Fistula Care *Plus*: Nigeria

Strengthening Health Systems to Prevent and Treat Fistula

WHAT IS FISTULA?

A genital fistula is an abnormal opening in the upper or lower female genital tract that causes uncontrollable, constant leakage of urine and/or feces. Obstetric fistula is usually caused by several days of obstructed labor without timely medical intervention. Iatrogenic fistula is caused by surgical error, most often during cesarean section. Traumatic fistula is caused by injury— for instance, through sexual violence, female genital mutilation, or accidents.

At a Glance: FC+ Nigeria

- **7,295 surgical fistula repairs completed; 81% closed at discharge**
- **34 fistula surgeons and 1,317 other healthcare workers trained in fistula prevention and treatment**
- **1,166,080 family planning (FP) counseling sessions and 643,595 couple-years of protection delivered at project-supported health facilities**
- **792,934 individuals reached through in-person community outreach; 1,181 community volunteers and educators trained**

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Dates of support: May 2014 to September 2018
Supported fistula treatment facilities, by state: Adeoyo General Hospital, Oyo; Faridat Yakubu General Hospital, Zamfara; Gambo Sawaba General Hospital, Kaduna; Gesse VVF Centre, Kebbi; Jahun VVF Center, Jigawa; Laure VVF Centre, Kano; Maryam Abacha Women and Children's Hospital, Sokoto; Maryam Abacha Women and Children's Hospital, Yobe; National Obstetric Fistula Center (NOFIC), Bauchi; Niger State (pooled effort); NOFIC, Ebonyi; NOFIC, Katsina; Ogoja General Hospital, Cross River; Pope John Paul II Family Life Centre VVF and Maternal Injuries Hospital, Akwa Ibom; Sobi Specialist Hospital, Kwara; University College Hospital, Oyo; Wesley Guilds Hospital, Osun
Population: 206,140,000[1]
Lifetime prevalence of fistula: 3.2 per 1,000[2]
Estimated number of current fistula cases: 46,800[3]
Maternal mortality ratio: 917/100,000 live births[4]
Contraceptive prevalence rate (all methods, married women ages 15 to 49): 17%[5]

Fistula Care *Plus* (FC+) is a global project initiated in 2013 by the United States Agency for International Development (USAID) and implemented by EngenderHealth. FC+ builds on and enhances the work undertaken by USAID's previous Fistula Care project (2007–2013), also led by EngenderHealth. EngenderHealth's USAID-supported fistula prevention and repair efforts in Nigeria began in July 2005 and continued under the Fistula Care and FC+ projects until September 2018.

Fistula is a devastating morbidity, with profound social consequences for those affected. In Nigeria, FC+ partnered with the Federal Ministry of Health (FMOH), Federal Ministry of Women's Affairs and Social Development (FMWASD), corresponding state ministries, and hospitals throughout the country to support fistula repairs and prevent fistula by supporting voluntary family planning (FP), clinical capacity building, and community outreach and education. FC+ helped

[1] United Nations (UN), Department of Economic and Social Affairs. 2019. World Population Prospects 2019. New York: UN. https://population.un.org/wpp.

[2] Maheu-Giroux, M., Fillipi, V., Samadoulougou, S., Castro, M.C., Maulet, N., Meda, N., and Kirakoya-Samadoulougou, F. 2015 "Prevalence of Vaginal Fistula Symptoms in 19 Sub-Saharan African Countries: A Meta-Analysis of National Household Survey Data." Lancet Global Health 3, no. 5 (May): e271–78. DOI: 10.1016/S2214-109X(14)70348-1.

[3] Ibid.

[4] World Health Organization (WHO), United Nations Children's Fund (UNICEF), United Nations Population Fund (UNFPA), World Bank Group, and the United Nations Population Division. 2019. Trends in Maternal Mortality: 2000 to 2017. Geneva, WHO. https://data.worldbank.org/indicator/SH.STA.MMRT.

[5] UNICEF's State of the World's Children and Child info, United Nations Population Division's World Contraceptive Use, household surveys including Demographic and Health Surveys and Multiple Indicator Cluster Surveys. n.d. Contraceptive Prevalence, Any Methods (% of Women ages 15–59). https://data.worldbank.org/indicator/SP.DYN.CONU.ZS?view=chart.

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build health system capacity for safe surgery (including routine fistula repair), develop and implement national policy and guidance on the use of urethral catheterization for fistula prevention and treatment, increase community awareness, integrate FP within fistula and maternal health services, and pilot efforts to meet the reintegration needs of women who have undergone fistula repair. FC+ supported 16 health facilities for fistula treatment and prevention services and 768 facilities providing prevention-only services. In total, FC+ supported fistula services in 14 of Nigeria's 36 states (Akwa Ibom, Bauchi, Cross River, Ebonyi, Kaduna, Kano, Katsina, Kebbi, Kwara, Osun, Oyo, Sokoto, Yobe, and Zamfara) and provided ad hoc support to facilities in 2 additional states (Jigawa and Niger).

ENABLING ENVIRONMENT

FC+ partnered with the FMOH, FMWASD, and their state-level counterparts to strengthen the enabling environment. The objective of these partnerships was to institutionalize fistula prevention, treatment, and reintegration in the public and private sectors by improving national and facility policies, guidelines, and resources allocated to fistula prevention and treatment, including addressing the needs of women with fistula deemed incurable.

National Policy and Government Partnerships

FC+ collaborated with key stakeholders at various levels in governmental, nongovernmental, community, and traditional institutions to advocate for improved attention to and increased allocation of necessary resources for quality fistula prevention, treatment, and reintegration services. FC+, FMOH, and United Nations Population Fund (UNFPA) convened national stakeholders' meetings to ensure routine coordination between providers and stakeholders towards the goal of eliminating fistula in Nigeria. These meetings provided a platform to discuss plans to strengthen federal-level fistula efforts and advance state-level programs, including through establishing fistula desks within state ministries of health and creating fistula-specific budget lines at federal and state levels.

The FMOH, with technical input from FC+, identified priorities for development and implementation. These included national strategies to address obstetric fistula; guidelines for catheterization for prevention and management of fistula, safe surgery, and quality improvement; new fistula registers for data collection and new health management information system (HMIS) indicators; and the establishment of a providers' network.

National Strategies

EngenderHealth, with USAID support, has contributed to two iterations of the National Strategic Framework for the Elimination of Fistula: 2011–2015[6] and 2019–2023.[7] In advance of the 2011 strategy, Fistula Care with the FMOH and UNFPA, conducted a context review and prepared recommendations to increase access to fistula prevention and treatment services. FC+ actively participated in and supported two technical working groups launched by FMOH: one to review the expiring 2011–2015 national strategic framework and one to coordinate the national mapping of fistula facilities. These two initiatives facilitated the development of the updated five-year costed national roadmap for the elimination of fistula, adopted in 2019.

The 2019–2023 strategy identified several areas of improvement: new budget lines at federal and state levels, expansion of centers for obstetric fistula treatment, increases in providers trained in surgery and postoperative care, and increases in the number of clients served. The current strategy, which is costed at approximately $40 million, envisions a 30% reduction in both the incidence and the prevalence of obstetric fistula as well as a 30% of fistula patients receiving rehabilitation and reintegration care by 2023. Priorities include prevention, treatment, rehabilitation, communication, research, leadership and governance, and monitoring and evaluation (M&E).

Guidelines for Catheterization for Prevention and Management of Fistula

In 2016, building on an article by Dr. Kees Waaldijk[8] and a 2013 FC+ consultative meeting of international and national surgeons and midwives,[9] the project collaborated with the

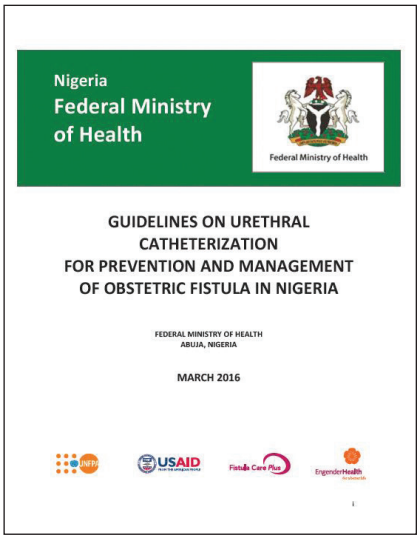
[6] Nigeria Federal Ministry of Health (FMOH). 2012. *National Strategic Framework for the Elimination of Obstetric Fistula in Nigeria, 2011–2015*. Abuja: FMOH. https://fistulacare.org/archive/files/5/5.4/Nigeria_National_Strategy_2011-2015.pdf.

[7] FMOH and United Nations Population Fund (UNFPA). 2019. *National Strategic Frame Work for the Elimination of Obstetric Fistula in Nigeria 2019–2023*. Abuja: FMOH. https://nigeria.unfpa.org/en/publications/national-strategic-frame-work-elimination-obstetric-fistula-nigeria-2019-2023.

[8] Waaldijk, K. 2004. "The Immediate Management of Fresh Obstetric Fistulas." *American Journal of Obstetrics and Gynecology* 191 no. 3 (September): 795-9. DOI: 10.1016/j.ajog.2004.02.020.

[9] Fistula Care. 2013. *Urinary Catheterization for Primary and Secondary Prevention of Obstetric Fistula: Report of a Consultative Meeting to Review and Standardize Current Guidelines and Practices, March 13–15 at the Sheraton Hotel, Abuja, Nigeria*. New York: EngenderHealth. https://fistulacare.org/wp-content/uploads/pdf/program-reports/Catheterization-Fistula-Prevention-Meeting-Report-Nigeria-8-21-13FINAL.pdf.

FMOH to prepare and launch Guidelines on Urethral Catheterization for Prevention and Management of Obstetric Fistula in Nigeria.[10] These guidelines serve as clinical directives for providers to identify small, fresh fistula and treat them via urethral catheterization. The guidelines also address prevention of fistula through use of catheterization after prolonged/obstructed labor. Catheter use for these purposes is a cost-effective and efficient intervention that widens the scope of fistula prevention and care to primary and secondary healthcare levels, and to the scope of work of the providers who manage clients experiencing prolonged/obstructed labor. These guidelines were shared and approved (or are pending approval) for translation, adaptation, and use in four other countries.



Working through the two main in-country regulatory institutions, the Nursing and Midwifery Council of Nigeria and the Community Health Practitioners Board of Nigeria, FC+ and the FMOH widely disseminated the catheter guidelines to health institutions, encouraging task shifting within the health system and mainstreaming the guidelines into pre- and in-service curriculum. The catheterization guidelines are also included in the updated nursing and midwifery curriculum, ensuring that new graduates will have the requisite skills to manage postpartum care after prolonged/obstructed labor with catheterization, especially at lower-level centers.

Safe Surgery and Quality Improvement

In response to identified gaps in clinical records, challenges in understanding clinical data trends, and clinical staff requests at project-supported facilities, FC+ developed and introduced the Surgical Safety Toolkit (SST).[11] The SST originated through the piloting of a client safety tracker at project-supported facilities in Nigeria, and evolved into a set of clinical trackers and quality assurance checklists designed to support and monitor the provision of surgical care for fistula and pelvic organ prolapse at a minimum acceptable standard, as outlined by global actors such as the World Health Organization (WHO) and the Lancet Commission on Global Surgery.

FC+ harmonized relevant tools within the SST with existing facility and FMOH quality assurance tools, such as the client documentation booklet, a comprehensive medical record approved by the FMOH. FC+-supported fistula repair sites in Nigeria implemented the SST as part of routine clinical monitoring. Facilities now regularly review their data and incorporate the use of SST data in facility-level clinical decision-making.

To support ongoing quality assurance and quality improvement efforts, FC+ partnered with the MOH at state and federal levels to conduct periodic facility assessments. Based on findings, FC+ conducted targeted trainings on identified topics (e.g., infection prevention and FP integration) and established supportive supervision mechanisms together with local health administrations. The project also supported regular meetings of facility infection prevention and control committees, which reviewed national guidelines and formulated action plans to address identified gaps. Additionally, recognizing significant gaps in the capacity to provide anesthesia, the project also supported fistula treatment teams to train 15 doctors and nurses from sites in Bauchi, Jigawa, Kaduna, Kano, Katsina, Kwara, Abakaliki, Ogoja, and Osun in safe provision of anesthesia during fistula surgeries.

Providers Network

FC+, FMOH, and UNFPA hosted an annual providers' network meeting, bringing together fistula professionals and stakeholders at federal, state, and community levels. The focus of these meetings was to share progress, discuss issues affecting service provision, and identify ways to improve and sustain services at the various levels. These annual meetings provided a platform for the presentation of fistula data, new research and approaches, and challenges encountered. Key topics that emerged from the meetings included establishing criteria for new fistula treatment centers, ensuring national capacity to sustain fistula services without the support of external partners, and further incorporating fistula indicators within the national HMIS.

[10] FMOH. 2016. *Guidelines on Urethral catheterization for Prevention and Management of Obstetric Fistula in Nigeria*. Abuja: FMOH. https://fistulacare.org/wp-content/uploads/2017/02/Nigeria-FMOH-Guideline-CATHETER-TREATMENT.pdf.

[11] Fistula Care *Plus*. *Safe Surgery Toolkit*. New York: EngenderHealth. https://fistulacare.org/surgical-safety-toolkit/.

Providers' Network Meeting 2016. ©FC+ Nigeria

Women with Persistent Incontinence[12]

To address the increasing number of women with persistent incontinence (also often referred to as women with fistula deemed incurable), FC+ through the FMOH organized a clinical meeting with prominent fistula surgeons and representatives of FMOH, FMWASD, USAID, UNFPA, and the Society of Gynecology and Obstetrics of Nigeria to draft a national guideline on management of persistent incontinence cases. This guideline aimed to help assess or determine the prognostic outcome and selection for management at each level of competence. The 2019–2023 national strategy includes the intent to identify surgeons capable of addressing the most complex cases, to minimize the number of cases where incontinence persists.

Ending Child Marriage and Gender-Based Violence

To address underlying sociocultural issues that are associated with fistula, many of which are rooted in gender inequity, the FC+ project joined key gender and reproductive health stakeholders in the Ending Child Marriage Technical Working Group. The working group finalized and implemented a National Strategy to End Child Marriage[13] and renewed the National Guidelines on Sexual and Gender-Based Violence (SGBV).[14] Additionally, responding to identified needs, FC+ worked with a coalition of partners known as the Chibok Support Group to create a clinical algorithm for managing SGBV cases, including diagnosis of traumatic and/or obstetric fistula. Further, as the government of Nigeria has committed to ending child marriage in Nigeria as a national priority, in partnership with state and federal ministries, FC+ initiated a cross-border collaboration between Nigeria and neighboring Niger to facilitate experience sharing and strategy development between the two countries, given religious and cultural similarities between Niger and the northwestern States of Nigeria.

COMMUNITY OUTREACH AND ADVOCACY

The community plays an essential role in fistula prevention, treatment, and reintegration. In Nigeria, FC+ worked to enhance community understanding and practices to prevent fistula, improve access to treatment, reduce stigma, and support reintegration of fistula clients—including those with persistent incontinence and those whose fistula is the result of sexual violence.

[12] "Women with persistent incontinence" is terminology adopted by the National Fistula Working Group in Nigeria.

[13] Nigeria Federal Ministry of Women Affairs and Social Development (FMWASD). 2016. *National Strategic Plan to End Child Marriage in Nigeria 2016–2021*. Abuja: FMWASD. https://www.girlsnotbrides.org/learning-resources/resource-centre/national-strategy-end-child-marriage-nigeria-2016-2021/.

[14] FMWASD and Gender-Based Violence (GBV) Sub-Sector–Nigeria. n.d. *Referral Guide for Gender Based Violence*. Abuja: FMWASD. https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/2019/07/Referral-Guide-for-GBV.pdf.

Community Information and Engagement

In 2016, FC+ assessed the communication needs for obstetric fistula programming[15] to identify key information gaps related to maternal health and childbirth injury prevention and treatment. Using a mixed methods assessment covering Bauchi, Cross River, Ebonyi, Kwara, and Zamfara, it investigated communications strategies and channels to reach women of reproductive age and their partners, other influential household decision-makers, and women living with childbirth injuries to assess current knowledge, sources of information, and available communication channels for messaging in fistula prevention and treatment. FC+ used findings to support a partner-driven review of existing communication materials and a subsequent effort to create new gender- and culturally-sensitive ones. Participants included government representatives, fistula clients, health providers, religious leaders, community-based organizations, and media representatives. This resulted in the production of communications materials in five languages (Hausa, Yoruba, Igbo, Pidgin, and English) with messages around fistula prevention and treatment, FP, birth preparedness, antenatal care, skilled birth attendance, and female genital cutting.

Community mobilization efforts in Nigeria supported community structures to conduct social and behavior change communication activities, reaching households with key messages identified based on the assessment. The FC+ project also built the capacity of community volunteers to conduct household-level pregnancy monitoring and strengthened community structures such as ward development committees to conduct awareness-raising dialogues and forums. FC+ strengthened Men as Partners (MAP) groups to address harmful gender norms that prevent access to maternal health services. In states where FC+ did not directly support community mobilization, the project prioritized strategic engagement of and advocacy with community leaders and local mass media to reach wider audiences.

To improve community understanding and practices related to fistula prevention, treatment, and reintegration FC+ collaborated with community-based organizations, nongovernmental organizations, traditional and religious leaders, and local government structures. These partnerships cultivated champions for social change within communities and community development structures. These partnerships supported capacity building on maternal health promotion, awareness-raising about fistula, as well as financial, grants, and organizational management and M&E.

FC+ supported the training of 1,181 community volunteers who carried out health promotion activities—including home visits, community dialogues, drama performances, and radio programs—while also mobilizing clients for fistula treatment.

[15] Tripathi, V., C. Donaghy, and A. Wadsworth. 2016. *Qualitative Research on Communication Needs and Channels: Study Report*. New York: EngenderHealth. https://fistulacare.org/wp-content/uploads/2015/10/FCNigeriaCommsAssmt_DraftReport_Qualitative_Final.pdf.

Community meeting in Zamfara. ©FC+ Nigeria

Christian and Muslim religious leaders regularly participated in orientations on maternal health and fistula-related topics to incorporate reproductive, maternal, newborn and child health information into sermons. Messages addressed the benefits of timing and spacing pregnancies; the importance of birth preparedness, antenatal care visits and delivering with a skilled birth attendant; male engagement in maternal health; causes and symptoms of fistula; and stigma reduction. In total, community outreach efforts reached 792,934 people through 1,874 events.

Local and National Media

In Nigeria, radio is an effective strategy to reach remote populations. FC+ created content for community and national radio programs, which included recorded programs and live interviews with representatives from government agencies and treatment facilities covering sexual and reproductive health issues broadly as well as availability of fistula and pelvic organ prolapse services. The project timed broadcasts to mobilize women with fistula symptoms to seek treatment during concentrated repair efforts at supported facilities. FC+ partnered with local print and radio journalists and provided information about maternal health and fistula to ensure accurate health-related reporting and to reduce stigma.

Rehabilitation and Re-integration

The project partnered with the Institute of Social Works of Nigeria (ISOWN) to support community engagement activities focused on rehabilitation and reintegration of repaired fistula clients.[16] Through ISOWN, FC+ provided financial and technical support for activities in Bauchi, Kebbi, Osun, and Oyo to mainstream aspects of fistula rehabilitation and reintegration into the routine activities of social workers. Activities included training social workers, conducting client outreach events, counseling fistula clients, and following up with clients post-repair to ensure they received proper reintegration support. ISOWN also established a network of fistula champions and advocates, who led community-based peer education on fistula prevention and availability of services.

Men as Partners (MAP)

Based on the communications assessment described above, FC+ worked to strengthen MAP groups to address harmful gender norms that hinder access to maternal health services. Understanding that family support is crucial to accessing fistula care as well as recovery and reintegration (including the ability to use FP and access maternal health services that can prevent fistula recurrence), FC+ trained MAP groups on interpersonal communication skills and approaches for raising community awareness about fistula prevention and treatment. In Sokoto and Zamfara, MAP groups conducted peer education sessions to discuss male involvement in maternal health and encourage men to jointly make healthcare decisions with their wives.

Identifying and Addressing Barriers to Fistula Care

FC+ and Population Council implemented a research-to-action partnership to identify and respond to barriers to seeking, reaching, and receiving fistula treatment.[17] Formative research in Ebonyi and Kano explored barriers and enablers affecting access to fistula information and repair. In-depth interviews and focus group discussions captured perspectives from women living with fistula, clinicians, and community members. Lack of awareness, stigma, financial constraints, and transport issues consistently emerged as challenges.

Flyer advertising the IVR screening hotline.

In 2017, formative research findings informed the design and implementation of comprehensive intervention studies in Ebonyi[18] and Katsina[19] to address the most salient barriers.

[16] Emaimo, J., O.E. Oluwakemi, and A. Olawale. 2018. *A Report of ISOWN/ Fistula Care Plus Rehabilitation and Reintegration Project in Four States: Bauchi, Kebbi, Oyo, and Osun*. New York: EngenderHealth. DOI: 10.13140/ RG.2.2.34764.54409.

[17] Population Council. 2019. *Barriers to Fistula Repair in Nigeria: A Formative Study*. Washington, DC: Population Council. https://www.popcouncil.org/uploads/pdfs/2016RH_FistulaBarriersNigeria.pdf.

[18] Sripad, P., E. Nwala, and V. Tripathi. 2018. *Reducing Barriers to Accessing Fistula Repair: Implementation Research in Ebonyi*. Washington, DC: Population Council. https://knowledgecommons.popcouncil.org/departments_sbsr-rh/558/.

[19] Sripad, P., E. Nwala, and V. Tripathi. 2018. *Reducing Barriers to Accessing Fistula Repair: Implementation Research in Katsina*. Washington, DC: Population Council. https://knowledgecommons.popcouncil.org/departments_sbsr-rh/559/.

The intervention employed a "3-1-1" model, which included disseminating messages through three communication channels: mass media with links to a free interactive voice response (IVR) hotline, community agents, and primary health facility workers; using a single screening algorithm; and distributing transport vouchers for each positively screened woman and their companion to visit a fistula center for diagnosis and repair. FC+ collaborated with Viamo to design the IVR hotline, and widely advertised it through community agents and PHC workers and via mass media messages.[20] Community agents followed up with clients who were positively screened and facilitated their transport to the fistula treatment facility using the voucher.

FC+ also supported training and capacity building activities to strengthen community- and facility-based screenings and referrals. FC+ worked with the Daughter of Virtue and Empowerment Initiative (DOVENET) in Ebonyi and The Federation of Muslim Women's Associations in Nigeria in Katsina to mobilize clients for scheduled fistula repair efforts and to train community advocates to strengthen community-based screening and referral to the two treatment facilities—the National Obstetric Fistula Center (NOFIC) serving Abakaliki and Ebonyi and the NOFIC serving Babbar Ruga and Katsina.

Population Council evaluated the effects of this intervention and found reductions in some financial, transportation, awareness, and psychosocial barriers following implementation.[21] The intervention linked hundreds of women to fistula knowledge and care for the first time; 301 women used the hotline and 76% were screened positively for fistula. However, it is not evident that the number of total fistula repairs increased consistently over time. This may reflect measurement challenges, limited capacity of fistula centers to treat significant increases in clients, and/or the fact that the greatest number of new cases were identified relatively early in the intervention period. The findings enabled FC+ and Population Council to debrief stakeholders and create recommendations for future policies and programming. Results of this effort were disseminated via published articles, conference presentations, technical and research briefs, and a webinar.[22]

[20] Tripathi, V., Arnoff, E., Bellows, B., and Sripad, P. 2019. "Use of Interactive Voice Response Technology to Address Barriers to Fistula Care in Nigeria and Uganda." *Journal mHealth* 6 no. 12 (April). http://mhealth.amegroups.com/article/view/33443.

[21] Ibid.

[22] Fistula Care Plus. 2020. *Innovative Solutions to Reduce Barriers to Fistula Care*. Webinar recorded April 9, 2020. Washington, DC: EngenderHealth. https://youtu.be/cwEHIEm21KA.

Site Walk Throughs

To strengthen linkages between communities and their primary healthcare institutions, FC+ implemented a site walk-through (SWT) approach at select primary health centers in Ebonyi, following an EngenderHealth model previously applied in Guinea and Uganda. During the SWT, healthcare workers guide community and district representatives on a tour of the health facility, explain the services provided, and answer questions—encouraging positive feedback between community members and facility staff. SWTs foster community ownership of health services while engaging community representatives in addressing health priorities at the community level, facilitate action planning to address barriers to service uptake, and support community representatives to champion behavior change. The approach establishes accountability of the community to address demand-side challenges and facilities to address supply-side challenges for maternal and FP services.

Following the SWTs, FC+ supported meetings to follow up on action plans. To help meet new demand for services and ensure quality of care, FC+ worked with district officials to strengthen the contraceptive commodity supply chain and provide trainings on FP service provision, infection prevention and control, and use of the partograph for labor monitoring. Qualitative feedback showed that the SWTs enhanced local ownership and local leaders reported interest in extending the SWT approach to other health facilities within their areas.

HEALTH PROVIDER, FACILITY, AND SYSTEM CAPACITY BUILDING

FC+ strengthened health provider, facility, and system capacities to deliver sustainable, high-quality services in Nigeria by directly supporting fistula surgical repairs; training health facility clinicians and staff (including fistula surgeons); and developing and implementing tools and approaches to improve clinical quality, surgical safety, and facility preparedness. FC+ supported 7,295 surgical fistula repairs and 827 nonsurgical repairs (using catheterization) at 17 health facilities across the country. A total of 81% these repairs were closed at the time of client discharge (67% closed and continent, 14% closed and incontinent). The majority of fistula clients, 65%, were undergoing their first fistula repair attempt, with 20% receiving their second repair and 15% their third or more. Where fistula etiology was available (40% of diagnosed cases), the vast majority were

obstetric (83%) or iatrogenic (14%), with a small number caused by trauma, cancer, or congenital abnormality (3%). FC+ also supported 53 complete perineal tear repairs, as the symptoms of this maternal injury are identical to fistula.

The FMOH and FC+ conducted facility needs assessments and created action plans in collaboration with facility managers, heads of service delivery units, and stakeholders from the supervising ministries. FC+ worked closely with staff at supported facilities to address points identified in the action plan, provide clinical mentoring and feedback, discuss data trends, and support safer surgery ecosystems.

Together, the FMOH and FC+ worked to reduce the backlog of fistula clients waiting for repair by providing routine fistula repairs at supported facilities and planned, concentrated repair efforts (including of complex cases) and by building capacity for routine fistula repair. As a result, **supported repairs provided through routine services rose from 53% in 2015 to 72% in 2018**.

Leveraging the existing pool of skilled fistula surgeons, FC+ worked with the FMOH to identify surgeons eager to expand their expertise and supported 34 surgeons to participate in national or regional training by senior surgical trainers to advance their skills. Increasing the number of surgeons able to address complex fistula will increase access to care and reduce the backlog of complex fistula cases. FC+ also advocated for keeping trained surgical teams intact and ensuring availability of necessary instruments and supplies.

FC+ also trained 1,317 health personnel—including nurses, midwives, doctors, and medical officers—on such topics as infection prevention and control, fistula counseling and treatment, FP counseling and service delivery, treatment for pelvic organ prolapse, safe cesarean section, safe anesthesia and management of anesthesia-related complications, and advanced urogynecology and complex fistula-related reconstructive surgery. Project staff then conducted supportive supervisory visits to ensure skills retention, track progress, and provide continued on-site technical assistance to improve service quality in the clinician's own working environment.

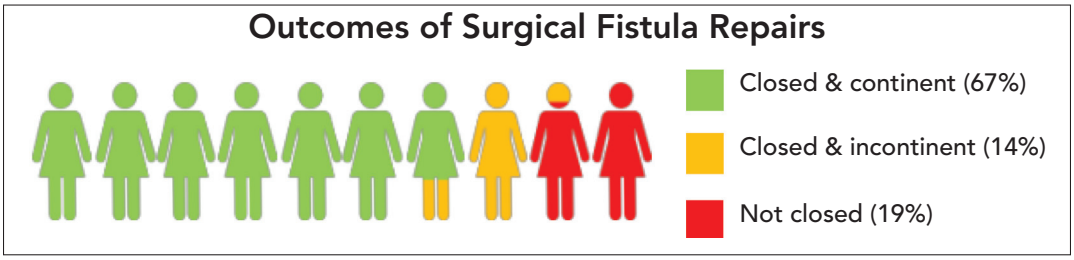
Informed, Voluntary Family Planning (FP)

Informed, voluntary FP is a crucial aspect of fistula prevention. FC+ worked with 268 fistula prevention sites and provided temporary support for FP monitoring at an additional 500 facilities. Project-supported facilities completed 1,166,080 FP counseling sessions and provided FP methods resulting in 643,595 couple-years of protection.

State FP coordinators worked with the project in states with high unmet need and a high burden of maternal mortality and morbidity to address issues related to commodities, data management, and advance quality of care through assessments, action plans, and routine facilitative supervision. FC+ and facility leadership implemented whole-site orientations to increase awareness and improve the knowledge and skills of all health facility workers, clinical and nonclinical, on the importance of a client-centered approach for FP care.

The project also built the capacity of clinicians to provide FP either as a stand-alone or integrated services, with a focus on client's rights and ensuring privacy, confidentiality, dignity, and safety. This included training on WHO medical eligibility criteria, and EngenderHealth's REDI (Rapport Building, Exploring, Decision Making, and Implementing the Decision): A Client-Centered Counseling Framework,[23] integration of FP into other services, and insertion and removal of long-acting reversible contraceptives. FC+ also provided facilities with educational flip charts, posters, and other method demonstration materials to assist clients in making a full, free, and informed choice.

[23] EngenderHealth. 2018. *REDI: A Client-Centered Counseling Framework*. Washington, DC: EngenderHealth. https://www.engenderhealth.org/pubs/counseling-informed-choice/redi/.



Participants in FP training in Kano. ©FC+ Nigeria

Strengthening Use of the Partograph

The partograph is a useful tool for labor monitoring and identifying indicators of prolonged/obstructed labor, a leading cause of fistula. FC+ conducted partograph training for midwives at project-supported sites, followed by targeted assessments of partograph use that addressed completeness, accuracy, and consistent use. FC+ built capacity on use of the partograph at large referral hospitals and encouraged scale-up of the strategy to lower-level health facilities. The project worked with local administrators to ensure that sites had adequate supplies of printed copies of the WHO modified partograph.

EVIDENCE BASE

Research has been an important tool for strengthening fistula care in Nigeria. For example, the communications assessment optimized the role of mobilization in fistula prevention and referral and the research-to-action partnership identified and tested solutions for connecting clients to fistula knowledge and care. FC+ shared research and programmatic findings at global, regional, and national conferences and technical forums (including those organized by the International Society of Obstetric Fistula Surgeons, the International Confederation of Midwives, the International Conference on Family Planning, and the International Federation of Gynaecology and Obstetrics) as well as through journal articles, technical briefs, and webinars. For example, the project published findings from a study quantifying the backlog of obstetric fistula cases in two states in Nigeria and assessing the validity of fistula questions in the Demographic Health Survey fistula module, **the first effort to empirically validate this widely used tool for estimating women's lifetime experience of fistula**.[24]

Strengthening Data Quality and Availability

At the request of the FMOH, FC+ provided technical assistance to develop, disseminate, and train facility staff on new fistula client booklets for data collection at the national fistula centers. This strategy greatly increased the breadth and depth of information collected about fistula clients as well as surgical procedures and outcomes, thereby **contributing to an increase in reporting of fistula etiology from 2% to 76% over the life of project**. Through the FMOH technical working groups, FC+ also helped to successfully advocate for the **inclusion of 12 indicators on fistula services within the national HMIS** as well as sharing of a national health indicators dictionary,[25] which was developed by USAID's MEASURE Evaluation project in collaboration with the

[24] Tunçalp, Ö., A. Isah, E. Landry, and C.K. Stanton. 2014. "Community-Based Screening for Obstetric Fistula in Nigeria: A Novel Approach." *BMC Pregnancy Childbirth* 24, no. 14 (January): 44.

[25] Measure Evaluation. n.d. *Family Planning and Reproductive Health Indicators Database*. https://www.measureevaluation.org/prh/rh_indicators/womens-health/of.

International Obstetric Fistula Working Group, of which EngenderHealth is a founding member.

Challenges in the completeness and quality of FP data in the national HMIS negatively affect facility and district ability to report and use data for decision-making. FC+ worked with the FMOH at federal and state levels to strengthen the capacity of health facilities, and with local government authorities and states to generate quality service provision data, report data accurately and on-time into the national reporting platform, and analyze and use this data for planning and decision-making. This process included a review of FP indicators, available data sources, and data reporting flow from local to national levels; identification of personnel responsible for reporting at all levels; planning meetings and trainings with local and state FP and M&E stakeholders; data validation meetings for local M&E and FP staff before HMIS entry; data review meetings for comparison of facility-based and HMIS data; monthly mentoring visits to facilities with identified gaps; and biannual data quality audits. As a result of these efforts, in just over one year, supported facilities achieved a 100% monthly reporting rate (up from 87%). Monthly summaries of data are now available at the facility level and in the HMIS, and the data completeness and quality of documentation had significantly improved.

Routine data quality assessments provided opportunities for clinical mentoring and identification of challenges related to service delivery and data management. During these visits, FC+ provided training follow-up support, conducted data validation exercises, and delivered capacity building and mentoring support to providers. In partnership with facility clinicians and leaders, FC+ also introduced and supported quarterly data-for-decision-making meetings with facility staff and administrators, reviewing facility data and identifying strategies for service improvements.

ELIMINATING FISTULA IN NIGERIA

The Government of Nigeria continues its efforts to eliminate fistula by 2030, the global goal adopted by the United Nations and the Campaign to End Obstetric Fistula.[26] FC+ is proud to have worked with public and private partners across the country to advance this goal, and to support expanded, sustainable local capacity for fistula prevention, diagnosis, treatment, and comprehensive support for women who live with this condition.

[26] http://www.endfistula.org/.

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The USAID-funded Fistula Care *Plus* project at EngenderHealth works to prevent fistula from occurring, treats and cares for clients with fistula, and assists in their rehabilitation and reintegration. Fistula Care *Plus* partners with ministries of health, faith- and community-based organizations, nongovernmental organizations s, UN agencies, and other stakeholders, including hospitals providing surgical and nonsurgical fistula repair in South Asia and Sub-Saharan Africa. For more information about fistula and the Fistula Care *Plus* project, visit *www.fistulacare.org*.

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