

# NIGERIA

## Background

Nigeria boasts an abundance of natural and human resources. Yet the country's per capita income of \$350 USD is one of the lowest in the world. With an estimated 120 million citizens, Nigeria is Africa's most populous country. Its citizens, however, come from diverse backgrounds and live in very different cultures, so some have noted that Nigeria feels more like a combination of many countries, with especially notable differences between the North and South.

This division is echoed in the way fistula appears to occur across the country: far more cases seem to develop in the North than in the South. It should be noted, however, that information about prevalence is very hard to capture at the community level and the data available come from hospital records. **Nonetheless, no matter where and how fistula occurs in Nigeria, it is clear that it is a large and growing problem across the country.**

**The fertility rate has dropped from 6.0 in 1990 to the current 5.42. In addition, UNFPA's State of World Population 2002 reports a maternal mortality ratio of 1,100 deaths for every 100,000 live births.** Throughout the country, it appears that Nigerians favour large families, with 66 per cent of women and 71 per cent of men indicating a desire to have more children. Knowledge about family planning is on the rise, with 65 per cent of women and 82 per cent of men aware of at least one kind of birth control. **In practice, 15 per cent of married women now use some form of contraception, with 9 per cent of women choosing a modern method. Sixty-four per cent of women receive antenatal care, with the median number of visits, six.** However, the first visit generally occurs as late as the fifth month of pregnancy.<sup>29</sup>

**In addition, 30 per cent of women receive no antenatal treatment at all, with adolescent mothers and those who live in rural areas particularly unlikely to receive care.** Many women in the north seek antenatal care, but deliv-

er at home in part because they report finding the squatting position more comfortable for delivery than the supine position preferred at health facilities. While, across the country, many women still deliver at home, since 1990 the percentage of births in facilities has increased from 31 per cent to 37 per cent. Nonetheless, 58 per cent of women are not attended at all during labour and delivery.<sup>30</sup>

The following information may create an even clearer sense of who these mothers are. Forty-one per cent of women have had no formal education at all, compared to 25 per cent of men. As of 2001, 5.83 per cent of Nigerian women live with HIV/AIDS, with 1,700,000 women between the ages of 15 and 49 carrying the virus. **The median age at first marriage is 19 for urban women and 17 for rural women, higher for more educated women and varying from 15 years in the northeast and northwest regions to 20 in the southeast and southwest regions.**

In some communities, it is taboo for a girl to reach menarche in her mother's house; it is seen as imperative that she be married before this event occurs. In the North, if her vagina has been found to be too narrow and immature to allow consummation of the marriage, it may be widened via the Gishiri cut, which may be used not only for this purpose but as a cure for other medical ailments, such as a cold. **In the south and central regions of the country, one in four Nigerian women aged 15 to 49 reported FGM.**

## Issues and Challenges

Visits to 12 sites around the country produced an alarming and complex picture of the frequency, prevention and treatment of fistula in Nigeria. While **exact prevalence rates are not known, it is estimated that between 100,000 and 1,000,000 Nigerian women live with the condition.** Even the training of new fistula surgeons has not reduced the number of cases awaiting repair, as

new cases occur faster than existing ones can be treated. The educational, economic, cultural and religious divide that exists between the northern and southern regions of the country extends when it applies to fistula as well: **far more women are treated in the North than in the South. However, fistula develops in both areas for many of the same reasons:** most are obstetric in origin and occur during deliveries that are handled by TBAs, relatives and friends or without any assistance at all.

**The majority of women in the country suffer fistula at a young age, most often in conjunction with their first vaginal delivery, with stillbirth a common result.** They are usually poor, of small stature and unmarried or get divorced/separated as soon as their husband realizes that their condition is complicated, lingering and costly to treat.

However, more and **more frequently, especially in the southern regions of the country, a previously atypical picture is emerging: 25 to 45-year-old married women, who have had previously successful vaginal deliveries, are developing fistula.** These women tend to stay married and cared for. In fact, at a few sites, hostels for men have been set up so that they can be nearby to give assistance and comfort. It is unclear why this is occurring, but it may be that since subsequent babies tend to be heavier, mothers are more vulnerable to obstructed labours. In addition, some fistulas reportedly occur in facilities, as noted in other countries as well.

Another notable feature is that, especially in northern states, some women have successful fistula surgery, but do not return for delivery in a hospital and suffer another fistula. More than 5 per cent of fistulas at one northern site are reported to be recurrences. **Some women have had four or even five repairs after an initial successful one.** Although it is tempting to point to poor infrastructure or inadequate access to facilities as explanations, most of these women come from a radius of less than 10 km from the hospital, so one reason may be the need for many women to obtain

the approval of their husbands before seeking care. The overwhelming cultural preference for giving birth at home (especially for the first baby) coupled with a strong dislike of delivery by C-section could be another. Some surgeons also report that a C-section may not be necessary after a successful repair.

**However, a new phenomenon may also be responsible. Over the last 10 years, poverty has engendered a spiritual revival, which has resulted in many women choosing to deliver their babies in churches.** While this practice is not entirely new, it has recently become more common. Although the delivery care they receive here is unskilled, women sometimes believe that they will be protected from satanic forces or witchcraft enacted by jealous or wicked neighbours.

The government has created a national task force on fistula and supported initiatives to train nurses and surgeons, advocate for women, create community awareness programmes, rehabilitate and reintegrate fistula patients back into the community and gather data about fistula. However, **the fistula situation in Nigeria remains critical and is only growing more serious.**

Part of the problem is that **services remain out of the financial reach of many women.** As noted, many fistula clients—young, illiterate and with no means of earning a living—may have been left by their husbands after developing the condition, making it difficult for them to secure funds for surgery and post-operative care. Transportation for many clients is also both expensive and difficult to come by.

Even if they do find the means to pay for surgery and care, they may encounter **a lack of trained providers** dedicated to fistula repair. This aspect of the situation has led to a **heavy reliance on expatriate surgeons** who, unlike many in East Africa, are employed by the state. The only surgeon dedicated to fistula repair in northern Nigeria, though paid by the MOH, is a foreign national.

The surgeons and medical staff themselves may encounter substantial difficulties in providing adequate care. **A shortage of supplies and poor maintenance are issues in several facilities.**

Even if treatment is free, there may be other obstacles such as lack of equipment or insufficient knowledge of infection prevention practices. In at least one centre, measures for ensuring a sterile field in the operating theatre were not apparent, for example.

**Staff might also benefit from training to integrate counselling on other health issues not yet woven into the treatment of fistula clients.**

**HIV/AIDS information** did not emerge as a critical component of care at most facilities visited, with the exception of the Evangel Centre in Jos. Some providers felt that talking about HIV/AIDS would add to their clients' psychological burdens, although it is known that many of them are at risk for the disease. It was clear during these visits that the stigma around HIV in Nigeria is enormous. **Providers noted that men may not want their wives to have access to antenatal or delivery care because they fear that the women will be screened for HIV.** This situation is similarly complicated when it comes to handling contraceptive counselling. Many health care workers assume most clients want to get pregnant and bear children. Even clients who desire contraception might not be offered information and told to wait until their fistula is repaired.

## **Recommendations and Critical Needs**

### **• Provide free or subsidized treatment for fistula**

Not only will this measure help reduce the large number of clients awaiting treatment, it will ensure that the available resources are fully used. Making treatment free also benefits teaching hospitals, which will then have adequate caseloads for training resident doctors, leading to the reduction of the reliance on expatriate surgeons and increasing the capacity for treatment. More treatment sites more widely distributed also diminishes the distance and cost of travel for clients.

### **• Increase training of all levels of staff providing fistula-related services.**

Surgeons, nurses, social workers and other providers

could benefit from additional training on technical and counselling issues. More emphasis needs to be placed on handling clients with sensitivity and compassion, as many women have sustained psychological as well as physical trauma. Finally, some providers noted that it would be helpful to have protocols for infection prevention and basic hygiene to protect themselves, their clients and the community.

### **• Better educate attendants to help women in labour, motivate them to work in remote regions.**

Community midwives who can provide high quality care for the antenatal period, including labour, should be available to women who choose to deliver at home. In addition, these providers will need to develop efficient referral systems if emergencies arise. Providing them with adequate salaries and equipment appears to be of paramount importance.

### **• Establish fistula treatment sites as counselling centres for both HIV and contraception.**

All clients should be given the opportunity to be screened for HIV/AIDS, and a special effort should be made to encourage women at particular risk, such as those who have been involved in commercial sex work. Contraception counselling can provide women who do not want to conceive with the means to prevent the recurrence of a fistula. Family planning is especially important for women in remote locations with poor or no health facilities. In the cases of both HIV/AIDS and contraception counselling, if supplies are not available at a facility, referrals should be in place. A further complication exists in that some providers say that they do not possess adequate knowledge or skills to provide counselling on contraception or HIV prevention.

### **• Launch public awareness campaign on issues surrounding safe deliveries.**

These attempts to reach citizens could focus on the risks linked to poorly managed pregnancies and deliveries. Radio programmes have proven an effective means of broadcasting messages, as have

television and newspapers; obviously, the languages used in all of these media need to be ones most commonly used in a community. Traditional and religious leaders should be involved in educating their constituencies about the importance of up-to-date antenatal and labour care in preventing fistula.

- **Promote education and vocational training for girls and women.**

Ensuring that girls can continue with education at the end of junior secondary school will help raise their age at marriage, allowing more time for them to reach reproductive maturity. Islam, the predominant religion in the northern states, strongly supports education of both boys and girls. To this end, traditional and religious leaders can serve as key partners, as can organizations currently working in education.

- **Broaden research into the issue of fistula treatment at all levels, and create evidence-based protocols.**

Community-based research should yield more concrete information about clients and the circumstances in which fistula develops. Knowing clients' conditions before and after repair could allow for a more efficient deployment of services. In addition, more data should be gathered on how ideas about fistula are created and disseminated around the country. Finally, clinical research on concerns such as the optimal timing of surgery, surgical techniques and pre- and post-operative management will fill important gaps in providers' knowledge about the most effective ways to treat their clients' needs. Trying to understand some of the reasons that such broad differences exist between the north and south, especially as these differences influence maternal health, will also go a long way in terms of understanding how and why fistula develops across Nigeria.

## Fact Sheets on Nigeria Site Visits

### A. Ibadan University College Teaching Hospital, Ibadan, Oyo State, visited 3 October 2002

**Size:** Newly renovated 800-bed hospital, plus outpatient clinic. Maternity theatre and 12 suite (operation room) main theatre block. But five of the suites are not currently in use due to nursing staff and equipment shortage. One of the suites used for elective gynaecology surgery.

**Medical staff:** 12 consultant OB/GYNs and 34 residents in the department; the consultants are honorary to the MOH. The residents rotate through other departments. 18 nurses per gynaecology ward, of all cadres, with an average of three per shift.

**Caseload:** Moderate, with mostly complicated cases. The registers show 41 patients undergoing surgery between January 2001 and June 2002. However, the hospital was basically closed down for about five months for construction toward the end of last year. Most of the women are referred from other hospitals, and many have already had at least one failed attempt at repair before they are seen here. Most are urinary fistula, but the registers for this time period show one isolated RVF and four combined VVF/RVF.

Ten years ago, many more cases were handled and they tended to present with a typical VVF profile. As the political and economic situation stabilized, two small satellite centres in Ibadan opened, and larger peripheral sites in Kano and elsewhere in the North were established, the caseload dropped. Now, providers are seeing an increase in the number of cases as the economy declines.

**Typical client profile:** Clients used to be 14 to 18 years old and had developed a fistula with their first delivery. They were of low economic status, of short stature, unmarried and the pregnancy had ended in stillbirth. Now, clients are older—between 26 and 36—married, multiparous and less likely to have RVF as they are not as likely to wait quite as long to seek medical treatment for a complicated labour. It is also thought that the clients

are of taller stature and are in better nutritional condition. They are often accompanied by a husband, who may stay during their treatment and reside in a hostel provided by the hospital. Sometimes, another family member may attend the client.

Providers report that between 10 per cent and 15 per cent of the fistulas they see are iatrogenic, stemming from poorly performed C-sections. Many non-specialist providers have not had the opportunity to develop their skills in this technique.

**Provenance of clients:** A few come from Ibadan and its neighbourhood (especially from privately-run nursing homes) but some come from outside the district as well, for example, from Kano, Maiduguri and the southeastern states. Transport to the facility does not seem to be a major issue.

#### **Assessment and screening process:**

- Clients are often admitted three months after delivery, but some are admitted earlier.
- Clients are instructed to wait in the ward about one week as outpatients so they can have blood work, nutritional assessment, treatment for vulval excoriation and the raising of their haemoglobin levels with haematinics or blood, but some wait longer.
- Examinations are done without anaesthesia or are done under general anaesthesia during the surgery as a way to save time and money.
- Blood typing is done.
- Haemoglobin is measured.
- Pregnancy is ruled out.
- An intravenous pyelogram (IVP) is rarely done except if indicated.
- A cystoscopy is sometimes performed, but only the Urology Department has a cystoscope, which results in delays in examinations.
- Counselling is given on the type of surgery and the need for abstinence for three months. (Some clients seek shelter with their parents during this time.)
- Clients are advised on the need to have a C-section if another pregnancy occurs.

- Two months worth of oral contraceptives are given.

**Post-operative care:**

- Continued bladder drainage into a urine bag.
- Lots of fluids given.
- Bladder training from days 10 to 14 without clamping the catheter.
- No post-operative examination under anaesthesia or without.
- A few patients complain of post-operative stress incontinence.
- If surgery fails, clients must wait three to six months for another attempt.

**Rehabilitation/reintegration:** This process is relatively easy because many of the clients come with their husbands. Social workers follow up with clients, and there is vocational training in tailoring and basket weaving.

**Community outreach:** Referral to this centre occurs by word of mouth. Sometimes, formal referrals are made by tertiary hospitals that do not have the technical expertise to handle complicated types of fistula.

**Perceived support at the policy level:** There is some, but it is not clear how much. This is a federal university teaching hospital. One department member is a founding member of the National Fistula Foundation.

**Estimated fully-loaded cost per procedure:** An average of about \$125, with a subsidy in place for the theatre fee. Very rarely, a particularly indigent patient will get her in-patient fees waived after social worker certification. Simple fistula are repaired under local anaesthesia, with financial plus medical benefits

**Resources:** MOH federal funds. The Carnegie Foundation funded the hospital between 1991 and 1994 and helped fund the task force initially, but has stopped its support.

**Barriers:**

- Funding.
- The equipment is very old and they need a cystoscope.
- The hospital had plans to develop a gynaecology-urology unit, but so far it has not been created.
- Nursing shortage.

**Additional Notes:**

These providers have a great deal of pride in their work and in their tradition. The founder and former chairman, Dr. Lawson, was integral in the history of fistula surgery. The staff at the hospital has significant experience and is very keen to treat fistula. The residency programme trains providers for other regions and they have done much research on fistula. They also use a holistic approach to manage clients, helping them with such problems as galactorrhea, amaenorrhea and infertility. Three small government hospital satellites are available for additional patients. Finally, they have a policy that allows any appropriately trained general practitioner to perform fistula surgery.

**B. Aminu Kano Teaching Hospital, visited 4 October 2002**

**Size:** 400 beds. Gynaecology ward has 35 beds, of which eight beds are dedicated to fistula clients.

**Medical staff:** 39 consultants in entire hospital, seven OB/GYN consultants and 14 residents. Residents are sent to Murtala Mohammed Hospital for training in obstetric fistula repair under Dr. Kees Waaldijk for one to two months.

**Caseload:** Not many because of cost of treatment. Only 18 repairs were performed between March 2001 and July 2002. About twice this number are referred to Murtala Mohammed Hospital where services are free.

**Provenance of clients:** Most are from Kano and environs.

**Typical client profile:** Most are young women between 13 and 20 years of age, who have recently delivered at home and been assisted by TBAs or relatives. They are of small stature, low socio-economic status, uneducated and separated or divorced. Occasionally, older women come for repairs, are multiparous and have had Gishiri cuts. Some clients have also developed fistulas from poorly managed deliveries or gynaecological procedures.

**Assessment and screening process:**

- Women are seen at the gynaecology clinic, assessed, admitted and have laboratory investigations such as haemoglobin count, electrolyte and urea.
- Complicated cases are referred to VVF centre in Katsina or Murtala Mohammed Hospital.
- Clients can have surgery done one week after admission.

**Post-operative care:**

- This involves maintaining adequate urine output, prevention of urinary infections and bladder training after removal of the urethral catheter.
- Before discharge, clients are counselled on the need for antenatal care and C-section deliveries in subsequent pregnancies.
- HIV/AIDS and contraceptive counselling are not routinely offered.

**Rehabilitation/reintegration:** No services exist.

**Support at the policy level:** The Kano state government is very supportive and is involved in the provision of services aimed at both prevention and treatment of VVF/RVF. The state government is one of the few that has introduced free maternity services, which have been widely publicized, leading to a doubling in the number of women who deliver in health facilities. Unfortunately, the free services have not been backed by an increase in resources such as equipment and personnel to cater to the increased demand for these services. The state government also provides financial support for VVF/RVF treatment facilities.

**Community outreach:** Health talks are conducted on radio to raise awareness about the causes of obstetric fistula and treatment. The state branch of the Medical Women's Association of Nigeria also conducts health talks on radio and television.

**Estimated fully-loaded cost per procedure:**

Repair, hospital accommodation and laboratory investigation cost about \$140 USD. Cost of treatment could be higher if expensive antibiotics are used.

**Barriers:**

- Early marriage.
- Delivery at home.
- TBAs sometimes have different beliefs about

appropriate interventions and timing of referrals for complicated deliveries.

- No hands-on training by doctors.
- Poor access to health services in terms of affordability and distance from facilities.

**C. Murtala Specialist Hospital, Kano, visited 4 October 2002**

**Size:** 800 beds; the OB/GYN department has 30 beds.

**Medical staff:** The OB/GYN department has four consultants, seven medical officers and four house officers. Dr. Kees Waaldijk is a visiting surgeon to this hospital and performs fistula surgery three days a week and does all the fistula cases. When Dr. Waaldijk is away, two doctors he has trained perform the repairs. There is a trained nurse who works in the theatre and is dedicated full-time to obstetric fistula repair.

**Caseload:** The number of fistula repairs has increased considerably in the last year due to free health services provided by the state government, including free maternal services, operative delivery, transfusion and obstetric fistula repair. Clients are also referred to the facility through community-based organizations like the Foundation for Women's Health Research and Development (FORWARD), which serve as links between the facility and the communities. In all, there are about 33 well-equipped primary health centres with 12 functioning ambulances in the state. There has also been an increase in the number of women who deliver in the facility. On average, 5,000 deliveries occur each year but this number increased to more than 11,000 during the last year. This surge can be attributed to the free health services provided by the state government.

**Provenance of clients:** Clients come from within and outside the state.

**Typical client profile:** Most are between the ages of 12 and 20. They often have not had the opportunity to receive any education, are of low

socio-economic status, have had prolonged labour and been assisted by TBAs. Occasionally older women also come for repairs. Some clients have previously had unsuccessful repairs.

**Assessment and screening process:**

- The clients are first seen in the gynaecology clinic and assessed to locate and describe the fistula.
- Haemoglobin estimation is carried out before surgery.

**Post-operative care:**

- This involves maintaining adequate urine output and bladder training after removal of the urethral catheter.
- Before discharge, clients are counselled on the need for antenatal care and C-section deliveries in subsequent pregnancies.
- HIV/AIDS and contraceptive advice are not routinely offered.

**Rehabilitation/reintegration:** The Kano State Government is constructing a facility, the VVF centre, to specifically provide obstetric fistula repairs. In addition, there will also be a rehabilitation centre where clients can acquire vocational skills. At present, there is a hostel within the premises of the facility.

**Community outreach:** The hospital is not very involved in a community outreach programme, but there are free ambulances at primary health care centres to ease referral.

**Support at the policy level:** The state government has demonstrated real commitment to preventing fistula and providing treatment to affected women. Fistula repair, drugs, food and maternity services are free, and ambulances have been provided to a number of primary health care centres to strengthen referral services. The numbers of clients using these services have increased, but this change has not been followed by an increase in resources such as equipment and personnel to handle the heightened demand for these services.

**Estimated fully-loaded cost per procedure:** Free for the clients.

**Resources:** The Kano State Government funds activities and services provided by the facility.

Some support is also provided by UNDP.

**Barriers:**

- Poor access to health facilities. They are often located far from communities and clients have to travel long distances to obtain services.
- A lot of the health centres do not have well-trained or highly skilled medical personnel.
- Illiteracy is also a barrier as these clients are not empowered to make decisions about their health.
- Lack of education of girls, resulting in early marriage and poor health-seeking behaviour during pregnancy and delivery. This is partly due to the shortage of schools in the area and the inaccessibility of available schools.
- A culture of having the first delivery at home. Skilled care at delivery is present in less than 30 per cent of cases.

**D. Offices of FORWARD, Kano, visited 4 October 2002**

FORWARD is an international NGO based in the United Kingdom and funded by DfID and the National Charities Board, United Kingdom. FORWARD has been in Nigeria since 1999 and works to strengthen local and community response to improve the health, social and nutritional status of women through education and enlightenment. FORWARD also works to reduce gender-based violence, women and child trafficking and other forms of abuse of women; to increase awareness of child-spacing methods and access to pre- and post-natal services; and to prevent harmful traditional practices such as FGM.

FORWARD works in a number of communities in Kano State and has supported the establishment of Community Health Committees (CHC) made up of seven members of the community, including community leaders, health providers and others. The responsibilities of the CHC include increasing awareness of obstetric fistula locally, gathering information about the health needs of the community, providing nutritional education to pregnant

women and providing linkage and referral to health facilities for women in need of services, including obstetric fistula repair.

FORWARD is also involved in rehabilitation and provides vocational skills training to women who have had fistulas and have been rejected by their husband and communities. It also provides micro-credit support. FORWARD assists public enlightenment programmes on obstetric fistula and is a member of the State VVF Advisory Committee. With plans to replicate its programme in a number of states, it has helped 75 fistula clients after repair fully reintegrate into their communities.

**Resources:** FORWARD receives funding not only from the United Kingdom's Government but also from the National Programme on Eradication of Poverty (NAPEP), Kano State Ministry of Women's Affairs, Kano Agricultural and Rural Development Agency (KNARDA), local philanthropic organizations and individuals. They also have a poultry and three other farms where additional income is generated for their activities.

**Barriers:**

- Limited funding available.
- Understaffing.

### **E. Babbar Ruga Hospital, Katsina, visited 5 October 2002**

**Size:** Two wards and an operating theatre for fistula repair.

**Medical staff:** Dr. Kees Waaldijk runs the centre assisted by one other doctor and two nurses, all of whom are trained in VVF/RVF repair. The centre, in collaboration with the one in Kano, was responsible for training more than 180 doctors and more than 200 nurses.

**Caseload:** Very high. Four hundred and fifteen repairs were performed in the unit last year.

**Provenance of clients:** Most are from Katsina and its environs, though clients come from all over Nigeria, especially the northern states.

**Typical client profile:** Most are very young women

who sustained the fistula during their first delivery as a result of prolonged, obstructed labour. Most are separated from their husbands or divorced and rejected by their communities because of their condition.

**Assessment and screening process:**

- The clients are first seen in the clinic and assessed to locate and describe the fistula.
- Haemoglobin estimation is carried out, but clients are not routinely screened for urinary infections before surgery.
- Clients are not screened for HIV/AIDS.

**Post-operative care:**

- This involves maintaining adequate urine output and bladder training after removal of the urethral catheter.
- Before discharge, clients are counselled on the need for antenatal care and C-section deliveries in subsequent pregnancies.
- HIV/AIDS and contraceptive counselling are not offered.

**Rehabilitation/reintegration:** These activities are run by partner NGOs for clients in the VVF hostel.

**Community outreach:** The unit is not involved in any community outreach programmes.

**Support at the policy level:** The Katsina state government provides the premises, staff and funds for running the hospital and hostel.

**Estimated fully-loaded cost per procedure:** Free to client; cost to institution unknown.

**Resources:** The hospital is funded primarily by the Katsina state government, though the fistula centre has additional support from various NGOs including Grassroots Health Organization of Nigeria (GHON), which coordinates the training programme, Dutch gynaecologists, Dutch cycling teams and the federal MOH, which employs Dr. Waaldijk.

**Barriers:**

- Lack of education of girls, resulting in early marriage and limited health-seeking behaviour during pregnancy and delivery.
- Lack of adequate emergency obstetric care services.
- Shortage of doctors properly trained in fistula repairs.

## **F. Usman Dan Fodio University Teaching Hospital, visited 7 October 2002**

**Size:** 500 beds; OB/GYN department has 70 beds; the gynaecology ward has 30 beds.

**Medical staff:** Five consultants, 12 residents and nine house officers in OB/GYN department.

**Caseload:** About 48 repairs are done every year.

**Provenance of clients:** Most come from within the state.

**Typical client profile:** Usually, they are very young and have just delivered. They have not received any formal education, belong to the Hausa-Fulani ethnic group and have had no prenatal, intrapartum or postnatal care.

### **Assessment and screening process:**

- Clients seen at the gynaecology clinic and assessed.
- Baseline investigation: haemoglobin count, urea and electrolyte estimation, screening for urinary tract infection.
- Nutritional status of clients is built up.
- Clients usually wait for three months after delivery before procedure is performed.

### **Post-operative care:**

- This involves maintaining adequate urine output, bladder training after removal of the urethral catheter and antibiotic cover.
- Client and family members are counselled on the care of client and the need for obstetric care during pregnancy.
- No specific counselling on family planning or HIV/AIDS.

**Rehabilitation/reintegration:** No services exist.

**Community outreach:** The department is not involved in community outreach programmes.

**Support at policy level:** No form of support from the government for obstetric service at the teaching hospital

**Estimated fully-loaded cost per procedure:** About \$90 USD.

**Resources:** The facility is funded by the federal government.

### **Barriers:**

- Lack of education at community level. There is a

large communication gap between the indigenous people who are educated and those who are not.

- Health facilities are located far away from the communities.
- Lack of skilled service providers to meet demand for services.

## **G. Maryam Abacha Women and Children Hospital, Sokoto, visited 7 October 2002**

**Size:** 24 beds in the VVF centre, which consists of two wards. There is one theatre in the centre.

**Medical staff:** Only medical officers. No consultant gynaecologist is employed by the state government. The fistula centre depends on visiting doctors, particularly Dr. Waaldijk. Previously, other specialists used to come from some of the southern sites. The centre is run by four nurses.

**Caseload:** Variable; it depends on the availability of visiting doctors. A maximum of 12 to 15 cases are repaired every two to three weeks when Dr. Waaldijk is in the country. At the time of the team's visit, 36 clients were awaiting surgery. Two hundred repairs were performed last year.

**Provenance of clients:** Most are from Sokoto and its environs, though there are also clients from all over northern Nigeria, even as far away as Adamawa State.

**Typical client profile:** Most are young teenage girls of low socio-economic status who are also uneducated. Most of them sustained the fistula during their first delivery conducted at home without proper antenatal and intrapartum supervision. Most are Hausa-Fulani Muslims and are anxious about or disturbed by their condition. There are also older multiparous (mainly parity of four and above) women who sustained the fistula after prolonged obstructed labour. The younger primigravidus clients are mostly divorced or separated from their husbands while the older multiparous women are mostly still married and cared for by their husbands.

### **Assessment and screening process:**

- The clients are first seen in the clinic and

assessed to locate and describe the fistula.

- Haemoglobin estimation is carried out, but clients are not routinely screened for urinary infections before surgery.
- Clients are not screened for HIV/AIDS.

**Post-operative care:**

- This involves maintaining adequate urine output and bladder training after removal of the urethral catheter.
- Before discharge, clients are counselled on the need for antenatal care and C-section deliveries in subsequent pregnancies. Many cannot afford to come back for antenatal and intrapartum care after a successful repair and only those who have complications usually return for follow-up.
- HIV/AIDS and contraceptive counselling are not offered.

**Rehabilitation/reintegration:** There are no facilities for rehabilitation.

**Community outreach:** The centre is not involved in any community outreach programmes. The clients come to the centre when information reaches them that a doctor will be available for repairs. They have to feed themselves and many return to their villages to farm during the rainy season.

**Support at the policy level:** The Sokoto state government provides support for the provision of VVF/RVF treatment.

**Estimated fully-loaded cost per procedure:** The clients do not pay for treatment but have to feed themselves while awaiting repair.

**Resources:** The Sokoto state government.

**Barriers:**

- Lack of education of girls, resulting in early marriage and limited health-seeking behaviour during pregnancy and delivery.
- Poverty.
- Shortage of trained health care providers to meet demand for services.

## **H. Olabisi Onabanjo University Teaching Hospital, Shagamu, Ogun State, visited 7 October 2002**

**Size:** 253 beds, 18 of them in gynaecology ward.

**Medical staff:** Nine consultant OB/GYNs, but only six of them are active in fistula repair. Ten residents are there, who can assist the consultants in repairs and do examinations under anaesthesia, as well as help with post-operative care. However, they cannot perform fistula procedures alone. There are 14 nurses in the gynaecology ward, with two or three working per shift.

**Caseload:** Repairs are done as they come, totaling about 24 every year. The three doctors sometimes used to go north (e.g. to Sokoto) for about seven days every month and do some 40 repairs per week following radio announcements. They performed about the same number for about 15 months at Maryam Abacha State Hospital in Sokoto.

**Provenance of clients:** Ogun State. Clients also come from Lagos State 50 km away and UI State, 100 km away.

**Typical client profile:** Sixty percent of the patients are multiparous and have some support from their husbands. They are in their late 20s or late 30s and may have had an obstructed labour because their babies have been progressively bigger or because these larger babies have presented in difficult positions.

**Assessment and screening process:**

- Most women prepared at the outpatient department to save admission bed time and money.
- Clients usually admitted one week before surgery.
- Urine cultures and sensitivity pipette specimen are done since clients cannot voluntarily void.
- Nutritional status improved
- Haematocrit must be above 30 per cent, otherwise clients need to be given a blood transfusion.
- Vulval excoriations cleaned with topical Vaseline, since there is no zinc oxide and it works almost as well.
- Examination without anaesthesia and a dye test are performed to determine the position and size of the fistula and to decide on the route of repair.
- Sometimes a repair is done immediately in the

theatre, often clients must wait for another day.

- No cystoscopy is performed. Physicians may do an IVP if the fistula is too large and encroaches on the urethral stoma, but this is a rare procedure.
- Abdominal X-ray taken to rule out nephrolithiasis or bladder stones.

**Post-operative care:**

- Foley's catheter into urine bag.
- Clients lie on their sides and are changed every two to four hours.
- Intravenous fluids given the first 24 hours.
- Urine bags emptied every hour to monitor catheter obstruction.
- Meperidine or diazepam and analgin given for pain during the first 24 hours.
- Prophylactic antibiotics routinely given.
- Catheter inserted for 10 to 14 days, depending on the complexity of the repair.
- Bladders are trained to overcome stress incontinence; the training occurs by clamping.
- Clients are counselled on the causes and the prevention of fistula.
- Clients are counselled to abstain for three months.
- Clients are counselled to have a C-section for subsequent pregnancies in 90 per cent of the cases unless they have had a very easy repair.
- 85 per cent of the patients go home dry, although a few do require two or more attempts.

**Rehabilitation/reintegration:** Family planning counselling and a variety of kinds of contraception are available. Clients are advised about their future fertility and possible difficulty with coitus because of vaginal scarring. There is a general awareness of HIV: there is a centre for special studies on microbicides and HIV prevention at the hospital, but not for fistula clients in particular. There are no community follow-up programmes to help women reintegrate after surgery.

**Community outreach:** None.

**Perceived support at the policy level:** The staff is unclear whether anyone at the MOH considers fistula to be a priority. But the state governor's wife does organize financial support sometimes.

**Estimated fully-loaded cost per procedure:**

This is a user-pay facility. Fees went up when the facility was recently upgraded to a teaching hospital, from about \$150 to about \$200. This includes a general subsidy from the state and can only rarely be reduced further if the wife of the governor or an organization such as a church intervenes and pays for the client. While many clients can afford the fees, fistula clients tend to be very poor and have difficulty coming up with such a sum. Most are unemployed, 80 per cent are rejected by their husbands and have no financial assistance.

**Resources:** User fees and state government subsidy only.

**Barriers:**

- High fees keep some patients away and impact the kind of laboratory tests that can be done, such as IVPs. High costs also reduce the duration of post-operative stay in hospital.
- No nurses are trained in fistula care.
- The operating theatre has no reliable electric power. Surgeons often need to use the generator.
- Hospital cannot afford to give expensive antibiotics such as cephalosporins even if that is what the culture and sensitivity indicate.
- Follow-up is limited; no community services are in place to help clients.

**I. Evangel VVF Centre, Jos, Plateau, visited 8 October 2002**

**Size:** Wards have 20 beds. The hostel has 30 beds.

**Medical staff:** Two permanent fistula surgeons are based in the facility and they often have visiting surgeons; nine nurses, two of whom have been trained in fistula repair; one social worker; and a number of auxiliary nurses.

**Caseload:** 12 to 14 repairs every week. Clinic day is held once a week.

**Provenance of clients:** Most clients come from outside the state. Some come from neighbouring countries including Cameroon. A lot of clients are from Plateau State and come from Langtang South

local government. Most have had a difficult labour at home; a possible reason for the preference for home deliveries is the belief that enemies could conspire with service providers to cause harm during delivery and so it is safer for women to deliver at home. The turnout of clients is usually low around August and September (which falls within the rainy season) compared to other times of the year.

**Typical client profile:** Women of all ages come for repair at this facility. Many developed fistula soon after a birth and lived with it for many years (up to 30) as they did not have information about treatment. These clients are usually depressed, malnourished and indigent. Occasionally, some clients have had fistula from iatrogenic causes. Many survive through begging, commercial sex work and farming.

**Assessment and screening:**

- New clients are seen once a week, usually on Tuesdays, and booked for surgery within the same week. But often there is a long waiting list and clients could wait for up to two months for surgery.
- Haemoglobin estimation, urea and electrolytes estimation and screening for urinary infections are carried out before surgery.
- Clients are screened routinely for HIV/AIDS and those who are confirmed to be positive are linked with a local NGO, Spring of Life, which provides counselling.

**Post-operative care:**

- Clients spend about three weeks in the hospital, during which surgery is assessed and bladder training done.
- There is no counselling for family planning.

**Rehabilitation/reintegration:** Just prior to discharge, clients are treated to a ceremony on one of the clinic days when both old and new clients—both those who have had successful and those who have had unsuccessful repairs—meet to share their experiences. This ceremony aims to rekindle hope, particularly in the hearts of the new clients, that the fistula can be successfully treated and also to highlight the ways women can acquire and prevent fistulas. Clients are told to come for a check-up three and six months after discharge. They are also told to

come to the maternity ward if they become pregnant, as this is a place where C-section is performed at a subsidized cost (\$30 USD with the Safe Motherhood subsidy.) There is a rehabilitation centre located on the premises, and clients are taught vocational skills such as knitting, soap making and catering. Many clients remarry after successful repair.

**Community outreach:** The Evangelical Church of West Africa (ECWA) does not have a specific community outreach programme. However, a few community-based organizations conduct outreach within the surrounding communities.

**Support at policy level:** The state government does not provide support to the centre.

**Estimated fully-loaded cost per procedure:** Clients pay a token fee of 50 cents so as to help them feel that they are contributing to their own treatment.

**Resources:** Funding for the fistula centre is provided mainly by churches and other donors from outside the country. Philanthropic organizations and NGOs also make donations. National Programme on Eradication of Poverty (NAPEP) recently donated equipment to the rehabilitation centre.

**Barriers:**

- Poverty. Clients often do not have enough money to pay for transportation to the centre for follow-up visits.
- Staff shortages. Often only one trained nurse attends to clients in the two wards.
- Shortage of equipment and supplies.
- Harmful traditional practices such as FGM and the Gishiri cut, which may predispose women to the formation of VVF/RVF.
- There are strong traditional beliefs in some parts of Plateau State, which prevent women from seeking health care during pregnancy and delivery for fear of exposing themselves to what are perceived as “evil forces”.

**J. University of Calabar Teaching Hospital,  
Maternity Annex, Cross River State,  
visited 8 October 2002**

**Size:** 97 beds in an annex of the main hospital, University of Calabar Teaching Hospital, which has 237 beds. The outpatient department has been moved to a new site nearby, but the family planning unit, initially renovated and equipped by EngenderHealth, has been left behind for the time being.

**Medical staff:** There are seven OB/GYNs consultants but only one of them does fistula repair surgery. The others are interested in learning. There are 23 residents, and familiarity with fistula surgery is a requirement for qualification, but they rarely get to see even one case during their residency. Thirteen nurses are allocated to the 30-bed gynaecology ward, where they work in three shifts.

**Caseload:** Minimal: only two to four cases are operated on each year. But in terms of women seen at the hospital with fistula complications of obstructed labour, the staff handles at least 40 to 50 per year in the postnatal ward, especially the unbooked patients' ward. Most of them do not return for fistula repair. For the few who do undergo repairs, almost all go home dry.

**Provenance of clients:** The majority are from Calabar and its environs. Some come from as far as Nkomand Ogoja, some 200 km north of Calabar.

**Typical client profile:** Young women who are between 14 and 20 years old. They developed fistula during their first pregnancy, are poor and usually admitted with obstructed labour and intrauterine foetal death. Most of them are single. The majority experience VVF, but a few cases of RVF do occur, either singly or in combination with VVF. Most women do come for antenatal care visits, but prefer to deliver at home with a relative or a TBA, or much more likely in a church under the care of the pastor's wife or a parishioner. Women apparently believe that the hospital environment does not have protection against "spiritual attacks" but that the church does.

**Assessment and screening process:**

- The prevention and treatment of vulval excoriation.

- Examination without anaesthesia usually precedes repair.
- Haemoglobin estimation and complete blood count carried out.
- Urine culture done to rule out infection.
- IVP is rarely done, due to the high cost.
- Clients are counselled about the surgery and the causes of fistula.

**Post-operative care:**

- Clients stay for about 15 days; continuous catheter drainage is in place for 14 days.
- IV fluids are administered liberally in the first few days, along with antibiotics and analgesics.
- C-section is recommended for all cases in subsequent pregnancies.
- Clients advised to abstain for three months. Earlier, the suggested time period was six months.
- HIV information is usually given to outpatient clients alongside other clients, as part of a routine health talk. Family planning is available, and all methods may be obtained at the unit initially supported by EngenderHealth.

**Rehabilitation/reintegration:** There are no social services available to enable clients to get back on their feet and reintegrated into the community. Some return to their husbands after successful repair, but there is stigma attached to the condition. The community may believe that fistula is a punishment for past infidelity leading to the prolonged labour. Others attribute fistula to machinations by neighbours. The clients themselves tend to be very hygiene-conscious, using clean clothes and changing often.

**Community outreach:** There is no special programme focused on VVF as a problem. However, this hospital has used some funding from EngenderHealth to launch a family planning and safe motherhood community enlightenment programme and increase access to quality reproductive health services. This intervention is on-going and targets church leaders and other community leaders. It includes health talks informing communities about the dangers of using the church as a birthplace, the dangers of unassisted deliveries (or those without skilled care) and stories about women who died during pregnancy and childbirth.

**Support at the policy level:** The government is recognized as having a role but is perceived not to consider fistula a priority. It is generally believed to be a problem in the northern part of the country and resources, including awareness campaigns, are concentrated there.

**Estimated fully-loaded cost per procedure:**

About \$250 USD. All patients have to pay for fistula surgery but in a few desperate cases the state governor's wife is approached for assistance from state funds.

**Resources:** Mainly a monthly subvention from the federal government through the MOH. Engender-Health supports the family planning programme and, indirectly, safe motherhood activities.

**Barriers:**

- Hospital is located in a very old building, but there are plans to relocate to a new site soon.
- The equipment and instruments are inadequate. Only one theatre is available for maternity and gynaecological surgery, both elective and emergency. This situation is expected to change once the facility can use the new theatre now under construction.
- There are no hostel facilities.
- Funding and the high cost of the surgery.
- Training opportunities for interested medical and nursing staff are limited because of the dearth of patients and physicians skilled in fistula repair.
- Competition for ward space, since fistula clients vie for beds with others recovering from surgery. In addition, fistula clients tend to stay in the hospital longer, three or more weeks. Their surgery takes more theatre time as well.
- Need to mobilize and educate those at the community level about best obstetric practices.

**K. Family Life and Hospital, Imbribit Itam, Akwa-Ibom State, visited 9 October 2002**

**Size:** A 38-bed hospital established in 1991, this facility is an offshoot of Annua General Hospital, Uyo, which was originally funded by Medical

Missionaries of Mary but has since been taken over by the state government. The two facilities are about eight km apart. The hospital is built on about six acres, and all buildings are bungalows with covered corridors linking the most important areas of the hospital, like the operating theatre and the wards. It has hostels for men and for women. There is a kitchen for self-service (used mostly by the clients' relatives), one borewell for water and three generators of various sizes. Facilities also include a rehabilitation centre, staff quarters, a conference centre with simple accommodation facilities and a convent.

There are two gynaecology wards. One ward is for immediate post-operative care and has 22 beds. The other ward has 16 beds and serves clients who are either pre-op or well along in their recovery. A women's hostel with 30 beds is available for relatives or attendants who provide food and care to women in recovery; there are also some extra mattresses on the floor. A hostel for men, with about 16 beds, has been established near the main gate. The hospital also provides accommodation for unmarried female staff.

**Medical staff:** Two doctors, Dr. Anne Ward and Dr. Upuji, both of whom work at the nearby Annua government hospital as well. Another private practitioner comes in occasionally from his practice to learn fistula surgery. There are 10 registered nurses and eight assistants. Some of the assistants/attendants were fistula clients with long-term complications. Three of the nurses are seconded from and paid for by the MOH. The MOH is also trying to encourage the nuns to manage the Annua hospital, but staffing may then be a problem.

**Caseload:** Large, with about twenty repairs per month and at least 200 to 240 cases per year depending on Dr. Ward's availability. Surgery slows down when she is not present. However, Dr. Ward feels there is too much emphasis on numbers. She notes that one can spend a whole morning with one difficult case that cannot be taken on by many other surgeons or choose to do three or four simple cases instead. Equally, she is uncomfortable discussing success rates; she comments that she and

her staff give each client the best care they can. VVFs outnumber RVFs by a ratio of about 9:1. She has also observed that many fistulas occur during obstructed labour in private medical institutions and that the number of fistulas stemming from botched operations or other iatrogenic causes is rising. Some of these are serious ureteric injuries, requiring re-implantation surgery. During the last three years she has had to operate on 79 cases of iatrogenic ureteric injury.

**Provenance of clients:** Women come from all over the southeastern zone of the country, from distances of up to 250 km. Transportation costs are a problem, as the majority of the clients are poor. The Ford Foundation supports a group involved in sending a vehicle to pick up some of the women and bring them back for surgery. The vehicle is also used for leprosy outreach.

**Typical client profile:** Most women are between 16 and 20 and developed a fistula with their first pregnancy. They are accompanied by a female family member or friend. They are very poor. However, since the hospital serves as a referral centre for a large part of the country, a mixture of older and multiparous clients is also found.

**Assessment and screening process:**

- Most assessments are clinical due to lack of lab facilities.
- Haematocrit can be estimated because there is a centrifuge and glass tubes.
- Blood group and cross-matching if necessary have to be done in a private lab in Uyo town, 10 km away.
- Examination without anaesthesia is usually done before the day of surgery; occasionally spinal anaesthesia is necessary.
- Nutritional state assessed and, if needed, fortified.
- IVP, cystoscopy never done.
- General anaesthesia is not available during surgery: all cases are done under spinal block with 2 per cent lidocaine.
- Foley's catheters have to be re-used to save cost, and when the balloon is not inflated the catheter is usually sutured with 2.0 vicryl suture to the vagina and labia at the external urethral meatus.

A single layer closure is often done and a dye test is performed before vaginal closure.

- All vaginal repairs are done in lithotomy position with clients in exaggerated trendelenburg tilt.

**Post-operative care:**

- Clients receive antibiotics and pain relief.
- Continuous bladder drainage for 14 days occurs into a bowl because urine bags are expensive and do not have adequate suction pressure to ensure continuous drainage.
- Urine output and fluid intake are monitored hourly and the client is turned from side to side every three to four hours.
- Bladder training is done.
- For nonhealing bed sores, staff sprinkle herbal extract of aloe vera directly onto sterile gauze and cover the wounds.
- HIV/AIDS it is not mentioned because staff feel that they do not have HIV counselling training or enough knowledge or experience in counselling, especially regarding cultural concerns.
- Family planning is not discussed.
- Clients, and their male partners, if they are present, are advised on the need to abstain.
- Clients counselled to return for a C-section for subsequent pregnancies. It should be noted, however, that some do not return.
- After the catheter is removed, clients stay in the hospital for at least one week.

**Rehabilitation/reintegration:** Many clients do not return to their husbands. A few are employed as ward aides. There is a rehabilitation centre, where clients can receive vocational training in tailoring, the making of soy milk and soap, and farming. Elementary educational skills are also taught, as many women cannot read letters or numbers.

**Community outreach:** There is an on-going community programme on safe motherhood, which is sponsored by NAPEP. During their health talks, fistula and its prevention are discussed.

**Support at the policy level:** The perception is that there is virtually none. Recently, the country's president is reported to have asked the task force of the National Fistula Foundation to gather and initiate a rapid needs assessment to ascertain the total num-

ber of women with fistula. The assessment was also supposed to include the geographic distribution of women with fistula and the resources and personnel available to manage the condition. This initiative was started but never completed, due to insufficient funding. The task force, of which Dr. Ward is a member, last held a meeting in December 2001.

**Estimated fully-loaded cost per procedure:**

About \$85. However, some clients cannot pay and are exempted. The user fee policy is barely enough to maintain the costs of running the hospital, contributing perhaps 30 per cent to the overall budget.

**Resources:** Exxon Mobil has provided the two theatre light stands and is responsible for the payment of staff salaries except those of staff members from the state government. Donations from Guernsey, in the Channel Islands, were used to build the operating theatre and to buy equipment, including two operating tables and two ceiling fans (there is no air conditioning). The Government of the Republic of Ireland equipped the laundry with a washing machine (currently out of order), a dryer and an industrial-grade ironing machine. Gifts from Great Britain led to the building of and purchase of equipment for the rehabilitation centre. Vicryl sutures are usually obtained from friends in the United States. Limited support comes from the government; the state governor's wife organizes support groups once in a while. Women's groups in the state gave funds to build and equip the women's hostel. The Ford Foundation helps fund the outreach programme transporting clients to and from the hospital. In 2001, UNDP paid the fees for 500 fistula repairs. UNFPA has promised some money to pay the salary of the assistant surgeon, but it is not clear how long this support will be able to be continued. Other donors have helped repair faulty generators.

**Barriers:**

- **Greater capacity is needed.** The hospital already functions as a regional referral centre, but it needs even more space if it is to operate as efficiently as possible.
- **Inadequate funding and dependency on donor support.**

- **Inadequate government involvement.**
- **Sustainability of services, coupled with a lack of interest in training from government doctors.** One surgeon notes that some trainees are so uninterested that they may harm a client during surgery, a high cost given the physical and emotional burden these women have already been living with.
- **When the main surgeon is not available, repair surgery is suspended.** More local surgeons need to be encouraged and supported as they learn the intricacies of fistula surgery.
- **Cultural beliefs that link fistula to curses or witchcraft.** Some evangelical churches in the area have opposed the use of antenatal and maternity services in hospitals during the last few years. Women are told that they will suffer "spiritual attacks" unless they deliver in the church with the pastor's wife or a fellow parishioner, generally an older woman.
- **Profound reliance on TBAs, less on hospitals.**
- **Poor care from some local medical facilities that may lead to iatrogenic fistulas.**
- **Lack of counselling about family planning and HIV.** Staff needs to be better trained and supported to provide this type of help to clients. The problem is linked to a strong stigma that surrounds HIV; nearby hospitals refer even non-fistula clients who are HIV positive for basic gynaecology operations. Hospital staff felt that the counselling offered in nearby health facilities was not of good quality and only served to heighten the discrimination the clients were already facing.
- **Strong stigma faces women with fistula as well.** Clients are often considered "unclean" and capable of "polluting" others. For example, some boys who had come for a meeting in the conference centre asked Dr. Ward to swear that their food had never been touched or processed by anyone who had or had ever had a fistula.
- **Local community and religious leaders need to be mobilized and educated about the causes of fistula and the means of prevention.**
- **Poor transportation.** Better roads and travel options are especially important in rural areas,

particularly for obstetric emergencies.

- **Improvement of infection prevention measures.**
- **Increased advocacy and promotion of services** available at the hospital. The facility could be even better utilized if more women knew it was there.
- **Although the care of attendants—both men and women—is of real support to the clients and to the hospital, it is important to understand their role more completely.** Research could be done to increase knowledge about how to encourage even more involvement from men. It would also be helpful to know more about how communities perceive the women attendants who help fistula clients.
- No on-going social or clinical research about fistula is done at the hospital, but all data on the clients operated on is kept there. **Knowing more about the social conditions of these women might be of great help** in designing prevention programmes and other initiatives.

#### **L. Ahmadu Bello University Teaching Hospital, Kaduna, visited 11 October 2002**

**Size:** 258 beds. The Obstetrics and Gynaecology unit has 54 beds: 16 in the labour and lying-in wards, 18 in the maternity ward and 20 in the gynaecology ward.

**Medical staff:** Five consultants, including one currently abroad on a clinical assignment; senior residents; and residents. The VVF/RVF repairs are currently carried out by two of the consultants.

**Caseload:** Low: 20 to 30 repairs are carried out each year and they are usually uncomplicated cases. Many clients cannot afford the cost of repairs in this hospital. The success rate is over 90 per cent.

**Provenance of clients:** Most are from Kaduna and its environs. Wealthier relations who can afford the cost of the services in this hospital bring some of the clients from remote villages.

**Typical client profile:** Most are adolescent girls of

low socio-economic status. Most of them sustained the fistula during their first delivery, which was conducted at home or in poorly equipped health facilities, without proper antenatal and intra-partum supervision. Many are separated from their husbands until after they are repaired. Ten to 20 per cent of clients sustained the injury from surgery such as C-section and hysterectomy.

#### **Assessment and screening process:**

- The clients are first seen in the clinic where they undergo a detailed clinical examination including an assessment of the fistula. The pathogenesis of the fistula is explained to the client.
- Haemoglobin estimation, urea and electrolytes estimation and screening for urinary infections are carried out before surgery.
- HIV screening is not done routinely.
- Clients have to wait for about three months after the fistula developed before their operation.
- Before surgery, excoriations and urinary infections must be treated.
- Nutritional status is fortified.

#### **Post-operative care:**

- Involves maintaining adequate urine output, prevention of urinary infections and bladder training after removal of the urethral catheter.
- Before discharge, clients are counselled on abstaining and the need for antenatal care and C-sections in subsequent deliveries. Many do not come back when pregnant because they cannot afford the fees for antenatal care and C-section.

**Rehabilitation/reintegration:** There are no facilities for rehabilitation in this hospital.

**Community outreach:** The unit is not involved in any community outreach services.

**Support at the policy level:** VVF/RVF is not a priority for Kaduna state government.

**Estimated fully-loaded cost per procedure:** The estimated total cost for fistula treatment is about \$150 USD.

**Resources:** Primarily funded by the federal government. Additional funds are obtained from fees paid by clients for services.

#### **Barriers:**

- Lack of education of girls, resulting in early mar-

riage and limited health-seeking behaviour during pregnancy and delivery.

- Lack of awareness about the complications of poorly managed pregnancies and deliveries.
- Limited access to health care facilities, especially for emergency obstetric care.
- Perception on the part of clients that health care providers' attitudes are barrier.
- Shortage of proper hospital equipment for fistula treatment.

### **M. Ahmadu Bello University Teaching Hospital, Zaria, visited 11 October 2002**

**Size:** 514 beds in the whole hospital. There are 96 beds in the Obstetrics and Gynaecology unit: 32 in the maternity ward, 14 in the labour ward, and 50 in the gynaecology ward.

**Medical staff:** Five consultants, four senior residents and 15 junior residents. The fistula repairs are carried out by all of the consultants and two of the senior residents.

**Caseload:** Low: 18 repairs were carried over the past year; many of these were complicated cases on which earlier attempts had been unsuccessful. Many clients cannot afford the cost of repairs in this hospital. The success rate is over 90 per cent.

**Provenance of clients:** Most are from Zaria and its environs as well as neighbouring states. A few come from as far away as Lagos.

**Typical client profile:** Most are adolescent girls of low socio-economic status. Most have not had an education. The majority of the clients developed the fistula during their first delivery, which was conducted at home or in poorly equipped health facilities, without proper antenatal and intrapartum supervision. Many are forced to marry their husbands, who then either divorce them or remain separated from them until they are repaired. Very few clients experienced fistula from surgery such as C-section or hysterectomy.

#### **Assessment and screening process:**

- The clients are first seen in the clinic where they

undergo a detailed clinical examination including an assessment of the fistula. The pathogenesis of the fistula is explained to the client.

- Haemoglobin estimation, urea and electrolytes estimation and screening for urinary infections are carried out before surgery.
- HIV screening is not done routinely, but is addressed in cases where there is an indication. VCT services are available in the reproductive health centre of the unit and this option is made known to all gynaecology clinic clients during the health talk at the beginning of each clinic. However, fistula clients are not specifically referred for these services.
- Clients have to wait for about three months after the fistula developed before they are operated on. Before surgery, excoriations and urinary infections are cleared up.
- Nutritional status is fortified.

#### **Post-operative care:**

- This involves maintaining adequate urine output, prevention of urinary infections and bladder training after removal of the urethral catheter.
- Before discharge, clients are counselled on abstaining, and the need to have antenatal care and C-sections in subsequent deliveries. Only about half of successfully treated clients come back when pregnant because of the fees for antenatal care and C-section.

**Rehabilitation/reintegration:** There is a fistula hostel run by the social welfare department of this hospital, but it is currently under-utilized because the hospital does not provide food for the clients and has begun to charge for treatment which had once been free. The hostel used to run adult literacy classes and skills training sessions, but no longer does so as there are only three clients residing there at present.

**Community outreach:** The unit is not involved in any community outreach services.

**Support at the policy level:** Fistula is not perceived as a priority for Kaduna state government.

#### **Estimated fully-loaded cost per procedure:**

The estimated total cost for VVF/RVF treatment is about \$150 USD.

**Resources:** Ahmadu Bello University Teaching Hospital is primarily funded by the federal government. Additional funds are obtained from fees paid by clients for services.

**Barriers:**

- Lack of education of girls, resulting in early marriage and limited health-seeking behaviour during pregnancy and delivery.
- Lack of awareness of complications of poorly managed pregnancies and deliveries.
- Limited access to health care facilities, especially for emergency obstetric care.
- Low use of health care facilities for various reasons, mainly cost.
- Shortage of proper hospital equipment for fistula repair.
- Poor chances for sustainability of available services.
- Traditional practices such as Gishiri cut.

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