

PREVENTING AND MANAGING OBSTETRIC FISTULA IN RWANDA

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BACKGROUND

An obstetric fistula is an abnormal opening between the vagina and the bladder (vesicovaginal fistula), or between the vagina and the rectum (rectovaginal fistula), through which urine and/or feces constantly and uncontrollably leak (Tebeu et al. 2012). The leading cause of obstetric fistulas is prolonged, unassisted, and obstructed labor without quick emergency intervention. During prolonged labor, increased pressure from the baby's head against the mother's pelvis reduces blood flow to the soft tissues surrounding the bladder, vagina, and rectum leading to necrosis and subsequent development of a hole between either of the three organs (WHO 2006). Other causes of fistulas include trauma from sexual abuse and rape, complications of unsafe abortions, gynecological cancers, and trauma from obstetric surgical operations (Nigusse and Asnake 2013).

Occurrence of fistula is an indicator of a health system's inadequacy to provide quality, skilled maternal care, which explains why it disproportionately affects women in low- and middle-income countries (Banke-Thomas et al. 2014). Fistulas cause untold physical, social, economic, and psychological suffering in the lives of affected women. Beyond the constant urinary and fecal incontinence, genital sores, and ulcerations, affected women often face social consequences from incontinence that lead to shame, stigma, isolation, abandonment by their husbands, and even ostracization by their families and communities (Warren et al. 2018).

This pain and shame is aggravated by associated complications, including infertility, reduced sexual activity due to damaged vaginal tissues, and paralysis of the muscles in their lower legs (WHO 2006). Women with fistula are often poor and living in rural areas, unable to do productive work to earn money making them slide further into poverty. With no social support structures around these women to help them deal with the trauma associated with this condition, fistula victims are prone to depression, which can lead to contemplation of suicide (Pope 2018).

Although obstetric fistulas are in most cases easily treatable with timely provision of skilled emergency obstetric care, interventions have to target the underlying health system gaps as well as social and economic factors that lead to the occurrence of fistulas in the first place (Baker et al. 2017). Interventions broadly work on three principles: reducing the likelihood that a woman will become pregnant unexpectedly, reducing the likelihood that a pregnant woman will develop obstructed labor, and improving the outcomes for women whose labor becomes obstructed (Wall 2012). To bring about long-term change, preventive measures have to address the social, cultural, and economic determinants of fistula through interventions to address gender equity in health decision-making, harmful cultural practices and beliefs preventing health-seeking behavior, and education and sensitization of communities about the events leading to fistulas and how to prevent them (Shallon et al. 2018).



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OBSTETRIC FISTULA IN RWANDA

There is very little data highlighting the magnitude of obstetric fistula in Rwanda. In one five-year study of 2,091 women who presented with symptoms of fistula, 630 (30%) were diagnosed with obstetric fistulas (Richter et al. 2020). Such figures likely underestimate the overall picture in the region owing to under-reporting by women due to fear of ostracization in the community (Barageine et al. 2015). Accurate data detailing the number of births, deaths, and complications during delivery as well as proportion of home births are also difficult to obtain in resource-poor settings, making it hard to quantify the fistula burden.

Rwanda has made significant strides in improving maternal health care through its commitment to universal health coverage, which has led to more health facility deliveries and increased use of Cesarean sections for complicated deliveries.

However, challenges persist from the lack of capacity among health personnel to provide skilled surgical interventions, as highlighted in a study showing that iatrogenic fistulas, caused by unintentional errors during obstetric surgical procedures, accounted for a little over a quarter of fistula patients identified in a tertiary hospital in Rwanda (Egziabher et al. 2015).

Prevention and treatment of obstetric fistula is a key focus area of the USAID Ingobyi Activity, a five-year cooperative agreement led by IntraHealth International to improve the quality of reproductive, maternal, newborn, and child health (RMNCH) and malaria services. The Activity builds upon the tremendous gains Rwanda has made in the health sector as well as previous USAID investments in the sector to bring about long-term, sustainable RMNCH and malaria health improvements in 20 districts in the country.

FISTULA PREVENTION AND TREATMENT ACTIVITIES

CAPACITY DEVELOPMENT OF LOCAL HEALTH WORKERS ON FISTULA MANAGEMENT

Due to the lack of local capacity to conduct fistula repairs, in 2021 Ingobyi Activity recruited an international expert fistula surgeon to train four local obstetricians and gynecologists to carry out successful obstetric fistula repair and develop clinical competency and facility preparedness to handle any fistula complications. In addition, Ingobyi trained two local general practitioners, ten midwives, six general nurses, three anesthetists, three social workers, and two psychiatric nurses in essential theoretical and practical aspects of fistula causes, diagnosis and management, including surgical repair and practical (bedside) sessions in operating and admission rooms.

Ingobyi applies a knowledge cascade model involving peer-to-peer training, which has proven to be effective and sustainable. Trained hospital staff are mandated to train other health workers in health centers within their catchment areas, including imparting fistula and obstetric management skills to all 325 supported health

centers. Health providers in supported health centers are routinely oriented and trained during mentorship activities by midwives from hospitals on different aspects of obstetric fistula prevention, and reminded to follow all procedures in national guidelines when delivering obstetrical care, refer pregnant woman with complications, and conduct routine screening for fistula during postnatal care.

The Rwandan health system utilizes volunteer community health workers (CHWs) to provide essential primary health care, especially in rural, hard-to-reach areas. CHWs play a vital role in obstetric fistula case identification, referral, and counseling. Ingobyi regularly conducts refresher trainings on fistula for CHWs, covering topics such as signs and symptoms of obstetric fistula, causes and risk factors, use of referral procedures including the Ministry of Health (MOH)'s RapidSMS referral platform, and how to carry out pre- and post-surgical counseling for fistula patients to help reintegrate them in their communities. CHW training uses a cascade model in which Ingobyi trains community environmental health officers (CEHOs), the CHWs' supervisors, who then train CHWs. Ingobyi has trained 345 CEHOs who have cascaded training to 8,228 CHWs in charge of maternal health from the 20 supported districts.

COMMUNITY ENGAGEMENT

Engagement and sensitization of communities is needed to increase awareness of the burden of fistula as well as encourage women to seek appropriate care. Engagement is particularly important because it touches on many of the underlying social, cultural, and economic causes of fistula and addresses treatment-seeking barriers.

- **Raising fistula awareness through community outreach**

Ingobyi Activity organizes outreach events targeting hard-to-reach areas to sensitize the communities on the causes, signs, and prevention of obstetric fistula. During these events, communities are taught the importance of family planning, discouraged from early marriages, encouraged to attend all antenatal and postnatal visits, and to deliver at a health facility. During these events, Ingobyi also encourages the involvement and participation of men to address the inequality issues, delays, and barriers faced by women that prevent access to and utilization of RMNCH services, which increases the susceptibility of women to fistula.

- **Social and behavior change (SBC) messages**

Ingobyi Activity is increasingly incorporating obstetric fistula messages into its existing SBC platforms, including radio talk shows, sketches, dramas, and health communication materials like posters, flipcharts, and leaflets. New scripts, including messages about obstetric fistula symptoms, prevention, and the importance of seeking medical help have been developed and are being broadcast through the popular Urunana soap opera, which airs weekly on two national radio stations—Radio Rwanda and Radio 10—which combined have 100% coverage of the country. Urunana depicts the lives of ordinary Rwandans and conveys messages encouraging communities to adopt and maintain health-seeking behaviors.

- **Supporting family planning (FP) services**

Family planning reduces the incidence of obstetric fistula by preventing unintended pregnancies, especially in younger women. Ingobyi Activity trains and supports mentorship of health providers on administering both long-term and short-term FP methods and counseling patients on the importance of FP. All women attending fistula repair sessions are educated on different FP methods, and advised to avoid pregnancy for at least two years after repair to ensure plenty of time for healing (Uchendu et al. 2019).

Through mentorship and supportive supervision, Ingobyi also works with health providers to ensure that essential youth-friendly services are available and provided at health facilities. These services include FP counseling, provision of contraceptives, including emergency contraceptives, and management of sexual and gender-based violence (GBV), among others. A recent survey carried out by Ingobyi revealed that all 26 district hospitals and 325 health centers supported by the Activity were providing FP services to their communities.

- **Addressing gender-based violence and increasing gender equity**

Although the number of obstetric fistulas caused by sexual trauma is much lower than those due to obstructed labor, fistula eradication campaigns need to address GBV prevention. Additionally, deep rooted cultural, social, and economic dynamics within communities that play a part in preventing women from seeking health care must be reversed for successful fistula eradication campaigns (Lyimo and Mosha 2019).

Ingobyi Activity works with health facilities to ensure gender integration in service delivery and to address gender-related barriers to maternal health services. During trainings, mentorship, and supportive supervision, Ingobyi encourages health providers to adopt behaviors and interventions that facilitate male involvement in health services by improving the quality of care, making services more men-friendly, and reorganizing antenatal care, FP, and maternity services to allow men to actively participate in maternal health.

Messages from Ingobyi to health providers and the community emphasize increased community sensitivity to and awareness of gender-related barriers to quality service delivery. Topics such as having women be accompanied by a male partner in the delivery room, avoiding early marriages, importance of communication between partners, encouraging women to choose FP methods without waiting for partner's consent, and encouraging men to become fistula prevention champions in their communities, are incorporated into provider training and community outreach messages.

As part of its GBV prevention approach, Ingobyi supports and facilitates activities of the Isange One Stop Centers (IOSCs) within the 20 supported districts. IOSCs are government-run holistic hubs supporting and empowering victims of GBV. Each

center has a team consisting of social workers, psychologists, doctors, lawyers, and investigators who provide integrated multidisciplinary medical and psychological care and legal aid to victims free of charge (Cousins 2019). Ingobyi supports IOSCs by training staff on GBV victim identification, case management, empathetic counseling, community reintegration, victim follow-up, and ensuring activities are conducted based on national guidelines.

SCREENING AND REPAIR OF OBSTETRIC FISTULAS

Ingobyi Activity supports obstetric fistula screening in supported districts at health facility and community level. Trained CHWs play a key role in identifying suspected fistula patients when carrying out door-to-door visits offering primary health care within their communities. Facility-based screening involves taking a patient's history including age, parity, history of trauma, prolonged labor, and other prior obstetric surgeries. A physical examination, which mainly involves pelvic and abdominal examination for symptoms of fistula, is then carried out to identify signs and possible causes of incontinence. The fistula cases eligible for repair are immediately referred to the repair hospital. Ingobyi facilitates the repairs by availing fistula surgeons that are supported by local staff from the repair center, and by arranging all needed logistics.

SOCIAL REINTEGRATION

Successful surgical repair is just the first step to full recovery. Social reintegration is needed to help patients return to a sense of normalcy (Mselle et al. 2012). Ingobyi Activity employs a combination of services to improve patients' social, psychological, and economic well-being to ensure they regain their confidence to return to their social lives after fistula or readjust to their circumstances in the unfortunate event of irreparable conditions.

Ingobyi trains and facilitates CHWs to offer home-based follow-up visits of post-surgical patients to assess not only their health status and signs of complications, but also potential psychological challenges affecting reintegration back into their community. They offer counseling services to improve patients' knowledge on fistula, possible complications and how to deal with them; enhance their mental health; encourage positive health behaviors; and increase their self-esteem. The counseling sessions are followed by further advice about physiotherapy, practicing proper hygiene, and eating a well-balanced diet.

As part of the reintegration program, the fistula patients are placed in savings groups within their communities. These groups are led by Ingobyi partner World Vision, with the aim of strengthening human, social, and financial assets and enabling vulnerable families to save, invest, and utilize their financial resources to pay health insurance premiums and increase their resilience to economic shocks. Savings group members are taught financial literacy skills and provided with low-interest loans that members have used to invest in various income-generating activities, such as animal husbandry, shopkeeping, and agriculture.

ADVOCACY

Ingobyi Activity works with hospital directors, district leaders, the MOH, the Rwanda Biomedical Centre, and other stakeholders to increase involvement in, and support for, fistula prevention, treatment, and reintegration, and to create an enabling environment that increases ownership of fistula services, allocation of resources toward fistula prevention and treatment, and acknowledging fistula prevention and management as key health priorities.

RESULTS

Since Ingobyi's inception in 2018, CHWs have identified and referred 335 suspected fistula cases for further screening and treatment by trained medical professionals at nearby health facilities. Out of the total screened, 100 women had obstetric fistula; 92 of those patients were classified as eligible for surgical repair and successfully repaired. Another 205 cases were diagnosed and referred for other gynecological problems (non-fistula causes of incontinence), which included uterine prolapses, cystoceles, post-repair incontinence, and cervical cancers.



Photo 1: Ingobyi staff member with Bernadette at her home

Bernadette, from Nyagatare District, successfully underwent obstetric fistula surgery:



I have been living with this shameful urine leakage since 2016. After experiencing this case, I used to stay at home to hide my condition. I ... used to change clothes at least six times per day and sleep in wet bed during the night. I am thankful for the support gained via our CHW who linked me with Ingobyi in February 2021, when the journey for healing this tragic shame began.

Since the day I was operated on at Kibungo Hospital, no more urine leakage! I can feel a need to urinate like others. I now sleep in my clean and dry bed. No more fear to attend ceremonies like others. I can now have visitors coming to my house, if we were not in COVID-19 pandemic.



Rose Murekeyisoni, a 57-year-old woman from Gasunzwe Village in Huye District, had lived with obstetric fistula for 27 years. She lost her husband and children during the 1994 genocide against the Tutsi and was all alone with minimal help. She underwent successful repair surgery at Kibungo Referral Hospital:



Apart from post-genocide difficulties, everywhere I sat, I left a stain, and people in my village would talk so much about my condition, and I did not know that fistula was treatable and curable. Life was very tough for me. I hated myself and I resolved to completely isolate myself, so I don't meet other people. I could not attend any social events or even go to church. If I had to go anywhere, I had to tie multiple wraparounds to avoid getting wet. My life was hell... Life is fair now. Before the repair, men never approached me as I was stigmatized. Now as I am growing more confident, I am dating someone, and we are planning to get married.



Through Ingobyi's community engagement efforts, there has also been increased demand for and utilization of FP methods—a key indicator of improved measures to prevent unintended pregnancy and reduce the incidence of obstetric complications that contribute to fistulas. Women are increasingly cognizant of the benefits of avoiding early marriages, practicing appropriate child spacing, and delaying pregnancy for post-surgical repaired fistula patients.

Ingobyi's interventions have increased the number of new FP users in supported facilities, with an observed increase in long-acting reversible contraceptive methods and permanent methods (Figure 1). The overall contraceptive prevalence rate (CPR) in the Ingobyi-supported districts increased from 46% in 2020 to 53% in 2021 (Figure 2).

Figure 1. New FP users by method type in Ingobyi-supported health facilities

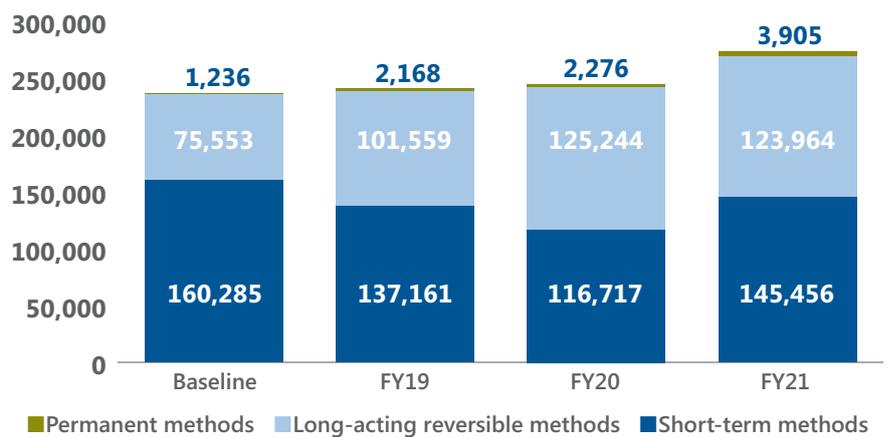
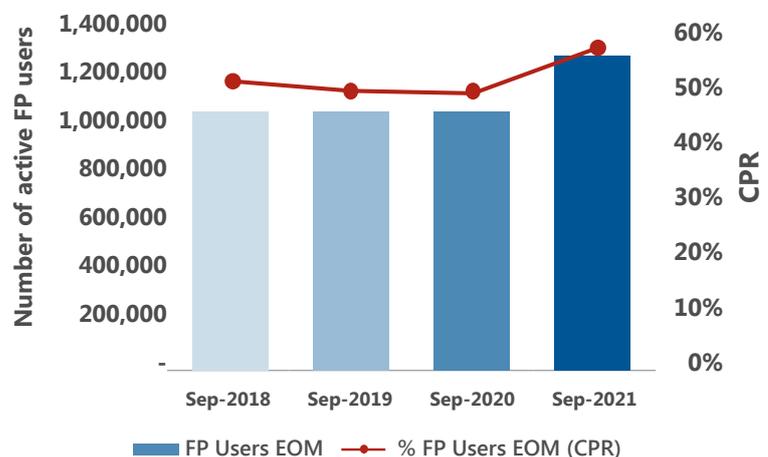


Figure 2. Active FP users and CPR in Ingobyi-supported districts at end of month (EOM)



IMPLEMENTATION CHALLENGES

- There is limited provider capacity to carry out complicated obstetric fistula surgeries in Rwanda, which necessitated hiring a foreign fistula consultant. More capacity building is required to equip local providers with sufficient obstetric and fistula management skills.
- Equipment like surgical repair kits is sometimes lacking to carry out procedures at the three functional repair centers. Some repair sessions had to be postponed until Ingobyi Activity procured repair supplies.
- There are currently only three fistula repair centers serving the whole country, which makes it difficult for patients living far away to access repair services. There is need to establish and equip additional repair centers to improve access to this life-changing surgery.

LESSONS LEARNED

- Effective referral systems among CHWs, nearby health facilities, and repair centers need to be strengthened to promptly link eligible patients to surgical treatment. Referrals should consider transportation challenges (including lack of money for transport) faced by clients from remote areas.
- Routine screening coupled with sustained community engagement through messaging to improve health-seeking behavior increases potential for early identification, timely repair, and successful reintegration of clients. Messaging platforms such as radio have the potential to reach a large proportion of the general public, especially in rural areas.
- CHWs are key in identification of community obstetric fistula cases who might otherwise not be identified by the formal health system owing to their reluctance to seek treatment in fear of ostracization by their communities.

CONCLUSIONS

Successful fistula preventive measures have to address social, economic, and cultural issues that prevent access to maternal health services and lead to unattended prolonged obstructed labor—the leading cause of obstetric fistula. Both the government and development partners have to work hand-in-hand to increase health providers’

obstetric knowledge and skills if Rwanda is to achieve its goal of eradicating fistula. The role and dynamics of gender imbalance, which is a major contributing factor in GBV and prevents women from having the power to access timely health care, needs to be a consideration in measures to reduce the burden of obstetric fistula. Collecting and analyzing data on fistula etiology across its different causes should become more routine to provide a clear picture of the fistula burden in the country and help tailor preventive interventions.

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