, Niger

	Events	Participants
FY07/08	38	6,005
FY08/09	65	2,110
FY09/10	25	1,965
FY10/11	29	8,015
FY11/12	552	20,577
FY12/13[87]	1,645	59,205
Total	**2,354**	**97,877**

Fifteen new committees were established in early 2013 in Boboye District in Dosso Region. Quarterly review meetings and regular supervision visits allowed for experience sharing and learning. Committees began community-based distribution and referrals for family planning in early 2013. Fistula Care and REF developed a training manual for community workers in 2013 to facilitate this work.[88]

A 2013 review indicated that the committees have been very active in leading awareness-raising sessions and conducting pregnancy monitoring visits to pregnant women. In one quarter, for example, there were7,885 participants at the committees' awareness raising sessions on various maternal health topics (e.g. obstetric fistula, the importance of antenatal care and institutional delivery, family planning, postnatal care, birth preparedness, etc.). Together, committees visited approximately 800 pregnant women per quarter.[89]

Maternal health care seeking was high among those receiving pregnancy monitoring visits. Among the recently-delivered women who received pregnancy monitoring visits by members of the village committees, 88% had delivered in a health facility. Antenatal care utilization (four visits) and postnatal care utilization was also high, as was the practice of birth preparedness; 83% of women receiving the committees' pregnancy monitoring visits in Dosso and 69% in Boboye had made all four birth preparations promoted and monitored by the committees—namely deciding place of delivery, discussing plans with husband/family members, setting aside money, and making arrangements for transport.

[87] Data available through June 2013.
[88] Fistula Care. 2013. *Informer et engager 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.* New York: Fistula Care/EngenderHealth.
[89] Fistula Care. 2013. *Review of community-level fistula prevention interventions in Niger*. New York: Fistula Care/EngenderHealth

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

Data for Decision Making. In 2012, hospital supervisors, regional and district supervisors, and REF staff participated in DDM training. Each supported treatment site subsequently created an action plan for incorporating DDM principles into supervision activities, particularly focusing on partograph use and completion and the work of community-level maternal health committees. Between FY08/09 and FY12/13, a total of 41 data review meetings were conducted at supported sites.

Research. Nigerien sites were important partners in three global research studies conducted by Fistula Care:

- Determinants of Postoperative Outcomes in Fistula Repair Surgery (Lamordé and Maradi)
- Multi-Center Retrospective Record Review of Data Collection Procedures and Data Quality of Indications for Cesarean Deliveries (Tahoua, Dosso, and Maradi)
- Randomized Controlled Trial on Short-term Catheterization (Zinder)

The data collected at these sites played a key role in contributing to the knowledge base and building the evidence base for fistula services. A summary of the findings from these studies are located in Annex 9.

A 2013 evaluation of community-level interventions is described above under Result 2.

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

Through its many partnerships REF worked 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 NIG5. These 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.

Table NGR5. Indicators incorporated into Niger's HMIS

Number of women needing a fistula repair
Number of women receiving a fistula repair
Number of fistula surgeries
Number of women treated by catheter [for fistula]
Number of cases of vesico-vaginal fistula
Number of cases of recto-vaginal fistula
Number of new cases of fistula (=first repair attempts)
Number of women closed and dry at discharge
Number of women still leaking at discharge
Number of women benefitting from a social reintegration program

Over the life of the project, Fistula Care developed several tools and products designed for improving fistula treatment and prevention care. See Annex 11 for a list of the tools which were used by supported sites during the life of the project.

Resources Developed in Niger

- Maternal Health Picture Books (Book 1, Book 2)
- Training manual for community engagement

Working Toward a Fistula-Free Generation

In May 2013, Fistula Care and REF hosted a symposium to bring together stakeholders working on fistula treatment and prevention in Niger to discuss lessons learned over the life of the Fistula Care project and prioritize future activities to work towards a fistula-free generation. The 33 participants made the following recommendations:

1. Improve the referral system (logistics, training, means of transport)
2. Improve family planning coverage
3. Continue and expand the work of the community committees for fistula prevention
4. Secure some financial commitment of the government of Niger to cover fistula repairs
5. Continue donor support for fistula repairs
6. Continue strengthening of REF and the national referral center
7. Continue to support human and material resources for fistula treatment; training of surgical teams
8. Build the capacity of integrated health centers – make sure that health workers are trained on birth attendance and family planning
9. Ensure functionality of EmOC centers close to the population (encouraging doctors to work in remote areas)
10. Work with husbands, mothers, and grandmothers (*écoles de maris*)
11. Integrate fistula prevention messages and referrals for treatment into the work of other NGOs
12. Follow up women who have been treated for fistula

Nigeria


Maryam Abacha Women's and Children's Hosp. (Sokoto)
Babbar Ruga Hospital (Katsina)
Laure Fistula Center at Murtala Mohammed Specialist Hospital (Kano)
Kebbi Fistula Center (Birinni Kebbi)
Faridat Yakubu Gen. Hospital (Zamfara)
Ningi General Hospital (Bauchi)
Ibadan University Teaching Hospital (Oyo)
Sobi Hospital (Kwara)
Ogoja Hospital (Cross River)
National Obstetric Fistula Centre Abakaliki (Ebonyi)
Nigeria
Zinder
Maradi
Katsina
Kano
Sokoto
Kaduna
Zaria
Jos
Abuja
Lagos
Ibadan
Ilorin
Benin City
Port Harcourt
Aba
Onitsha
Enugwu
Abakaliki
Maiduguri
Cameroon
©2010 Google - Map data ©2010 Europa Technologies

Nigeria, Summary of Achievements

Start date with USAID funds: 2007

Background

Nigeria Demographic Data	
Population (2012)[90]	168.8 million
Total fertility rate (2008)[91]	5.7 children/woman
Maternal mortality ratio (2008)[92]	545
Median female age at first marriage (2008)[93]	18.3 years
Female literacy (2008)[94]	53.7%
Female primary school completion (2008)[95]	13.6%
Skilled attendance at birth (2008)[96]	38.9%
Contraceptive prevalence rate (2008)[97](any method, currently married women, 15-49)	15.4%
Women who have heard of obstetric fistula symptoms[98] (2008) (all women ages15-49)	30.7%
Women who have experienced obstetric fistula symptoms[99] (2008) (all women ages 15-49)	0.4%

Nigeria Supported Sites (states)	Dates of Support	Treatment	Prevention
Babbar Ruga General Hospital (Katsina)	2007-2013	X	X
National Obstetric Fistula Ctr. Abakaliki (Ebonyi)[100]	2009-2013	X	X
Faridat Yakubu General Hospital (Zamfara)	2007-2013	X	X
Kebbi Fistula Center (Kebbi)	2007-2013	X	X
Laure Fistula Center at Murtala Mohammed Specialist Hospital (Kano)	2007-2013	X	X
Maryam Abacha Women's and Children's Hospital (Sokoto)	2007-2013	X	X
Ningi Hospital (Bauchi)	2010-2013	X	
Ogoja General Hospital (Cross River)	2011-2013	X	X
Sobi Specialist Hospital (Kwara)	2011-2013	X	X
Ibadan University Teaching Hospital (Oyo)	2012-2013	X	
Ogoja MCH Centre (Cross River)	2011-2013		X
Owutuedda General Hospital (Ebonyi)	2009-2013		X
Agubia Cottage Hospital, (Ebonyi)	2009-2013		X

[90] The World Bank. 2013. Nigeria data. Retrieved from: http://data.worldbank.org/country/nigeria
[91] National Population Commission (NPC) [Nigeria] and ICF Macro. 2009. Nigeria Demographic and Health Survey 2008. Abuja, Nigeria: National Populaton Commission and ICF Macro. P.52. (http://www.measuredhs.com/pubs/pdf/FR222/FR222.pdf)
[92] Ibid., p.237
[93] Ibid., p.94
[94] Ibid., p.35
[95] Ibid., p.33
[96] Ibid., p.134
[97] Ibid., p.70
[98] Ibid., p.139
[99] Ibid., p.139
[100] Formerly Ebonyi VVF Center. In May 2011, the center was renamed when it became a designated federal center.

Nigeria Supported Sites (states)	Dates of Support	Treatment	Prevention
Ebonyi State University Teaching Hospital (Ebonyi)	2009-2013		X
Ezangbo Maternity Hospital (Ebonyi)	2009-2013		X
Azuiyokwu General Hospital, Abakaliki (Ebonyi)[101]	2009-2013		X
Mgbo Primary Health Center (Ebonyi)	2009-2013		X
Comprehensive Health Center, Kumbotso (Kano)	2007-2013		X
Takai Community/NYSC Health Center, Takai (Kano)	2007-2013		X
Tarauni MCH Clinic (Kano)	2009-2013		X
Ungwa Uku MCH Clinic (Kano)	2009-2013		X
Muhammadu Abdullahi Wase Hospital (Kano)	2009-2013		X
Byari Jega General Hospital, (Kebbi)	2009-2013		X
Kamba General Hospital (Kebbi)	2009-2013		X
Maiyama General Hospital (Kebbi)	2009-2013		X
Argungu General Hospital (Kebbi)	2009-2013		X
Dakingari Primary Health Center (Kebbi)	2009-2013		X
D/D General Hospital (Sokoto)	2009-2011		X
Rabah General Hospital (Sokoto)	2009-2011		X
Isa General Hospital (Sokoto)	2009-2011		X
Jabo Primary Health Center (Sokoto)	2009-2011		X
Bakura General Hospital Zamfara)	2009-2013		X
Bungudu General Hospital (Zamfara)	2009-2013		X

Overview of Fistula Care in Nigeria

USAID support for fistula activities in Nigeria began in 2005 under the ACQUIRE project. In late 2007, those activities were transitioned to Fistula Care. At that time, the strategic focus was to increase the capacity to provide fistula services in the northern states of Nigeria, because it was generally assumed that fistula was mainly a problem in the north. USAID support commenced with support to five sites in five northern states, two of which were established training sites (Laure Fistula Center in Kano and Babbar Ruga in Katsina). The project focused on increasing capacity to provide services and training at sites in three states (Kebbi, Sokoto and Zamfara). In addition, there was a focus on ensuring that women in these states had information and services that would assist them in preventing obstetric fistula through family planning. Over the life of the project, as detailed in the table above with names of supported sites, Fistula Care expanded treatment services to five additional states: Bauchi, Cross River, Ebonyi, Kwara, and Oyo. The support of services in the southern state of Ebonyi highlighted the fact that fistula was a national burden. Fistula Care expanded to these additional states following a needs assessment conducted in 2010 and led by the project in collaboration with the Federal Ministry of Health (FMOH), Ministry of Women's Affairs and Social Development and UNFPA.

A total of 29 prevention-only sites also received support from Fistula Care for the provision of family planning services, as part of fistula prevention efforts. In the third quarter of FY10/11, USAID/Nigeria instructed Fistula Care to cease support to the 29 prevention-only sites transferring their support to TSHIP (a bilateral project). This request was later changed, and support to 19 of the sites was reinstated in FY11/12.

As described in the key achievements section below, the project collaborated with various stakeholders at the federal and state levels to ensure increased capacity to treat women who

[101] Formerly the Maternal Child Health Initiative FP Center.

present with fistula. The project utilized a pooled effort approach to provide repairs, focused extensive efforts on training surgeons in all supported states and implemented a strategy of unlocking the potential of university training hospitals to strengthen the pool of fistula repair surgeons. Fistula Care also ensured regular and sustained supply of theater consumables to support routine and pooled effort fistula repairs.

Fistula Care collaborated with local government, community-based partners (including religious leaders) and national and state media to disseminate fistula prevention messages, reduce stigma, increase awareness of the availability of treatment and encourage support for reintegration of women into their communities after fistula repair. Local Government Area (LGA) authorities and leaders of Ward Development Committees (WDC) within the LGAs were particularly important supporters of this work.

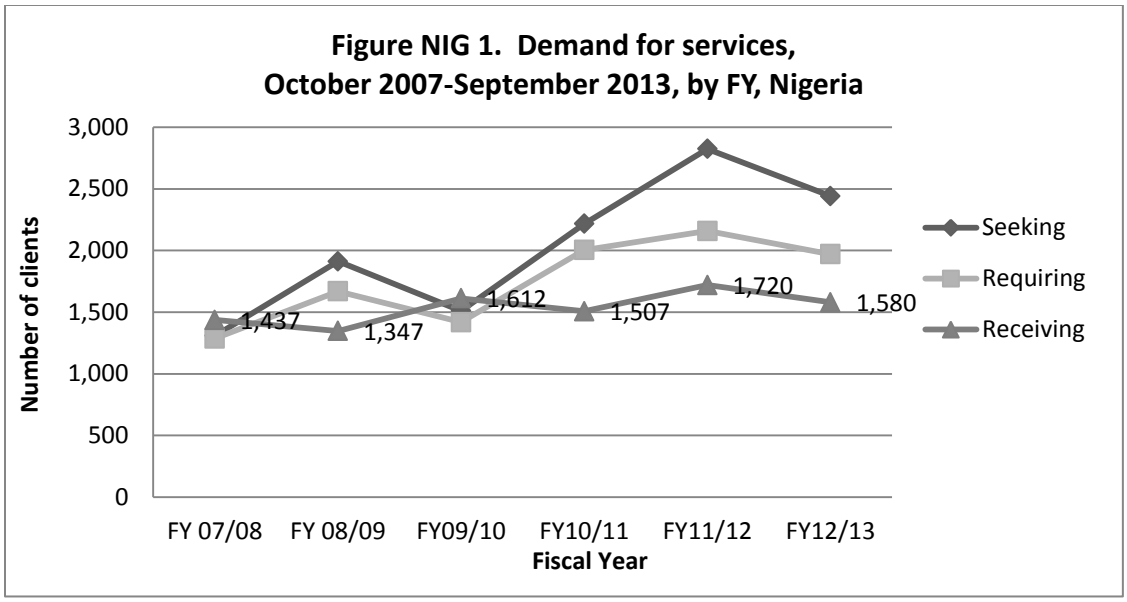
Legislative advocacy efforts resulted in inclusion of a line item for fistula in the National health budget as well as in the state budgets for Ebonyi, Bauchi, Kwara and Zamfara. Fistula Care supported the development and dissemination of standards of practice for fistula surgeons and nurses, and the inclusion of fistula indicators in the national HMIS. See Result 4 below for further details.

Key Achievements, by Result

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

The number of women seeking and requiring treatment increased over the life of the project. The number of repairs performed showed modest gains for most years of project support. Figure NIG1 shows the number of women seeking and requiring fistula and number of fistula repairs between FY07/08 and FY12/13. Fistula Care supported 9,203 surgeries at 10 facilities in Nigeria, in partnership with the Ministries of Health and Women Affairs. Nigeria's repairs comprised approximately 39% of all Fistula Care-supported repairs globally during this time period. In FY12/13, there was a slight decrease when compared to the previous year, primarily due to a slow-down in program activities in the fourth quarter as the project began to close out.

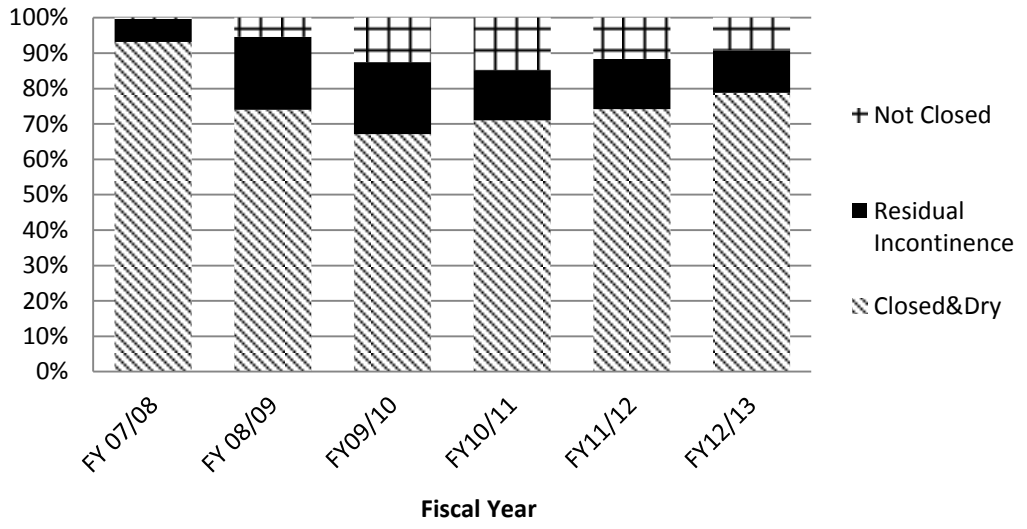
Fistula Care partners developed a strategy to help reduce the backlog of fistula repair cases by conducting *pooled effort* campaigns at least once a quarter. The pooled effort strategy is described in a Fistula Care Technical Brief: *A Collaborative Network to Improve Access to Fistula Treatment in Nigeria.* These campaigns brought together surgeons from multiple sites to work together to provide services for a one or two week period at a supported site or at a site under development. Strategies were put in place to (a) create awareness of the pooled effort so that women would come for repair and (b) to ensure that sufficient resources and trained personnel were available at the facility to provide appropriate pre/intra- and post-operative care. A total of 67 pooled efforts were held between FY07/08 and FY12/13, with an average of 30 women repaired at each session. The number of pooled effort sessions held ranged from six in FY08/09 to 18 in FY11/12. These pooled efforts helped to reduce the backlog of women waiting for fistula surgery, though women continue to remain waiting for services at most sites.



The overall closed and dry rate of women receiving repairs during this time was 76% (See Fig NIG2). These rates steadily improved over the last several years of the project. Further discussion of closed and dry rates can be found in the Global Accomplishments section of this report, under IR1.1. Reports on complications arising from fistula surgery varied by supported site. The annual overall reported complication rates ranged from 1% to 5 % over the life of the project. A discussion of complication reporting is presented in the Global Accomplishments section of the report, under IR1.2.

Fistula Care trained, retrained or upgraded skills of doctors and nurses in fistula surgery and pre/intra- and post-operative management respectively. In some cases training took place during a pooled effort by a master trainer. The duration of the trainings ranged from two to four weeks depending on level of competency of the trainee in fistula surgery. Beneficiaries of the training include medical doctors (surgeons, consultants) ward and theater nurses. Retired surgeons as well as those working in Missionary facilities in Cross River State were also trained in an effort to supplement and complement the efforts of the few newly trained doctors at Ogoja General Hospital.

Figure NIG2. Repair status (%) at time of discharge among women with urinary fistula, by FY, Nigeria



Following a 2010 assessment[102], it was recommended that Nigeria should consider *unlocking the potential* of University Teaching Hospitals (UTH) in each state to expand access to training and provision of fistula services; these hospitals are staffed with consultant urologists and obstetrician gynecologists who train future generations of service providers. However UTHs are required by Federal mandate to charge for services which would make access to services in these settings impossible for most of the very poor women who experience fistula. The project worked with the UTHs in Oyo and Kwara states to begin a collaboration in training and services; Professor Ojengbede from Ibadan UTH in Oyo state trained consultants and resident doctors from tertiary hospitals in FY12/13.

From October 2007 through September 2013, 56 surgeons participated in training for fistula repair; see Table NGR1. As described earlier, pooled repair efforts were opportunities for conducting surgeon training and mentoring, as skilled surgeons were available and a steady stream of cases was assured. In addition, several surgeons received advanced training on board the *Africa Mercy* hospital ship and mentoring from in-country master trainers. As of March 2013, 15 of these surgeons were routinely providing repairs, the majority of which (twelve) were working at Fistula Care supported facilities. Of those trained but not currently providing services, nearly 50% were posted at facilities with no repair capacity or no administrative support for repairs. Another 15% had gone on to post-graduate studies and are not currently practicing. Analysis and discussion of surgeon training data and retention are presented in the Global Accomplishments section of this report, under IR1.3.

[102] EngenderHealth. 2010. Fistula Reduction in Nigeria: Strategy Recommendations. EngenderHealth: New York.

Table NGR1. Nigeria surgeon training in fistula repair, October 2007 to September 2013

Training in Fistula Surgery, Nigeria	N
Number of surgeons trained in fistula repair	56
Number of surgeons tracked through training follow up efforts through March 2013	53
Competency levels achieved by trained surgeons	
Simple	26
Medium	8
Complex	6
No information available	13
Total number of trained surgeons providing fistula repair as of March 2013:	15
Number trained providing services at Fistula Care supported sites	12
Number of trained surgeons who have provided training to other surgeons	0

Health care staff were trained in pre- and post-operative repair (n=69) (see Table NIG2). Over 200 individuals participated in infection prevention trainings since FY07/08. As part of efforts to support fistula centers in spreading the techniques they learned during infection prevention trainings, the project assisted step down trainings[103] for various cadre of staff in supported sites. Participants were invited from the various units of the hospitals: VVF Ward, maternity ward, theater, laboratory, pharmacy, medical records, cleaners and laborers.

Infection Prevention Training

Fistula Care conducted facilitative supervision at all supported sites routinely throughout the life of the project. Fistula Care assisted with putting in place medical waste management systems; these practices were reviewed annually with facility managers and in some instances, with representatives of supervisory ministries for health. Findings of these exercises were reviewed with the facility managers for proper actions.

Table NIG2. Number of staff trained in fistula repair-related topics by FY, Nigeria

	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
Pre- and Postoperative Care	6	25	9	10	13	6	**69**
Infection Prevention	10	13	0	19	31	135	**208**
Fistula Counseling	18	19	30	0	0	30	**97**
Total	**34**	**57**	**39**	**29**	**44**	**171**	**374**

Fistula Care trained nearly 100 health care staff on obstetric fistula counseling skills (see Table NIG2) and techniques, using Fistula Care's *Counseling the Obstetric Fistula Client: A Training Curriculum* which was distributed to each participant.

[103] Also known as cascade trainings, whereby those trained in turn go on to train others.

The project supported limited renovations to facilities, such as painting walls, replacing broken items such as sinks and toilets, providing privacy screens for counseling. It also provided quality theater consumables to supplement inadequate supplies. Surgical instruments and equipment were provided to all facilities, including training on maintenance. The project also supported installation of generators and provision of fuel allowances during pooled efforts, as well as rain barrels, in some instances, to ensure a supply of water. Such efforts were supported at Kebbi, Babbar Ruga, Maryam Abacha, Ogoja, Ningi, Faridat Yakubu, and Laure Fistula Hospital.

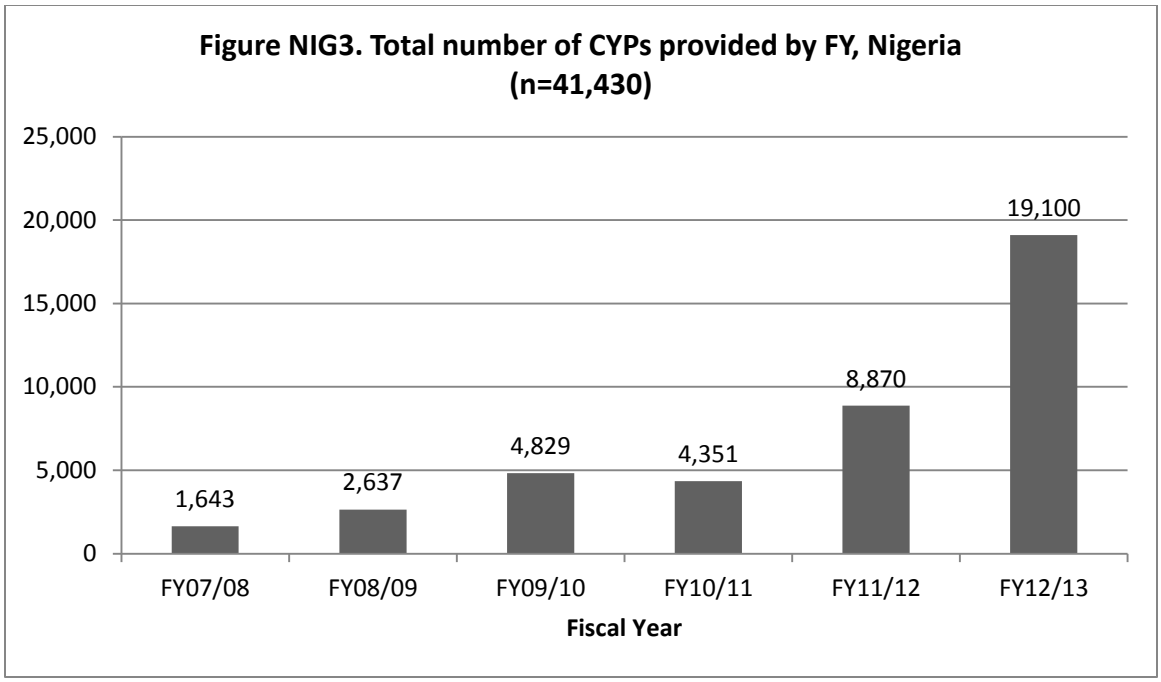
Result 2: Enhance community and facility understanding and practices to prevent fistula, utilize and deliver services for emergency obstetric care, and support women's reintegration

Family Planning Integration. In July 2008, Fistula Care convened a two day *Family Planning Integration with Fistula Care Stakeholders'* meeting in Kaduna, Nigeria. Using an integration approach, developed under the ACQUIRE project, Fistula Care adapted this model for use in fistula programs. Participants included a broad range of stakeholders including local and national government officials, the Ministry of Health (Federal and State), the Ministry of Women and Children Affairs, fistula surgeons, health workers and departmental heads, family planning providers, and community-based organizations. In FY08/09, the Federal Ministry of Health met with Primary Health Care and FP coordinators in six states, to introduce a streamlined FP commodity logistic process and consulted with states about challenges to FP service delivery.

Most Fistula Care supported sites provided both short and long- acting contraceptive methods directly in the fistula center, with nine sites providing only short-acting methods. (At Laure Fistula Center in Kano, fistula clients are referred for family planning to another unit in the hospital.) USAID/Nigeria required the Nigeria Fistula Care project to report on couple years of protection (CYP) instead of number of FP acceptors[104]. The project supported sites provide a total of 41,430.4 CYPs throughout the life of the project (see Figure NIG3). Several family planning IEC materials were reproduced by the Nigeria Fistula Care team including Nigerian Fistula and Family Planning Awareness Posters.

In FY12/13, as part of a larger evaluation of Fistula Care's family planning integration work, a case study was carried out in Nigeria to assess the degree to which FP counseling and methods had been integrated into fistula repair services; i.e. whether the integration supported clients' reproductive needs and choices and facilitated the implementation of healthy post-repair practices after discharge. The case study consisted of focus groups with post-fistula repair clients to ascertain knowledge of key messages and quality of care, site assessments and interviews with fistula ward nurses and FP providers, FP counseling session observations and stakeholder

[104] USAID/W did not require the project to report on FP services, though we routinely collected data on number of acceptors and number counseled for FP from all supported sites. For more details see a discussion under the Global Accomplishment section of this report, IR2.1 and Annex 7 for details by number of FP acceptors and number counseled by FY.



interviews with hospital administrators and local, state, and federal officials. A detailed report on this evaluation has been produced and shared with relevant stakeholders.[105]

Key study findings from the case study indicated that the integration of FP into messages delivered during the postoperative and recovery periods was correlated with the strong uptake of FP methods. It may take more time than expected for providers to become competent and confident in their new knowledge and skills. The newness of FP as an integrated element of fistula repair services has not yet allowed the health system to incorporate FP-related tasks into the job descriptions of each cadre of personnel. Institutionalizing integrated service delivery tasks will standardize practice, support the supervision system to ensure the quality of practices, and help shift staff's attitudes to embrace a woman's right to actively manage her reproductive intentions.

Over 300 health providers were trained in family planning counseling and method provision (see Table NIG3) between October 2007 and September 2013. In FY12/13, family planning compliance monitoring visits were carried out at all supported sites. Working collaboratively with the MOH, site visits included observation, desk review, interviews and checklists using EngenderHealth Standard Operation Procedures for Managing Compliance with US Foreign Assistance Statutory and Policy Requirements for FP/RH programs.

[105] Caro et al., op.cit. (see reference 25)

Table NIG3. Number of staff trained in fistula prevention related topics by FY, Nigeria

Type of Training ↓	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
FP Counseling	40	15	0	10	12	26	**103**
Family Planning Methods	40	16	31	38	52	27	**204**
Obstetric Care	0	0	24	0	0	15	**39**
Men As Partners	14	0	0	0	0	0	**14**
Community Outreach & Advocacy	36	147	73	0	0	0	**256**
Data Management	9	134	18	0	109	0	**270**
Other	33	59	20	15	0	0	**127**
Total	**172**	**371**	**166**	**63**	**173**	**68**	**1,013**

Obstetric Care. In order to strengthen health facility capacity to prevent fistula, nearly 40 health care providers participated in trainings on provision of emergency obstetric care (see Table NIG3). As part of efforts to prevent fistula, especially iatrogenic fistula, from occurring, Fistula Care collaborated with obstetricians from Danfodio University in Sokoto to train partners from supported sites in basic and emergency obstetric care. The training focused on prevention of obstructed labor, use of partograph to monitor labor and safe cesarean section techniques. Medical officers, midwives, nurses and community health extension workers benefitted from the training. A discussion about Fistula Care's work to strengthen cesarean deliveries can be found in the Global Accomplishments section of this report under IR2. 1; Annex 6 includes details about the number of deliveries and CS reported by supported sites by FY.

In March 2013, Fistula Care convened an international consultative meeting in Abuja to review current guidelines, discuss knowledge gaps and develop recommendations for standardized approaches to urinary catheterization for prevention and early management of fistula. The 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 FMOH, as well as national and international staff from Fistula Care. In preparation, Fistula Care conducted a review of literature pertinent to this topic and conducted an informal survey of current practice among national fistula service providers. The meeting report and recommendations[106] were presented to the national Fistula Provider Network and the Obstetric Fistula Technical Working Group; 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.

[106] 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.

Community Level Interventions. Fistula Care employed different community outreach approaches to raise awareness about the causes and signs of fistula, prevention strategies, the availability of repair, and the need to support women to reintegrate into their families and communities. Fistula Care worked with four community-based organizations (CBOs) in three states (Kebbi, Zamfara and Cross River), 36 religious leaders from Kebbi, Sokoto and Zamfara states, WDCs, and the Kebbi National Youth Service Corps to increase awareness about fistula prevention and treatment, the dangers of prolonged labor, importance of attending antenatal care, and the importance of delivery in a health facility.

Between FY07/08 and FY12/13, more than 1.6 million participants were reached through nearly 4,200 community outreach events (see Table NIG4).

Table NIG4. Number of community outreach and advocacy events and participants reached by FY, Nigeria

	Events	Participants
FY07/08	121	104,638
FY08/09	307	177,477
FY09/10	1,040	415,582
FY10/11	501	356,354
FY11/12	1,799	424,810
FY12/13	550	228,305
Total	**4,318**	**1,707,166**

Fistula Care worked with the WDCs in Argungu and Birnin Kebbi in Kebbi state as well as Gusau and Bugudu in Zamfara state. Outreach efforts with local government representatives and the WDCs included incorporating fistula prevention and treatment information into their messages and working together to utilize data from fistula treatment centers to inform the community and advocate for services. The WDCs made advocacy visits to district heads, to share information about fistula, which then led to a step down sensitization of village heads, traditional birth attendants, traditional healers, barbers, and Imams.

The district head of Gulma in Argungu L.G.A, Kebbi State reported the number of pregnant women in his community seeking ANC and hospital delivery services increased from 20 women per week in 2009 to 150-200 women per week in 2013 as a result of WDC awareness creation and testimonies from satisfied clients.

ANC service days were increased from one to two days a week as a result.

The Religious Leader Advocacy Champions from Sokoto, Kebbi and Zamfara States, established in 2008, consisted of clerics who expressed an interest in partnering with Fistula Care to spread health information to their congregations. These religious leaders were oriented on the basic facts about fistula and the role they could play in its prevention; they visited fistula centers and met with fistula patients. Citing relevant sections of the Koran, the religious leaders used this information in sermons to focus on stigma reduction, the importance of regular ANC attendance, hospital delivery and child spacing. The clerics also focused on female genital cutting and called for abolition of this practice. Some of the clerics, who are also either teachers or lecturers, integrated fistula prevention messages into lectures or lessons organized in schools for students at the College of Education at Argungu, Army secondary schools in Kebbi state and Government Girls Secondary School Kwatarkwashi in Zamfara state as well as during wedding ceremonies that they oversaw. This successful program of working with religious leaders was expanded to Ebonyi state in FY09/10. The religious leaders worked in their communities to dispel myths about the causes of fistula and encouraged members of their congregations not to stigmatize women suffering from fistula.

Rehabilitation and Reintegration. Fistula Care consulted and collaborated with stakeholders at all levels in order to support and facilitate reintegration of repaired fistula clients back to their communities. In FY07/08, the Government of Zamfara State renovated and furnished a rehabilitation center for skills building activities which is attached to the Faridat Yakubu fistula hospital.

Zamfara Rehabilitation Center

In November 2012, Fistula Care collaborated with the FMOH, Federal Ministry of Women Affairs, UNFPA and Institute of Social Works of Nigeria to organize a 2-day seminar on Rehabilitation and Reintegration. The seminar resulted in a communiqué issued by the Institute recommending establishment of strong and effective structures at the primary, secondary and tertiary levels of service delivery, as well as development of a working document and guidance on programming for reintegration.

Media Efforts. Since June 2009, Fistula Care regularly organized "media roundtable discussions" with journalists from television, radio, and print media organizations where journalists learned about fistula, its causes, and its prevention. Fistula Care used this forum to train journalists on how to report about fistula, enlisting their support to increase media exposure about fistula prevention and treatment. Over 2,700 articles and media stories were published in various Nigerian media outlets as a result of these efforts.

Radio and television programs played an important role in raising awareness about fistula. Fistula Care's partnership with Radio Nigeria resulted in the production of a radio program called "Health Watch," in which fistula clients shared their experiences about life before and after fistula repair surgery. The program spread awareness about free fistula services available and encouraged expectant mothers to access antenatal care at health facilities. The program regularly attracts 14 million listeners in Nigeria and beyond. The Zamfara State Media Houses organization sponsored radio and TV programs about fistula prevention which were hosted by the Ministry of Religious Affairs beginning in November 2008.

Media Partners in Nigeria

- Radio Nigeria
- The Nigerian Television Authority (NTA)
- The Hausa service of Voice of America (VOA)
- The British Broadcasting Corporation (BBC)
- Rima Radio in Sokoto
- Unity FM Abakaliki
- AIT Enugu
- Cross River Broadcasting Corporation

In FY11/12, 'Silent Cries', a 19-episode radio drama aired on Unity FM Abakaliki. The radio drama was aimed at creating awareness on the prevention and availability of treatment of obstetric fistula; promoting health seeking habits of women of reproductive health, male involvement in maternal issues, and benefits of family planning and girl child education.

In FY07/08, Fistula Care partnered with state drama troupes in Sokoto, Kebbi and Zamfara states to disseminate key messages about fistula prevention, treatment and other reproductive health

issues. These groups developed drama scripts that addressed the issues of fistula prevention, safe motherhood, the effect of stigmatization, and female genital cutting, which were then shared with the CBOs and performed during outreach.

From FY07/08 to FY12/13, over 721,000 client educational materials (brochures, posters, stickers, handbills) in English, Hausa Ajimi, Yoruba and Pidgin were developed to convey key messages on the importance of antenatal care, delivery in a health facility, and family planning which were distributed in all supported states.

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

Provider Network Meetings. In the early stages of the project, Fistula Care identified a lack of communication between actors in the community of fistula surgeons and hospitals providing repair services. The need to create an opportunity for these individuals and institutions to collaborate and share ideas and information was the rationale behind organizing the first provider network meeting in 2007. A similar but separate meeting was organized for nurses in the same year. From 2008 onward, Fistula Care brought together doctors and nurses from all supported facilities in order to share ideas, review collective performance, identify achievements and challenges and collectively chart the way forward. These meetings were organized 2-3 times per year. Project Staff and partners made presentations on quality improvement, use of data for decision-making, provided updates on the latest techniques in fistula surgery, family planning integration, etc. Occasionally, community based partners, religious leaders, and policy makers were invited to join parts of the meetings. The meetings contributed to increased standardization of approaches and procedures at all levels.

Data for Decision-Making. Fistula Care conducted workshops with 270 health care staff on the use of data for decision making between FY07/08 and FY12/13. Participants learned how to detect quality-related problems, determine the nature or cause of a problem and compare trends over time using the data generated from there facility as well on general record keeping. At the end of these workshops, sites established committees with key staff from the pre and post operative staff, theater staff, recording officers, and the facility managers to meet monthly to review fistula monitoring data. A total of 73 data review meetings were held at Fistula Care supported sites from FY08/09 to FY12/13.

Research. Fistula Care-supported research was conducted in collaboration with several of the fistula treatment centers during the life of the project, including two global studies and two country specific studies. The study "Determinants of Post-Operative Outcomes in Fistula Repair Surgery" included patients undergoing fistula repair at Maryam Abacha, Birnin Kebbi Specialist Fistula Centre, and Faridat Yakuba centers. The study was completed in FY09/10. The second global study was the RCT on short term catheterization. The National Obstetric Fistula Center, Abakaliki was one of eight African participating hospitals in this study. The study was completed in FY12/13. A summary of the findings from these two studies are located in Annex 9.
Country studies included a cost study and a study to pilot a community based screening for fistula.

- ***Cost study*.** This study was carried out in 2011 to look at the feasibility of using an adapted UNFPA cost analysis tool to assist facility managers in assessing the costs for fistula repair services, which could then help them make decisions about resource allocation. Country specific findings were produced in a report submitted to USAID/Nigeria and shared with the two sites that participated in the study. Fistula Care prepared a summary report of findings for USAID/W: *Estimating Costs to Provide Fistula Services in Nigeria and Ethiopia: Key Findings.*[107] The study found that the costing tool was able to provide a high level of detail about the components that contribute to the costs of simple and complex fistula repairs in Nigeria which in turn can help program and facility managers to understand the financial requirements of fistula repair (or pre-repair) service. Although the modified UNFPA costing tool can generate detailed cost information, it is lacking sufficient guidance about how to implement and interpret the results and would be a challenge for overstretched staff to easily implement on their own. Simplifying the tool in superficial ways (e.g., linking cells between spreadsheets) could make it more user-friendly. 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.
- ***Community-Based Screening.*** In collaboration with Stanton-Hill Research LLC, Fistula Care carried out this study in FY11/12 on community-based screening for genito-urinary fistula in Nigeria to (1) quantify the backlog of obstetric fistula cases within selected LGAs of Kebbi and Cross River states, by conducting community-based screenings in these LGAs; (2) explore the feasibility of reporting minimum estimates of prevalence and incidence of fistula at the district and state levels; (3) assess the questions in the DHS fistula module; and (4) document the methodology for use in other districts or states.[108] The prevalence in the study for current fistula-like symptoms was 28% (n=75). Verification assessment by clinical exam shows that the DHS question combined with the follow-up questions in the DHS fistula module has 92% sensitivity and 83% specificity, with 47% positive predictive value and 98% negative predictive value. These results suggest that it is a fairly good measurement of identifying the women who currently have fistula. 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. Findings from this study were presented in FY12/13 to relevant authorities in Kebbi and Cross River States.

[107] Fistula Care. 2012. Op. cit. (see reference 43).
[108] Tuncalp, O., Isah, A., Landry, E., Stanton, C.K. 2013. *Community-based screening for genito-urinary fistula in Nigeria: A novel approach*. New York: Fistula Care/EngenderHealth. A manuscript describing the results was published in January 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

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

Fistula Care worked with the Nigerian government at the national and state level and with local leaders to form a network of advocacy champions. The First Ladies of Bauchi, Zamfara, Katsina and Ebonyi States provided their support to the project, acting as goodwill messengers and helping to advocate for fistula prevention and distributing grants to rehabilitation school graduates to facilitate women's economic empowerment.

Over the life of the project, Fistula Care developed several tools and products designed for improving fistula treatment and prevention care. See Annex 11 for a list of the tools which were used by supported sites during the life of the project.

Summarized below are key achievements that Fistula Care Nigeria accomplished in collaboration with national and state level stakeholders to strengthen support for fistula treatment, prevention and reintegration at the national and state levels.

National Working Group and Development of a National Strategy. Fistula Care worked extensively to advocate for policy that supports the institutionalization of fistula services. Beginning in FY07/08, Fistula Care partnered with the FMOH to convene a stakeholder's meeting, including UNFPA, of the reconstituted National VVF Task Force.

In 2010, at the request of USAID/Nigeria, EngenderHealth led a strategic assessment to review current and projected USAID and other development partner assistance for fistula prevention, treatment, after-care and reintegration, in the context of the Government of Nigeria's National Fistula Strategic Framework and its implementation to date. The findings from this assessment led to a collaboration with the FMOH, UNFPA and other partners to reconstitute the National Working Group on Obstetric Fistula (NWGOF) with clear terms of reference and scope of work. The NWGOF engaged a consultant to review and update the 2005-2011 National Strategic Framework and Plan for VVF Eradication in Nigeria, which had expired at that time. 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 framework was finalized at the end of FY11/12 and the standards of fistula practice for doctors and nurses were reviewed and adopted for use. In FY12/13, the Nigeria National Strategic Framework for the Elimination of Obstetric Fistula in Nigeria (2011-2015)[109] was printed with support from Fistula Care. The Honorable Minister for Health formally launched the strategy and standards of practice at a meeting hosted by the NWGOF in November 2012. Fistula Care supported dissemination of the strategic framework and standards of practice for doctors and nurses at the zonal level.

Other National/Regional Working Groups. In addition to working with the NWGOF, Fistula Care participated and supported efforts of other national and regional working groups. In FY08/09, Fistula Care helped coordinate the establishment of the Zamfara VVF Task Force which includes representatives from several state ministries (e.g., health, women's affairs), women's groups, religious and traditional leaders and has been pledged funding support by the Zamfara State Government. In FY09/10, Fistula Care held a policy dialogue with the Sokoto

[109] Federal Ministry of Health (Nigeria). 2012. Nigeria National Strategic Framework for the Elimination of Obstetric Fistula in Nigeria (2011-2015). Abuja.

State Commissioner for Women Affairs to discuss the need to establish a state level taskforce on fistula. In FY10/11, the Bauchi Ministry of Health was supported 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.

In June 2010, Fistula Care participated, along with more than 60 other representatives from federal ministries, departments, agencies, USAID implementing partners, NGOs, universities and health professional groups in this two-day meeting of the National Reproductive Health Working Group to review the final draft of the National Reproductive Health policy, and disseminate the Report on Key Interventions Promoting Maternal Health. The National Taskforce on Fistula is an affiliate of the National RH Working Group.

In FY10/11, 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 FY11/12, Fistula Care participated in a stakeholders' meeting with the FMOH 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 (See Table NIG5) in FY11/12.

Table NIG5. Indicators incorporated into Nigeria's HMIS

Number women referred for fistula care
Women who reported leaking urine or feces
Women receiving surgery for fistula repair
Women receiving a first repair
Women receiving a second repair
Women discharged after fistula surgery
Women who had a closed and dry fistula at discharge

Inclusion of Fistula in Federal Budget. Fistula Care advocated for inclusion of fistula as a line item in the Nigerian federal budget. As part of those efforts, in October 2009 Fistula Care organized a trip for representatives from the Senate Health Committee on Health to visit five Fistula Care-supported fistula repair in Sokoto, Kebbi, Zamfara and Ebonyi states. In October 2012, President Goodluck Jonathan presented the 2013 budget to a Joint Session of the National Assembly with the title "Fiscal Consolidation with Inclusive Growth." Under the theme of Gender Empowerment, the budget includes the following statement: *The Ministry of Health, in addition to scaling up its ongoing "Save a Million Lives" initiative, plans to give back health and hope to one-third of the pool of young girls and women who have been waiting a long time for V.V.F repairs through surgery and economic rehabilitation. In addition, we are up-scaling routine immunization.* The 2013 budget included $7,675,000 for fistula.

National Management of Fistula Centers. Since 2007, Fistula Care advocated for the establishment of regional fistula centers throughout Nigeria; centers that would be geographically and culturally accessible to clients in need. In 2008, the First Lady of Ebonyi State built a 100-bed fistula center in Abakaliki. In 2009, Fistula Care began providing support to the Ebonyi center and within several months, hundreds of clients from multiple states in Southern Nigeria were repaired. This "proof" of a large backlog of women living with fistula in the southern states, aided by advocacy efforts from Fistula Care, UNFPA, and the Government of Ebonyi State , resulted in the Federal Government in taking on the management and support

of the Ebonyi Fistula Center in FY10/11; the center was renamed National Obstetric Fistula Center, Abakaliki. In FY12/13, the Federal Government took over the management and support of the Ningi General Hospital in Bauchi State and the Babbar Ruga VVF Center in Katsina State.

Other National Advocacy Activities. Beginning in FY08/09, the Senate Committee on Health, with support from Fistula Care, has sponsored an annual "Mother's Night" event to highlight the importance of improving maternal health. The event is funded by the Nigeria Senate and is well attended every year, with representatives from the National Assembly, government, businesses and international organizations. Senators and private sector representatives have made pledges to provide support towards reducing maternal mortality including placement of billboards with messages about maternal health and provision of birth kits and ambulances.

Ebonyi State: The Mother and Child Care Initiative (MCCI). In 2007, the Mother and Child Care Initiative (MCCI) launched in Ebonyi State, Nigeria, under the leadership and support of the governor's wife, the Honorable Mrs. Josephine Elechi. As a consequence of this effort, the State Government passed a maternal mortality and morbidity monitoring law, which included language about obstetric fistula. The law encouraged early referral of women in labor, sought to discourage activities of unlicensed and unskilled birth attendants and stipulated reporting of all maternal deaths in the state. A maternal mortality monitoring committee was established in 2010 to help ensure compliance with the law and to work to improve access to health facilities equipped to provide emergency obstetric care.

In FY09/10, MCCI, in collaboration with Fistula Care, UNICEF and UNFPA, organized a two-day dissemination and monitoring tool development workshop for 102 members of the Ebonyi state level multi-sector Maternal Mortality and Morbidity Monitoring committee. Fistula Care collaborated with the Government of Ebonyi State on a public presentation of the law. In May 2013, Fistula Care, in collaboration with MCCI, organized a meeting of the Nigerian Bar Association Ebonyi State Branch to review the existing maternal mortality law. Recommendations coming from this meeting included: the Nigerian Medical Association should monitor the activities provided in private clinics where mortality and morbidity rates appear to be high; (2) members of the Bar should sensitize their clients on the essence of the law and (3) the Bar should support USAID's Fistula Care Project and MCCI to achieve the expected reduction in the incidence of Maternal Mortality and Morbidity.

Public/Private Partnerships. During FY07/08, Fistula Care facilitated a public-private partnership with Syngenta to support Fistula Care project activities in Nigeria. Syngenta donated 40 long lasting insecticide treated mosquito nets for the fistula patient wards and sewing machines for the newly constructed Rehabilitation Center for skill building activities for fistula patients at Faridat Yakubu.

Resources Developed in Nigeria

- A Collaborative Network to Improve Access to Fistula Treatment in Nigeria
- Community-based Screening for Obstetric Fistula in Ebonyi State.
- "Do you know your family planning choice?" Leaflet
- Estimating Costs to Provide Fistula Services in Nigeria and Ethiopia: Key Findings
- Nigeria Fistula and Family Planning Awareness Posters

- Nigeria: National Strategic Framework for the Elimination of Obstetric Fistula in Nigeria (2011-2015)

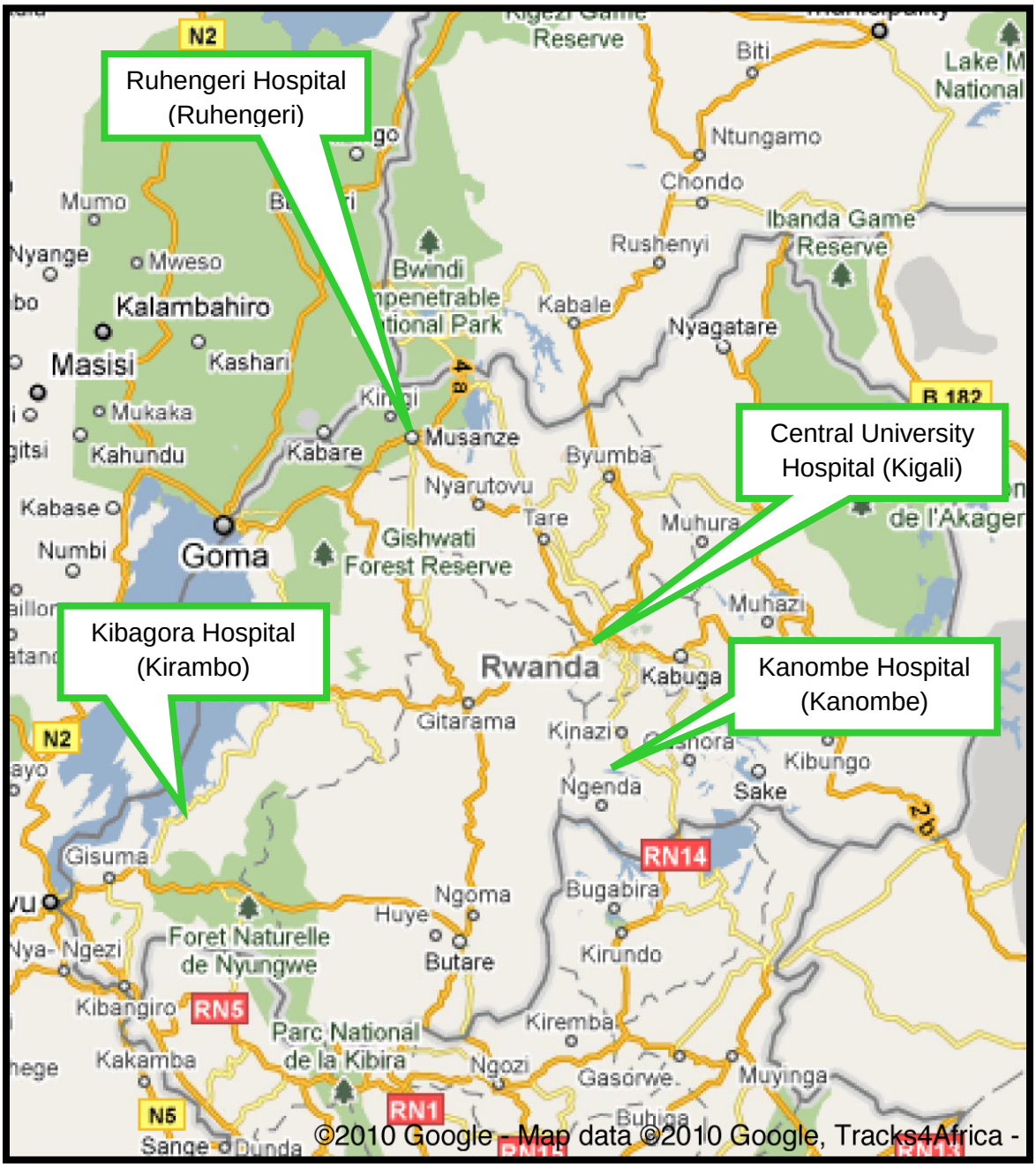
Working towards a Fistula-Free Generation

In July 2013, Fistula Care hosted a symposium to bring together stakeholders working on fistula treatment and prevention in Nigeria to discuss lessons learned over the life of the Fistula Care project and prioritize future activities to work towards a fistula-free generation. Participants included representatives of the Ministries for Health and Women Affairs, wives of Governors of Ebonyi and Katsina States, several commissioners from supported states, UNFPA and many other development partners.

Meeting participants developed specific recommendations in the areas of advocacy, community outreach and activities, resource mobilization, reintegration and referral for services. Some of the recommendations were as follows:

1. Continue partnerships with NGOs/CBOs to train and sensitize health committees, ensure efforts are community-driven and there is community ownership.
2. Focus advocacy efforts on the rights of women and children, creating demand and targeting men's groups and traditional rulers.
3. Focus strategic educational efforts to emphasize family planning services, demand and integration and working with peer groups.
4. In the area of resource mobilization and empowerment, work with women's cooperatives and organizations. In Senegal women organizations collect 'tax' in the market to provide for women in labour, with complications etc. Can there be a workable partnership with women groups for this purpose in?
5. Reintegration and rehabilitation efforts need to address legal concerns and incorporate skills acquisition and formal and informal educational needs.
6. To create an effective referral network, services should be mapped so that each LGA has a list of sites providing prevention, treatment and reintegration/rehabilitation services which should then be wide disseminated.

Rwanda


Ruhengeri Hospital (Ruhengeri)
Central University Hospital (Kigali)
Kibagora Hospital (Kirambo)
Kanombe Hospital (Kanombe)
N2
Reserve
Biti
Lake M
National
Ntungamo
Chondo
Mumo
Ibanda Game Reserve
Rushenyi
Nyange
Mweso
Bwindi
Kalambahiro
Kabale
Nyagatare
Masisi
Kashari
Mukaka
Kahundu
Kabare
Musanze
Byumba
Nyarutovu
Kabase
Tare
Muhura
Numbi
Goma
Gishwati Forest Reserve
Muhazi
Rwanda
Kabuga
Gitarama
Kinazi
Kibungo
Ngenda
Sake
RN14
Gisuma
Ngoma
Bugabira
Huye
Foret Naturelle de Nyungwe
Butare
Kirundo
Kibangiro
RN5
Kiremba
Parc National de la Kibira
Kakamba
Ngozi
Gasorwe
Muyinga
N5
RN1
Sange
Dunda
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Rwanda, Summary of Achievements

Start date with USAID funds: 2006

Background

Rwanda Demographic Data	
Population (2012)[110]	11.5 million
Total fertility rate (2010)[111]	4.6 children/woman
Median female age at first marriage (2010)[112]	21.4 years
Female literacy (women aged 15-49) (2010)[113]	76.9%
Female primary school completion (2010)[114]	9.3%
Skilled attendance at birth (2010)[115]	69.0%
Maternal mortality ratio (2010)[116]	340
Contraceptive prevalence rate (any method, among married women 15-49) (2010)[117]	51.6%

Rwanda Supported Sites	Dates of Support	Treatment	Prevention
Central University Hospital, Kigali	2006-2013	X	X
Kanombe Military Hospital	2009-2013	X	X
Kibogora Hospital	2012	X	X
Ruhengeri Hospital	2006-2013	X	X

Overview of Fistula Care in Rwanda

In 2003, with funding from the Bill & Melinda Gates Foundation, EngenderHealth partnered with Averting Maternal Death and Disability at Columbia University to conduct a fistula needs assessment in Rwanda. The assessment found "few staff members or surgeons are trained or are experienced in fistula repair, leaving minimal options for women who can access services…some women are not even aware they have a problem…[and] they often do not know where or how to seek treatment."[118]

In 2006 EngenderHealth, with support from USAID under the ACQUIRE Project, partnered with UNFPA and others to support service delivery and workshop trainings at Ruhengeri Hospital and the Central University Hospital, Kigali (CHUK). By the end of the Fistula Care project, 11 sites provided routine fistula treatment throughout the country, four of which (CHUK, Kanombe Military Hospital, Kibogora Hospital, and Ruhengeri Hospital), were supported by Fistula Care.

[110] The World Bank. 2013. Rwanda data. Retrieved from : http://data.worldbank.org/country/rwanda
[111] National Institute of Statistics of Rwanda (NISR) [Rwanda], Ministry of Health (MOH) [Rwanda], and ICF International. 2012. *Rwanda Demographic and Health Survey 2010*. Calverton, Maryland, USA: NISR, MOH, and ICF International. P. 64. http://www.measuredhs.com/pubs/pdf/FR259/FR259.pdf
[112] Ibid., p.56
[113] Ibid., p.41
[114] Ibid., p.14
[115] Ibid., p.117
[116]World Health Organization. 2012, op. cit. p.35 (see reference 9).
[117] NISR, MOH and ICF. Op. cit., p.88
[118] EngenderHealth and Columbia University. 2004. Obstetric fistula: a needs assessment in Ghana and Rwanda. Expanding our knowledge http://www.fistulacare.org/pages/da/files/8/8.3/ghana-rwanda-fistula-assessment.pdf

Fistula Care also provided equipment and supplies to three additional public facilities for fistula prevention after conducting site assessments at the request of USAID/Rwanda: Gahini Hospital in Muhanga District; Kabgayi Hospital in Muhanga District; and Nyamata Hospital in Bugesera District.

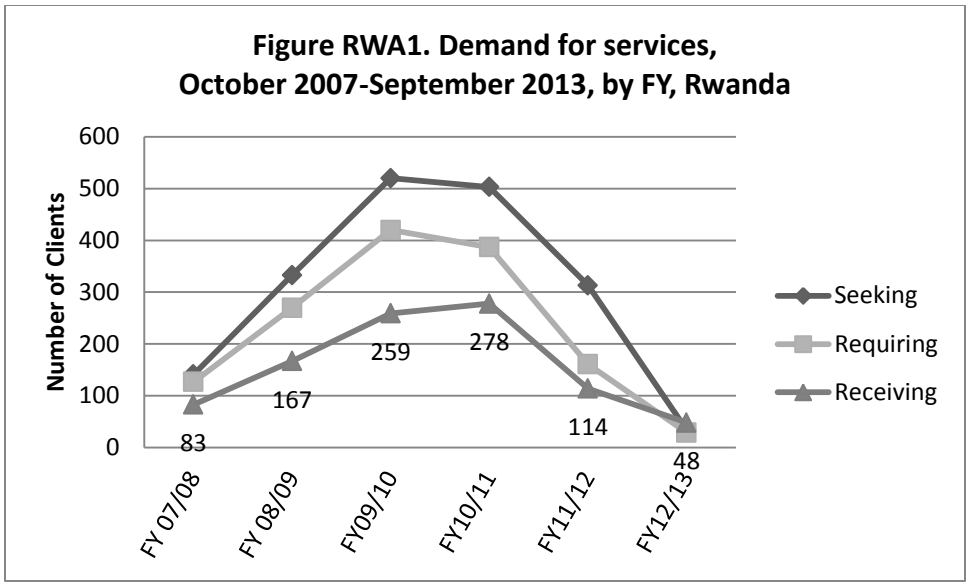
Fistula Care and partners worked in Rwanda to strengthen the national capacity of health care providers and facilities to provide quality services; gather and review data; enhance prevention of fistula by improving safe motherhood and family planning services; and ensure the treatment and repair of current cases.

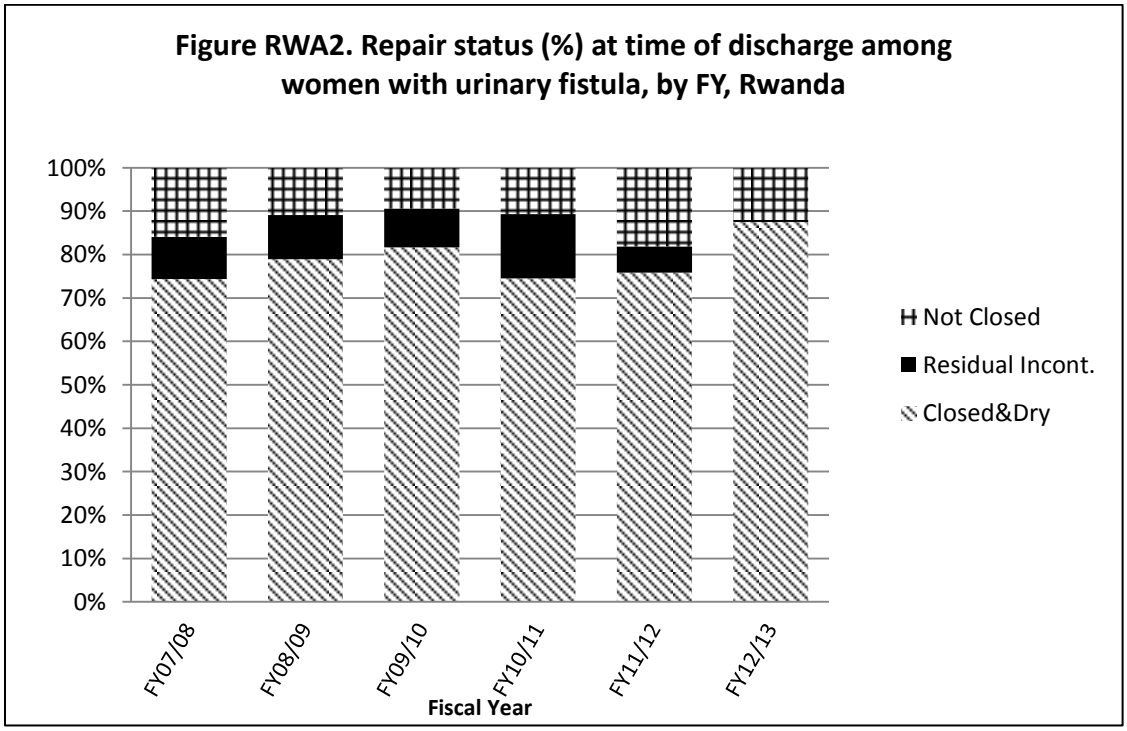
Key Achievements, by Result

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

Between October 2007 and September 2013, USAID, through EngenderHealth, supported 949 fistula repair surgeries in Rwanda. Figure RWA1 shows the number of clients seeking, requiring and number of repairs in each fiscal year. The majority of repairs conducted under Fistula Care were done through concentrated sessions with master trainers. These concentrated efforts with coaching and mentoring from master trainers was crucial to building the surgical, particularly for complex cases. The number of repairs steadily grew through FY10/11 and then declined because of renovations at CHUK and Kanombe hospitals and a decrease in funding.

The closed and dry rate for women undergoing fistula surgery, at the time of discharge, fluctuated between 74% (FY07/08) and 88% (FY12/13) (see Figure RWA2). Reports on complications arising from fistula surgery varied by supported site. The annual overall reported complication rates ranged from zero to 5% over the life of the project. A discussion of complication reporting is presented in the Global Accomplishments section of the report, under IR1.2.





Fistula Care provided fistula kits and surgical equipment to sites and supported improvements to facilities to improve outreach efforts, increase surgical capacity, increase the number of beds available, and provide space for pre- and postoperative counseling.

Fistula Care supported training for 25 surgeons from Rwanda. One surgeon was trained to be a trainer and has provided training to one additional surgeon. As of March 2013, ten trained surgeons were providing repairs with nine at Fistula Care supported sites; see Table RWA1.

Table RWA1. Rwanda surgeon training in fistula repair, October 2007-September 2013

Training in Fistula Surgery, Rwanda	N
Number of surgeons trained in fistula repair	25
Number of surgeons tracked through training follow up efforts through March 2013	25
Competency levels achieved by trained surgeons	
Simple	14
Medium	2
Complex	0
No information available	0
Total number of trained surgeons providing fistula repair as of March 2013:	10
Number trained providing services at Fistula Care supported sites	9
Number of trained surgeons who have provided training to other surgeons	1

Additional trainings were held in topics such as infection prevention, quality assurance, fistula counseling, data management, and other related areas (see Table RWA2). In total, nearly 250 providers were trained in topics related to fistula treatment.

Table RWA2. Number of staff trained in fistula repair related topics by FY, Rwanda

	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13[119]	Total
Pre and Postoperative Care	0	0	26	40	4	0	**70**
Infection Prevention	0	0	0	0	0	35	**35**
Quality Assurance	0	0	0	26	13	17	**56**
Fistula Counseling	0	0	15	32	0	0	**47**
Total	**0**	**0**	**41**	**98**	**17**	**52**	**208**

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

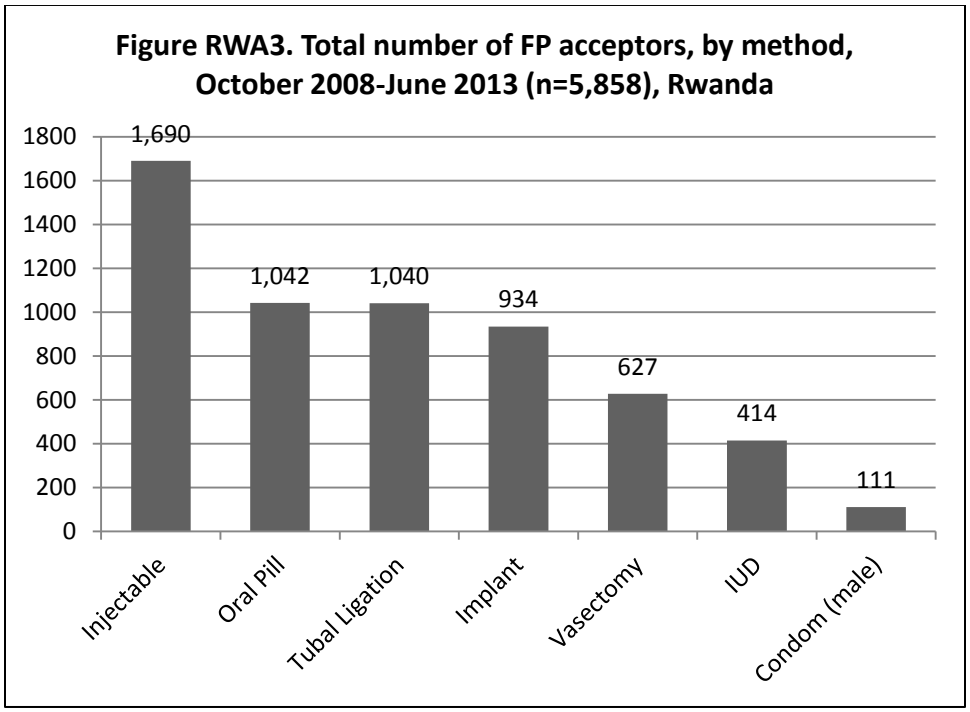
Family Planning Integration. Fistula Care organized a national meeting to discuss the integration of family planning with fistula and other maternal health services in December 2009, but efforts to implement integration stalled for a variety of political reasons. However, in early 2012, the Ministry of Health requested Fistula Care to introduce family planning at two national referral hospitals (CHUK and Kanombe) with services provided by nurses in all departments. Fifty providers were trained to provide counseling or methods (see Table RWA3). Regular availability of commodities and supplies were ongoing challenges, but fistula clients now are more able to access family planning services at facilities where they received treatment.

Table RWA3. Number of staff trained in fistula Prevention related topics by FY, Rwanda

	FY10/11	FY11/12	FY12/13[120]	Total
FP Counseling	0	30	0	**30**
Family Planning Methods	0	20	0	**20**
Obstetric Care	40	0	0	**40**
Data Management	0	0	60	**60**
Total	**40**	**50**	**60**	**150**

[119] Data available through June 2013.
[120] Data available through June 2013.

Since October 2008, Fistula Care supported sites have counseled 5,508[121] women and couples on family planning methods with 5,858 family planning acceptors at the sites. Injectables, tubal ligation and oral pills are the most common methods chosen. Figure RWA3 provides details on the number of family planning acceptors and the methods chosen.



Obstetric Care Training. In FY10/11, 40 providers attended training in obstetric care; 21 of these providers attended training focused on the partograph. Supervisory follow-up visits from EMOC trainers were routinely conducted with trainees. Fistula Care supported strengthening cesarean delivery services; a discussion about cesarean deliveries can be found in the Global Accomplishments section of this report under IR2. 1; Annex 6 includes details about the number of deliveries and CS reported by supported sites by FY.

Counseling a patient before discharge

In FY09/10, as part of the global monitoring of partograph use, we found that correct use was poor at one site (<1%) and at the second site (Ruhengeri), just over 80% of the records reviewed were completed correctly (see Table 8 in the Global Accomplishments report under IR2.1 for details by site). Subsequent annual reviews have found consistent use at Ruhengeri with fluctuations at Kanombe.

[121] The counseling numbers are not validated as reporting on family planning counseling has been inconsistent due to issues with site record keeping.

Community-Level Interventions. Fistula Care supported eight community outreach and advocacy events between FY11/12 and FY12/13 reaching 159 participants. During September 2011, Radio Urunana, a community radio station, featured fistula related programming, including hosting a Fistula Care supported surgeon and the Fistula Care Project Manager.

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

Sixty hospital staff at Ruhengeri, CHUK, and Rwanda Military Hospital were trained using *Data for Decision Making in Fistula Care: A Supplemental Module for Facilitative Supervision* during the last fiscal year in addition to eight who were previously trained. Participants learned how to detect quality-related problems, determine the nature or cause of a problem and compare trends over time using the data generated from there facility as well on general record keeping. Between October 2008 and September 2013, 28 data review meetings were held at supported sites.

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

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. The strategy, developed during FY09/10, is currently still in draft form, and Fistula Care has advocated for its adoption by the Ministry of Health. Even without a national strategy, fistula is now included 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.

Toward a Fistula-Free Generation

In August 2013, program managers, clinicians, community liaisons, and representatives from the Ministry of Health came together to recognize the achievements of Fistula Care in Rwanda and discuss what is still needed to ensure a fistula-free generation. The 30 participants made the following recommendations:

1. Commitment to finalize fistula national strategic plan.
2. Develop an advocacy plan for fistula care in Rwanda.
3. Increase support for the Campaign to End Fistula.
4. Cover medical costs for women with fistula following the model for gender based violence survivors.
5. Collect fistula data as a national indicator and support medical expenses through health insurance programs.
6. Remunerate community health workers who accompany women with suspected fistula to the health center.
7. Integrate fistula care in existing maternal and child health and non communicable disease programs and routine activities, and include these services in performance-based financing and community-based health insurance.
8. Include fistula in Continuous Professional Development for scoring fistula workshop attendance and accreditation to increase knowledge and recognize participation and completion of attendance at workshop by the Rwanda medical counsel and medical association.

Sierra Leone

Sierra Leone, Summary of Achievements

Start date with USAID funds: 2007

Background

Sierra Leone Demographic Data	
Population (2012)[122]	5.98 million
Total fertility rate (2008)[123]	5.1 children/woman
Median female age at first marriage (2008)[124]	17 years
Female literacy (2008)[125]	26.2%
Female primary school completion (2008)[126]	3.4%
Skilled attendance at birth (2008)[127]	42.4%
Contraceptive prevalence rate (2008) (currently married women, 15-49)[128]	8.2%
Maternal mortality ratio (2008)[129]	857

Overview of Fistula Care in Sierra Leone

Fistula Care's work in Sierra Leone began in 2007 and has only been with the Aberdeen Women's Centre (AWC, formerly the Aberdeen West African Fistula Center). The AWC opened in April 2005in Freetown, Sierra Leone under the management of Mercy Ships International, in partnership with National Petroleum, the Addax & Oryx Foundation and with the collaboration of the Aberdeen community.

The idea for the AWC originated in 2000, when the Ministry of Health in Sierra Leone requested Mercy Ships to provide fistula treatment on board its hospital ship, *Anastasis.* To be able to continue serving the largely unmet needs of women suffering from fistula after the ship's departure, Mercy Ships built the fistula center at Aberdeen. During this period, Mercy Ships brought in expatriate surgeons from Europe, Australia and the United States to provide fistula surgery. In 2010, Mercy Ships transferred its authority over AWC to the Gloag Foundation (TGF). [130] Gloag hired a full-time Sierra Leonean fistula surgeon.

AWC provides gynecological surgeries for childbirth injuries, maternity services, and outpatient care for children. The AWC focused on providing fistula treatment services and running a children's out-patient clinic during the first five years of operation. A maternity unit opened in April 2010, offering basic and emergency obstetric care in order to prevent obstetric fistula and decrease Sierra Leone's alarmingly high maternal mortality rate. In order to deliver a high

[122]The World Bank. 2013. Sierra Leone data. Retrieved from: http://data.worldbank.org/country/sierra-leone
[123] Statistics Sierra Leone (SSL) and ICF Macro. 2009. Sierra Leone Demographic and Health Survey 2008. Calverton, Maryland, USA: Statistics Sierra Leone (SSL) and ICF Macro. p.52
[124] Ibid., p.86
[125] Ibid., p.37
[126] Ibid., p.19
[127] Ibid., p.122
[128] Ibid., p.68
[129] Ibid., p.272
[130] The Gloag Foundation is a sister organization of the Balcraig Foundation and the Freedom from Fistula Foundation.

standard of care, AWC implemented evidence-based practice (such as the use of the partograph). Experienced international midwives offered on-the-job training and support for staff development. An outreach program provided sensitization to issues related to fistula and safe birth practices in the local community. Fistula Care supported a portion of the fistula repair unit and maternity's running costs.

Fistula surgery is normally provided four days a week by the resident surgeon. In addition, there is often one visiting international surgeon each quarter to provide additional support, especially in complex repairs. The fistula ward can accommodate 26 fistula patients. The maternity ward contains 3 delivery areas and 8 antenatal/postnatal beds with an overflow ward of 12 beds that can be used by either department (fistula or obstetrics). There are two functioning theaters for surgery. In-house provision of family planning services to patients in both the repair and obstetrics programs, and to the mothers of the children in the out-patient clinic, began in October 2010. AWC has leveraged resources from other sources to raise awareness and identify fistula clients through a telephone hotline.

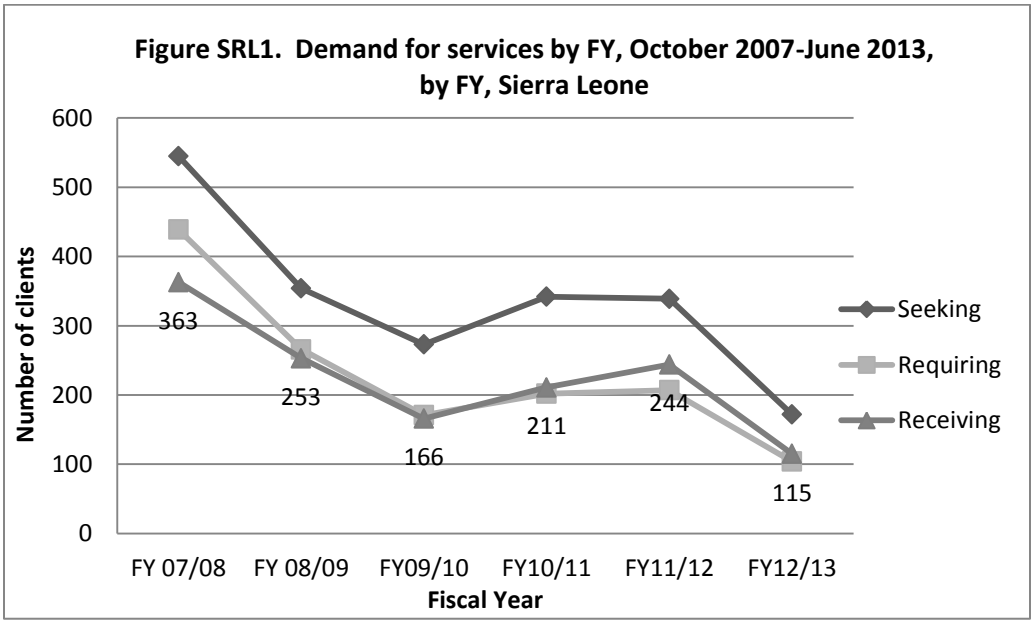
Key Achievements, by Result

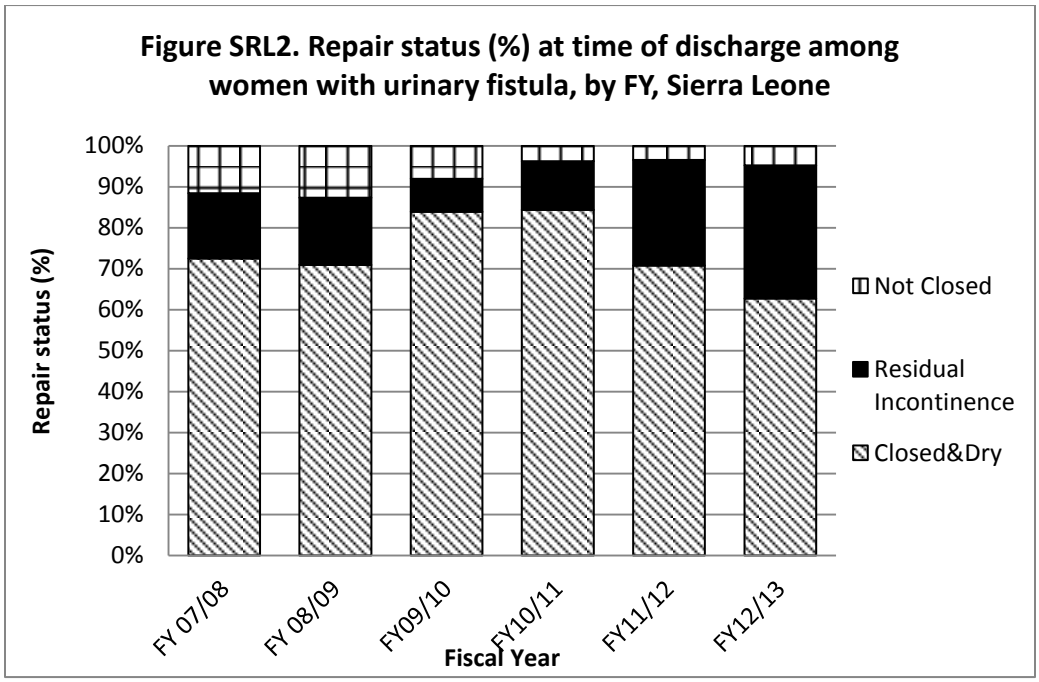
Result 1: Strengthen the capacity of centers to provide quality services to repair and care for women with obstetric and traumatic gynecologic fistula

Since the beginning of USAID support for fistula services in 2007, Fistula Care has supported 1,352 surgeries at AWC (See Figure SRL1)[131]. While the number of repairs decreased from an initial high point at the opening of the Centre, it is unlikely that the backlog of women needing repair has been adequately addressed. One reason for the decreased number of repairs being performed is due to the reduced capacity to perform fistula surgery: the center has decreased its reliance on visiting expatriate surgeons to provide surgery. In addition in the years prior to 2010 many international NGOs were engaged in creating awareness and referrals for fistula, as part of humanitarian efforts in the post conflict era. AWC continues to focus on outreach and public education to raise awareness about availability of services.

Of the women receiving repair since FY07/08, 75% were closed and dry at the time of discharge from the facility (see Figure SRL2). Closed and dry rates varied over the life of the project, due to the varying nature of the complexity of fistula presenting at different times. The last two years of the project saw a high rate of women with complex and long-standing fistula, with resulting lower closed and dry rates. Further discussion of closed and dry rates can be found in the Global Accomplishments section of this report, under IR1.1. Reports on complications arising from fistula surgery varied annually. The annual overall reported complication rates ranged from 1% to 10% over the life of the project. A discussion of complication reporting is presented in the Global Accomplishments section of the report, under IR1.2.

[131] FY12/13 includes data through June 2013.





In the second quarter of FY12/13, the Ministry of Health posted a second surgeon to AWC to begin training in fistula surgery(though the first surgeon left in 2012). A visiting international surgeon provided additional support, especially for complex repairs. When needed to address backlog of more complex cases, concentrated repair efforts were organized. Two physiotherapy nurses worked with patients in-house. Post-operative women received counseling, physiotherapy, and participated in life skills programs, covering basic numeracy, literacy, and crafts.

Since FY07/08, 13 surgeons have been trained in fistula repair surgery at AWC (see Table SRL1). The majority of these surgeons were expatriate obstetrician/surgeons seeking to gain skills in fistula repair. Three of these trained surgeons are currently providing repairs, one of whom is currently carrying out repairs at a supported site. Analysis and discussion of surgeon training data and retention are presented in the Global Accomplishments section of this report, under IR1.3.

Table SRL1. Sierra Leone surgeon training in fistula repair, October 2007-June 2013

Training in Fistula Surgery, Sierra Leon	N
Number of surgeons trained in fistula repair	13
Number of surgeons tracked through training follow up efforts through March 2013	3
Competency levels achieved by trained surgeons	
Simple	0
Medium	1
Complex	1
No information available	11
Total number of trained surgeons providing fistula repair as of March 2013:	3
Number trained providing services at Fistula Care supported sites	1
Number of trained surgeons who have provided training to other surgeons	0

The senior nursing staff at the center, with assistance from visiting surgeons or nurses, routinely conducts on-the-job training for the staff nurses. The same core team of 29 nursing staff attended training sessions on a wide range of topics including pre and post operative care, infection control, pain management, and emergency planning (see Table SRL2).

Table SRL2. Number of staff trained in fistula repair related topics by FY, Sierra Leone

Type of Training ↓	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
Pre and Post Operative Care	16	69	0	63	7	0	**155**
Infection Prevention	16	6	0	0	0	8	**30**
Quality Assurance	0	0	0	0	0	0	**0**
Fistula Counseling	13	0	0	0	0	29	**42**
Total	**45**	**75**	**0**	**63**	**7**	**37**	**227**

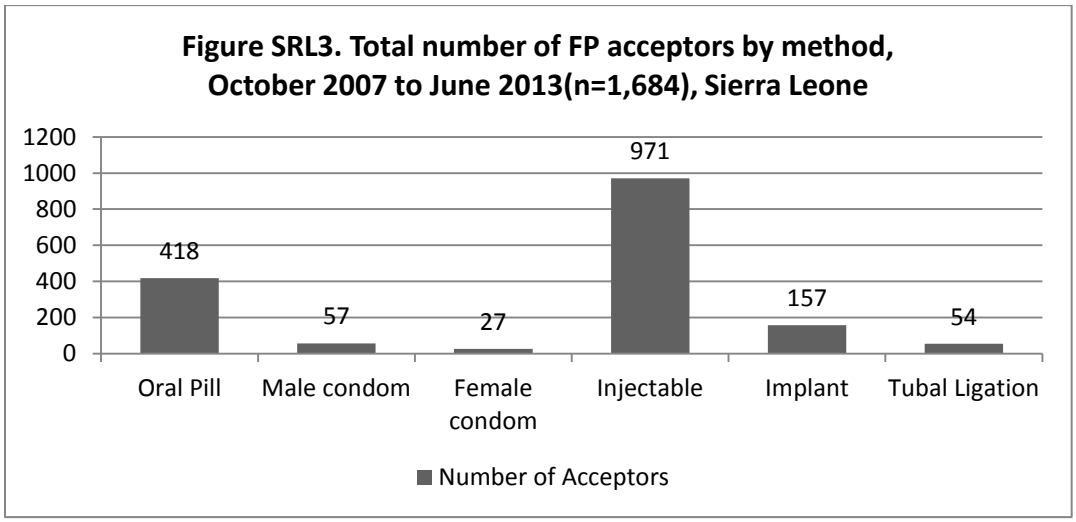
In February 2013, Fistula Care global staff conducted training on counseling fistula clients. A one-day orientation brought together 18 participants (from AWC and Health Poverty Action) for an overview. Seven providers received in-depth training, including theory, role play practice, work with real clients, and action plan development.

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

Family Planning Integration. Initially, the fistula unit at AWC did not provide family planning services. With advocacy from project staff, AWC invited Marie Stopes International to come to AWC to provide FP services to those patients who requested the services. However, this arrangement was inconsistent and was not meeting the needs of AWC or its clients. In October 2010, AWC began providing family planning services to patients in both the repair and obstetrics programs and in 2012 the services extended to mothers accessing the children's' out-patient clinic and the greater local community.[132]

The family planning services offered patients advice, counseling and a choice of six methods: the Depo-Provera injection, the contraceptive pill, the implant, male and female condoms and tubal ligation. Recognizing the need for a dedicated family planning space, AWC leveraged resources from other donors in FY11/12 to support renovations and the hiring of a second family planning nurse. In FY12/13, two additional nurses were hired.

In total, from FY07/08 to FY12/13[133], 1,684 individuals accepted a family planning method, and over 2000 were counseled about family planning methods. The most popular method was the injectable, followed by the oral pill and implants (see Fig. SRL3).



Obstetric Care Training . Training and provision of obstetric care were a major focus of the AWC's efforts and activities. The May 2010 launch of the maternity unit was featured in a Fistula Care technical brief -- *Integrating fistula treatment and prevention: The launch of a maternity unit in Sierra Leone*--published in 2012 and in a journal article "Striving for

[132] Family planning services are also provided through the AWC outpatient clinic; these services are not included in this analysis as they were not supported by Fistula Care.
[133] FY12/13 data is through June 2013.

Excellence: Nurturing Midwives' Skills in Freetown, Sierra Leone" was published online by *Midwifery* in March 2013 as a part of the MDG special issue[134].

The AWC maternity unit worked to develop national leaders in midwifery through its role as a training site for national midwives. The goal was to train Sierra Leonean midwives to provide a high standard of care following evidence-based practice, resulting in safe and timely deliveries. The emphasis of the maternity unit is to prevent fistula and reduce maternal death. The maternity unit offeres antenatal, intrapartum, and postpartum care, including an obstetric emergency care package which includes ensuring access to quality cesarean section services through the provision of a 24-hour, on-call obstetric team.

As with repair related trainings, on-the-job training took place frequently at AWC, with the staff midwives and nurses receiving extensive training on obstetric care topics that covered pre-natal, antenatal and post-natal care (see Table SRL3). As of June 2013, nearly 3,000 births were attended in the AWC maternity unit, of which 18% (547) were cesarean sections; see Annex 6 for details by FY.

Table SRL3: Number of staff trained in fistula prevention related topics by FY, Sierra Leone

Type of Training ↓	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
Family Planning Methods	0	0	0	0	3	**3**
Obstetric Care	0	0	246	34	31	**311**
Data management	0	0	0	0	8	**8**
Other	15	20	15	27	28	**105**
Total	**15**	**20**	**261**	**61**	**70**	**427**

Community Level Interventions. In its initial years of operation, AWC relied on referrals of fistula patients from several NGOs such as Medecins sans Frontieres who worked outside of Freetown. Many NGOs left Sierra Leone as the country transitioned from relief mode to development work. As a result of the decline in the number of NGOs, AWC increased its number of staff and the frequency of screening visits to rural areas of the country. Screening teams from AWC traveled up-country to identify women with possible fistula and invite them to seek treatment, an activity done in partnership with Health Unlimited (an NGO working in remote areas of the country) in FY07/08 and FY08/09. AWC subsequently collaborated with Health Poverty Action and HAIKAL and maintained a working relationship with the West African Fistula Foundation to conduct outreach and screening in different geographic areas. Outreach teams utilized radio broadcasts as part of their screening efforts. Over time, AWC has seen an increase in the number of patients referring themselves, and arriving with recently developed fistula.

[134] Ngongo C., Christie, K., Holden, I., Ford, C. and Pett, C. 2013. Striving for excellence: nurturing midwives' skills in Freetown, Sierra Leone. *Midwifery* 29(10):1230-34

In FY09/10, AWC worked with a local drama group to create a drama within an existing radio soap series taking place in a national hospital. The story line highlighted the issue of fistula and was followed with information about a hotline to AWC for referral and further enquiries. The VVF hotline runs as a 24-hour service. Airtel, the largest mobile phone company in the country, supplies a toll-free number and the line is managed by AWC staff. UNFPA funds the cost of the hotline while Fistula Care coverd patient transport, fistula repair costs and AWC staff.

AWC increased awareness of fistula treatment and prevention through 49 community outreach activities reaching over 390 participants (see Table SRL4). Other community outreach efforts carried out included radio interviews with staff on UN Radio and Cotton Tree Network radio stations, newspaper interviews with nursing staff from the centre and former patients, collaboration with the Sierra Leone Broadcasting Service on a program about fistula in FY07/08 and the development of IEC materials, including radio spots, flip charts, posters, and a song, with key messages about early pregnancy, the importance of delivering in a health facility and causes of fistula. In FY08/09, a graduate student from University of California at Berkeley's Graduate School of Journalism, produced a film of that tells the story of Yeabu, a woman with obstetric fistula in Sierra Leone. The video follows Yeabu from her home village to AWC (then the Aberdeen West Africa Fistula Center), and back to her village after a successful fistula repair surgery.The video highlights the importance of outreach to remote areas of the country to identify and transport women with fistula who otherwise would not have access to fistula repair surgery. The film aired on PBS FRONTLINE/World.

Table SRL4. Number of community outreach and advocacy events and participants reached by FY, Sierra Leone

	Events	Participants
FY07/08	0	0
FY08/09	1	6
FY09/10	0	0
FY10/11	1	60
FY11/12	32	200
FY12/13	15	111
Total	**49**	**377**

Fistula Care supported a strong program at AWC to help repaired fistula clients reintegrate into their communities and thrive post-surgery. AWC implemented a curriculum of basic literacy and numeracy, as well as instruction in handcrafts (like sewing and crochet) to give patients an opportunity to interact with one another and learn new skills while they recover from surgery. Women who have had their fistulas successfully repaired also served as advocates who raise awareness about fistula after participating in in-house advocacy workshops, in collaboration with Health Poverty Action, that were conducted regularly.

Women who were discharged from the AWC received information about family planning and vouchers for cesarean sections. The vouchers helped these women after they have healed from surgery to have affordable, successful deliveries, if they are able and so desire. HAIKAL (a local

NGO and UNFPA implementing partner) has made a post-repair hostel available to women who have received surgery at AWC.

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

AWC participated in the Randomized Control Trial on Short Term Catheterization, which was completed in FY12/13. A summary of the findings from this study is located in Annex 9.

In October 2012, three staff members were trained in Data for Decision Making. In turn, one staff member continued to provide OJT for other staff following the initial training for a total of 8 staff members trained. Between FY08/09 and FY12/13, AWC held 28 data review meetings to discuss fistula data.

AWC held clinical governance meetings to allow for monitoring and evaluating clinical incidents following completion of incident forms which are filled out as a response to adverse outcomes and near misses. These incidents were submitted for review by a selection of the multi-disciplinary medical team. Clinicians were invited to meet together for discussion. A problem solving approach from the whole team was encouraged. It was designed to be a learning exercise to increase understanding and thereby improve standards. Good practice was also highlighted. These were not scheduled but in direct response to events happening at the centre and occurred each quarter.

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

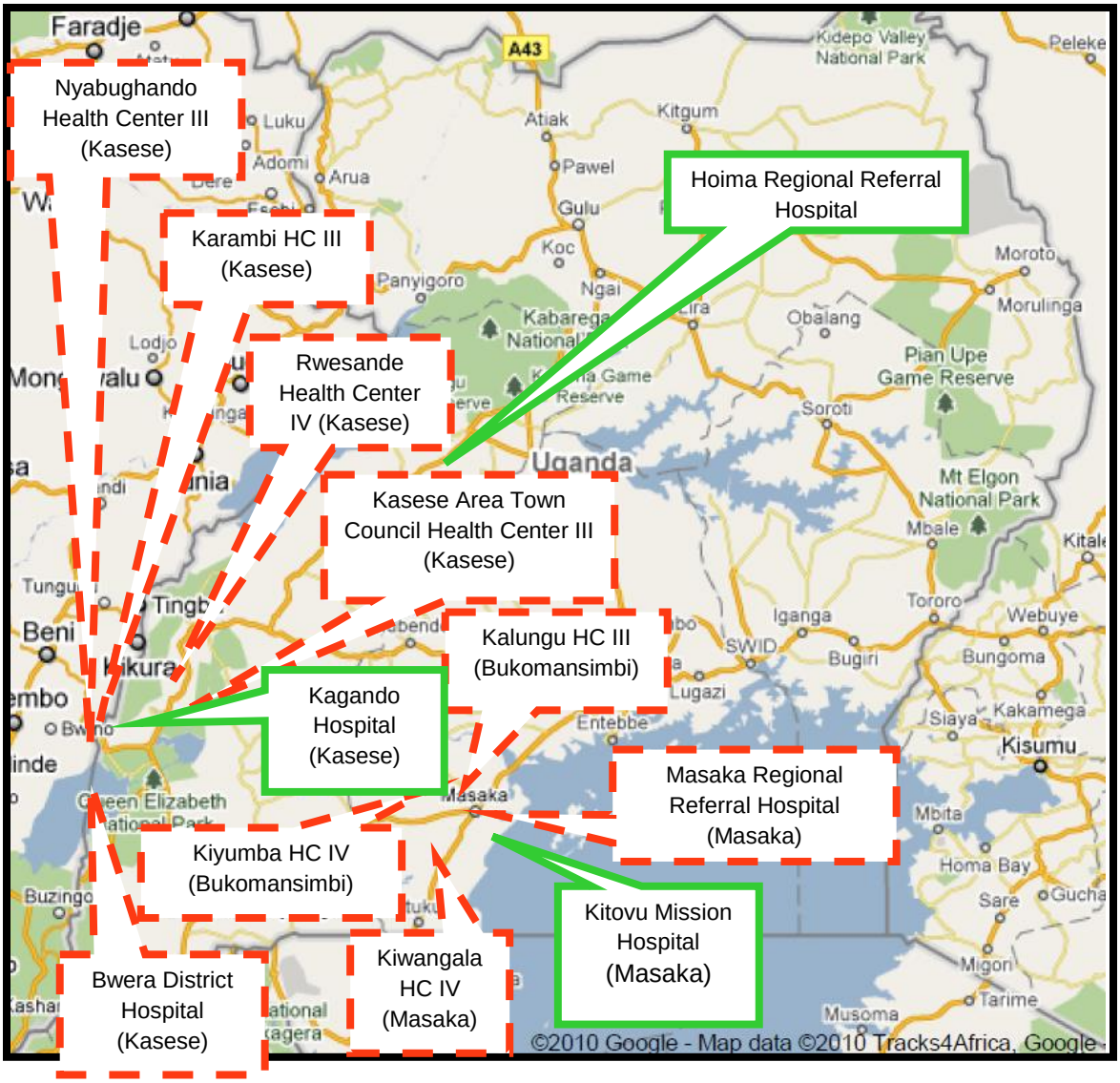
AWC is a partner in the national task force for VVF, established in November 2010, which is led by the Ministry of Health. The task force has met intermittently and has worked on a National Strategy for VVF in Sierra Leone. The VVF National Strategy was launched on May 23rd, 2013. Various events were organized in collaboration with AWC, the Ministry of Health, and UNFPA across the country, and were covered by local radio and television stations across Sierra Leone. A soft copy of the National VVF strategy is not yet available, but is forthcoming.

In FY09/10, 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 wanted to promote multi-agency collaboration on fistula prevention and treatment; AWC was identified as the leading facility in-country for effective care. The strategy included 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.

Resources Developed in Sierra Leone

- Integrating Fistula Treatment and Prevention: The Launch of a Maternity Unit in Sierra Leone
- Aberdeen Women's Centre Brochure

Uganda


Nyabughando Health Center III (Kasese)
Karambi HC III (Kasese)
Rwesande Health Center IV (Kasese)
Hoima Regional Referral Hospital
Kasese Area Town Council Health Center III (Kasese)
Kalungu HC III (Bukomansimbi)
Kagando Hospital (Kasese)
Masaka Regional Referral Hospital (Masaka)
Kiyumba HC IV (Bukomansimbi)
Kitovu Mission Hospital (Masaka)
Bwera District Hospital (Kasese)
Kiwangala HC IV (Masaka)
Faradje
A43
Kidepo Valley National Park
Peleke
Luku
Atiak
Kitgum
Adomi
Arua
Pawel
Gulu
Koc
Panyigoro
Ngai
Moroto
Morulinga
Kabarega National
Obalang
Pian Upe Game Reserve
Lodjo
Soroti
Uganda
Mt Elgon National Park
Mbale
Tororo
Webuye
Iganga
SWID
Bugiri
Bungoma
Beni
Kikura
Lugazi
Entebbe
Siaya
Kakamega
Kisumu
Masaka
Mbita
Homa Bay
Buzingo
Sare
Migori
Tarime
Musoma
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Uganda, Summary of Achievements

Start date with USAID funds: 2005

Background

Uganda Demographic Data	
Population (2012)[135]	34.4 million
Total fertility rate (2011)[136]	6.2 children/woman
Maternal mortality ratio (2010)[137]	310
Median female age at first marriage (2011)[138]	17.9 years
Female literacy (women aged 15-49) (2011)[139]	64.2%
Female primary school completion (women aged 15-49) 2011)[140]	58%
Skilled attendance at birth (2011)[141]	58.0%
Contraceptive prevalence rate (2011)(any method, currently married women,15-49)[142]	30%
Women who have experienced obstetric fistula [143]	2.0%

Uganda Supported Sites	Dates of Support	Treatment	Prevention
Bwera District Hospital	2010-2013		X
Hoima Hospital	2012-2013	X	X
Kagando Mission Hospital	2006-2013	X	X
Kalungu HC III	2010-2013		X
Karambi HC III	2010-2013		X
Kasese Area City Council HC III	2010-2013		X
Kitovu Mission Hospital	2005-2013	X	X
Kiwangala HC IV	2010-2012		X
Kiyumba HC IV	2010-2012		X
Masaka Regional Hospital	2010-2013		X
Nyabugando HC III	2010-2013		X
Rwesande HC IV	2010-2013		X

Overview of Fistula Care in Uganda

Fistula Care supports safe and effective services in Uganda that address fistula's complex physical, emotional, and social dimensions. Fistula Care worked with three facilities to offer comprehensive care to women living with fistula, nine facilities to offer prevention only services, and has provided medical equipment and supplies, including ureteric catheters, for fistula

[135]The World Bank. 2013. Uganda data. Retrieved from : http://data.worldbank.org/country/uganda
[136]Uganda Bureau of Statistics (UBOS) and ICF International Inc. 2012. *Uganda Demographic and Health Survey 2011*. Kampala, Uganda: UBOS and Calverton, Maryland: ICF International Inc. (http://www.measuredhs.com/pubs/pdf/FR264/FR264.pdf p.57
[137]World Health Organization. 2012, op.cit. p. 36 (see reference 13).
[138]UBOS and ICF, op. cit., p.51
[139]Ibid.,p.33.
[140]Ibid.,p.33.
[141]Ibid.,p.113.
[142]Ibid.,p.80.
[143]Ibid.,p.121

treatment and prevention to another 15 governmental and private not-for-profit facilities[144] in Uganda.

EngenderHealth's fistula work began in Uganda in 2002 in collaboration with UNFPA to conduct a situation assessment, finding that "a great and growing number of women with fistulas, a short supply of physicians with the skills to repair them, operating theatres that were few in number and insufficiently equipped, and tremendous reliance on the work of visiting, volunteer doctors from other countries."[145] During that time, the Ministry of Health was supporting fistula repair surgery through either routine services or outreach efforts and had established the National Fistula Technical Working Group. AMREF and UNFPA were major supporters of fistula repair and training at that time.

Between 2005 and 2007 EngenderHealth collaborated with the Women's Dignity Project with funding from the United Kingdom Department for International Development to carry out a study in four rural districts of Uganda to address the social, cultural, economic, and medical complexities of obstetric fistula. The study, *Sharing the Burden: Ugandan Women Speak about Obstetric Fistula*, found that fistula is a problem for women of all ages; antenatal and delivery care did not meet standards; multiple barriers prevent access to adequate delivery care, including cesarean section; fistula has a severe impact on women and their families; and fistula repair services must be available, accessible, and affordable. Findings from this study were published in 2011 in the *International Urogynecology Journal*.[146]

In 2005, ACQUIRE/Uganda, a three-year bilateral associate award under the ACQUIRE Project, began supporting Kagando Mission Hospital and Kitovu Mission Hospital to provide routine repairs. Public-private partnerships were established between these two repair sites and two public facilities, Masaka Regional Hospital and Bwera District Hospital, with the public facilities focusing on prevention activities, referring fistula cases, and providing postoperative care. In 2005, with funding from the ACQUIRE Project and the Bill & Melinda Gates Foundation, EngenderHealth hosted a two-day experts meeting on counseling for fistula patients.[147] A group of 12 experts from eight countries with experience in counseling fistula patients met to consider and recommend key elements to include in a fistula counseling manual. The outcomes and recommendations from this meeting were used in the development of *Counseling the obstetric fistula client: A training curriculum* produced by Fistula Care in 2012.

[144] Bukulula HC IV, Kyamulibwa HC IV, Mulago National Referral Hospital, Fortportal RRH, Mbale RRH, Arua RRH, Jinja RRH, Lira RRH, Soroti RRH, Mbale RRH, Kabale RRH, Kamuli, Lacor, Kisiizi and Virika Mission Hospitals

[145] UNFPA and EngenderHealth, op. cit. (see reference 83).

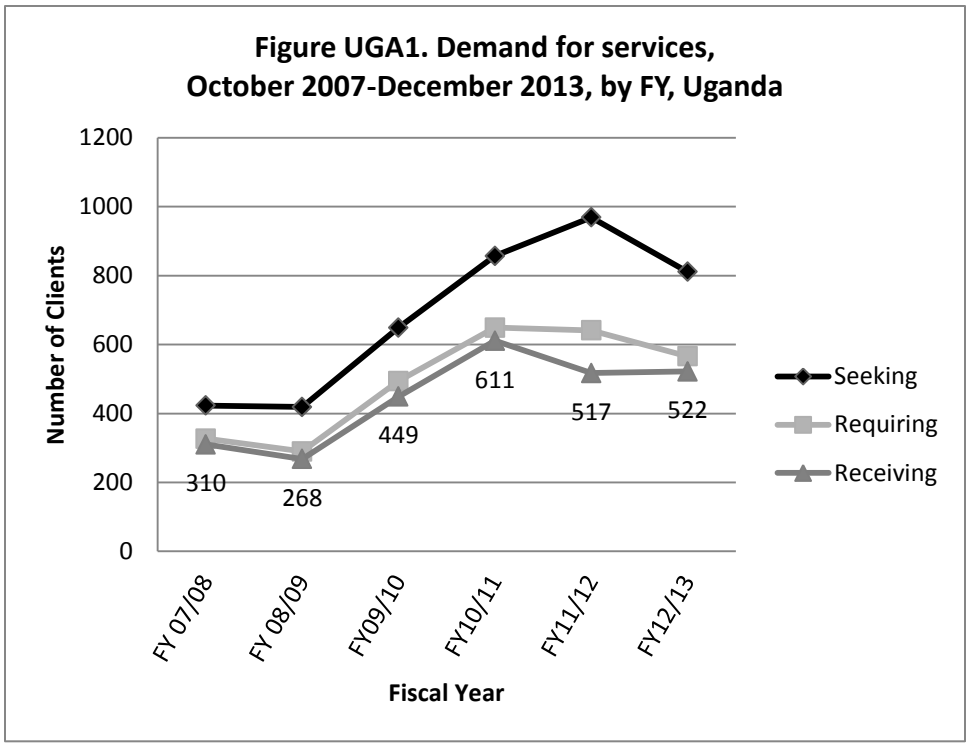
[146] Bangser, M., Mehta, M., Singer, J., Daly, C., Kamugumya, C., and Mwangomale, A. 2011. Childbirth experiences of women with obstetric fistula in Tanzania and Uganda and their implications for fistula program development. *International urogynecol journal,* 22(1), 91–98.

[147] The ACQUIRE Project. 2005. Report of Fistula Counseling Experts' Meeting, March 29&30, 2005, Kampala, Uganda. New York: EngenderHealth.

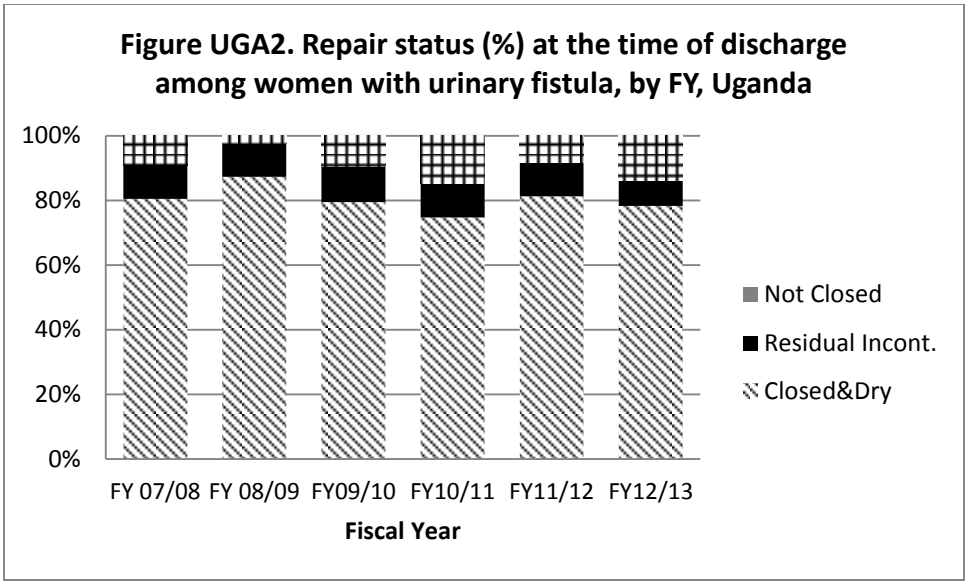
Key Achievements, by Result

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

The number of women seeking treatment has steadily increased since 2008 as outreach activities were conducted to raise awareness of the availability of services. In FY12/13, over 800 women sought treatment at USAID-supported sites through June 2013 with 70% of those diagnosed with fistula. Figure UGA1 shows the number of women seeking, requiring, and number of repairs conduct by FY. Fistula Care supported 2,677 fistula repairs at three facilities while an additional 857 were supported by EngenderHealth with USAID support before October 2007; at total of 3,534 repairs have been conducted since 2005.



Of the women repaired at USAID-supported sites during FY12/13, 78% were closed and dry at the time of discharge from the facility. These rates remained fairly constant at 75% or more each year; see Figure 2. See IR1.1 under the Global Accomplishments section of the report for a discussion of closed and dry rates . Reports on complications arising from fistula surgery varied by supported site. The annual overall reported complication rates ranged from 1 to 7% over the life of the project. A discussion of complication reporting is presented in the Global Accomplishments section of the report, under IR1.2.



In order to strengthen and build capacity for fistula treatment, Fistula Care worked with the Ministry of Health to train health care providers in treatment, to ensure the availability of needed equipment and supplies, to develop and implement appropriate protocols, standards and guidelines, as well as tools to support quality services and to reach out to communities to identify women with fistula.

In 2003, there was only one surgeon in country actively providing fistula repair surgery; in 2013, there are 24 surgeons who are providing routine surgical repair.[148] Since FY07/08, Fistula Care supported the training of 26 surgeons in fistula repair; see Table UGA1. Of those 26 surgeons, 15 were providing repairs as of March 2013, with 3 working at Fistula Care supported sites.

Table UGA1. Uganda surgeon training in fistula repair, October 2007-December 2013

Training in Fistula Surgery	N
Number of surgeons trained in fistula repair	28
Number of surgeons tracked through training follow up efforts through March 2013	26
Competency levels achieved by trained surgeons	
Simple	9
Medium	8
Complex	4
No information available	5
Total number of trained surgeons providing fistula repair as of March 2013:	15
Number trained providing services at Fistula Care supported sites	3
Number of trained surgeons who have provided training to other surgeons	6

Fistula Care also supported training in areas of support of for fistula treatment—pre and postoperative care, infection prevention, quality assurance and fistula counseling for over 1,000 individuals. The number of people trained by treatment related topics is shown in Table UGA2.

[148] Dr. Amandua's remarks at "Towards a Fistula Free Generation Meeting", Kampala, Uganda, September 11, 2013.

Table UGA2. Number of staff trained in fistula repair related topics, by FY, Uganda

Type of training	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
Pre and Postoperative Care	11	4	20	3	7	14	**59**
Infection Prevention	0	0	0	619	29	50	**698**
Quality Assurance	0	0	125	115	0	0	**240**
Fistula Counseling	0	0	21	20	26	5	**72**
Total	**11**	**4**	**166**	**781**	**62**	**44**	**1,069**

For both surgeons and nurse/midwives, the Ministry of Health adopted a mentoring and coaching strategy to provide hands-on experience and specialized skills. Since 2012, following a review by the Fistula Technical Working Group (FTWG), training for surgeons is now based on the *Global Competency-Based Fistula Surgery Training Manual*.[149] In 2012, the FTWG sub-committee also adapted several Fistula Care global guidelines and tools, which were subsequently adopted by the Ministry of Health. These guidelines and tools are used at facilities to improve their capacity to provide treatment and 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

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

Prevention activities in Uganda were focused on strengthening FP service provision, obstetric care and regular use of the partograph through training and provision of necessary equipment. In addition, Fistula Care supported outreach and strengthening community groups to address fistula prevention and to strengthen data management. During the life of the project 700 persons attended training related to fistula prevention; see Table UGA3.

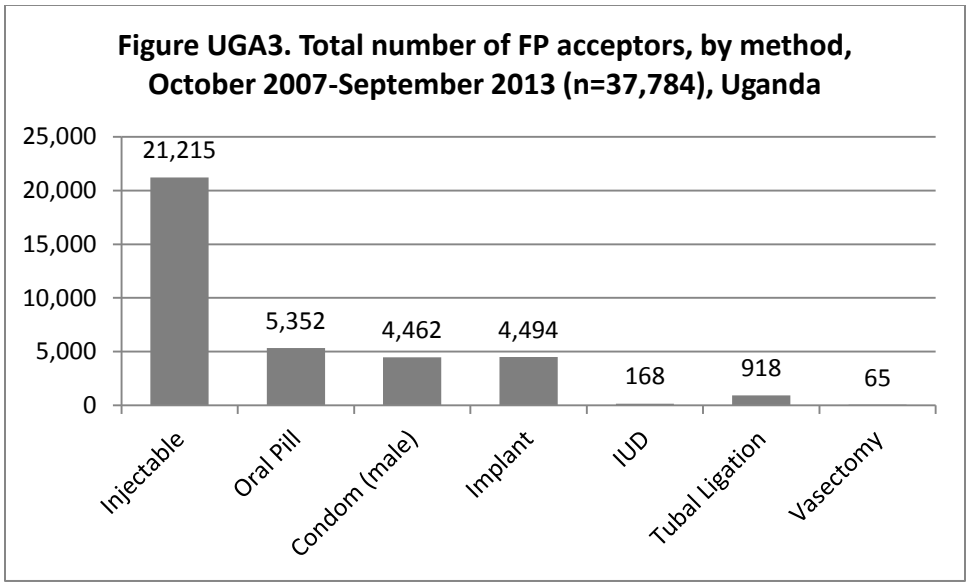
Table UGA3. Number of staff trained in fistula prevention related topics, by FY, Uganda

	FY08/09	FY09/10	FY10/11	FY11/12	FY12/13	Total
FP Counseling	0	0	0	0	16	**16**
Family Planning Methods	0	72	0	10	14	**96**
Obstetric Care	4	43	83	82	82	**294**
Community Outreach & Advocacy	0	0	0	0	121	**121**
Data Management	0	20	17	36	77	**150**
Other	0	0	24	0	0	**24**
Total	**4**	**135**	**124**	**128**	**310**	**701**

[149]FIGO et al. 2011. Op. cit. (see reference 55)

Family Planning Integration. Fistula Care supported 12 sites that offer family planning services; one site (Kitovu, a Catholic mission hospital) counsels about all FP methods, provides standard days method and refers women for other methods. Fistula Care supported training in family planning counseling and method provision; see Table UGA 2 (the fistula counseling also includes a segment on FP counseling).

Over 33,000 family planning acceptors were reported by these sites between 2007 and 2013. Figure UGA3 breaks down the number of family planning acceptors by choice of method at supported sites throughout the life of the project.



In 2010, Fistula Care conducted a family planning integration and contraceptive technology update workshop at Kagando Hospital. The event was attended by senior leaders of the District Health Management Team and provided an opportunity for district health staff and hospital management to understand the rationale and resources needed to support integration of family planning into fistula services. A 2012 evaluation of integration at Fistula Care-supported sites found family planning to be integrated across fistula care, HIV services, antenatal and postpartum care, and child health services. More details regarding the integration of family planning into fistula services at Fistula Care supported sites can be found in *Integrating Family Planning into Fistula Services: An Evaluation and Case Study*.[150]

Fistula Care supported training for 16 providers in family planning counseling and nearly 100 others in family planning methods (see Table UGA3).

[150] Caro et al. 2012, op. cit. (see footnote 25)

Obstetric Care Training. Fistula Care supported interventions to prevent fistula by strengthening labor and delivery care and emergency obstetric care at 12 health facilities in Uganda, stressing the importance of correct and consistent use of the partograph. Since 2007, Fistula Care supported training for nearly 300 people relating to partograph use and other obstetric care topics to prevent fistula including immediate catheterization and cesarean deliveries (see Table UGA 3). Fistula Care supported strengthening cesarean delivery services; a discussion about cesarean deliveries can be found in the Global Accomplishments section of this report under IR2. 1; Annex 6 includes details about the number of deliveries and CS reported by supported sites by FY.

Fistula Care supported the Ministry of Health and private facilities to revise and distribute a standardized partograph in line with the World Health Organization's guidelines. Use of the partograph increased at seven hospitals from 0% of labors in 2011 to 50% in 2013. To ensure sustainability and the institutionalization of partograph use, EngenderHealth worked closely with the Ministry of Education to emphasize the partograph in midwifery training schools.

A technical brief, *Improving partograph use in Uganda through coaching and mentoring*, describes in detail the efforts of Fistula Care and the Ministry of Health to develop and implement a new approach of coaching and mentoring to improve partograph use.

Community Level Interventions. EngenderHealth supported community-level interventions related to fistula since 2005 with support from private donors and through the ACQUIRE/Uganda agreement. The work focused on male involvement in fistula prevention and repair including radio shows, street theater and drama groups, and music.

EngenderHealth, through ACQUIRE/Uganda, partnered with Centre for Digital Storytelling Silence Speaks Initiative and Kitovu Mission Hospital in Uganda in 2007 to develop digital stories that profiled the lives of women who had experienced obstetric fistula. Fistula Care later developed an accompanying discussion guide to facilitate conversations with clients, which has subsequently been translated into French for use elsewhere in Africa. In Uganda, the videos were shown to women waiting for surgery, their caregivers, and women in postoperative wards and health workers discussed the videos with clients and asked and answered questions. The videos have helped allay clients' fears and concerns, helped dispel myths about fistula, shortened counseling sessions because information was conveyed during the videos, and reassured women they were not suffering in isolation. In total, the digital stories have been viewed more than 22,000 times on YouTube.

Since 2009, Fistula Care has supported well over 1,000 community outreach and advocacy events reaching over 90,000 participants (see Table UGA3). Fistula Care also worked with village health teams and community leaders in Kasese district to promote the use of family planning and maternal health services.

Table UGA3. Number of community outreach and advocacy events and participants reached by FY, Uganda

	Events	Participants
FY09/10	48	6,018
FY10/11	415	45,566
FY11/12	6	634
FY12/13	645	42,194
Total	**1,114**	**94,412**

To address the needs of communities and village health teams to prevent fistula and promote maternal health services, Fistula Care adapted a training guide originally developed in Guinea. The manual, *Promoting Maternal Health and Preventing Obstetric Fistula: A Training Curriculum for Village Health Teams in Uganda*,[151] is designed to complement and reinforce existing training materials for village health teams, building upon the Ministry of Health's existing materials.

Village health teams were trained using the new curriculum in early 2013 and were supported to bridge the gap between underserved households and the formal health system. Fistula Care also introduced the site walk-through (SWT) approach at Karambi HC III in an attempt to strengthen community-facility links. An evaluation of the village health teams found measurable increases in service utilization at Karambi HC III and positive feedback on site walk-throughs and the training and support of village health teams.[152]

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

Data for Decision Making. Fistula Care staff worked with partners to improve and strengthen recording keeping, reporting and use of data. We helped eight health facilities to improve data management with a focus on proper filing for easy retrieval of data; 150 staff were trained in data management issues (see Table UGA1). Fistula Care staff provided ongoing mentoring and coaching, emphasizing data quality and proper filing and storage in addition to quarterly data review meetings at facilities. Two facilities, Hoima and Kagando Hospitals, were supported to establish data review committees including departments beyond the maternity unit.

DDM Training

[151] Fistula Care. 2013. *Promoting maternal health & preventing obstetric fistula: A training curriculum for village health teams.* New York: Fistula Care/EngenderHealth

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

Between FY08/09 and FY12/13, a total of 34 data review meetings were held by Fistula Care supported sites.

Fistula Care also worked with the Ministry of Health to adapt data reporting forms and procedures to institutionalize the collection and availability of data. The forms are designed to capture fistula care monitoring data, training activities, community outreach, family planning services, obstetric services, and reintegration services. Health facilities are now reporting these data to the health management information system (HMIS). See below under Result 4 for more details.

Research. Kagando and Kitovu Mission Hospitals participated in three global research studies:

- Determinants of Post-Operative Outcomes in Fistula Repair Surgery
- Multi-Center Retrospective Record Review of Data Collection Procedures and Data Quality of Indications for Cesarean Deliveries
- Randomized Controlled Trial on Short-Term Catheterization (Kagando only)

A summary of these study results is found in Annex 9.

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

The Levels of Care Framework for service delivery, described under Result 1 of the global section of the report, has been adopted and included in the Uganda National Obstetric Fistula Strategy.[153] The National Obstetric Fistula Strategy was adopted in 2011 and provides guidance to partners on the implementation of prevention, treatment, and reintegration activities.

Fistula Care collaborated with the FTWG, comprised of all stakeholders implementing fistula work in Uganda, and initiated the Fistula Partnership Forum in 2009 in collaboration with UNFPA and AMREF. Although the Ministry of Health's Department of Clinical Services coordinates fistula service provision, for a long time it lacked sufficient information about who was doing what, where, and how. To address the information gap, the National Fistula Technical Working Group developed two maps to show the availability of fistula services and trained personnel, including their skill levels to allow the MOH to better coordinate fistula services. The maps allowed for referral of fistula clients, mobilization and allocation of resources, and decision making.

> "*The maps are a visual representation of how we are doing with regards to fistula treatment, care, and reintegration. These maps put a face to fistula, a challenge we had ignored for so long. I am constantly reminded of what is required of us as a Ministry to deal with this challenge. The maps are an excellent innovation; we are proud of this product and appreciate the support from the American people, through USAID's Fistula Care project.*" Dr. Jacinto Amandua, Commissioner, Clinical Services, Uganda Ministry of Health.

The Fistula Partnership Forum provided coordination and strategic vision for partner organizations and worked with DHS and the Uganda Bureau of Statistics to include fistula

[153] Uganda Ministry of Health. 2011. *National Obstetric Fistula Strategy*. Available: http://www.fistulacare.org/pages/da/files/5/5.4/Uganda_National_Obstetric_Fistula_Strategy.pdf

questions in the 2011 Uganda DHS. The 2006 Uganda DHS included one question about fistula and the 2011 survey included three questions. The questions included in the 2011 DHS were:

1. Sometimes a woman can have a problem of constant leakage of urine or stool from her vagina during the day and night. This problem usually occurs after a difficult childbirth, but may also occur after a sexual assault or other pelvic surgery. Have you ever experienced constant leakage of urine or stool from your vagina during the day and night?
2. Have you sought treatment for this condition?
3. Why have you not sought treatment?

The 2011 Uganda DHS found that 2% of women aged 15-49 had ever experienced fistula, with 62% reporting they had sought treatment and 31% not accessing services. Reasons for not seeking treatment included: too embarrassing (12%), did not know where to go (9%), did not know fistula could be treated (7%), and treatment was too expensive (3%). [154]

In 2012, Fistula Care was invited to attend the Annual Joint Review Mission of the Ministry of Health and for the first time, obstetric fistula interventions were given prominence in the annual health sector performance report. The forum brought together the Ministry, development partners, civil society, the private sector and other stakeholders to review performance against targets set in national strategic plans. During the meeting, Dr. Jacinto Amandua, the Commissioner of Clinical Services, presented on the highlights of Fistula Care interventions and described the mentoring and coaching strategy as a key approach to building surgical capacity.

In 2012, the FTWG sub-committee adapted Fistula Care global guidelines and tools, which were subsequently adopted by the Ministry of Health. The guidelines and tools are listed under Result 1 above. In addition, Over the life of the project, Fistula Care developed several tools and products designed for improving fistula treatment and prevention care. See Annex 11 for a list of the tools which were used by supported sites during the life of the project.

Table UGA6. Indicators incorporated into Uganda's HMIS

Number of women diagnosed with fistula
Number of women repaired (VVF/RVF/VVF+RVF)
Outcome of surgery (women discharged "dry and continent"/"not dry" (=either not closed or closed with stress incontinence))

In December 2012, three fistula related indicators were added to the Uganda HMIS (see Table UGA6). 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.

A technical brief, *Creating an Enabling Environment for Fistula Prevention and Treatment in Uganda,* was published in 2013 and explains the rationale behind creating the FTWG, describes how it came into being, and presents three 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.

[154] UBOS and ICF, op. cit. p. 121.

Resources Developed in Uganda

- Community Prevention Poster
- Prevention Poster for Providers
- Learn from My Story: Women Confront Fistula in Rural Uganda
- Straight Talk Posters on Fistula
- Promoting Maternal Health and Preventing Obstetric Fistula: A Training Curriculum for Village Health Teams in Uganda
- Creating an enabling environment for fistula prevention and treatment in Uganda.
- Improving partograph use in Uganda through coaching and mentoring.

Working Toward a Fistula-Free Generation

In September 2013, Fistula Care hosted a partners' meeting in Uganda called "Towards a Fistula-Free Generation." The meeting brought together 150 participants from 16 countries. The meeting was officially opened by the Uganda Minister of Health, Hon. Dr. Ruhukana Rugunda, and the first day included a focus on achievements in Uganda and a discussion of what needs to happen in Uganda to ensure a fistula-free generation.

During the discussion, participants were invited to reflect on the innovations and program approaches presented, elucidate additional elements from the Ugandan experience, and consider opportunities for adaptation and further implementation.

Several recommendations emerged from the discussion:

1. The costs of fistula surgery and the costing piece of Uganda's strategic plan need to be clarified.
2. The attrition of surgeons and other trained health professionals needs to be addressed.
3. Alternative delivery methods, including vacuum extraction, symphisiotomy, and craniotomy, should be explored rather than conducting cesarean section following intrauterine fetal death, given that cesareans may contribute to the burden of iatrogenic fistula.
4. Information about fistula should be integrated into midwives' basic training and doctors' postgraduate training.
5. Consider including fistula repair surgery in surgeons' basic training.
6. Determine how realistic promoting the partograph is in places with a high volume of deliveries where many women may be waiting for an emergency cesarean.
7. Research must inform fistula programming.
8. When advocating for facility births, ensure facilities are ready to handle higher volume.

Mercy Ships

In addition to expanding access to fistula repair services in the 10 core countries of the Fistula Care portfolio, Fistula Care, through its partnership with Mercy Ships supported fistula repair surgery and training on board their hospital ship, the *Africa Mercy*, when it was docked in Benin, Guinea, Liberia and Togo between 2007 and 2010. Under the ACQUIRE Project 63 repairs were supported in Ghana; under Fistula Care; a total of 307 repairs. The ship was also docked in Sierra Leone and Guinea after 2010; Fistula Care sent surgeons for training on board the ship while it was docked in those countries.

Table MS1. Fistula repairs supported aboard Mercy Ships hospital ships, October 2007 to December 2011

Country	FY 07 / 08	FY 08 /09	FY 09/10	FY 10/11	Grand Total
Benin	NS	110	21	20	**151**
Ghana*	NS	NS	NS	NS	**0**
Liberia	59	NS	NS	NS	**59**
Togo	NS	NS	97	NS	**97**
Total	**59**	**110**	**118**	**20**	**307**

NS=not supported
*In FY06/07, 63 repairs supported while the ship was docked in Accra.

Dr. Steve Arrowsmith trained seven surgeons not associated with Fistula Care supported sites (two surgeons from Benin and five expats); see Table MS2. In addition Dr. Arrowsmith trained 12 surgeons from Fistula Care supported sites (these data are included in the country tables): Bangladesh (1), DRC (2), Guinea (2), Nigeria (4), Rwanda (1), Sierra Leone (1), and Uganda (1).

Table MS2. Fistula surgeon training on board the Africa Mercy, October 2007-December 2010[155]

Training in Fistula Surgery, Mercy Ships	N
Number of surgeons trained in fistula repair	7
Number of surgeons tracked through training follow up efforts through March 2013	5
Competency levels achieved by trained surgeons	
Simple	2
Medium	3
Complex	0
No information available	0
Total number of trained surgeons providing fistula repair as of March 2013:	0
Number trained providing services at Fistula Care supported sites	0
Number of trained surgeons who have provided training to other surgeons	0

[155] This does not include surgeons from Fistula Care supported sites. Those surgeons are counted in the country tables.