



OBSTETRIC FISTULA

**NEEDS ASSESSMENT REPORT:
FINDINGS FROM NINE AFRICAN
COUNTRIES**



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UNFPA, the United Nations Population Fund, is the world's largest multilateral source of population assistance. Since it became operational in 1969, the Fund has provided close to \$6 billion to developing countries to meet reproductive health needs and support sustainable development issues. UNFPA helps women, men and young people plan their families and avoid accidental pregnancies; undergo pregnancy and childbirth safely; avoid sexually transmitted diseases, including HIV/AIDS; and combat discrimination and violence against women.

EngenderHealth works worldwide to improve the lives of individuals by making reproductive health services safe, available and sustainable. We provide technical assistance, training, and information, with a focus on practical solutions that improve services where resources are scarce. We believe that individuals have the right to make informed decisions about their reproductive health and to receive care that meets their needs. We work in partnership with governments, institutions and health care professionals to make this right a reality.

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List of Acronyms

| | | | |
|--------------|---|---------|--|
| AIDS | Acquired Immune Deficiency Syndrome | JHPIEGO | Johns Hopkins Program for International Education on Gynecology and Obstetrics |
| AMREF | African Medical and Research Foundation | | |
| AZT | Azidothymidine | | |
| C-section | Caesarean Section | KNARDA | Kano Agricultural and Rural Development Agency |
| CBH | Central Board of Health | MCH | Maternal and Child Health |
| CFA | Franc des Colonies Françaises d'Afrique (Franc of the denomination of the Central African States) | MMR | Maternal Mortality Ratio |
| CHC | Community Health Committees | MOH | Ministry of Health |
| CIDA | Canadian International Development Agency | MTCT | Mother To Child Transmission |
| CNHU | National Hospital and University Centre | NAPEP | National Programme on Eradication of Poverty |
| CONGAFEN | Coordination of NGOs and Feminine Associations of Niger | NGO | Non-Governmental Organization |
| CONIPRAT | Nigerien Committee on Traditional Practices | OB/GYN | Obstetrician/Gynaecologist |
| CPR | Contraceptive Prevalence Rate | RVF | Recto-Vaginal Fistula |
| DfID | Department for International Development | STI | Sexually Transmitted Infection |
| DHS | Demographic and Health Survey | TBA | Traditional Birth Attendant |
| DIMOL | Reproductive Health for Low Risk Maternity | UNAIDS | Joint United Nations Programme on HIV/AIDS |
| ECWA | Evangelical Church of West Africa | UNDP | United Nations Development Programme |
| FIGO | International Federation of Gynaecology and Obstetrics | UNFPA | United Nations Population Fund |
| FGM | Female Genital Mutilation | UNICEF | United Nations Children's Fund |
| FORWARD | Foundation for Women's Health Research and Development | USAID | United States Agency for International Development |
| GHON | Grass Roots Health Organization of Nigeria | USD | United States Dollar |
| HIV | Human Immunodeficiency Virus | UTH | University Teaching Hospital |
| Project HOPE | Project Health Opportunity for Everyone | VCT | Voluntary Counselling and Testing |
| IVP | Intravenous Pyelogram | VVF | Vesico-Vaginal Fistula |
| | | WHO | World Health Organization |

Executive Summary

“The sun should not rise or set twice on a labouring woman” —*African proverb*

When people first learn about obstetric fistula, their reaction is often to reject hearing more. The subject is just too unpleasant. Yet, rejection is often what happens to women living with fistula.

Obstetric fistula is a devastating pregnancy-related disability and affects an estimated 50,000–100,000 women each year.¹ While fistula is a global problem, it appears to be particularly common in Africa. Fistula is a condition that often develops during obstructed labour, when a woman cannot get a Caesarean section (C-Section). Obstruction can occur due to malnutrition and pregnancy at a young age (which both lead to small pelvis width, and thus pronounced cephalo-pelvic disproportion). The woman can be in labour for five days or more without medical help, although obstructed labour for even a single day can yield damaging outcomes. If the obstruction is not interrupted in a timely manner, the prolonged pressure of the baby’s head against the mother’s pelvis cuts off the blood supply to the soft tissues surrounding her bladder, rectum and vagina, leading to tissue necrosis. The baby usually dies, and fistula is the result.

If the fistula is between the woman’s vagina and bladder (vesico-vaginal), she has continuous leakage of urine; and if it is between her vagina and rectum (recto-vaginal), she loses control of her bowel movement. In most cases, permanent incontinence ensues until the fistula can be surgically repaired. In addition, most women are either unaware that treatment is available, or cannot access or afford it.

Unable to stay dry, many women live with the constant and humiliating smell of urine and/or feces. Nerve damage to the legs can also make it difficult to walk. Affected women are often reject-

ed by their husband or partner, shunned by their community and blamed for their condition. Women who remain untreated may not only face a life of shame and isolation, but may also face a slow, premature death from infection and kidney failure. Because of their poverty and their lack of political status, not to mention the stigma that their condition causes, these women have remained largely invisible to policy makers both in and out of their countries.

Preventing the Tragedy

Obstetric fistula is a preventable and treatable condition, one that no woman should have to endure. Direct causes of fistula include child-bearing at too early an age, malnutrition and limited access to emergency obstetric care. Some of the indirect causes, such as poverty and lack of education, prevent women from accessing services that could preclude the onset of such conditions. Prevalence is highest in impoverished communities in Africa and Asia.

The World Health Organization estimates that over two million women are currently living with obstetric fistulas. Estimates are based on the number of people who seek treatment in hospitals and clinics and are, therefore, likely to be much too low as many women never seek care.²

Fortunately, most fistulas can be repaired surgically, even if they are several years old. The cost ranges from \$100–\$400 USD, but this amount is far beyond what most patients can afford. If done properly, the success rate for surgical repair is as high as 90 per cent and women can usually continue to bear children. Attentive post-operative care, for a minimum of 10–14 days, is critical to prevent infection, catheter blockage and breakdown of the repair site while the surgery heals. Education and counselling are also needed to help restore the woman’s self-esteem and allow her to reintegrate into her community once she is healed.

Fistula was once common throughout the world, but has been eradicated in areas such as Europe and North America through improved obstetric care. Obstetric fistulas are virtually unknown in places where early marriage is discouraged, women are educated about their bodies have access to family planning and skilled medical care is provided at childbirth.

Strategies to address fistula include preventative methods (postponing marriage and pregnancy for young girls and increasing access to education and family planning services for women and men, and providing access to quality medical care for all pregnant women to avoid complications); curative methods (repairing physical damage through surgical intervention); and rehabilitative methods (repairing emotional damage through counselling, social rehabilitation and vocational training).

Recognizing the Problem: A New Study

Reliable data on obstetric fistula are scarce. The full extent of the problem has never been mapped. To address this need for information, UNFPA, the United Nations Population Fund, partnered with EngenderHealth to conduct a ground-breaking study on the incidence of fistula in sub-Saharan Africa

and the capacity of hospitals to treat patients. A team of researchers travelled to nine countries over a period of six months to visit public and private sector hospitals that provide fistula surgery and to interview doctors, nurses, midwives and patients. Over 35 facilities in Benin, Chad, Malawi, Mali, Mozambique, Niger, Nigeria, Uganda and Zambia were visited during this rapid assessment process. The team also met with government officials and U.N. representatives. Results from this nine-country study will lay the groundwork for future action to prevent and treat fistula in the region.

In the countries in which facility-based assessments were conducted, it was learned that many of those who suffer from fistula are under 20 (some as young as 13); they are also often illiterate and poor. Many have been abandoned by their husbands or partners, forced out of their homes, ostracized by family and friends and even disdained by health workers. Rarely do they have the skills to earn a living and some may turn to commercial sex work to procure an income for themselves, further heightening their social and physical vulnerability. Despite these hardships, the women interviewed showed another common trait: tremendous courage and resilience.

Understanding the Context

| INDICATORS | Total Fertility Rate (2000-2005) | Maternal Mortality Ratio (Deaths per 100,000 Live Births) | Infant Mortality (Per 1000 Live Births) | % of Births with Skilled Attendants | Contraceptive Prevalence (%) (Any Method) | HIV Prevalence Rate for Women (%) (age 15-24) |
|------------|----------------------------------|---|---|-------------------------------------|---|---|
| COUNTRY | | | | | | |
| Benin | 5.68 | 880 | 81 | 60 | 16 | 3.72 |
| Chad | 6.65 | 1,500 | 116 | 16 | 8 | 4.28 |
| Malawi | 6.34 | 580 | 130 | 56 | 31 | 14.89 |
| Mali | 7.0 | 630 | 120 | 24 | 8 | 2.08 |
| Mozambique | 5.86 | 980 | 128 | 44 | 6 | 14.67 |
| Niger | 8.0 | 920 | 126 | 16 | 14 | NA |
| Nigeria | 5.42 | 1,100 | 79 | 42 | 15 | 5.83 |
| Uganda | 7.10 | 1,100 | 94 | 38 | 23 | 4.63 |
| Zambia | 5.66 | 870 | 80 | 47 | 25 | 20.98 |

Source: UNFPA State of World Population 2002

Sub-Saharan Africa is a region devastated by AIDS, malaria, famine, endemic poverty and years of political instability. This backdrop presents numerous challenges to the quality of health care. Because health care infrastructures are fragile and becoming more so in most of the countries visited, it is increasingly difficult for providers to maintain their level of skill and successfully repair fistulas once they have occurred. Many public hospitals face chronic shortages of funding, staff, equipment and surgical supplies. This lack of essential and emergency obstetric options means that services at facilities capable of performing emergency C-sections are still out of reach for women who want and are able to access treatment.

Critical Needs

Because of poverty and the stigma associated with their condition, most women living with fistulas remain invisible to policy makers both in their own countries and abroad. The assessment outlines the following critical areas that need to be addressed in order to lower the incidence of fistula in the region:

- **INFORMATION AND AWARENESS**

In many rural areas, girls are married just after they experience their first menstrual flow—between 10 and 15 years of age. In some cases, early marriage for girls occurs before the onset of their menstrual cycle, as a way to ensure virginity. Postponing the age of marriage and delaying childbirth can significantly reduce their risk of obstructed labour. Better education for women and their families about the dangers of pregnancy and childbirth and the value of emergency obstetric care is crucial. Information about family planning, sexually transmitted infections and HIV/AIDS should also be provided. Culturally sensitive advocacy campaigns on maternal health and obstetric fistula could educate communities about the warning signs of pregnancy complications and the need to get prompt medical attention. Women who have been successfully treated for fistula could also be trained to help with community outreach. Support

from local and national policy makers is needed for all educational efforts.

- **EMPOWERMENT OF WOMEN**

Women have the right to education and health care. Yet girls are frequently denied schooling, which tends to delay marriage and give them skills to earn an income. Social and cultural barriers also limit a woman's ability to seek medical care when needed. In many countries, pregnant women require permission from their husbands or male relatives to see a doctor. Cultural beliefs around the causes of obstructed labour—such as infidelity or being cursed—further limit a woman's ability to seek treatment. Legal and social change is needed to improve the status of women and provide girls with access to proper nutrition, health care and education. Men's involvement is crucial to achieve this change and to give young women other options in life besides childbearing.

- **TRAINING**

Reconstructive surgery is a delicate procedure that requires a specially trained surgeon and skilled nurses. Carefully monitored post-operative care is also crucial to a patient's recovery. In each of the nine countries visited, there is an urgent need for more doctors and support staff to handle the demand for treatment. Many hospitals rely heavily on the assistance of expatriate doctors. Local surgeons and nurses should be trained in fistula repair and their skills should be updated regularly. Midwives should immediately refer patients to emergency obstetric care when they detect obstructed labour. Referral systems and transportation to hospitals should be established and supported. Since emergency obstetric care is especially scarce in rural areas, incentives should be offered to attract skilled medical personnel to areas with the greatest needs.

- **EQUIPMENT**

Basic medical equipment and supplies must be in place in order to perform successful fistula surgery. In most of the hospitals visited, lack of supplies—

from suture material to a safe supply of blood—is a major problem. Financial support is urgently required to properly equip hospitals and help women in need.

- TRANSPORTATION

Many women with fistulas live in rural areas, far from medical help. Safe and reliable transportation to a hospital is often scarce or too expensive for poor women and their families. Many women interviewed had travelled for months on foot, by donkey or any other means available in search of a hospital that could treat them. Better transportation and communication systems between remote villages and hospitals should be a priority. Midwives can play a key role in the referral process, but measures to get women to hospitals quickly must first be established. Three classic delays (a delay in the decision to seek medical attention, a delay in reaching a health care facility and a delay in receiving emergency obstetric care at the facility) must be addressed in order to change the odds so that women get the high quality care they need.

- SUBSIDIZED CARE

Fistula surgery needs to be accessible and affordable to poor women. Some patients arrive at hospitals accompanied by family members after travelling long distances and having exhausted the last of their resources. Then they may need to find money for surgery, food at the hospital and lodging for their relatives. Poverty makes even moderate sums difficult to afford. In each country, one or two fistula centres that can provide free or subsidized services are needed. They should be located in areas that will serve the largest number of clients and should be easy to access.

- SUPPORT SERVICES

Fistula survivors who have been shunned and isolated typically experience intense feelings of shame, self-loathing and depression. They may blame themselves for their situation. Education and counselling can help restore their self-esteem

after surgery. Information on family planning, the need for a C-section for future pregnancies and HIV prevention is also essential. Social rehabilitation programmes can help women reintegrate into their communities and reconnect with their families. Life skills training can give women the means to earn an income once they are healed and prevent them from resorting to commercial sex work to survive. Social support services, offered in conjunction with hospital care, will significantly enhance a woman's physical and mental well-being.

The critical needs outlined above must also encompass the fundamental preventative, curative and rehabilitative interventions that contribute to reducing the incidence of obstetric fistula. Essential training of providers includes the broad range of emergency obstetric care to which fistula repair training can be added, in order to provide the highest quality of care possible. This includes setting up linkages to the community to help women access services on time, diagnosis of actual or potential complications *before* they occur, and monitoring the progress of labour to initiate early referrals when problems arise. Facilities must also have the necessary range of supplies and equipment to carry out emergency surgical procedures (such as C-sections) for women, so that morbidities such as fistula are limited. Transportation issues can be addressed with working ambulance systems and radio networks that enable facilities to communicate effectively with each other during maternal emergencies. And finally, subsidized care should be available for women who cannot afford set fees, so that treatment for maternal care and complications is widely accessible.

Fistula Needs Assessment Report

Introduction

Obstetric fistula, which includes both vesico-vaginal (VVF) and recto-vaginal fistula (RVF)*, represents a critically important and largely neglected issue in the field of reproductive health. The World Health Organization (WHO) estimates that at least two million girls and women currently live with fistula and that an additional 50,000 to 100,000 are affected each year.¹ For the vast majority of these girls and women, services to repair their condition remain unattainable for a number of reasons: their lack of knowledge that such a condition can be repaired; the distance they must travel to reach a facility that provides treatment; the low likelihood that, even if they can get to a facility, it will offer fistula repair in its portfolio of services; their inability to pay for the services if they are available; and the backlog with which facilities that do provide repairs are faced.

The clinical component of fistula care presents a number of difficulties, yet the context in which facilities are based and the degree to which communities are equipped to reintegrate women once repaired may also prove to be obstacles to treatment. The social rehabilitation of women after a successful fistula repair is challenging, as these clients are often extremely poor, abandoned by their husbands or partners and without skills to earn a living on their own. These conditions may render them especially vulnerable once they return to a community.

Background on Obstetric Fistula

In general, in low resource settings, fistulas are caused by obstructed labour. During this time, the baby's head remains pressed against vaginal and bladder wall tissue for a prolonged period of

time, causing necrosis and, ultimately, a fistula to develop.² While some women also develop fistulas following a hysterectomy or C-section, the majority of women in the countries where the needs assessment took place appear to have them at a young age, most often in conjunction with their first vaginal delivery.³

In the nine countries visited, the underlying causes are likely to include malnutrition (and possibly repeated infections) leading to small stature which, when combined with pregnancy at a young age, results in pronounced cephalo-pelvic disproportion. In addition, insufficient access to emergency obstetric care, coupled with the desire to deliver babies at home (which often occurs without skilled attendance) results in a situation where women, especially young women, are at high risk. In addition to these well known causes, physicians in the region also report fistulas resulting from poorly managed C-sections and deliveries within health facilities.⁴

Exact prevalence rates in the region (and, indeed, the world) are not known, but Dr. Tom Raassen and Dr. Festus Ilako extrapolate a figure of 6,000 to 15,000 new fistulas occurring each year in East Africa. This figure is based on the knowledge that every year, three million women survive deliveries in the region; for each thousand of these surviving mothers, there are an estimated two to five cases of fistula.⁵ If approximately 1,000 repairs are performed each year in the region, at least 80 per cent of women with fistula are not getting services.

Applying the same calculation to all the countries visited would mask significant differences between them and might paint an overly general picture of a condition affected by everything from health care infrastructure to cultural atti-

* It should be noted that VVF in this report is used to refer to all varieties of fistula that result in urinary incontinence. Up to 85 per cent of the fistulas in this category will be vesico-vaginal, but others may be urethro-vaginal or due to stress incontinence. RVF refers to fistulas that result in stool incontinence, although a few will stem from third-degree tears to the perineum.

tudes to labour. However, given that the circumstances that lead to fistula are widespread in each nation, it is safe to assume that many women in these countries are living with fistula and that the vast majority of them are not able to seek repair services.

Needs Assessment

To begin to grasp how best to address the range of possible strategic interventions, it is important to understand what facilities exist, how they operate and whether they are well situated to improve and/or expand their services. This needs assessment is intended to provide a snapshot of how some clinical services for fistula clients have been organized. It does not include survey data nor does it necessarily cover every facility in each country offering services. Rather, it is a glimpse of the issue, as seen through the eyes of the clients who seek services, the health service infrastructure that supports services and the professional staff who provide surgical repairs and care for the women as they recover from surgery.

Importantly, the data gathered by the individuals who conducted the research are primarily qualitative and represent one moment in time. These data were gathered via a series of rapid needs assessments during a six month period.

While additional data have been shared from some locations since the research took place, this supplemental information is not included in this report, as the information within it is considered timebound. The intention was to create a picture of the situation in various locations in order to flag issues for further investigation.

Methodology

The needs assessment was conducted by one clinical and one programme staff member from EngenderHealth during a series of site visits between May and October 2002. In each country, two to 12 public sector (usually district level) and private sector (usually mission) hospitals were visited. Administrators and professional staff (physicians, nurses and midwives) were interviewed, as well as fistula clients whenever possible. The fistula clients interviewed included those who a) were awaiting repair surgery; b) were immediately post-surgery and were recovering in the post-operative ward; c) were significantly (> 6 months) post-surgery and d) had carried a pregnancy post-surgery and delivered by C-section.

In addition, each country visit included meetings with representatives from the Ministry of Health (MOH) and local policy makers, as well as UNFPA (United Nations Population Fund) country offices, which all have an interest in supporting fistula work.

A simple, nine-question survey instrument (see appendix for sample) was used for each interview. Clinical facilities were toured and the wards, waiting areas and operating theatres were observed whenever possible. When it was feasible to review theatre logbooks, team members took advantage of the opportunity.

Country-Specific Findings

The following is an analysis and summary of findings at a country level, followed by fact sheets on each site visit.

BENIN

Background

Some of the indicators of reproductive health in Benin are quite positive. More than 70 per cent of women seek antenatal care, 62 per cent of whom have had four or more visits per pregnancy. In the capital city of Cotonou, 98 per cent of births are assisted. Even so, 23 per cent of women overall still deliver at home with unskilled traditional birth attendants (TBAs). The **total fertility rate is 5.68** and UNFPA data suggest a **3 per cent prevalence rate of modern method contraceptive use**, as compared to 16 per cent for all methods.⁶ With a C-section rate of 3 per cent, Benin's **maternal mortality ratio is, not surprisingly, very high at 880 deaths for every 100,000 live births.**⁷

Since Benin's democratic elections in 1996, interest in reproductive health policy has emerged. For instance, some legislators are trying to pass a law that prohibits female genital mutilation (FGM) and promotes training those who perform excisions in other skills. Additional features of their proposal involve the improved management of rape cases and therapeutic interruptions of pregnancy. While none of these issues has a direct bearing on fistula in terms of policy, the burgeoning interest in and commitment to reproductive health is evidence of a positive environment in which fistula care takes place.

UNFPA plans to work with providers of fistula surgery in two ways: 1) prevention aimed at improving conditions around prolonged and complex deliveries with rapid diagnosis, better access to hospital care and C-sections and 2) identification of existing cases, actions to reintegrate women into communities and the inclusion of fistula surgery in OB/GYN and urology residencies. **The MOH notes that it is ready to support any action that will lead to the reduction of maternal mortality and morbidity.** Programming for the management of obstetric fistula is included in the national plan for 2002 to 2005.

Benin has made **the reduction of HIV/AIDS a priority**, although prevalence has risen from less than 1 per cent to 4.1 per cent during the past 10 years. HIV/AIDS and malaria have been the health issues given the most attention in Benin, as they are the source of the most illness and death and require frequent interventions. **Fistula has not been acknowledged as an urgent concern.**

Issues and Challenges

The needs assessment team visited four hospitals. National Hospital and University Centre (CNHU); Evangelical Hospital of Bemberéké (where there was one woman who had been repaired and was receiving post-operative care); Brothers of St. Jean of God Hospital; and Zone Hospital of Natitingou (where no fistula surgery is currently performed, although cases have presented at the facility and been referred elsewhere). Two of these are private hospitals and two are public. In addition, the team met with the Atacora and Borgou Departmental Directors of Public Health and with the MOH Direction of Family Health Division. Members of the UNFPA country office also provided background information.

Discussions with UNFPA staff, district administrators and health care workers suggest that **fistula is not yet acknowledged as a critical issue in Benin.** Of the four sites visited, only three offer fistula repair surgery. **Fistula is seldom recorded in provider logs and information on prevalence or incidence has never been gathered.** Many women prefer to go to Niger, Nigeria or Togo for treatment to maintain their anonymity. Most cases are found in the North, where few hospitals exist. It should be noted that some women develop a fistula at a young age; others occur in women who are multiparous. Women may also have had a fistula with a first pregnancy and have been living with the condition for years.

Still, providers only report 80 cases a year, a number they acknowledge is likely to be an

undercount. It should be noted that this is not an exhaustive finding and is only used to give a very general idea of the national caseload, but it may also be true that due to initiatives to improve women's health, the incidence of fistula is lower. On the other hand, in the North, where fistula is most common, FGM is also prevalent, a factor which can predispose women not only to fistula but to maternal mortality. It is, then, possible that women with obstructed labour die before they can reach emergency care.

For the most part, however, **fistula repair has been deemed by some providers in Benin as "luxury" surgery**, since women rarely die from the condition, though they often live as outcasts in their communities. In this way, fistula is perceived as more of a social than a medical crisis. Indeed, many men and women are not aware that fistula is a curable medical problem.

Other traditions practiced in Benin may influence women's decisions to seek treatment. Women afraid to discuss their symptoms in a hospital may consult local healers for help. Some healers, unaware that fistula is a treatable condition, may try to help women overcome their "curse". Consequently, women develop the belief that there is no hope for a cure and, in the process, may exhaust their limited financial resources.

Should women choose to seek repair, only a few local qualified personnel are available to operate and **most facilities visited rely on the services of expatriate doctors.** Sometimes these foreign nationals serve on a continuous basis, but others may only visit intermittently. Although this system has been sufficient to handle the current demand, it is neither a sustainable nor an optimal arrangement. Problems also exist in keeping an adequate provision of supplies. Providers mentioned that it was often difficult to obtain surgical necessities, such as suture material. In the CNHU of Cotonou, the problem affected both fistula repairs as well as general surgery.

However, **other features of Benin's situation could create an excellent atmosphere for the care and prevention of fistula.** For instance,

strong resources for training in surgery and public health exist around the country. The medical school has introduced reproductive health training modules for professors to use during their lectures to medical students in the Certificat d'Etudes Spéciales phase. In addition, **two facilities with the potential to train providers and administrators in aspects of reproductive health have recently opened.** The first is the Regional Institute of Public Health in Ouidah, which offers masters degrees in areas such as epidemiology as well as training in social communication and advocacy, health information systems, vaccinology and infection prevention. Programmes in quality of care and reproductive health were also introduced recently. This centre specializes in research, an invaluable asset for investigating and helping to prevent fistula.

The other facility is a university with a medical school, located in the northern city of Parakou, of particular interest in relation to fistula as that region reports the largest number of cases. This school could be an excellent setting for doctors and students to learn about fistula care and surgery.

Recommendations and Critical Needs

- **Gather qualitative data to better understand the circumstances of clients' lives.**

The Regional Institute of Public Health in Ouidah has the capacity to conduct research to establish a better understanding of how women in Benin live with fistula. With fields of study here including epidemiology and public health, Benin is in a good position to collect information that could illuminate many issues surrounding the condition.

- **Spread awareness of how fistulas occur and what can be done about them.**

National health staff and providers understand the need for this kind of education, but community leaders and policy makers at all levels of government, as well as the kings and queens, must be made more conscious of the problem and how to prevent it.

- **Create programmes that allow women to support themselves financially.**

Fistulas occur in a climate where FGM and low age at marriage predispose women to the problem. The chance for women to earn their own living and learn skills that allow them to do so may improve their social, educational and economic status in Benin.

- **Train local specialists in fistula surgery so services can be offered on a continuous basis.**

Since the majority of fistula service providers are expatriate doctors who either visit intermittently or help a facility with a variety of tasks, it is imperative to train local physicians and medical students. Fistula services need to be sustainable and less reliant on expatriate doctors who may eventually leave.

- **Develop a referral system for fistula services.**

In Benin, information spreads quickly by word of mouth throughout villages and larger towns. Simply by talking about her experience, a woman who has received treatment for fistula can motivate others with the same condition to seek care. But village clinics need more advanced technology, such as a network of radios, to refer cases that involve prolonged labour or other complications.

- **Consider building a model for fistula care at Tanguieta.**

The hospital at Tanguieta, Brothers of St. Jean of God, has had great success. The efforts of its providers suggest it might well serve as a base for regional training. Every year, a provider organizes missions with several collaborators to repair obstetric fistula, and the hospital has now expanded its services to include measures that help prevent fistula as well as cure it. Part of their strategy has involved trying to improve accessibility to remote regions, including the timely evacuation of clients. They have made a 24-hour ambulance available for responses from any of the 14 village clinics connected to the hospital's radio network. However, this initiative is completely funded by donations from

private organizations that key staff members have solicited on their own time. They have submitted a proposal to launch the project in an attempt to make the entire endeavour more sustainable.

Other options might be to designate Tanguieta as an internship site where medical students could get hands-on training in fistula surgery. A video-recording system in the operating theatre would allow them to become better acquainted with surgical techniques.

Fact Sheets on Benin Site Visits

A. CNHU - Centre National Hospitalier et Universitaire (National Hospital and University Centre), Cotonou, visited 1 October 2002

Size: Eight beds in maternity ward, one operating theatre.

Medical staff: Three urologists, of whom one is a professor who no longer performs surgery. Gynaecologists here refer fistula cases to urologists. There are three or four nurses on the surgical team to assist during operations.

Caseload: In 2001, three cases were seen and operated on. Normal yearly average is six. RVF cases are sent to the gastrointestinal surgery team, but these cases have become less prevalent.

Provenance of clients: Most come from Cotonou or other parts of the southern region of the country.

Typical client profile: The typical client is between 18 and 30 years old. Most clients developed a fistula during the course of C-section deliveries and were immediately referred to CNHU for surgery—usually 10 to 14 days after developing the fistula. One woman in recovery at CNHU had been living with a fistula for six years. She had seen several doctors who were not able to diagnose the problem, which could indicate a low rate of prevalence.

Assessment and screening process:

- Consultation.
- Strong odor of urine or faeces is often used as the determining factor.
- Physical examination to determine the size of the fistula.
- Analyses of blood (to check for anaemia), heart, blood pressure, etc.
- If fistula is not immediately recognized upon physical examination, complete x-rays are taken (e.g. for vesicle-uterine fistulas).

Post-operative care:

- Clients are kept in recovery for two weeks.
- Clients are advised to consult a gynaecologist if they would like to have more children.
- Clients are counselled not to get pregnant for at

least two years and to have a C-section if pregnancy occurs.

- Women are scheduled to return in one month to ensure symptoms have not recurred.

Rehabilitation/reintegration: No information.

Community outreach: None known.

Perceived support at the policy level: None known.

Estimated fully-loaded cost per procedure: 10,000 CFA francs (approximately \$14 USD) per day for hospitalization; 126,000 CFA (\$190 USD) for the surgery; and 50,000 CFA (\$75 USD) for pre-operative tests. If a woman is hospitalized for 17 days, which is the average time for fistula clients, the total cost can rise to \$365 USD, not including medication. If the first surgery is unsuccessful and the client comes back for a second attempt, all costs are the same except for the surgery, the price of which goes down to 62,000 CFA (\$90 USD). If a woman cannot pay, either the surgical team will contribute to the costs or she is referred to Tanguieta in the North or to Togo, where a German missionary physician sometimes comes to do surgery.

Resources: None.

Barriers:

- Lack of necessary equipment (stitching thread is often depleted).
- More doctors need to be trained: the surgical team needs strengthening as only two doctors operate.

B. Hôpital de Zone de Natitingou (Zone Hospital of Natitingou), visited 2 October 2002 (hospital visited informally)

Size: Not known.

Medical staff: One midwife performs the majority of deliveries; information on other staff was not available.

Caseload: Five cases in the past three years, none of which were surgically treated. Volunteer doctors who work there have, at times, told the clients that

they are suffering a gynaecological problem that may heal on its own. They are told to go home, but to return if their state does not improve. Only one has returned. All cases have been the result of complications during C-sections and hysterectomies.

Provenance of clients: Rural areas just outside of Natitingou.

Typical client profile: Most women are in their 30s.

Assessment and screening process:

- If a woman says that she no longer has the urge to urinate and that her clothes are always wet, fistula is assumed.
- Speculum is inserted so that clearer image of fistula can be observed.

Post-operative care: Not available.

Rehabilitation/reintegration: Not available.

Community outreach: Not available.

Perceived support at the policy level: Not available.

Estimated fully-loaded cost per procedure: Not available.

Resources: Not available.

Barriers: Not available.

C. Brothers of St. Jean of God Hospital, Hôpital de Zone de Tanguietà (Zone Hospital of Tanguietà), visited 3 October 2002

Size: 250 beds, 40 of which are in the maternity ward. Two operating theatres and special follow-up rooms for post-operative care.

Medical staff: One full-time expatriate physician who performs surgery; two general practitioners, both of whom perform C-sections; one gynaecologist, who comes once a year in April for two weeks to operate on fistula clients; four maternity ward nurses; and three midwives.

Caseload: The majority of fistula surgeries are performed during three specific blocks of time during the year, when the foreign delegation arrives. These missions arrive during the dry seasons because during the rainy season, women, even those with fistula, work in the fields. During each

mission, up to 15 women are operated on. Cases that emerge outside of one of the three periods are operated on by an expatriate doctor, Brother Florent, whose caseload runs to about seven clients a year. Each operation takes on average from four to six hours, depending on the complexity of the fistula.

Provenance of clients: The majority of clients come from Burkina Faso. Others arrive from other parts of Benin, Niger and Togo.

Typical client profile: Usually the women are very poor and developed the fistula with a first pregnancy. They range in age from 13 to 20 years old and are rarely older. However, one doctor remembers a woman in her 50s who had been living with fistula for 25 years before coming for treatment. Most women have been abandoned by their husbands, and many cases are due to complications from C-section or hysterectomy.

Assessment and screening process:

- Client is examined during an initial screening.
- The size and location of her fistula is determined. If the location of the fistula is not immediately obvious, a blue dye is inserted into the bladder to make the path of fluid conspicuous.
- Blood is drawn to prepare for the operation.
- Client is given parasite medication.
- Vitamins and minerals are administered if client is physically exhausted, anaemic or weak. This course of action can last up to two weeks. Once the initial screening process is completed, she is given a specific date upon which to return for surgery.

Post-operative care:

- Client remains in hospital for several weeks to recover.
- She is advised to wait two years before her next pregnancy, but often the timing of subsequent pregnancies is not the client's decision.
- She is also advised that it is necessary to have a C-section in the event of future pregnancies.

Rehabilitation/reintegration: No information.

Community outreach: Brother Florent goes on the radio as often as possible to announce the arrival of the surgery team. Also, the Swiss doctor who

organizes the surgical team missions to Tanguietà has enhanced the exchange of equipment and inter-clinic communication. A 24-hour ambulance is available, and a radio network between the hospital and the 14 peripheral clinics is in place. This facilitates rapid evacuation for emergency obstetric care, a critical tool in preventing fistula.

Perceived support at the policy level: The Beninese government has selected the region surrounding Tanguietà as its first health zone.

Estimated fully-loaded cost per procedure: The cost of the procedure is about 400,000 CFA, just shy of \$600 USD. However, actual costs incurred by women are far less, due to Brother Florent's fundraising initiatives, which have resulted in private organizations giving several donations to the hospital. Because of the subsidies, women pay what they can, in a model that is similar to the idea of a sliding scale. Women usually pay from 20,000 to 80,000 CFA (between \$30 and \$120 USD).

Resources: Three new surgeons have recently been added to the fistula surgery team that comes three times a year. The most recent mission included the filming of an operation, to be included in a documentary that will be used for fundraising purposes.

Barriers:

- Funds. Missionary fundraising efforts are not sustainable.
- Support from Beninese government is openly encouraging but not yet tangible.

D. Hôpital Evangélique de Bemberéké (Evangelical Hospital of Bemberéké), Bemberéké, visited 4 October 2002

Size: 60 beds, three operating theatres.

Medical staff: The operating team includes one expatriate OB/GYN, who volunteers three to four months out of the year; one person with a nursing certificate; and seven hospital workers who have been trained informally by the doctor.

Caseload: Surgeries are carried out three to four

months of the year, when the fistula surgeon is present. Many doctors who have been trained at the centre in Addis Ababa also come at various times during the year. When there is a fistula specialist present, information is spread very quickly by word of mouth, and women appear in higher numbers. The yearly caseload is about 10 to 15 cases. Most operations are successful.

Provenance of clients: Surrounding villages, as well as Niger and Nigeria.

Typical client profile: Clients are under 30 years old, live in the countryside and have typically suffered a very long labour.

Assessment and screening process:

- Client is examined.
- Catheter is inserted to determine location of fistula.

Post-operative care:

- Recovery period is normally considered 10 days.
- Antibiotics are given.
- Women who developed fistula during C-sections are supervised in the hospital for three weeks to see if the wound will heal on its own. Years ago, the physician would insist that the client undergo tubal ligation, because the level of health education (and women's decision-making power) was such that women would not be able to return for follow-up care, and full recovery would not take place.

Rehabilitation/reintegration: Since many clients later return to the hospital for C-sections, it is inferred that they have either returned to their husbands or that they have found new ones.

Community outreach: Word of mouth.

Perceived support at the policy level: None necessary.

Estimated fully-loaded cost per procedure: 30,000 CFA (\$45 USD); most women pay.

Resources: Not available.

Barriers: Not available.

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CHAD

Background

Ensuring reproductive health in Chad presents some daunting challenges to its citizens, politicians and health care providers. By the age of 15, 9 per cent of women have had sexual relations and by 17, 40 per cent have had at least one child or are pregnant. **Only 16 per cent of total births occur with skilled attendance.⁸ In addition, according to the most recent DHS, less than 1 per cent of deliveries in Chad are C-sections.** Research on contraceptive prevalence is a relatively new phenomenon in the country: until 1996, the rate of contraceptive use was not known at the national level. **Use of modern methods is now 2 per cent,** as compared to an overall rate (including all methods) of 8 per cent.⁹

UNFPA's 2002 *State of World Population report* indicates a fertility rate of 6.65 and a maternal mortality ratio of 1,500 for every 100,000 live births. However, Chad only reports 241 cases of fistula a year. Given other reproductive health data, as well as the prevalence of risk factors such as FGM, this estimate is probably low. And as word that treatment is available has spread, women have emerged in great numbers to receive care. For instance, Swiss missionaries performing fistula surgeries in a public hospital in the northern town of Adré invited a team of surgeons from the training centre in Addis Ababa to come in March. These missionaries, along with the Chief Hospital Director, organized a campaign to report on the severity of fistula in the region. They went from village to village to talk to women with the condition. What they found were women abandoned, hiding, ashamed and unaware that there was hope for recovery. Within one week of the missionaries beginning their rounds, 70 women emerged to receive treatment. This event stands in stark contrast to the typical scenario, which involves **women living with fistula not seeking treatment in part because they do not realize that fistula can be repaired.**

Both non-governmental organizations (NGOs) and governmental initiatives are underway to improve reproductive health care in general and fistula treatment in particular. **UNFPA has selected Chad as a pilot country for the expansion of resources for fistula,** donating start-up funds, while sponsoring two projects related to the condition. The first is based in N'djamena's public hospital with a goal of treating and operating on clients in a region where the fistula situation appears dire. The second involves supporting a fistula knowledge sharing group, which plans to establish a network of people across Africa to discuss the improvement of fistula treatment and the reintegration of women into their communities. One goal of the group is to establish a website which would enable other countries to learn more about possible planning for fistula repair projects and programmes.

On another front, **the government has recently tried to enhance the protection of its citizens' reproductive health rights with a new law that makes forced marriage and FGM, among other practices, illegal and punishable by substantial fines** of 500,000 CFA, approximately \$725 USD. Once established and recognized as a national decree, such a law could have a dramatic influence on the prevalence of fistula in the country.

The MOH has also recognized the need at both the policy and community level to make Chadians more aware of and sensitive to issues around fistula. In May 2001, Chadian officials attended the 2010 Vision Forum for Central and West Africa, a conference whose topic was maternal mortality and morbidity. While there, they saw a film called "Guérir ou Mourir" ("To Heal or Die"), produced by the United Nations Children's Fund (UNICEF), about the prevalence of fistula in Mali. Before then, many had never heard of the condition. In addition, the MOH is concerned with devising incentives for women service providers to

remain in remote locations to increase the availability of services to women ashamed to seek care from male health professionals. Finally, two doctors spent this August in Addis Ababa receiving formal training in fistula repair.

Issues and Challenges

The needs assessment team visited the UNFPA country office and met with staff there, working closely with the country representative and the programme director. The team also visited two service delivery sites where fistula repairs are offered. Hôpital de la Liberté in N'djamena is a public hospital that provides services for women from all over the country. There the team met with the Medical Director and the Chief Gynaecologist, who was trained in fistula repair at the centre in Addis Ababa. At Liberté, the team had the opportunity to speak with several women who were awaiting surgery, as well as six who had already had their operations and were in recovery. In Abéché, the team met with a general practitioner, also trained in Addis Ababa, who performed fistula repair at the Public Hospital of Abéché, and with an expatriate gynaecologist who volunteers in the maternity ward and offers assistance during fistula surgeries. Interviews were conducted with the Minister of Health, the District Commissioner of Ouaddaï and the Health Delegate for the region of Ouaddaï. In Abéché, there were no fistula clients present; however, the team was informed that many are expected during the month of December, when the providers from Addis Ababa are scheduled to return.

The information gathered from these discussions and observations gave rise to a complex view of fistula in Chad, one that is influenced by both cultural and economic factors. **Women between the ages of 15 and 20 comprise the majority of fistula cases, and many of these clients reported being married at 13**, with some women stating that they had been married as early as nine. The belief is that forcing a woman into marriage at a young age will reduce the likelihood that she will become sexually active before marriage and so dis-

honour her family. Furthermore, women who are not yet married have no access to contraception, which means that single women who get pregnant and develop fistula see the condition as some kind of punishment for their “mistake”, a sentiment with which providers may agree. Even married women with fistula are sometimes accused of infidelity. Long labour may mean that they are asked to confess the names of other sexual partners. Traditional beliefs may contribute to **a culture of shame that exists around fistula in Chad, linked to a prevailing notion that fistula cannot be medically treated.**

Some other traditional practices may put women at significant risk for fistula as well. As noted above, **most women choose home births**, helped by TBAs, their parents or no one at all. While this is the least costly option for women, many TBAs have not received any clinical training. For example, it is not uncommon for a TBA to use practices such as spreading crushed okra over her hands and arms to improve lubrication before reaching inside a woman's vagina to try to pull the baby out. If the baby has presented in a breech position, and the TBA has not been able to feel the baby's head, she might, with the assistance of another unskilled helper, take a woman by her ankles and shake her up and down to shift the baby's orientation in the womb. If TBAs had the opportunity for some additional training, it might be that practices such as these—which potentially prolong an already complicated labour, heighten the risk of fistula and jeopardize the woman's health—would be less prevalent.

Given these scenarios, it would seem that hospital care would be more appealing to some women; however, this rarely appears to be the case. **If a woman is seeking fistula repair, she may well have heard about botched surgeries** that worsened a woman's condition. **All of the physicians interviewed spoke of the frequency with which unskilled physicians operate on women**, interventions that sometimes create an additional fistula or make the existing one bigger and more complex to repair. The team spoke with one woman

who had been operated on at several hospitals before her arrival at Liberté. As a result of random cutting and failed surgeries, she would have to wait for the December arrival of the Addis Ababa team in Abéché to be treated.

Another facet of treatment that was mentioned several times is that **women prefer to talk about intimate health issues with other women; yet, Chad currently suffers from a shortage of female health providers.** This preference is so strong that the District Commissioner of Ouaddaï felt that the lack of women providers posed a significant obstacle to the reduction of maternal morbidity. Women health care workers are particularly absent in rural areas and often refuse to work in these regions even when the government posts them there. No incentive for women to work in these locales is in place at a national level. Furthermore, the staffing problem is not only limited to women providers. **The dearth of physicians has meant that at times maintenance staff are trained to carry out certain medical and surgical procedures.**

The cost of both treatment and transportation hinders women seeking help as well. **Hospitals are associated with needing to pay substantial sums of money for fees and medications, and women rarely have the resources.** Furthermore, **transportation is difficult, time-consuming and expensive.** Most women do not have access to a car and often arrive at hospitals by donkey or camel. In addition, women may well need to obtain permission from their husbands and parents to seek health care.

Recommendations and Critical Needs

- **Sponsor more fistula repair training for current staff and recruit more providers.**

To date, only two doctors have received advanced technical training. Yet other providers report being interested in learning more about fistula repair and improving their current skills. If proper training were available, including access to protocols to follow, it would not only reduce the incidence of

repeated surgery for some women, but increase the availability of repairs for more women.

- **Provide more and better information about fistula to potential clients.**

Those interviewed suggested that communicating with women about the condition and possible repair services on radio and television in French, Arabic and local languages would be a good means to raise awareness about the condition. These messages might also address related concerns, such as some of the complications of early marriage, prolonged labour in the absence of a trained health professional and the location of facilities. The inclusion of the personal stories of one or two women in these messages was also suggested as a way to reach and influence a large audience.

- **Gather data from communities to paint a more accurate picture of the impact of fistula.**

Comprehensive forms created by Hôpital de la Liberté in N'djamena to report on their cases could be used to gather information about fistula near other health care facilities. A clearer picture of fistula and how it affects the health and well-being of women and families would be more likely to persuade the MOH and the national government, as well as other possible partners, either to implement policies or to sponsor specific programmes.

- **Develop ways for local leaders, parents and district level officials to become involved in increasing awareness about fistula.**

Providers feel that establishing local commissions, especially those that draw on the skills of regional administrators, would help to bring the issue of fistula to the forefront. Having a variety of local spokespeople would raise awareness and perhaps even improve the responsibility of caring for women and girls with fistula.

- **Incorporate fistula repair training into the medical school curriculum.**

While this idea is an important goal, local authorities suggest that it is an aim that is not feasible in

the short term. Once the skill level and number of providers equipped to repair fistula has increased, this may, however, be an important avenue toward improving local capacity. One important step along the way is undoubtedly the creation of a protocol for doctors in training to follow.

- **Consider establishing a national fistula centre at Hôpital de la Liberté.**

This hospital is a potential candidate for such a centre, given the space in the facility, the interest on the part of providers, as well as the equipment, resources and assistance they now receive from other partners.

Fact Sheets on Chad Site Visits

A. Hôpital Préfectoral d'Abéché (District Hospital of Abéché), Abéché (region of Ouaddaï), visited 26 September 2002

Size: 214 beds, two operating theatres, one delivery room with three stations and two delivery beds per station.

Medical staff: Five medical doctors, including Dr. Barraah Mallah, a general practitioner who was trained in Addis Ababa to perform fistula surgery; six nurses; and one midwife, who is the only trained midwife for the entire region of Ouaddaï. Because of hospital staffing shortages, maintenance workers are sometimes trained for certain surgical procedures, such as administering injections, delivering babies and performing minor surgeries, among other tasks. In the event of complications, a doctor is called in for assistance.

Caseload: About 80 deliveries per month. Fistula surgery is done every Wednesday. From the period of January to March, before the fistula team from Addis Ababa arrived, 42 surgeries were performed, 32 of which were successful. Between March and August 2002, 20 surgeries were performed.

Provenance of clients: Clients come from the entire region of Ouaddaï, Biltine and Salamata, in the south. They generally reach the facility on donkeys or camels and very rarely by taxi.

Typical client profile: Most clients are nomads from the Peuhl ethnic group and generally come from very rural and distant villages. They are usually under 20 years of age (between 12 and 18) and most developed the fistula in their first, or in some cases their second, pregnancy.

Assessment and screening process:

- There is no pre-operative laboratory screening process (although there is a laboratory).
- There is no equipment available to perform intake tests such as for haemoglobin or sexually transmitted infections (STIs). Only a physical exam is conducted to measure vitals: blood pressure, pulse, temperature.

- In examining the site of the fistula, the doctor looks at the bladder, vagina and the tracts associated with each. If the bladder is completely destroyed, he usually will not operate, because complete reconstruction of such delicate tissue is very difficult. Recently, when faced with such cases, he advised women to return in December 2002, when the team from Addis Ababa would be on-site.

- RVF is extremely rare and such cases have not emerged at Abéché.

Post-operative care:

- Clients are kept in post-op, in the maternity ward, for about two weeks.
- A catheter is inserted after the operation and kept in for the entire period of recovery. On the 13th day after the operation, the catheter is clamped and is then removed the following day. This allows the physician to check for incontinence. If the urinary muscles are intact and there is no sign of incontinence, the client is released in another week.
- Before the client is released, she is given a booklet that indicates that she has had fistula surgery. This booklet is presented to providers if she is once again admitted for delivery, so that they know to deliver her by C-section.

Rehabilitation/reintegration: No physical rehabilitation is done at the hospital level. Parents are advised (if present) about exercises possible for muscular therapy. No process of social reintegration is known.

Community outreach: None known.

Perceived support at the policy level: There is a state credit given every year to health workers; however, none was distributed in 2002.

Estimated fully-loaded cost per procedure: 10,000 CFA, approximately \$14 USD. This is a minimal cost, which only covers the procedure itself. Clients pay for food during recovery and for medications as well. Abéché is hoping that the UNFPA project will soon be extended to include their hospital, so that

international funding will be available for support.

Resources: See support at policy level.

Barriers:

- Lack of necessary equipment. Equipment is often subsidized through the doctors' salaries.
- Lack of qualified personnel. It is very difficult to entice people to work in that area as it is very remote and conditions are rough.
- Lack of adequate infrastructure to support hospital activities.
- No mattresses for beds in fistula wards. Only hard cardboard-like mats are available.
- A space exists for a laboratory, but there is no support for its upkeep so it is not used.
- Lack and poor quality of transportation from villages to hospital, including bad roads.

B. Hôpital de la Liberté (Liberty Hospital), N'djamena, visited 23 September 2002

Size: 300 beds; 30 beds in maternity ward, where about 45 deliveries per month are conducted, 3 per cent of which are C-sections; two rooms reserved for fistula clients, one for pre-op and one for post-op; one rehabilitation room, for kinesthesiology; one operating theatre.

Medical staff: Two gynaecologists, one of whom, Dr. Mahamat Koyolta, performs the majority of the fistula surgeries; two general practitioners; four anaesthetists; one acupuncturist, who helps with physical rehabilitation; two medical students, one of whom is writing his medical thesis on obstetric fistula; 10 midwives; eight nurses; and 11 ward assistants.

Caseload: During the past three months, Liberté has seen 32 cases, including clients with mostly VVFs. RVFs are much less common and are usually not seen here. Some operations are performed on women who have had operations in other hospitals by doctors who were not properly trained. These cases are often very difficult and if they are too complex, surgery cannot be performed here.

Provenance of clients: Clients come from all

regions of the country, but are primarily from central and northern Chad where, for cultural reasons, women tend to marry much younger than in other regions of the country. Many women are brought to the hospital by their parents or accompanied by a friend. Of all the women who have come to Liberté, only one has been accompanied by her husband. He cared for her while she was a client and later took her home and continued to look after her throughout her recovery period.

Typical client profile: They tend to be between 15 and 20 years old, and many of them were married at 13. Most live in rural settings, are housewives and are very poor. They have almost always been in labour for over 48 hours. The majority had undergone FGM.

Assessment and screening process:

- The size and condition of the fistula is assessed.
- The client is given a physical exam to establish the state of her bladder, urethra and cervix, and determine, for example, if the tissue is inflamed or damaged. Most cases are eligible for operation; however, fistulas that are too large or those that have already been operated on once or even several times by unskilled surgeons are sometimes too difficult to be attempted again.

Post-operative care:

- Clients remain in post-op for one month of recovery.
- Some who have nowhere to go are asked to remain on after healing is complete to work in the maternity or fistula wards as ward assistants.
- If a woman who has already had one or several operations comes to Liberté, she will wait for three months before Dr. Koyolta makes an attempt at surgery.
- Women are advised to abstain from sexual intercourse for three months after the operation.
- Women are counselled to make sure to either have a C-section or to deliver in a hospital setting if they have subsequent pregnancies.

Rehabilitation/reintegration: Women are given a \$60 USD subsidy, which is separate from the project money used to pay for each operation, to help them get back on their feet. But this amount is largely insufficient, as it is used to buy food during their

recovery in the hospital (Liberté only pays for one meal per day) and for transportation back home. There are no funds to cover social reintegration to their communities.

Community outreach: None known.

Perceived support at the policy level: Virtually none. Many high-level government officials are not aware that the problem exists.

Estimated fully-loaded cost per procedure: \$222 USD, paid by the UNFPA project. This amount covers surgical equipment, the cost of medications and three months of room and board, with one meal per day during recovery.

Resources: UNFPA project funds and technical assistance from the training centre in Addis Ababa.

Barriers:

- Having only one surgeon is very difficult. Considering the caseload, there should be at least two.
- Current equipment on hand is not sufficient. However, UNFPA has provided some funds to purchase materials that were outlined in a list generated by the training centre in Addis Ababa.

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The needs assessment team is deeply grateful to the following individuals in Chad for their assistance with this project:

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Dr. Barraah S. Mallah, Chief Medical Doctor, fistula surgeon
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MALAWI

Background

Reproductive health in Malawi is framed by “**uniform poverty**”, according to a physician in the southern district, and the many challenges to health this poverty poses. In addition, a famine which started several months ago in pockets of the country is becoming more widespread.

The latest published prevalence figures for HIV suggest infection rates among adults of about 25 per cent in urban areas and 13 per cent in rural areas.¹⁰ Among women 15 to 24 years old, the estimated prevalence rate is 13 per cent. Ten per cent of women attending antenatal care in rural areas are HIV positive, as are 20 per cent of urban women who seek antenatal care. While the rates vary in the North and South, it is estimated that 70 per cent of the country’s hospital beds are occupied by those who are HIV positive.

The **maternal mortality ratio has probably increased dramatically in the last decade.**” Of note is the fact that the C-section rate (as reported in the southern region) is very low, 2.7 per cent.¹² The rate of obstructed labour ranges from 10 per cent¹³ to 22 per cent¹⁴. Since fistulas form as a result of obstructed labour when emergency C-sections are not available, the logical conclusion is that fistula is a common occurrence. In addition, the review of a theatre logbook at one site revealed a considerable number of destructive vaginal operations for obstructed labour. It was apparent that fistula is widespread in the districts that were visited, although it should be noted that the study was done in only four districts and that the findings are not intended as generalizations about the fistula situation in the country. For these and other reasons, despite an unknown prevalence rate in the country, providers concur that fistula is a major problem in Malawi.

There is some good news on the reproductive health front, however. The **contraceptive prevalence rate for modern methods has more than tripled since 1992. Currently, 30.5 per cent of**

married women are using a method—and 26 per cent are using a modern method; in 1992, the latter figure was only 7 per cent.¹⁵ In addition, 91 per cent of mothers who had children in the previous five years had at least one antenatal care visit. For 56 per cent of the births, the mothers had four or more antenatal care visits. Unfortunately, fully half of all pregnant women had not had even one antenatal care visit by the start of their sixth month of pregnancy, so the timing of visits remains a challenge. Despite this fact, the percentage of attended births delivered within a facility is 56 per cent, significantly higher than in neighbouring countries.¹⁶

The Government of Malawi, recognizing that maternal health needed to be made a priority, instituted a **Safe Motherhood Initiatives programme** in 1995, with the ultimate goal of “reduc[ing] maternal and infant mortality by improving access to quality essential obstetric and neonatal care”.¹⁷ To improve access, one key objective has been to obtain more vehicle and bicycle ambulances and to put these in the hands of headmen, whom experience has suggested are recognized by the community as those best suited to manage dispatch. There remains conflicting evidence, however, on the cultural acceptability of bicycle ambulances.¹⁸

In addition to increasing access, the programme has also aimed **to improve the attitudes of health care providers as well as to sharpen their technical skills.** To understand the current situation, research will be conducted on attitudes and motivations, as well as what can be done to improve the supervisory system. A key component of the current initiative is to work closely at the community level to establish village committees on safe motherhood, organize transportation plans and enhance the knowledge of TBAs so that they can recognize signs of obstructed labour and act efficiently to get a woman to a facility. The (relatively high) percentage of women who deliver in a facili-

ty, as mentioned above, may be due to the interventions of the safe motherhood programme to date.

Issues and Challenges

The needs assessment team met with UNFPA country office staff, the MOH Reproductive Health Unit and staff of the United States Agency for International Development (USAID) in Lilongwe. In Blantyre, the team met with a representative of the Safe Motherhood Programme in the southern district, funded by the UK Department for International Development (DfID), as well as with staff of Queen Elizabeth Central Hospital and Mwaiwathu Hospital, a private hospital that provides services only for clients who can pay. Finally, the team met with staff at Mulanje Mission Hospital in Mulanje, Zomba Central Hospital in Zomba, Machinga District Hospital in Machinga and Nkhoma Mission Hospital in Nkhoma. At a debriefing meeting, the team also had the opportunity to engage in discussion with representatives from WHO and the Canadian International Development Agency (CIDA).

Of note is the fact that **a gap exists between some policy makers and the service delivery community in terms of perspectives on fistula and knowledge about the condition.** Among those who had not had the opportunity to spend a lot of time in treatment settings, there was little knowledge about fistula as a key reproductive morbidity within the country. At service delivery sites, the consensus among all levels of providers was that fistula is a big and growing problem. In fact, when asked whether any official communication (or advertising) about the availability of fistula repair services had been done in the community, one provider said, “Oh no, we would be too scared to do so...we would be overwhelmed.”

The situation of women and their ability to seek maternal health care services is strongly influenced by **local cultural beliefs, pregnancy at a young age, profound gender inequities and limited transportation options.** In addition, at the facility level, there have been such **dramatic staffing shortages** that many health centres have

had to close. Within the existing facilities, there are a number of challenges to quality of care, most notably poor staff treatment of clients and shortages of materials and supplies. Finally, as other reproductive morbidities, such as cervical cancer, are becoming more widely recognized, there is competition within facilities for operating theatre space as, understandably, clients with potentially life-threatening conditions take priority over fistula clients.

At the community level, depending on the region or area of the country, a number of local beliefs about pregnancy and delivery serve as obstacles to women seeking care, even when in obstructed labour. For example, **in deference to local traditions, a woman will try not to tell anyone her due date.** During antenatal care visits at health facilities, when asked the first date of her last menstrual period, she will reply that she must consult with her husband, as he will know. Indeed, he does know, as it is his responsibility to report a missed period to the elders, since menstruating women are considered “impure” and, for this reason, are not allowed to perform certain tasks within the community.

As is often cited in neighbouring countries, women in the areas visited, **are expected to give birth at home, especially for the first time.** If a woman has a prolonged labour, she is assumed to have had other sexual partners, and must shout them out in order for the baby to be “released” through the birth canal. In some communities, the husband or partner is also expected to name other partners. One reason cited for a woman not delivering at facilities, therefore, is that it would appear that she is anticipating a difficult delivery because she has had other partners—thus labelling herself guilty of such actions even before enduring a prolonged labour. **Decisions about when and where to seek care are usually made by the uncle** (or occasionally, by the husband); without their input, a woman would be unlikely to seek care on her own. Because it is considered embarrassing to be in labour, if a woman needs to be transported to a health facility, she will wait until it grows

dark so that others will not see her.

Given that **women most often experience first pregnancies as adolescents, the risk of obstructed labour is even greater because of insufficient pelvic size.** Moreover, **since they may have participated in rites of initiation, they are prime candidates for early and repeated STIs.** While some initiation rites are educational and designed to teach girls about hygiene, cooking, housekeeping and sewing, others put them at significant risk. Notably, in some parts of the southern district, practicing “afisi” (which means hyena) involves sexual activity with a girl as young as eight. The girl’s parents choose, negotiate with and pay a man from their community to initiate sexual activity with their daughter at night as a way to “teach” her how to have sexual relationships. The girl is not told about this arrangement beforehand and, because it is dark, is not supposed to be able to identify the man.

Given all of the inequities in gender relations, it is not surprising that there is also **evidence of imbalance of power in issues related to transportation.** In some locations, bicycle ambulances were considered a possible way to overcome the dearth of transportation options, but in many locations, women would not be allowed to ride a bicycle. In addition, because women could be seen on a bicycle, even if the bicycle were driven by a man, it is not considered an ideal choice for a woman in labour. Furthermore, the oxcarts which were designed to help some communities secure additional transportation had to be re-positioned to tilt, as anyone lying on a flat surface is often considered dead.

Despite these obstacles, **many health centres now have telephones and some have radios to communicate with the referral hospital, which can dispatch a vehicle ambulance (if one is available, working, etc.)** In addition, the village health committees have helped to organize bicycle ambulances and oxcarts. Unfortunately, given the size of the districts, the many health centres (often 14 to 16) contained in each district and the tendency of the vehicle ambulances to break down, it can still easily

take 24 hours for one to appear if called. As noted above, the bicycle ambulances and the oxcarts have faced some challenges, but are functioning effectively in some communities.

Moreover, because of **severe staffing shortages, a number of health centres have had to close and a brand new, fully equipped health centre has not been able to open.** The nursing school has had little success getting their students licensed (75 out of 100 students failed this year), and 1,800 trained nurses in the country are not working as nurses because the pay is so low and the working conditions so poor. In addition, the nursing council reports that 65 nurses have left Malawi over the past year for more lucrative employment elsewhere. There are 10 gynaecologists in the country, including eight expatriates, and they are all located in the central and southern districts. Due to the staffing crisis, many stories were shared with the assessment team about less than ideal solutions to this difficult situation.

Not surprisingly, the **quality of care is compromised within the health facilities that continue to function.** Nurses are in charge of as many as 140 patients per ward, and are often reported as treating the clients very poorly, a clear deterrent to seeking care at a facility. The team repeatedly heard stories of women being told immediately after giving birth to “clean up their mess” with their own chitenge cloths, a sari-like cloth wrapped around the lower body of a woman for reasons of modesty and custom. Supplies of medical equipment and other materials are not great, although in the case of fistula surgery, most staff report that they have what they need to conduct such operations. An exception occurs when supplies of materials also used for other operations, such as sutures and catheters, are depleted.

Despite this challenging scenario, **the sites conducting obstetric fistula repair (visited by the team) serve one to 12 clients per month.** For example, the facility in Nkhoma was performing an average of 12 to 14 cases per year between 1997 and 1999, but since the arrival of a gynaecologist with interest in fistula, the numbers have risen

steadily to 35 in 2000, 40 in 2001 and 30 in the first six months of 2002. In Zomba, the physician has operated on 48 cases in the four months since holding a training workshop. Although few providers in Malawi have had the opportunity to be trained at an official training centre, such as the hospital in Addis Ababa, through great initiative on their part they have formed a collegial network of interested parties. The physician in Zomba (as noted above) helped to organize a fistula training workshop in April, which brought in outside expertise in the form of two well-known fistula surgeons from Europe. During the workshop, eight fistula clients were operated on and the physicians and clinical officers had an opportunity to upgrade their skills. **It should be noted that in Malawi, unlike some other countries in the region, any cadre of clinical or medical officers can be trained to do fistula repair.** There is no policy limiting this training to specialists. “For us, competence is the only thing that matters,” commented a chief administrator at a hospital in Blantyre.

While six sites were visited in central and southern Malawi where repairs are conducted, an additional four sites are known to have been conducting fistula surgery in the past, and there may be others with the capacity as well. **In each of the mission and government hospitals, the providers stressed the fact that the number of fistula clients is increasing.** Whenever a provider with the capacity to conduct repairs is present, “the women just know and they show up,” explained a provider in the southern district. When the providers leave, even for a holiday, the women stop coming. Providers have taken the initiative to travel to other districts to operate both to help a local provider who needs support in conducting fistula repair surgery and because fistula clients are often too poor to be able to fund their transportation to a service delivery site. In one hospital in the north, a provider was trained to do repairs at the hospital in Addis Ababa, but he is the only one at the facility and is not sufficiently comfortable with his skill level to perform fistula surgery alone. As in other locations, this situation

points to the need to train more than one person per site.

None of the sites visited require obstetric fistula clients to pay. In each of the government hospitals, clients were not expected to pay for services, as is customary in government sites. Although mission hospitals usually do require some form of payment, in one of the mission hospitals visited, the doctor pays for all of the surgeries out of her own pocket and, in the other, the doctor has been able to raise funds from an American organization to cover the costs of the repairs he does.

Recommendations and Critical Needs

- **Support Zomba Central Hospital as a site for a national or regional fistula repair training centre.**

Zomba Central Hospital is well positioned to become a training centre for a number of reasons. They have already conducted an international level training workshop and have plans to conduct another one. They are doing on-the-job training in fistula repair among clinical officers and nursing sisters. The gynaecologist is currently going out to other districts to perform fistula surgery in support of a network of colleagues and hospitals, linkages that are now well established. In addition, the hospital is in the midst of constructing a theatre for gynaecological surgery, which could be used for fistula surgery training sessions. Unlike the other nearest central hospital, Zomba is not overwhelmed by a huge number of emergency surgeries, so there would not be a need to stop and start fistula operations when emergency cases appear. Finally, and perhaps most importantly, the chief administrator, a physician who does fistula surgery and other staff have planned this initiative on their own, so they already have ownership of the issue and are now working to make it a reality.

- **Conduct data gathering to assess the situation of girls and women with fistula at the community level and adapt the current health management information system to capture**

fistula information at the national level.

While much is known about women with fistula if and when they make it to a facility, little is known about their situation at the community level.

Insight into the lives of girls and women from this perspective will be pivotal in initiating work to prevent fistula and to facilitate reintegration back into the community once they have been repaired. In addition, adapting the current health information management system to collect data on fistula will facilitate the ability of national level policy makers to create programmes and responses within the context of a reasonably accurate prevalence rate.

• Standardize protocols and guidelines for fistula surgery, as well as pre-operative and post-operative care.

As the needs assessment team conducted interviews with all levels of providers, it became apparent that a standardized set of guidelines or protocols would help to facilitate the use of best practices. Even sharing simple tips about how to help a fistula client train her bladder after surgery would help those caring for clients to do a better job.

• Ensure that fistula training always includes more than one person per site.

When conducting training on fistula repair, it is critical that at least two individuals per site are trained, preferably a doctor-nurse team. If only one person at a facility has been trained, s/he appears to be significantly less likely to feel comfortable conducting fistula repair surgeries, so is not likely to be able to maintain his/her skill level. If a decision has to be made between training two people from one site or one person from two sites, the former option is more likely to create sustained change than the latter, an especially important lesson if a national or regional training centre is created.

• Support the collegial network of providers already working on fistula.

The physicians, medical and clinical officers, and nursing staff who are working on fistula have done much to find and support each other on this issue in Malawi. Finding ways to continue to support their initiative and enthusiasm is critical. Perhaps a card with a list of all the referral facilities and providers could be created and distributed throughout the country and kept updated. Some fundraising could also be done to secure equipment and supplies for providers and even furnish them with some money they could draw on for fistula clients. Any measures that would support these providers would go a long way toward engendering goodwill and ensuring that high quality fistula services remain available in Malawi.

• Focus on prevention by increasing awareness of different aspects of reproductive health.

Data indicate that approximately 91 per cent of pregnant women in Malawi have had some type of antenatal care. These visits would be an opportune time for providers to offer information on the potential complications of childbirth and the importance of emergency obstetric care. Giving culturally appropriate information to community members about the potential harm of some common traditional practices and early marriage might also dispel misperceptions about obstructed labour.

Fact Sheets on Malawi Site Visits

A . Queen Elizabeth Central Hospital, Blantyre, visited 7 August 2002

Size: Unclear. Most of the hospital is non-paying, but there is a paying ward, which operates at about 40 per cent of capacity most of the time.

Medical staff: Three gynaecologists, but the only one doing fistula repairs is Dr. Rijken, who has performed more than 1,000 fistula repairs in his 20 years practicing in the tropics. Queen's Hospital serves as a referral hospital for fistula due to Dr. Rijken's skill level. Specialists are employees of the university rather than the hospital, and they have limited time for actual clinical practice because of their teaching duties. There is a critical nursing staff shortage; most nurses are charged with caring for more than 100 patients and work from 7:30 am to 5 pm. Queen's is noted as the hospital with the worst staffing shortage in the country.

Caseload: At least 52 fistula clients per year are operated on; more are waiting for services, especially when other gynaecological surgeries need to take precedence or Dr. Rijken is away.

Provenance of clients: The clients come from all over; many are from Mozambique.

Typical client profile: All ages of women, but the majority of clients are young—about age 18 is typical, although most do not know exactly how old they are. Usually they experience a fistula with their first delivery.

Assessment and screening process: Not available.

Post-operative care: Not available.

Rehabilitation/reintegration: Not available.

Community outreach: None, except for a DfID-funded safe motherhood project working in the southern district.

Support at the policy level: Fistula is not a priority at the policy level.

Estimated fully-loaded cost per procedure: Not clear. Clients do not have to pay.

Resources: The Government of Malawi.

Barriers:

- Far more clients request services than can be operated on.
- Only one specialist with skills is available and he has only one to two days of theatre time each week.
- Transportation is difficult for women to manage.
- Delays in getting to the facility are often pronounced.
- Staffing shortage is critical.
- Due to all of the above, women sometimes have their surgery postponed two or three times before it can take place.

B. Mulanje Mission Hospital, Mulanje, visited 7 August 2002

Size: 160 beds.

Medical staff: One American gynaecologist, two tropical doctors from the Netherlands, and clinical officers. The American gynaecologist, Dr. Sue Makin, was trained during six weeks at the Addis Ababa hospital in 1995 and performs "simple" VVF repairs. The more complicated fistula cases are referred to Dr. Rijken at Queen's Hospital in Blantyre. "Need to have the imagination of a plastic surgeon for the difficult cases—I don't have it!" Dr. Makin reports. She also does simple repairs for two other hospitals from time to time.

Caseload: About 12 fistula clients per year.

Provenance of clients: Most are from the area bordering Mozambique.

Typical client profile: Most are young (around 18); most are pregnant for the first time and very poor. Occasionally, a woman has already had one to six children at home before running into a problem with obstructed labour and developing a fistula. Dr. Makin covers the cost of the procedure, which is about \$15 USD.

Assessment and screening process: Dr. Makin

examines the women (without anaesthesia) to determine if she can do the repair. If she thinks she can and it has been three months since the fistula formed, she usually can operate on them within a couple of weeks. Otherwise, she sends clients home until it has been three months and refers the difficult cases to Queen's, where there is a waiting list of about three to four months. No screening tests are done.

Post-operative care:

- Nurses are trained to care for fistula clients.
- Clients tend to stay in ward for about two weeks following surgery.
- Clients are counselled on HIV and family planning methods and can get free methods at the hospital—Norplant, depo and tubal ligations are the most common.

Rehabilitation/reintegration: No programmes were mentioned, and Dr. Makin covers the cost of the procedure and the food for the client and an attendant she may have. Dr. Makin's perception is that about half of the time, the partner/husband stays with the woman; the other half of the time women are abandoned and end up returning to their parents' house.

Community outreach: None known.

Support at the policy level: Although fistula is not perceived to be a priority, especially since the recent discovery of a great deal of cervical cancer, a group of doctors in the southern region communicate regularly about fistula and convened a workshop on the topic in March, during which they operated on eight cases the same week.

Estimated fully-loaded cost per procedure:

Hospital charges about \$15 USD per procedure but it is not known what the actual cost to the facility is. Clients do not have to pay.

Resources:

- The Government of Malawi.
- Presbyterian Church of the United States.
- Presbyterian Church of Ireland.
- Presbyterian Church of Scotland.
- Dutch NGOs.
- Project HOPE (Health Opportunity for Everyone) supports voluntary counselling and testing (VCT).

Barriers:

- No anaesthesiologist, so surgeries have to wait until one can come, usually about once every two weeks.
- Inadequate supply of HIV/AIDS tests. The government is supposed to provide them, but they seem to "go missing". Frequently, when the supply is low, the hospital saves the tests to use on potential blood donors.
- Fistula prevention messages in the community need to be created.
- Famine is becoming more widespread.

C. Maiwathu Hospital, Blantyre, visited 7 August 2002

Size: 60 beds.

Medical staff: Five gynaecologists, one anaesthesiologist, and an ample number of nurses

Caseload: Four fistula clients over the past three years, but fistulas were not obstetric in origin. Instead, the fistulas resulted from other procedures (hysterectomies, for example) or other conditions.

Provenance of clients: Clients at this facility are from Blantyre and have the means to pay what are considered hefty sums locally for services. The cost of a C-section, for example, is 36,000 kwacha (\$450 USD). Most women with fistula are from the border area with Mozambique; some are from inside Mozambique. One staff member noted, "There are many, many women living with fistulas in rural areas" but they are not seen in this hospital. One doctor stated that the HIV prevalence rate at this private hospital and other hospitals is 20 per cent to 30 per cent of women of reproductive age.

Typical client profile: Fistula clients at this private hospital are not the typical ones, as these clients have a fair amount of disposable income. They are older and their fistulas are from other causes, not obstructed labour.

Assessment and screening process: Not available.

Post-operative care: Not available.

Rehabilitation/reintegration: Not available.

Community outreach: Not available.

Support at the policy level: Not available.

Estimated full-loaded cost per procedure: Not known.

Resources: A private bank and an American organization helped to fund the hospital; all patients pay for services.

Barriers: Not available.

D. Zomba Central Hospital, Zomba, visited 8 August 2002

Size: 400 beds; currently, some patients are having to share beds. One major operating theatre, one small theatre and one more currently planned.

Medical staff: Two OB/GYNs (expatriates from Austria who have been there two years and are leaving in October); and clinical officers.

Caseload: The hospital has done 48 repairs in the last four months, of which two were RVFs; during the week that Dr. John Kelly was there for the workshop, they conducted eight repairs.

Provenance of clients: Most were referred from other district hospitals; some come from Zomba catchment area as well, which serves 1.5 million people; Zomba has become a fistula referral centre.

Typical client profile: The majority are young, and the fistula occurred with their first pregnancy. Some clients have been living with fistula for as long as 15 years. However, all are poor and many have been ostracized or are ashamed of their condition so they won't tell a nursing sister immediately why they are there: they might first mention "stomach pains".

Assessment and screening process:

- Examination with anaesthesia to determine the position and size of the fistula.
- Screening and treatment for any current illnesses/conditions.
- No routine HIV screening.

Post-operative care:

- Dye is injected into the bladder to make sure that procedure was successful.

- Clients are counselled on abstaining for three months; the husband is likely to hear in the community that his wife is now healthy, so he tends to come back to her once she has been repaired.
- Clients are counselled on family planning (injectables are most popular method), HIV/AIDS and the need to return to the hospital to give birth for any future pregnancies.
- Clients tend to stay on the ward (with other female clients) for two weeks with catheter.
- Bladder is trained for another several days.

Rehabilitation/reintegration: None known.

Community outreach: Some bicycle ambulances are bringing women in, so this link with the community has been at least partially successful. Nurses are trying to work with TBAs to help them to recognize signs of obstetric emergencies, yet they have found that they need to go back repeatedly to follow up to support the TBAs.

Support at the policy level: The Department of Clinical Services at the MOH has been supportive.

Estimated fully-loaded cost per procedure:

Not known, but women do not have to pay.

Resources: Funds from the Government of Malawi, as well as a few donations and equipment from expatriate visitors.

Barriers:

- Currently, space is a constraint, but a new building is being constructed. The original building dates from 1938.
- When the two Austrian OB/BGNs leave, the hospital will need to find another gynaecologist.
- Although equipment and materials are sufficient for now, if Zomba becomes a fistula training centre, the hospital will need to secure more supplies, as well as a steady source of staff and financial support.

E. Machinga District Hospital, Machinga, visited 8 August 2002

Size: 239 hospital beds.

Medical staff: Two general doctors, one gynaecologist (Egyptian), one surgeon, two anaesthetist clinical officers, one orthopedic clinical officer, four general clinical officers and 46 nurses.

Caseload: Currently the facility handles about three cases a month. They refer many cases to Queen's as well, since the doctor currently feels comfortable operating on simple cases only.

Provenance of clients: Clients come from throughout the region. The hospital is newer than most and has a reputation for being very good and for having staff who treat clients well. The hospital is also in the president's district.

Typical client profile: Young (younger than 20 years old), first pregnancy, poor. Staff note that they are seeing pregnancies in girls as young as 12 in the region. There is a strong belief in rural areas about giving birth at home.

Assessment and screening process:

- Examination under anaesthesia.
- Screened for schistosomiasis.
- Haemoglobin.
- Stool/urine checked.
- No HIV tests.

Post-operative care:

- Clients are given counselling on abstaining, family planning and the need for subsequent deliveries to occur in a facility.
- Women tend to stay in ward for about 14 days.

Rehabilitation/reintegration: No information was available, but staff members feel that there is not much ostracizing of women with fistula in the community.

Community outreach: Nurses are working in communities, but not on fistula specifically. They do talk with village health committees about how to identify obstetric emergencies and have given advice on how to create a makeshift "ambulance" using poles and cloth. The famine has had an impact in the area.

Support at the policy level: Staff members feel that because the facility is located within the presi-

dent's district the perception is that they are well supported.

Estimated fully-loaded cost per procedure: Not known.

Resources: The Government of Malawi.

Barriers:

- The biggest obstacle is early childbearing.
- The skill level of the OB/GYN is limited. He would like to get more practice in fistula repair.

F. Nkhoma Mission Hospital, Nkhoma, visited 9 August 2002

Size: 220 beds; two operating theatres, only one of which can be used for fistula repairs.

Medical staff: Three doctors, one of whom, Dr. Ter Haar, has experience and interest in gynaecology, but is not a gynaecologist; three clinical officers. There is no anaesthesiologist, so the clinical officers supervise spinal anaesthesia. A severe shortage of nursing staff is currently a problem. Two VVF workshops were held this year: one with Dr. Kelly and one with Dr. Lydia Engelhart and Dr. Walter Hull from the United States.

Caseload: Fourteen fistula clients in 1997; 10 in 1998; 14 in 1999; 35 in 2000; 45 in 2001; and in the first six months of 2002, the staff has performed 30 repairs. The problem is growing, and they are receiving more referrals. The hospital tends to do 1,500 to 2,000 deliveries each year. No advertising is done—the referrals spread by word of mouth for the most part, except for official ones that come from Lilongwe Central if they are backed up there. At Nkhoma, they reserve the really difficult cases for the visiting teams, which so far have been coming once a year.

Provenance of clients: From the area, as well as from Mozambique. As mentioned above, many referrals are now coming from Lilongwe Central Hospital.

Typical client profile: Young (about 15) and married at an early age. The belief that women must have their first baby at home gets in the way of coming to the facility to deliver. Often the women arrive too late.

Assessment and screening process:

- A clinical exam is done to determine the position and size of the fistula and its degree of complication.
- Exams under anaesthesia are performed for cases that would be difficult to examine otherwise.
- Since the laboratory is not equipped for cultures, clients are not routinely screened for other infections or complications. Occasionally a urine exam under microscopy is performed.

Post-operative care:

- Clients usually stay for 14 days, until the catheter comes out.
- Bladder training is not routinely done.
- Clients are counselled on coming back to hospital to deliver in the future. No specific counselling on family planning or HIV is done, but no restrictions against doing so are in place.

Rehabilitation/reintegration: No information known.

Community outreach: Antenatal care is “talked up” at the community level; 80 kwacha (\$1 USD) is the cost for visits during the entire antenatal care period, but no one is turned away who cannot pay. In this area, there is not a strong culture of antenatal care visits, so nurses go into communities. HIV/AIDS is very stigmatized.

Support at the policy level: None known. One provider noted that it would be helpful if the Ministry of Education crafted a clear message on the problems of early marriage and childbearing.

Estimated fully-loaded cost per procedure: Not known.

Resources:

- Dr. Ter Haar has organized a fistula fund (supported by an American organization) so fistula clients do not pay.
- A variety of church organizations.
- Two doctors are supported through the Dutch Reformed Church.
- The Government of Malawi pays all salaries, except for doctors; visiting teams of doctors pay all of their own costs.

Barriers:

- Large number of clients.

- May be hard for Dr. Ter Haar to keep up if numbers keep rising.
- At a community level, there is much work to be done on HIV/AIDS.

Key Contacts

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MALI

Background

Reproductive health in Mali is characterized by a total fertility rate of 7 and a modern contraceptive prevalence rate of 6 per cent,¹⁹ although 23 per cent of women surveyed between 1996 and 2001 reported that they had used a method of contraception at some point in their life.²⁰ Another challenge to reproductive health in Mali is HIV. In addition, the maternal mortality ratio remains high despite a decrease in infant mortality over the past two decades.

Increased antenatal care attendance during the last five years resulted in almost half of all pregnant women receiving some kind of antenatal care.

Sixty-three percent of women deliver at home, in part because health facilities are hard to reach. **For 85 per cent of women living in rural areas, the nearest hospital is located at least 30 km away.** When women are educated—and only 38 per cent of women in Mali have had the opportunity to receive formal education—they tend to live in urban areas and to deliver in health care facilities, the majority of which are found there. In contrast, **66 per cent of the women who deliver at home have no education at all.** The circumstances surrounding labour and delivery differ radically depending on location: **91 per cent of women in Bamako, the capital city, give birth in a facility;** many of these women report having had the chance to make the decision themselves. Outside of Bamako, critical decisions about a birth are often made by a prominent family member.

These conditions imply that many women are at risk for fistula in Mali and it is, indeed, recognized as a problem in the country, with both local and international groups working to find solutions. Part of the issue is connected to discovering how many women have fistulas. **A recent survey sponsored by Doctors of the World and conducted near Mopti suggests that out of 2,000 villages in the region, half have at least one woman living with fistula.** No other surveys have been

conducted to determine the number of cases existing nationwide, but based on information gathered by Doctors of the World, it is clear that the number of cases surfacing for treatment does not mirror the actual prevalence of the condition. Furthermore, because families often want to hide members with fistula, this finding is likely to represent an undercount. In addition, it appears that those with the condition are, in general, young. At one facility providing fistula repair, the average age of a fistula client is 15; at the other, it is 25. **As elsewhere in the region, women who develop fistula tend to be poor, uneducated and often have neither support from their families nor ready access to a facility that might offer high quality labour and delivery care.**

Doctors of the World first organized missions to Mali to repair obstetric fistula in 1986. In November 1993, the first fistula programme was launched in Mopti with the help of Dr. Ouattara at the University Hospital of Point G in Bamako. The primary objective was to increase the number of service delivery sites outside the capital city, making fistula repair more readily available to women who could not reach Bamako. Until 2000, the programme was entirely funded by Doctors of the World, but supporters now include several other partners. Sixty-five percent of the current project, which will be completed in December 2003, is underwritten by private organizations. This project covers 90 per cent of the cost of each fistula repair, with clients contributing about \$25 USD. Another facet of fistula care has been taken up by Delta Survie, a local NGO that collaborates with Doctors of the World. This group has initiated a project at the Regional Hospital of Mopti, Sominé Dolo, to improve the living conditions of women with fistula who have either received or are awaiting treatment at the facility. Efforts include building a shed on the hospital grounds where women can learn handicrafts that might allow them to earn an income.

Issues and Challenges

The needs assessment team had the opportunity to participate in a two-day meeting that assembled several Malian health providers from around the country, all of whom are involved in fistula treatment and its accompanying social problems. The meeting, known as Journée des Femmes Fistuleuses de Mopti or the Day of Fistula in Mopti, was convened by Doctors of the World. At the meeting, the team was able to speak with members of Doctors of the World, the Ministry of Social Action and Delta Survie. In Bamako, the team also met with staff from the University Hospital of Point G in Bamako and the Director of the Reproductive Health Division of the MOH.

Visits to two sites in Mali and discussions with providers indicated that there is a **stark need for more local surgeons able to provide repair services**. The only local doctors known to perform fistula surgery are concentrated in Bamako, at Point G. At that facility there are four urologists who all perform fistula surgery, but given that only one operating room is available for the entire hospital, it is very difficult to meet the demand: urology emergencies and other urgent operations take precedence over fistula repair. There is heavy reliance on visiting expatriate physicians. In addition, the hospital of Mopti depends entirely on external support to carry out fistula repair. Their current programme, which ends in December 2003, will be capable of extending their efforts through to the next phase only if further resources are secured.

Another issue Malians face is the fact that the majority of clinically trained midwives practice in Bamako. While this fact encourages many women there to deliver in a facility, as noted above, it also means that **access to emergency obstetric care in rural areas is very difficult to locate**. Women in these regions are already more likely to give birth at home, but the lack of health care resources near their communities contributes to their not seeking care, even if they experience a difficult labour.

Further complicating the situation for women

in these areas is that fact that **mothers-in-law and other important family members are in charge of decisions about where a woman may give birth and what to do if the labour does not proceed as hoped**. These relatives may not be aware of the morbidities possible from obstructed labour or know where to go to obtain care. In addition, **community health centres, which are often understaffed and underequipped, tend to be the facilities that women seek, causing further critical delays during emergencies**.

If a woman does develop fistula, she may suffer from stigmatization and be vulnerable to social exclusion. **Relatives often try to hide the presence of a family member with fistula, and often do not have the benefit of knowing what has caused the fistula in the first place**. The affected women are often ashamed of their condition and isolate themselves, trying to hide from the community at large.

No reproductive health programme that includes fistula repair is now in place at the national level. However, a new five-year plan includes mention of general reproductive health concerns and those of young adults in particular.

Recommendations

- **Advocate at the national level for increased attention to fistula as a key reproductive health concern.**

Although some scattered support for the issue exists at the policy level, a strategic advocacy programme must be mounted to build commitment to the issue within Mali. Increased attention to reproductive health issues is the first step. Only with this commitment will policy makers be able to build a better platform from which to provide support for fistula repair.

- **Develop community-level awareness-raising campaigns.**

A widespread campaign to raise awareness about and explain fistula—both its causes and its treatment—among women and the key decision makers

in their lives would help to spread the word that the condition is both preventable and treatable. Doctors of the World has sponsored a play about the issue which has garnered significant attention in places where it has been performed; such efforts need to be continued and reinforced with other locally appropriate media, taking into account high rates of illiteracy.

- **Train additional providers and ensure skilled surgeons and providers are using best practices across the country.**

As part of their academic training, physicians must learn how to conduct fistula repairs. At least a handful of doctors at referral centres in different regions of the country need to learn the necessary skills to perform this type of surgery. In particular, it is important that a local surgeon in Mopti gets trained as a way to provide continuity if the external support diminishes. Another key piece of training involves the creation of an evidence-based protocol for repairs. This kind of training needs to be made available in medical training programmes across the country. Best practices may also extend to those providing antenatal care, which a large number of women in Mali seek. Providers could use these visits to offer women and their families information on fistula prevention and the importance of emergency obstetric care.

- **Increase collaboration between institutions providing repairs and improve communication with providers in other areas and countries.**

It is important to increase the communication between the two centres offering repairs, so that they can coordinate and, ideally, maximize the efficiency of their treatment plans. In addition, surgeons in Mali would welcome increased communication and exchanges with international colleagues to improve their technical skills and to learn new ones.

- **Create a social reintegration strategy for women following repair.**

Careful attention needs to be paid to how women

reintegrate into society following fistula surgery. The Oasis at Point G has started to address these issues, but it could use assistance. Other models for re-integration also need to be developed to create an environment in Mali that actively encourages and supports women's re-entry into communities.

- **Devise a fund or financial strategy to support women who need repairs.**

A critical obstacle to women seeking care in Mali is the need to provide even partial payment for fistula repairs. As is common in the other countries where the needs assessment took place, fistula clients in Mali have no means to pay. Some kind of financial support will be necessary if repairs are to be offered to the current roster of clients. Local NGOs such as Bengadi have made attempts to provide this type of support at the Hospital of Point G by assuming transportation costs and subsidizing part of the operation for women in the town of Bla.

- **Consider creating a national fistula centre at University Hospital of Point G.**

This facility is able to perform hundreds of fistula operations each year. The 80–85 per cent success rate is evidence that the providers are technically skilled, but staff have reported that the number of repairs they perform does not reflect what they could be doing. With improved infrastructure, it would be possible for providers to dedicate more time to fistula repair and to offer higher quality care. Furthermore, no collaboration between the hospital and the Oasis centre is currently in place; but with improved partnership, the centre could help handle an increased number of fistula clients and keep the hospital at full capacity.

Fact Sheets for Mali Site Visits

A. Hôpital Regional de Mopti, Sominé Dolo (Regional Hospital of Mopti, Sominé Dolo), Mopti, visited 17 October 2002

Size: Six out of 100 beds are reserved for fistula clients; two operating theatres, one of which has recently been remodelled by Doctors of the World and Doctors Without Borders.

Medical staff: Four missions per year come to Sominé Dolo with Doctors of the World. Each mission consists of several doctors from a pool of about 20, including Dr. Jean-Martin Zino, an expatriate physician with Doctors of the World based in Mopti. There are currently no local surgeons available to operate on fistula and only one general surgeon slated to serve the entire region of Mopti, with its 1,400,000 residents. Given this situation, it is understandable that this physician has many other responsibilities apart from fistula repair.

Caseload: 150 operations per year since the 2000 project began, with at least a 78 per cent success rate. This success rate has been calculated on the basis that some women who have undergone fistula surgery have not returned for follow up and are therefore considered as failed repairs. There have been 55 cases of RVF since 1993, providing about 10 per cent of the total caseload.

Provenance of clients: Most clients come from Mopti and the bordering regions. Some come from neighbouring countries.

Typical client profile: The average age is 25 and most are primigravidus, but of those who have had children, they are generally of low parity. The majority of clients come from the countryside and are usually uneducated except for the few who have had one or two years of schooling at the most. They are always accompanied by someone; more and more with their husbands recently, thanks to awareness efforts initiated by Doctors of the World. Most of the women who come have spent an average of three days in labour. In general, the women have been living with fistula for less than a year.

Assessment and screening process:

- Before the operation, the client and her attendant are counselled and given an explanation of what to expect, the specifics of the operation and its potential results.
- A standard clinical exam is given (blood analyses, etc.).
- The fistula is classified based on its complexity (simple, complex or serious) and surgical procedures to be used are determined.

Post-operative care:

- Counselling is given about sexual relations, STIs and appropriate actions for future deliveries.
- Clients remain in the hospital for one month, and a post-op consultation is scheduled for a date three months later.
- Some women prefer to stay at the hospital after their recovery and work in the artisan workshop located on the outer limits of the hospital grounds.

Rehabilitation/reintegration: Doctors of the World works with Delta Survie, a local NGO, to help women to return to their communities with a set of skills they can use to generate an income. They are taught to make bogolon fabric and to dye and weave material, which they can sell to people in the community.

Community outreach: Doctors of the World has organized a local theatre group to perform a play near Mopti about a woman who has developed obstetric fistula. Approximately 45 minutes long, the drama recounts the story of a woman from the day of her marriage through her difficult pregnancy, the development of obstetric fistula and the challenges she faces as a result. The play, which has already been produced in several sites, has encouraged many men to bring their wives to Mopti for treatment.

Perceived support at the policy level: A statement of accord signed by the MOH and Doctors of the World in Mopti notes their mutual support.

Estimated fully-loaded cost per procedure: The

actual intervention would cost the hospital about \$260 USD per case. However, because of funding from a variety of sources via Doctors of the World (such as the Materra Foundation of Germany, a private foundation in France and others), clients are only responsible for \$25 USD. This amount covers everything from their first diagnosis to their month-long recovery, but it does not pay for their food.

Resources: Funding obtained by Doctors of the World.

Barriers:

- If funding doesn't continue, Doctors of the World will have to cease services.

B. Centre Hôpitalier Universitaire du Point G (University Hospital of Point G), Bamako, visited 21 October 2002

Size: The Department of Urology handles fistula surgery. One operating theatre is available for the entire hospital, meaning none is specifically reserved for fistula clients. This theatre is extremely busy, which limits the time available for surgery on fistula clients. There is one recovery room with seven beds for the Department of Urology. Also located on the grounds is a facility known as the Oasis, which houses clients who are awaiting their repairs.

Medical staff: The Department of Urology consists of three state-certified nurses; two to three interns each year who serve as surgery assistants; and four surgeons, all of whom are urologists. Dr. Kalila Ouattara leads the team of four urologists, who perform all of the fistula repairs.

Caseload: Each surgeon operates on at least two fistulas per week, which creates a caseload of about 416 operations per year. This number does not reflect their capacity, however; if more space, were available, more operations would be possible. A separate ward for fistula clients would be very helpful.

Provenance of clients: Clients come from all over

the country. Most have complex fistulas that have been referred from regional hospitals. Some come from other countries, like Côte d'Ivoire (where treatment is very expensive) and Guinea. Rarely is a client from the capital of Bamako, as most women there deliver in hospitals and are thus less likely to develop fistula.

Typical client profile: The average age is 15; the extremes are 12 and 40. The older women are of high parity and their uteruses have ruptured during delivery. Clients usually come alone and most are poor, uneducated and rejected by their husbands. Most of the younger clients are primigravida and married very early. Some have fistula as result of consequences of FGM. Four out of five women who come to the Department of Urology for treatment have fistula.

Assessment and screening process:

- Vaginal diagnosis is done after a client arrives leaking urine.
- A gynaecological exam is done and a catheter is inserted.
- Biological and radiological analysis are done, but often it is not possible to do a full exam because of lack of resources.
- For a period of one week to seven days before the operation, the client is told to maintain personal hygiene to disinfect the vaginal area. A sitz bath is recommended, which most clients cannot afford.

Post-operative care:

- A catheter is inserted; antibiotics are given if necessary.
- Sitz baths continues with permanganate, a disinfectant.
- The catheter is removed 15 days after the operation, and the client is examined for continence.
- The catheter is then reinserted for 10 days. If she no longer leaks urine at that time, the client is discharged.

Rehabilitation/reintegration: According to hospital staff, social reintegration activities are not necessary. If their fistula is closed, the women return to their husbands. Culturally, a woman is of little value if she is not married.²⁴ Most of these

women already knew how to make soap, sew, weave, etc., before developing fistula, and used those skills to generate income before their treatment. Because staff claim that the women return to their normal lives once they are fully recovered, some providers feel that it does not help to teach clients these activities as a means of instilling independence. The Oasis centre, which was originally conceived as a place to help women learn a useful skill, could be used as a recovery space as well as a hostel for women awaiting surgery.

Community outreach: Rarely seen. It has been reported that sometimes if a woman who has developed fistula moves to a different locale after total exclusion from her native community, a local mosque or a similar organization will help her get to a service delivery site where fistula surgery is performed and may raise money for her to have the operation. In addition, the local NGO Bengadi helps women in the town of Bla to receive treatment at Point G by assuming transportation costs as well as subsidizing the procedure. The Ministry of Social Development intervenes by signing an affidavit of indigence in extreme cases, allowing women with no means to receive treatment.

Perceived support at the policy level: Apart from the construction of the Oasis by the First Lady, who is president of the NGO Fondation Partage, and the Ministry of Social Development, no political support is perceived.

Estimated fully-loaded cost per procedure: The cost of the operation varies depending on the room a woman decides to occupy. There are three varieties of accommodation: 1st class, which ensures a private air-conditioned room with an indoor toilet, costing roughly \$100 USD for 15 days post-op hospitalization; 2nd class, which gives her a private room with a ceiling fan and access to an outdoor toilet, costing \$85 USD for 15 days; and 3rd class, which allows her to share a room that usually holds eight to 10 beds and a communal exterior toilet, costing \$65 USD for 15 days. Most fistula clients choose the last option. A medical kit (including the sitz bath) costs about \$76 USD.

Resources: Only what the hospital receives from clients for medical interventions.

Barriers:

- Inadequate funding.
- Policy decisions are made at an administrative level, and clinicians are often not involved. It would be difficult, however, for administrators to fully grasp the problems facing providers without input from those in the field.
- Inability to provide transportation to and from the hospital.

Key Contacts

The needs assessment team is deeply grateful to the following individuals in Mali for their assistance with this project:

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MOZAMBIQUE

Background

It has been a decade since the end of the civil war in Mozambique and some basic health indicators appear to have improved while others have grown worse in this time period. The nation is vast in size and access to health services remains a challenge, especially in pockets of the country where the terrain makes transportation treacherous and vehicles are in short supply. Because of the population distribution in rural areas, the often fractured health care infrastructure in some provinces and the underlying poverty, many obstacles remain to providing access to basic health care for a large percentage of Mozambicans.

Despite these challenges, however, there are some noteworthy achievements as well as some obvious needs. The percentage of the population with access to health care grew 10 per cent between 1992 and 1999; **thirty-five percent of the population is considered to have access to quality health care.** The percentage of individuals characterized as “new family planning clients” has grown from 2.3 per cent in 1996 to 7.2 per cent in 2000, yet the **modern contraceptive prevalence rate remains low at 5 per cent**, and only 60 per cent of women have knowledge of at least one method of family planning.²¹

The **total fertility rate is 5.86**, with the majority of women giving birth at least once by the time they reach 20.²² **Approximately 44 per cent of deliveries happen within institutions** (far more in Maputo city than elsewhere), but the maternal mortality ratio and number of neonatal deaths within institutions is high, undoubtedly due to a number of factors: delays in getting to a facility, delays in referrals being made in a timely manner, overburdened staff within facilities, inadequate equipment within facilities, etc. **Within institutions, the maternal mortality ratio is believed to vary between 175 and 600 per 100,000 live births, against a national average (including women giving birth in and**

outside of institutions) of approximately 980 maternal deaths per 100,000 live births.²³

For each maternal death, there are 17 reported stillbirths. Data from 1997 to 2002 suggest that **out of every 100 stillbirths reported within an institution, 10 women were admitted to the hospital with a detectable foetal heartbeat.** This fact, as well as a **national C-section rate of 1.12** per cent, signals a need for further work on the quality of facility-based maternal care.^{24, 25} Rates of antenatal coverage are believed to be fairly high in most provinces and have grown in the last 10 years. Not as encouraging is the fact that the vast majority of women who seek antenatal care do not begin doing so until their sixth month of pregnancy.

As is true throughout the region, HIV/AIDS is already having far-reaching consequences and is expected to reduce average life expectancy considerably in the next 10 years if the incidence rate continues at the current pace. **Prevalence of AIDS is currently thought to be a little more than 12 per cent among pregnant women, with women of all ages representing 52 per cent of new AIDS cases in 2001.** Life expectancy among women is currently 38.6; among men, it is 37.3.²⁶

Despite grinding poverty evident throughout most of the country—Mozambique remains one of the 10 poorest countries in the world according to the United Nations Development Programme’s (UNDP) *Human Development Report*—the significance of peace prevailing this past decade cannot be overestimated. More than anything else, “that we can now expect to live,” explained a man in Quelimane, “fills us with light.” Ensuring that that expectation is met for everyone, including women with obstetric emergencies, remains a formidable challenge.

Issues and Challenges

In Mozambique, the needs assessment team met with the UNFPA country office staff, the Vice Minister of Health and the Deputy Director of the Community Health Department within the MOH.

In addition, in the province of Zambezia, the team met with the Provincial Director of Health and the director of the hospital as well as the surgeon providing fistula repair services at Hospital Provincial de Quelimane in Quelimane. The team also had the opportunity to visit with six fistula clients in Quelimane, five of whom had been repaired and were receiving post-operative care and one of whom was waiting for her procedure. In Maputo, the team met with the urologist providing fistula repair services at Maputo Central Hospital, had the opportunity to observe a repair within the operating theatre and met with other physicians assisting in the operating theatre.

Although Mozambique is large, **there are only three physicians known to have the skills who are actually providing fistula repairs throughout the whole country:** a Mozambican urologist in the southern part of the country at Maputo Central Hospital, an Italian general surgeon in central Mozambique in Quelimane and a Tanzanian OB/GYN in Niassa province in the north.²⁷ The annual caseload varies by facility—ranging from 15 in the northernmost facility to greater than 50 elsewhere—but each provider interviewed agreed that the numbers of women they were seeing undoubtedly represent the tip of the iceberg. In addition to a considerable caseload at each of these three sites, each of the physicians goes out to perform fistula repairs at other sites, but there is concern among them about their ability to maintain this practice and the lack of other providers who might be interested in learning these skills and providing repairs. Two of the doctors went together to one province to perform 27 operations in three weeks. While this effort helped diminish the growing backlog, it is “not the smartest nor the most sustainable way to go, if we cannot be training others while operating,” noted one of the providers.

The **fistula clients appear to face great stigma in their communities and their families.** In central Mozambique, **a woman with a fistula may become the servant of the next woman whom her husband takes as a wife and remain in this**

position for as long as she is leaking. If she is able to be successfully repaired, her chances increase either of going back to her husband as his wife or finding another husband. In either scenario, however, there will be strong pressure on her to become pregnant and, for safety reasons, the provider will have counselled her on the need to deliver the next (and all subsequent babies) within a facility. Indeed, the surgeon in Quelimane has done hundreds of C-sections on women whom he has previously repaired.

The **stigmatizing of girls and women appears to spread beyond their families and communities.** All three of the physicians currently performing fistula repairs have offered to train others, notably OB/GYNs, but there has been little interest shown. The two providers interviewed noted that stigma is probably one reason, coupled with others. In fact, as part of their training, each student has a three-month rotation during which s/he is taught how to perform fistula repair, but none to date has wanted to continue learning these skills. The urologist in Maputo recently spent three months in additional training on another issue in Cape Town and, although his fellow providers within Maputo Central Hospital have the skills to do at least simple fistula repairs, they only performed one while he was away and waited for him to return to take on the others, even though they were not all complicated cases. In Quelimane, the provider who does repairs offered to train the physicians who were there with him for three years, but none was interested. The OB/GYN Department requested that fistula clients leave the maternity ward, so now women with fistula must use the surgery ward for pre- and post-operative care.

Because of strong pressure to have a baby, it appears that **counselling on family planning and HIV/AIDS is virtually nonexistent for fistula clients.** Among the providers interviewed, the risk of contracting HIV/AIDS was considered secondary to a woman’s need to become pregnant again. Indeed, because there is such an emphasis on women having many children, there is currently a family planning campaign aimed at men in

Mozambique. The perception of women who go to family planning clinics is that they “have more than one man” or else they would not need such services, so women who do practice family planning tend to do so secretly, going to the clinic under the guise of needing a consultation on a baby’s health. Probably because injectables can be practiced discreetly, these methods are the most popular choice.

As in other countries, the **transportation and communication system are often insufficient** to get a woman experiencing obstructed labour to a facility quickly. Especially in the northern part of the country where the terrain is mountainous, wheelbarrows, oxcarts and bicycles have not met with success. Also in this part of the country, women tend to be very small and fistula appears to be more widespread than in other locations where women are of larger stature. For these reasons, in some places, **waiting homes are being established** as a mechanism to get women at high risk closer to facilities before giving birth. While the policy is normally to ask women to come in at eight months to “wait” for a month, it is rare that women will do so, as their families often do not want them to be away from home for so long and they are often reluctant to leave their children for this period of time.

Recommendations and Critical Needs

- **Maintain waiting homes as part—but not all—of the answer.**

As noted, there has been some success with establishing waiting homes for women who are considered high risk, perhaps because of an earlier fistula and repair or for other reasons. Although the concept of the “high risk” label is controversial and a woman’s family may not want to allow her to be “waiting” for labour to ensue at a location other than her own home, waiting homes have met with some success in limited parts of the country.

- **Develop an incentive system for physicians to interest them in learning fistula repair and keep them motivated to provide services.**

One key concern has been the lack of interest in learning the skills to provide fistula repair, despite mandatory training as part of medical education within the country. For this reason, a variety of types of incentives (travel to international reproductive health conferences was suggested by some staff) needs to be provided to attract and maintain potential providers’ interest.

- **Secure short-term external support as the national government continues rebuilding the health care infrastructure.**

Mozambique has done a tremendous job restoring the health care infrastructure following the war, yet there is a long way still to go. For fistula repair to be “truly owned by Mozambicans”, in the words of one provider, the MOH needs to take over some kind of fistula initiative, following support of an outside donor for a limited period of time, such as three years.

- **Advocate for the government to describe fistula as a human rights issue.**

To build awareness about the issue, a campaign needs to be created that targets potential clients and potential providers (as well as other key stakeholders) with a message that posits a life free of fistula as a human rights issue. The MOH could play a key role in the creation of such a campaign.

- **Establish one or two training centres for repair of more complicated cases.**

Because the country is so large, it may be that more than one training centre is required to serve as a national referral centre. Such centre(s) would need a steady supply of support, equipment and materials. While Maputo Central Hospital might be the obvious candidate, the distance between Maputo and other parts of the country may suggest the need to establish another one as well. Providers note that a master plan should be created at a national level which outlines what level of facilities are able to provide what level and kinds of fistula repairs. This assessment process could also drive the selection of a national centre or centres.

Fact Sheets on Mozambique Site Visits

A. Hospital Provincial de Quelimane, Quelimane, visited 13 August 2002

Size: 420 beds, one operating theatre with three rooms. The maternity ward has 60 beds, but fistula clients have been asked to leave the maternity ward (due to the smell) and are now housed in the surgery ward.

Medical staff: 11 doctors, three surgery technicians, 16 nurses (in maternity ward only; more in the rest of the hospital).

Caseload: 200+ deliveries each month, of which 25 to 30 are C-sections. Per year, 40 to 50 fistula clients, but there is a backlog. Six cases were waiting on the day the team visited. Dr. Aldo Marchesini also goes out to five other provincial hospitals to operate. All these facilities have gynaecologists, none of whom have taken the opportunity to be trained.

Provenance of clients: Clients come from throughout Zambezia. There is a group called the Lilongwe tribe in the north where women are typically of very small stature (1m 50cm); among these women, there is a high prevalence of fistula. In addition, some clients are sent from other provinces: Nampula, Niassa and Capo Delgado.

Typical client profile: Fistula clients are generally younger than 20, but some women are 30, 35 or 40 and have been living with fistula for 15 years. Of the six fistula clients interviewed by the research team, only two developed fistula with their first pregnancy; for the others, parity was three to eight.

Assessment and screening process:

- A manual exam is performed to determine if the woman's condition is fistula. This is "adequate" for about 70 per cent.
- For the remaining 30 per cent, a surgeon needs to examine the client in an operating theatre to determine the position and size of fistula, as well as its degree of complication. Some of these exams are performed with anaesthesia, some without.
- Screening for anaemia.

- If indicated, screening for renal function.
- Since 85 per cent of population has schistosomiasis, every client is given single dose of praziquantel.
- Time since delivery is determined—it must be two to three months. If a woman is from far away, she is admitted and waits at the hospital. If the waiting period is one month or less, a client is admitted. Otherwise, Dr. Marchesini gives her funds to return home and then tells her to return a week before the surgery. On average, 35 per cent don't come back at all. The other 65 per cent, may come back, but later than the appointment date.

Post-operative care:

- Clients usually stay for 14 days, until catheter comes out.
- Counselling on coming back to hospital to deliver in the future by elective C-section, so Dr. Marchesini has done many C-sections on former fistula clients.
- Counselling on abstaining for two months.
- No specific counselling on family planning or HIV. The sense among providers is that these women really want to get pregnant, so it is not necessary. "HIV is a secondary problem."

Rehabilitation/reintegration: No specific programmes; more than half of the women are abandoned by their husbands. Sometimes, the wife with fistula becomes the servant for the next wife whom the husband takes. If repair is successful, she may be taken back as an equivalent wife or may marry someone else

Community outreach: No programmes doing community outreach to which fistula is linked. There is outreach, however, on family planning, immunization, etc.

Support at the policy level: MOH is aware of the problem with fistula, as are people at the provincial level, but nothing specific is being done, except mention is made of fistula in the context of general maternal health care policy for both adolescent sexual and reproductive health and general reproductive health.

Estimated fully-loaded cost per procedure: Not known, but fistula clients themselves do not pay if they satisfy a certain number of criteria. Obstetric services are free, services are free to those under 18 and older than 60 and transfers from districts are treated free of charge.

Resources:

- Dr. Marchesini's friends in Italy provide materials, such as suture. They gave head lamps to two other doctors.
- The Government of Mozambique provides the only other support that the hospital gets.

Barriers:

- Due to gender and economic inequities, women with fistula don't have money, power, etc. and might not know services are available.
- Fistula is not recognized at the low-level health facilities.
- Sometimes fistulas are recognized, but are not considered important enough problems to refer.
- Transportation—road network, distances to travel and difficult terrain—make it hard for women to access services.
- Space for fistula clients pre-op and post-op is limited. Dr. Marchesini bought 14 mattresses and 10 mats for surgery ward so clients could also stay on the floor.
- Only one provider can do repairs at the facility, which contributes to the growth of a backlog of cases. A system as well as resources need to be in place to sustain supplies and materials.

**B. Maputo Central Hospital, Maputo, visited
14 August 2002**

Size: 1,200 beds, only 800 of which are in use because of staff, especially nurse, shortages. There are theatre blocks in the maternity unit, casualty department and general surgery department. The general surgery department has the largest theatre block, with five operating rooms. However, one of the rooms is not in use due to staff shortages, while the other theatres sometimes have two dif-

ferent clients under spinal anaesthesia being operated on in the same room simultaneously. The urology team is looking for funding to be able to renovate a theatre and ward for special use by fistula clients. Some physical exams are performed in the Urology Outpatient Department, in addition to some minor prostate and hydrocoele surgery.

Medical staff: The urology team consists of a surgeon, a urologist, an anaesthetist and an OB/GYN resident.

Caseload: The urology team performs an average of two repairs a week, and they are already booked to the end of the year. A much smaller number of simpler procedures, one or two a month, is performed in the maternity theatres. The urology team intends to visit regional hospitals to conduct on-the-job training and to set up model fistula repair teams.

Provenance of clients: As this hospital serves as the country's main referral and teaching hospital, clients come from all over Mozambique, although the ones near the Malawi border tend to cross over into Malawi. Many of the clients referred have complications requiring very skilled surgery and equipment in addition to basic fistula repair supplies and materials.

Typical client profile: Fistula clients are generally young, sometimes just out of their teens, poor and of short stature. They usually developed the fistula with the first pregnancy. A few have had other pregnancies before and some, like the woman the team saw in the theatre, are in their late 20s and have undergone previous attempts at fistula repair.

Assessment and screening:

- Most repair procedures are performed at least three months after the pregnancy during which the woman experienced fistula.
- Repairs are preceded by examination in the ward and also under anaesthesia pre-op.
- Renal function tests are performed as indicated, but the urography unit is non-functional at present.
- Routine praziquantel is given pre-op for endemic schistosomiasis
- Ureteric catheterization is used for some complicated types of fistulas.

Post-operative care:

- Clients usually have in-dwelling bladder catheter for 14 days. No bladder training.
- Clients are advised to abstain and to avoid tampons and other foreign objects in the vagina for three months.
- Clients are advised that a C-section is mandatory for next pregnancy.
- Family planning needs and HIV risk are not routinely explored; these are perceived to be more of an OB/GYN responsibility.

Rehabilitation/reintegration: No specific programmes or follow-up in the community. Most fistula repairs are successful at the first attempt, but some have required as many as six attempts, and a couple have required sophisticated surgery, such as the recreation of a bladder out of intestinal tissue or the creation of a new vagina or urinary diversion. A few of the women are known to have come back for C-sections, but most would be seen in the maternity unit or in peripheral hospitals. It is not known how well the clients are later integrated into the community.

Community outreach: There is none related to fistula work, except for the proposed fistula model team visits to peripheral sites.

Support at the policy level: The MOH is committed to the general issues of safe motherhood, including fistula, but is severely hampered by lack of funds, not only for infrastructure, equipment and materials, but also for salaries. The urologist has to use his personal cystoscope and vicryl sutures for the MOH clients.

Estimated cost per procedure: This has not been estimated. Fistula clients do not pay.

Resources: The MOH supports the hospital. The urologist often uses some of his personal materials for clients.

Barriers:

- **Lack of equipment and supplies.** Due to the complexity of the type of surgery required for some of the referral cases, the hospital needs a couple of cystoscopes with three spare lenses each, a ring vaginal retractor to avoid the need for many assistant hands in the surgical field,

expandables such as vicryl/ureteric catheters and a Liga-Sure set for easier control of bleeding during complex surgery.

- Disempowerment of women with fistula, economically and socially.
- Staff shortages. Nurses are poorly paid, about \$100 USD per month, and many have left and gone on to better paid non-medical work, including small business enterprise and horticulture. Doctors are paid about \$300 USD per month, so many of them also have a private practice.
- Poor infrastructure.
- Lack of interest/motivation of many of the local doctors, including OB/GYNs in fistula work. One OB/GYN resident was in the theatre as part of the repair team. He admitted that he was not really interested in this work and was only taking this rotation to fulfill a requirement for qualification.

Key Contacts

The needs assessment team is deeply grateful to the following individuals in Mozambique for their assistance with this project:

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NIGER

Background

Nigerien women have the highest fertility rate (8) in sub-Saharan Africa, with a modern contraceptive prevalence rate of 4 per cent and a maternal mortality ratio of 920 per 100,000 live births. Eighty-five per cent of women deliver at home, either unassisted or without the help of a trained provider.²⁸ Entrenched traditions sometimes prevent women from leaving their homes, which may explain why only 30 per cent seek antenatal care and the C-section rate is 2 per cent. In addition, women are invariably encouraged to deliver their first child at the home of their parents, which can result in especially problematic situations when women live in remote areas far from obstetric care.

Other traditions, such as **FGM, which is widespread, put women's health at risk. Of the women with fistula who received repairs in the country last year, 22 per cent had also experienced some form of FGM.** The total number of those with HIV/AIDS in Niger in 2001 was 64,000 and, although no statistics are available for rates of infection among women, it can be assumed that a significant number must also cope with this threat to their health. Early marriage is another common risk factor. Although DHS reports that the average age at marriage for women in Niger is 15, **in certain regions women are married as early as nine years old.** Traditionally, girls are kept in the family home of the man they are to marry and sexual relations are not supposed to begin until the girls reach menarche. Unfortunately, this custom of waiting has slowly eroded.

Young age at first pregnancy also predisposes women to fistula. **Thirty-six per cent of girls ages 15 to 19 have either been pregnant or already have at least one child.** All of these factors have made **obstetric fistula exceptionally common in Niger.** Other conditions further complicate women's health care in this country, including the fact that two-thirds of the nation is desert, 85 per

cent of its population lives in rural areas and illiteracy among women is 91 per cent.

Despite the success of some of its initiatives, the government has not been able to maintain the budget allotted to health and education. NGOs have tried to help offset this situation. CARE Niger organized a workshop in August 2002 for those involved in women's health and rights to discuss issues surrounding fistula in particular. At the workshop's conclusion, participants planned to create a network of people to raise national awareness about obstetric fistula; to organize activities to prevent increased occurrence; and to develop a plan for the 47 women who have waited, sometimes for years, at the National Hospital to receive treatment and begin to reintegrate into the community. UNFPA Niger's programmes include low-risk maternity; a youth initiative, which involves reproductive health for youth and adolescents; and a gender initiative to encourage girls to go to school. The prohibition of early marriage is also featured in this programme. A final project will involve an assessment of the results and effects of these attempts to improve reproductive health.

The local organizations involved in the issue include Reproductive Health for Low-Risk Maternity (DIMOL), an NGO founded in 1998 by a Nigerien midwife who has worked with UNFPA's low-risk maternity initiative. She devised a project to build a fistula operating/treatment centre for which Oxfam-Québec has provided the equipment and supplies. The United States Embassy has funded the construction of the operating block and a hostel for pre- and post-operative clients. The site has been identified and construction of the centre is imminent. Plans to build a well and an apprenticeship studio are also in the works.

The Nigerien Committee on Traditional Practices (CONIPRAT), an NGO which promotes women's health and rights, is working to raise awareness about the dangers of FGM and early marriage, both of which are factors that contribute directly to the

development of obstetric fistula. They recently organized an exhaustive, nationwide survey to take an inventory of the prevalence of these practices, but the results have not yet been tabulated. They are also fighting for legal action that will prohibit early marriage and are promoting activities to reduce FGM by identifying those who perform the procedure and training them in other ways to earn a living. This has worked especially well in Couba, a small southwestern village, whose citizens have come together to expel excisors from Burkina Faso. A legal expert at CONIPRAT has presented a proposal to the Ministry of Justice to pass a national law prohibiting excision. They are currently waiting for the parliament to decide on the matter. The Coordination of NGOs and Feminine Associations of Niger (CONGAFEN) lobbies against early marriage and has solicited local leaders of women's associations for support.

Issues and Challenges

In Niger, the needs assessment team met with staff from the UNFPA country office, who helped to set up meetings with organizations working for women's health and rights, such as DIMOL, CONIPRAT, CONGAFEN, Oxfam-Québec and CARE Niger. The team also spoke with various representatives from specific divisions of the MOH, including the Director of Social Protection and National Solidarity, the Director of Reproductive Health and the Secretary General of Public Health. The team had the opportunity to visit fistula repair sites at Niamey National Hospital the University Hospital of Lamordé, the District Hospital of Loga, Zinder Maternity Hospital and Maradi Regional Hospital. Several facilities housed fistula clients who had recovered from surgery and were available for interviews. At the Niamey National Hospital, the team had the chance to speak with the group of 47 women living in the fistula repair pavilion.

Visits to five sites and discussions with providers, district officials and NGO staff indicate that, as noted, **obstetric fistula in Niger is an extremely common phenomenon**. Its occurrence is frequently linked to traditional practices preva-

lent in the rural areas where most fistula cases develop. **A national survey conducted by two fistula surgeons in 1995 to acquire a clearer picture of the issue found that the average age of those polled was 13, and 58 per cent were primigravidus.**

Cultural concerns appear to be paramount in keeping women from receiving care before, during or after a birth. In some villages near the Nigerien border, women are not allowed to leave their homes at all and receive guests through a veil, which suggests that they are not likely to seek antenatal or emergency obstetric care. In addition, very young women who are pregnant for the first time often refuse antenatal care out of shame. Because little community support exists for such treatment, if these women suffer a complication during labour, they may turn to a local religious healer or an untrained older woman. The women receive no financial support from their husbands, who sometimes will not let them obtain assistance from a trained provider.

A range of traditional practices can put women at risk for fistula. In some parts of the country, the practice of giving women water to drink to expel the baby during labour can lead to fistula, given that the baby's head pushes against a full bladder. A custom known as cervical repositioning involves putting a wooden spatula into the vagina if a woman experiences infections during pregnancy. It is said that her vagina has fallen and that the spatula will restore it to its correct position. TBAs may also press their elbows or knees on a woman's belly to keep the baby from being expelled through the anus.

Should a fistula develop and a woman decide to seek care, her choices will be few. **In general, surgical resources for fistula repair are spotty. At the three sites that provide these services in Niger—Niamey, Maradi and Zinder—only six surgeons are known to have the technical abilities to handle fistula repair.** Three of the six received some background in the procedure in Addis Ababa, and of the remaining three, one is known not to have had technical training and is

unable to repair complicated fistulas.

More providers are desperately needed, as the current supply does not meet the demand. A sizable backlog of clients exists, especially in Niamey, where fistulas that are difficult to repair are referred. Training is feasible within the country from the few specialists who have been trained in Addis Ababa, but providers must be made aware of the most updated surgical techniques. In addition, staff are reluctant to stay in certain locations because life in the “brush” is very difficult, as most of the remote villages are in the midst of the desert.

Even if women do undergo a successful repair, they may not return to their husbands. Most are illiterate and lack skills for employment. Some turn to commercial sex work once their fistula is closed as a way to earn an income. This situation is of particular concern in crossroads cities, such as Dirkou in the northern Sahara, which is frequented by business travellers from various countries with high HIV/AIDS prevalence rates.

Two other projects linked to government involvement also illuminate the situation. As a response to a national need for self-sufficiency, the President of the Republic inaugurated a programme to build schools, reservoirs of clean water and local health units staffed with a midwife and a nurse in 1,000 of Niger’s 9,000 villages. While 85 per cent of the project has been completed, the schools and dispensaries have had difficulty retaining health care workers in the most distant settings. An initiative funded by the World Bank and some partners mirrors this outcome: in 1995, 30 hospitals were constructed, all well equipped to handle emergency cases. Many of these, however, suffer from a lack of qualified personnel and often do not offer sufficiently attractive salaries to retain well trained staff. More positively, a division of the MOH now pays for C-sections needed by women who have had fistula repair.

A final example involves a programme intended to address obstetric fistula directly. After the 1995 survey, a project was designed to

treat current and prevent future cases of fistula over the course of four years. Called Prévention et Traitement de la Fistule Obstétricale au Niger (the Prevention and Treatment of Obstetric Fistula in Niger), its strategies included building national and regional teams of doctors trained in fistula, educating providers, rebuilding hospital infrastructure and spreading information, education and communication about the topic to the population, all at a cost of \$385,000 USD. While the government found that the programme was useful, it was not able to provide financing for the launching of the work. La Coopération Française took on the task and proposed activities were carried out over a three-year period.

Recommendations and Critical Needs

- **Provide better and more training to more fistula repair providers, with a focus on remote locations.**

This process may involve integrating emergency obstetric care into the training for fistula surgery, since part of the issue in Niger involves keeping qualified providers in remote areas where mastery of emergency techniques is of critical importance. But an effort must also be made to increase the sheer number of providers to better address the caseload of women already waiting for repairs. Work should be done, too, to improve health care workers’ treatment of women with fistula, who sometimes are referred to as “those women who smell of urine.” Finally, it may be necessary to implement some kind of incentive system for providers, such as adequate housing, better salaries, improved communication and transportation and/or the opportunity for continued education.

- **Create and disseminate community awareness campaigns.**

Advertising aimed at village chiefs and religious leaders, as well as TBAs and pregnant women, could counteract the notion that delivery becomes problematic only after the second or third day of labour.

These campaigns would need to be in local languages and aired via radio, television and newspapers. It would be extremely effective to involve former fistula clients in these efforts on a national and district level.

- **Organize better transport and communication between health care sites.**

Transportation to appropriate care may be an obstacle. Women may have to travel by wagon or donkey if they are not picked up as hitchhikers. If they find an ambulance, they have to pay for gas. District hospitals urgently need more vehicles and a better radio network for referrals.

- **Explore ways to help make fistula clients more economically self-sufficient.**

Helping women learn new skills is a good means of assisting them after surgery and may prevent them from turning to more desperate measures, such as commercial sex work, as a way to earn a living.

- **Increase contact between funders and clinicians.**

Frequently, NGOs and foundation personnel negotiate with administrators and officials instead of with those directly implementing programmes, leading to projects getting stalled at the planning stage. Increasing communication between funders and those caring for fistula clients would help both parties to plan.

- **Advocate for increased funding for national projects.**

For Niger to be able to safeguard maternal health, more financial and political backing of projects aimed at preventing the decline in women's health, and improving their social and physical status, are needed in the country.

- **Consider creating a fistula centre at Hôpital de Lamordé.**

Because of the interest and commitment of the chief urologist and the fact that this hospital is currently receiving all of the urology cases in the

region surrounding Niamey, it is a strong candidate to become a fistula centre. The chief urologist was trained in Addis Ababa and is now eager to train other local physicians.

Fact Sheets on Niger Site Visits

A. Hôpital National de Niamey (Niamey National Hospital), visited 8 October 2002

Size: 244 beds for the surgery ward, with 20 beds reserved for fistula clients. Six operating theatres, one of which is used for fistula operations.

Medical staff: 15 surgeons, including expatriates; seven medical assistants; several nurses and anaesthesiologists who rotate through different departments. Dr. Amadou Deibou performs surgery on an increasingly small caseload each year (see below.)

Caseload: In 2000, there were 92 admissions; 51 of these women underwent surgery. In 2001, 23 were admitted, and this year, 10 have been admitted. The reason for the decrease in numbers is the restructuring of three area hospitals; all clients with urological issues are now seen at one central hospital, Lamordé.

Provenance of clients: Mostly departments of Tillabéry, Dosso (a central crossroads city, also a department) and all over Niamey.

Typical client profile: It depends on how long the client has had the fistula. If she is being seen just a few weeks after the fistula has developed, she is usually depressed, limping due to partial paralysis from labour complications, in wet skirts and usually smelling of urine and/or faeces. If it has been several months after the fistula has developed, the client has had time to take control of the leaking, by wearing pads or other forms of protection. These women are often also very depressed after the still-birth of their child. Eighty per cent of the women have been married by age 16 and have become pregnant by age 18. The fistula typically has developed in that time. Clients are usually accompanied by their mothers, rarely by their husbands.

Assessment and screening process:

- Physical exam is done.
- Clinical assessment done (blood type determined, blood count taken to check for anaemia).
- Electrocardiogram.

- Sometimes x-rays are taken, if necessary.
- Type and dimensions of fistula are also determined.

Post-operative care:

- Clients are hospitalized for 10 to 14 days after the operation.
- A catheter is inserted to make sure urine exits through the catheter and not from the vagina; client is observed to ensure no further complications arise.
- Antibiotics given.
- Advised to abstain for at least two months, and to return to the hospital if they get pregnant to seek antenatal counselling and care from the gynaecologist. They are told to make sure their next birth occurs in a hospital setting.

Rehabilitation/reintegration: None noted.

Husband almost invariably takes them back once fistula is closed.

Community outreach: Women's NGOs intervene at various levels.

Perceived support at the policy level: The Ministries of Public Health and Social Development organize visits to see fistula clients. They also make efforts to sensitize others by visiting centres with members of national NGOs and sometimes with members of embassies, including Canada, France and the United States. These visits usually result in donations of food and clothing.

Estimated fully-loaded cost per procedure:

\$55 USD is the quoted price, fully loaded is likely to be more.

Resources: Costs of procedure (hospitalization, operation and medication) used to be fully funded by a French cooperative, Falandry, which received more than \$150,000 from the French government some years ago. The money has since been exhausted, and women now pay for the procedures themselves, financing it any way that they can.

Barriers:

- Before intervention from CARE Africa in the form of a fistula workshop, doctors worked alone, with-

out support of others doing the same repairs. The situation is somewhat better now that there is more collaboration.

- Financing for repairs must be made available. Initiatives to advocate for funds for fistula repair need to be in place.

Additional Notes on Niamey National Hospital Fistula Pavilion

This situation is a very special case. In an isolated part of the hospital grounds a pavilion holds about 50 women, many of whom who have been waiting for several years to be treated. These women live within the walls of this enclave, where they are ostracized by other female residents of the hospital, who consider them to be unclean. They all have fistula, some for the second or third time. They are all waiting for help. They are all waiting to go home. To date, they have still not been treated because they have no money to pay for the surgery.

It was remarkable to talk with these women, who, despite the suffering they live with every day, laugh and remain hopeful that they will one day be able to lead normal lives again. One recently broadcast radio programme labelled them as totally abandoned, without family and friends, tired and depressed; but in reality, most of them have family whom they visit occasionally. They are taught various activities to pass the time. They cook for each other, sew and braid each other's hair. They live together, waiting.

Encouragingly, the NGO DIMOL has received funding from Oxfam-Québec to build a fistula repair centre in Niamey. Construction has not yet begun, but they have taken action to begin financing surgery for the women at the pavilion. Operations, which will take place at Lamordé and at the National Hospital, are scheduled to begin in November 2002.

B. Hôpital de Lamordé (Lamordé Hospital), visited 8 October 2002

Size: 72 beds, six of which are reserved for fistula clients; two operating theatres and one recovery room.

Medical staff: Dr. Oumourou Sanda, the head fistula surgeon, leads a team of five surgeons, including two urologists, one general surgeon, one pediatric surgeon, and one trauma surgeon. Six surgery nurses and 11 hospitalization nurses, four of whom are involved in post-operative care.

Caseload: Three to four operations per week, and as many as 200 per year. Last year, there were about six cases of RVF. However, on 7 October 2002, Dr. Sanda operated on a nurse from a hospital in Zinder, a large city in the southeastern part of the country. She had both VVF and RVF. She was operated on in Zinder, and the VVF was repaired. But when they tried to repair the RVF, four attempts proved unsuccessful. She was then referred to Lamordé where the RVF was repaired.

Provenance of clients: All over the country. Some from Burkina Faso, Mali and Nigeria. Most Nigerien women are from the department of Tillabéry, because Lamordé is easy to get to from there. There are also referrals from the maternity hospital in Niamey. Women are put on a waiting list to receive service. There is a huge backlog.

Typical client profile: Impoverished, the majority (89 per cent) are illiterate; most are housewives with an age range of 15 to 35. It was explained that the older cases are usually of very high parity, resulting in fragile uterus that rupture during pregnancy or labour. Most women are accompanied by their mothers, a sister or an aunt. Almost all are divorced, which in Niger does not consist of paperwork and lawyers but rather a separation.

Assessment and screening process:

- Standard clinical assessment; the urinary area is sterilized in preparation for the procedure in case of infection.
- Operation is then scheduled.
- Blood type is determined.
- Other tests performed if needed.

Post-operative care:

- A catheter is inserted for two weeks, and clients are observed. The catheter is then removed to check for incontinence. If a woman continues to be incontinent, she is watched closely for about a week. Sometimes, this is enough time for the wound to continue healing on its own.
- Clients are counselled by a social worker about contraception, what to do in the event of future pregnancies and to abstain from sexual relations for three months.
- Clients are advised to return in three months to consult with the urologist, who asks them if they want to return to their husband. Most choose not to go back because they are hurt and angry about being abandoned. Some women do not return for a consultation after the three months, and later get pregnant again, deliver at home again and return to the hospital, their fistula reopened. Of these cases, there is a 16 per cent failure rate.

Rehabilitation/reintegration: Only the help of the social worker, who counsels them and answers any questions clients may have.

Community outreach: The European Union runs a social service that gives affidavits to women who cannot afford the procedure. This helps some women.

Perceived support at the policy level: None. It was explained that to date no one from the government has visited the site, or acknowledged the work being done there. Members of the surgical team are concerned because Niamey National Hospital receives support. However, at Lamordé, where the caseload is larger, there is no support at all.

Estimated fully-loaded cost per procedure: 30,000 CFA, about \$45 USD. Women also pay 2,500 CFA, approximately \$4 USD, for a hospitalization of up to one month, sometimes more. Clients pay for their own medications.

Resources: Support from the state, which covers salaries; internal resources, which is income generated from clients; and donations from various sources.

Barriers:

- Lack of political support. The work they are doing needs to be better recognized on a national level so that specific initiatives can be taken by the government to help clients and the providers who treat them.
- Insufficient medication and equipment.
- Inadequate facilities. Designating or constructing a new building exclusively for fistula clients would help alleviate the current backlog.
- Bureaucratic slowdown. Any outside funding propositions or programme plans need to be presented directly to the clinicians in charge, who understand and manage the situation day to day. Too often when plans are made by administrators, the information stays at the top and does not involve those whom the plans directly affect.

C. District Sanitaire de Loga (District Hospital of Loga), visited 10 October 2002

Size: 28 beds; two operating theatres, only one of which is currently functional.

Medical staff: 18 in total, including two doctors, though only one OB/GYN, Dr. Moustapha Diahllo, does fistula repair; two midwives; one medical/surgeon's assistant; one anaesthetist; and three laboratory technicians. The rest are nurses and contractual workers.

Caseload: Not very large. Since November 2001, only three cases have been seen. Because the operating theatre is not always usable, many women are not aware that fistula repair can be done here. The surgical team spoke with a woman named Barakatou who was married at 17 and developed fistula at 20. She claims that there are many women in the region who are suffering, but don't know that they can be cured at Loga. Many of them have no home life and live as she did before having her operation. Being abandoned by her husband pushed

her to seek help. She was repaired, returned to her husband, got pregnant several months later and came to Loga to have a C-section.

Provenance of clients: They come from the villages surrounding Loga. In one case, a woman who was in prolonged labour at one of the *cases de santé* (health huts) was brought by ambulance (provided for by UNFPA Niger) because that hut had radio contact with the district hospital.

Typical client profile: Most are housewives whose husbands are agriculturists. They are very young. Only in one of the three cases mentioned above was the woman separated/divorced from her husband. Another one of the women had fistula for 10 years and her condition was too complicated to repair. She was referred to Niamey.

Community outreach: Information is usually spread by word of mouth. UNFPA finances certain awareness campaigns. For example, these campaigns may include meeting with women in the community to give them health messages about HIV, immunizations or available delivery services.

Perceived support at the policy level: None.

Estimated fully-loaded cost per procedure: The cost quoted was the same as for other operations, about \$15 USD. This amount covers all costs.

Resources: Federal funding. UNFPA provided funding to construct the new operating centre and also provides technical assistance such as supplies and training.

Barriers:

- Existing personnel need to be trained. The doctor who currently performs fistula repair does not operate on complex fistulas, but refers them to Niamey. If he and a surgical team were trained properly, this delay would not be necessary.
- A system needs to be in place to inform the community that fistula repair is possible at Loga.
- The current budget is not sufficient for necessary supplies such as suture materials, anaesthesia and oxygen.
- Lack of space. There are only eight beds—four for women and four for men—available for recovery. More beds are necessary, especially in the event that more fistula cases arrive.

D. Maternité Centrale de Zinder (Central Maternity Hospital of Zinder), visited 11 October 2002

Size: 45 beds; one operating theatre specifically for fistula repair, which was converted from some sort of examination room; one delivery room. A new fistula treatment centre funded by La Coopération Française and located next door was constructed in 2001. However, because the operating equipment ordered has not yet arrived from Europe, the centre is not yet running. Fistula repair is currently performed in the maternity hospital.

Medical staff: 60 agents: two OB/GYNs, six midwives, two anaesthesiologists and one medical/surgery assistant, with the remainder being nurses and laboratory technicians. Both Dr. Lucien Djangnikpo and his associate have been trained in fistula repair at the Katsina Centre in Nigeria.

Caseload: According to Solidarité, the NGO created by health providers at the maternity hospital to mobilize funding for the new fistula centre, 259 surgeries were performed between 1998 and 2001. There are an estimated 10,000 cases nationwide. However, it is thought that the actual number is much higher: as many as 25–30 per cent of Nigerien women with fistula go to Nigeria to be treated.

Provenance of clients: Mostly from the region of Zinder (32 per cent); some are from Nigeria. There are also some women who come from the Diffa and Maradi regions of Niger.

Typical client profile: Women who live in rural zones make up 90–100 per cent of the cases that are seen. Most are younger than 17 and are primigravida. The surgeons have operated on some women who have undergone FGM. Two years ago, one young woman, her name unknown, came to the hospital to receive treatment for her first fistula, which developed when she was fifteen. She had been abandoned by her husband and had spent over a year looking for help. After her recovery, her family pushed to get her husband to take her back. He did, but he had already taken another wife. She rejoined the family as the second wife and got pregnant shortly after. Although advised during her post-operative care to return to the hospital during

the seventh month of her next pregnancy to prepare for a C-section, she could not come because her husband had travelled and had not returned. When she delivered at home, labour complications ensued and a fistula once again occurred.

Assessment and screening process:

- Exam conducted to determine that fistula is the source of the incontinence.
- The fistula's location assessed, and its type and size are determined.
- Clients are examined using instruments that are exposed to open air.
- A catheter is inserted as soon as a diagnosis has been made. If the fistula developed less than three months earlier, it is possible to see a significant reduction or total closure approximately one week after the catheter is inserted.
- The operation is performed vaginally; no abdominal cutting is necessary.

Post-operative care:

- Clients remain in the hospital for at least one month.
- The catheter remains in during this period. Clients are instructed by the OB/GYN to drink lots of water so that there is a continuous stream of urine through the catheter inserted after surgery and left in for four weeks. According to the surgeon, this practice reduces the likelihood of infection and removes the need for antibiotics (despite information that the risk of infection increases 10 per cent every day the catheter is left in over seven days).
- No antibiotics are administered during the post-operative phase.
- Personal hygiene of the vaginal area is recommended.
- Removable sutures are left in for four weeks, after which they are removed without anaesthesia.
- Despite the presence of 26 beds in a newly constructed fistula centre, women recover in a shed outside the hospital. Mats on the floor serve as places to sleep.
- Six months of abstinence is recommended.
- Clients are advised to return during the seventh month of their next pregnancy to receive

antenatal care and to prepare for a C-section.

Rehabilitation/reintegration: An action plan written by Solidarité specifies that these services will be provided for women who have been treated at the fistula centre. They have yet to start, however, since the centre is waiting for the arrival of equipment before initiating any of these kinds of activities. The centre also hopes to train women in a skill that will allow them to provide for themselves. Women who have had fistula for 10 to 15 years are likely to have lived in terrible shame and may resort to commercial sex work once they are repaired as a way to seek an immediate income to survive.

Community outreach: A lot of outreach is done on the radio, with the message that fistula is a repairable problem broadcast in local languages.

Perceived support at the policy level: Local officials are aware of the problem. The mayor of Zinder donated the land for the new fistula centre. Zinder's Sultan visits often, as does the First Lady.

Estimated fully-loaded cost per procedure: Solidarité covers the cost of the entire procedure. Costs to the hospital listed in the action plan budget include: room and board, \$750 USD a year; client reinsertion at \$15,000 USD a year; and medications at \$23,400 USD a year. Given that the number of cases treated a year is roughly 75, it can be estimated that the cost for a single procedure would run to about \$750 USD, although the surgery is free to clients.

Resources: Solidarité. No state subsidy. They want to see the centre integrated in the state budget.

Barriers:

- They are still at the beginning. The centre is not yet operational, though its beds could be used for women in recovery. Currently, clients recover in an open shed outside the hospital and sleep on mats.
- Staff could receive updates on infection prevention practices, such as the development of a protocol on the use of post-operative antibiotics and the maintenance of a sterile field in the operating theatre.

E. Hôpital Regional de Maradi (Regional Hospital of Maradi), visited 13 October 2002

Size: 330 beds, 14 of which are reserved for post-operative care; three operating theatres, one of which is reserved for fistula surgery.

Medical staff: 143 agents, 81 of whom are medical professionals. One Nigerien surgeon and three Chinese surgeons, one of whom performs fistula repair. According to Dr. Ousseini Boulama, the Hospital Director, there are no local fistula surgeons at the moment. Providers from the Katsina centre in Nigeria were frequent supporters, coming twice a week to help with fistula operations. Because of some difficulties, however, the Katsina physicians stopped coming. They are expected to return after this season's harvest.

Caseload: During the first half of 2002, only one case was operated on. When the Nigerians were assisting the staff in Maradi, the caseload was much higher. In 2001, 17 cases were seen and not all were operated on.

Provenance of clients: Women come from all over the region and also from Nigeria, whose border is 70 km away.

Typical client profile: Young, usually abandoned by their husbands. They are often hopeless and alone, as they may also have been abandoned by their families. They are often malnourished; however this is not necessarily specific to the women who come for fistula repair, as it is not unusual for Nigerien women to be undernourished. Many have undergone FGM as excision is very common in the region of Maradi.

Assessment and screening process:

- Surgery is usually performed during the week that a woman arrives.
- A general clinical assessment is done.

Post-operative care:

- Clients generally remain at the hospital for three to four weeks.
- During this time, client hygiene is monitored, antibiotics are given and the catheter is checked every morning to make sure it is not leaking or blocked. It is possible to inject blue ink into the

bladder in the case of leaking to determine where the leak is coming from.

- Clients are also encouraged to get up and walk around every day to regain muscular strength.

Rehabilitation/reintegration: None noted. There is no problem of reinsertion after the fistula is closed, but the hospital does not intervene at that level.

Community outreach: A forum of village chiefs and religious leaders organized by UNICEF was held to raise awareness about the need to fight against early marriage. The hospital recommended that a committee be created at a political level to manage such an effort, but to date nothing has been done.

Perceived support at the policy level: Not available.

Estimated fully-loaded cost per procedure: The operation is free. Women pay for their own medications.

Resources: Only the state support that is required for a regional hospital.

Barriers:

- Must find a way to help the hospital pay for medications, which would substantially relieve financial pressure on clients seeking care.
- Women often go back to their husbands because they cannot support themselves. Training in income-generating skills at the hospital might help clients make post-operative decisions out of personal choice, not economic need.
- No community level investment in the importance of antenatal care. Women who are very young and forced to marry are often ashamed to show their pregnancy in the village and resort to staying home instead of consulting health professionals for antenatal recommendations.
- UNICEF did a study in 1998 to see why so many women were still delivering at home, and the results showed that: 1) Women are cloistered at home for religious reasons; 2) They receive no financial help from their husbands to seek hospital care; 3) Socially, the subordinate position of women makes it difficult for them to make their own decisions; and 4) They were ashamed to emerge pregnant in the village.

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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.²⁹

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.³⁰

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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UGANDA

Background

Reproductive health in Uganda is characterized by a **total fertility rate of 7.10, a contraceptive prevalence rate of 18 per cent for modern methods and a maternal mortality ratio of about 1,100 per hundred thousand live births**, according to UNFPA's *State of World Population 2002* report. More than 60 per cent of women deliver at home. Of the remaining percentage who deliver in a facility, many are insufficiently attended and end up suffering morbidity, such as fistula, as a result.³¹

The **Ugandan MOH has initiated a process to decentralize and upgrade health centres** at the subdistrict level, with a focus on increasing access to emergency obstetric care. The emphasis is on three fronts: training doctors and motivating them to live and work in remote areas; equipping and maintaining operating theatres; and securing emergency transport services.

Five years ago, in a pilot project in three districts, UNFPA supported **additional training of TBAs to help them understand signs of complications in labour**. UNFPA supplied two-way radios so that providers could initiate communication with the closest health unit. They also donated transportation in the form of small Suzuki jeeps. The result proved that the maternal mortality ratio could be improved, so UNFPA has initiated support to an additional 14 districts.³²

The Uganda Health Sector Strategic Plan for the period 2000 to 2005 **sets optimistic national targets for reproductive health, including an increase in contraceptive prevalence to 30 per cent, a decrease in maternal mortality to 354 per 100,000 live births and an increase in deliveries attended by skilled health workers from almost 40 per cent (in 1995) to 50 per cent**.³³ To achieve these goals, the MOH recognizes the need for public and private health sector service delivery organizations to work in partnership as well as the need to refurbish the health outposts that are understaffed and under-resourced. In

addition, the MOH is concerned with motivating doctors to remain in remote locations to build community confidence in the health services available.

Issues and Challenges

The needs assessment team visited four service delivery sites in the country where fistula repairs are offered: Kitovu Mission Hospital in Masaka, Kamuli Mission Hospital in Busoga, Lira District Hospital in Lira and Nsambya Mission Hospital in Kampala. In addition, the team met with representatives of the UNFPA country office, faculty from Makerere University and Mulago Hospital and the director of clinical services at the MOH.

The interviews, observations and discussions painted a picture that was remarkably similar across the country and was characterized by a **great and growing number of women with fistulas, a short supply of physicians with the skills to repair them, operating theatres that were few in number and insufficiently equipped and tremendous reliance on the work of visiting, volunteer doctors** from other countries who visit for periods of a week to a month once or twice a year to help stem the tide of women waiting for repairs.

The women themselves tend to be young (15 to 20) and to develop fistula during an obstructed labour with their first pregnancy, which almost invariably results in a stillbirth. In some cases, the woman's husband or partner has left her and she has **no means to get to a service delivery site or to pay for the services that she needs**. Although women were able to receive surgery even when unable to pay, user fees were in place in each of the locations, except the government hospital. The cost in the private, mission hospitals ranged from the equivalent of \$75 to \$120 USD per repair, depending on the interventions and length of stay required. As one nursing sister commented in Kamuli, "More and more, women just can't pay and we understand why they sneak away once they are

healed....” The issue of clients needing to pay was often cited as a reason more women don’t come and “...are just off suffering in the bush,” according to a physician at Lira Hospital.

In the absence of collecting user fees, staff members note that **service delivery organizations are having a harder and harder time supporting fistula repairs**. When clients are being operated on, other surgeries must be put on hold. Since fistula clients need to spend a somewhat longer period of time recuperating in the hospital than many other types of clients, they also prevent other (potentially paying) clients from using the beds they occupy. Furthermore, although they are expected to furnish basic surgical supplies, they usually cannot and often bring an attendant who may also need assistance securing basic supplies like food and accommodation.

Although **HIV/AIDS** is recognized as an important issue, and certainly the issue which is garnering the most resources for service delivery sites, it is **not well integrated into the care of fistula clients**. Every site visited had a well-funded HIV/AIDS programme that included both community outreach and VCT, but fistula clients were not given any special counselling on the issue. One nursing sister at Nsambya explained that if a fistula client were to receive special counselling on HIV/AIDS, it would worry her, as she would be suspicious about why she was singled out to receive this information. “She would say, ‘Why are they telling me this? What have they seen inside me when they opened me up for surgery?’” explained the nurse. In fact, in two cases, the number of days for VCT had been reduced from twice to once a week due to lack of demand, yet AIDS is known to be prevalent.

In the mission hospitals, the **HIV/AIDS programme is the only part of the facility where clients can get any kind of family planning**—in this case, condoms. Otherwise, they are referred to local government-supported clinics where they can obtain a variety of family planning methods. No sites had any tracking mechanisms in place to determine how many of the women did actually go

to the referral sites to seek family planning, although some sites did have women return to the same facility for a C-section to give birth when they next became pregnant, as they had been asked to. **There is a widely held perception among staff that family planning is not a critical need for fistula clients**. Yet staff readily recognize that if clients do return to their homes, they will likely be returning to the conditions that put them at risk in the first place: a remote location, health facilities that are difficult to get to and poor economic standards. Obviously, the woman’s pelvis would not have changed size, so she would be at even greater risk if she were to get pregnant again and, even with good access to a C-section, should probably not, for her own health, have many pregnancies.

The **doctors who attend to the women with fistulas are a dedicated but small group**. They perform the fistula repair surgery when they visit once or twice a year, except at Nsambya, where three consulting gynaecologists and the medical superintendent are able to perform operations on a regular basis as needed. The visiting doctors are revered and their work is much appreciated, especially when they have been able to successfully repair a fistula that had previously been deemed inoperable or had been unsuccessfully operated on. The visiting doctors are, in one case, on staff with the African Medical and Research Foundation (AMREF) and, in the other two cases, are retired surgeons from the United Kingdom who travel to Uganda on a volunteer basis to assist with fistula repair and training.

Because their visits are relatively infrequent, there are inevitably far more women to be operated on than one surgeon can possibly attend to. The result is that women must return to the queue the next time the doctors can visit. In addition, because the doctors are trying to operate as quickly as they possibly can, they are not in an ideal situation to train other providers, as the process of teaching and training requires time that is in short supply. Ideally, visiting doctors would be able to stay for slightly longer periods of time to build teaching into their responsibilities.

For this reason, the **need for local doctors to be trained** is paramount. Many of the specialists (most of whom are OB/GYNs) who are interested in receiving training are aware that training could be obtained in Ethiopia or Nigeria, but are also well aware of the waiting list for a training slot in these locations. They know as well that they will need to secure funding to get trained if they have the opportunity to do so. One senior physician explained that, while there is interest locally in being trained, the reality is that doctors are eager for a number of different kinds of experiences to increase their range of skills and ultimately their earning power. Fistula clients are not likely ever to be in a position where they can pay much, unlike, for example, a hysterectomy client or someone seeking services for infertility.

In addition, there is another factor which prevents some doctors from seeking training in fistula repair: **the perceived high rates of failure for fistula surgeries**. The providers interviewed for this assessment mentioned success rates of 70 per cent to 90 per cent for first attempts. It is likely, however, that others perceive success rates to be lower than this range. Alluding to the difficult nature of fistula repair and the fact that there is not always success, one physician explained that the district level health unit is starting to understand that, unlike family planning and nutrition where a small input can have dramatically positive results, “fistula is just the opposite.” The input is big (and complicated) and the outcome may be failure.

Finally, **a strong cultural value placed on giving birth at home** is pervasive and often leads to women arriving at facilities when they are in desperate situations with obstructed labour and fistulas have already formed. As one doctor explained, “It is sort of as if you are not a real woman unless you can push a baby out on your own.” This desire to deliver at home, often without skilled attendance, is complicated by several factors. She may be attended by a TBA, some of whom have a vested financial interest in not referring her to a health facility, even if her labour is complicated. In addition, many women feel they

need their husband’s permission to seek health care, so would wait until he arrived home before trying to seek help. Given the need to find transport or secure funding for it, the delays can be extensive. Once in a facility, there may be additional delays or insufficient skills to manage the labour successfully. One doctor noted that 10 per cent to 15 per cent of the fistulas he currently sees occurred in the facility, some in relation to poorly managed labours and C-sections.

Recommendations and Critical Needs

- **Capitalize on antenatal care being well attended and use visits as a chance to highlight prevention of fistula.**

Even in the most remote locations, women are seeking antenatal care once or twice before they “disappear” pre-labour. Their visits are undoubtedly based on convenience, most likely in relation to the availability of time and money for transportation and clinic fees. These antenatal care visits could be used to explain labour complications, including what fistula is, how it happens and how it can be prevented. In addition, some ideas about planning for a delivery in a health facility could be discussed as could certain signs of complications during labour and the need to seek emergency care quickly should these develop. Providers might also mention the need to begin to organize a transport plan early on in a pregnancy. These plans would include starting to put aside a little bit of money on a regular basis.

- **Integrate family planning and HIV/AIDS messages into the regular care of fistula clients, and make sure that clinics have adequate family planning supplies, including condoms.**

Although it is widely presumed at the sites visited that the majority of fistula clients are amenorrhoeic (not resuming menstruation after the trauma of the delivery which created the fistula, unless and until the fistula is repaired), a good proportion of the unrepaired fistula clients continued with regular menstrual cycles and even got pregnant again

in some cases. Given this scenario, it is critical that fistula clients be made aware of the dangers associated with getting pregnant again and be able to control their fertility as desired. They also are vulnerable to HIV, especially if they are in a situation where they need to find socio-economic stability without a partner. Anecdotal evidence from one site suggests that fistula clients sometimes have to resort to commercial sex work to provide for themselves and any children they have, a situation that may put them at an increased risk for undoing the repair as well as for contracting HIV. Mission hospitals appear to have acknowledged their responsibility to offer family planning services, but have not taken measures to address it beyond some attempts at mentioning referral sites.

- **Explore the feasibility of training interested medical officers to perform basic fistula repair.**

In the current scenario, medical officers are generally not considered suitable candidates for learning fistula repair, as they have not gone through any specialized training. If interested (and the team heard more than one example where this was the case), they may be able to learn how to perform simple repairs, a situation that could result in better pregnancy outcomes at the health outpost level. Medical officers are in far greater supply than specialists and may be more inclined to stay in a remote location, so if they were trained to handle obstetric emergencies and first and/or simple fistula repairs, women would have less need to travel to other facilities for basic care and be able to reach an appropriate facility more easily. A number of training options will undoubtedly need to be explored both for medical officers and for specialists who would potentially assist them with the more complicated cases. Such options include training pre-service for undergraduates, in-service for generalists, pre-service for post-graduates in surgery or gynaecology or in-service for specialists in surgery or gynaecology.

- **Conduct a needs assessment at a community**

- **level to better understand the lives of women who get fistulas, the social conditions in which they live and what might be done to ease their reintegration back into society.**

In every interview conducted, providers and administrators said they knew little about the circumstances of these women's lives and the process of reintegration they experience when they return to their community or go to other communities. The fistula clients who participated in this needs assessment had no access to any community services, so were forced to find their own way, relying on the help of family and friends. Not all clients have family and friends able or willing to help, however, so a greater understanding is needed about how communities might be mobilized to support these women.

- **Use findings from the needs assessment to conduct on-the-job training for nurses and social workers so that they may more adequately care for the women and help them to reintegrate once their fistulas have been repaired.**

In addition to the need for greater community awareness and support, findings from the needs assessment could also be used to inform some on-the-job training for nurses and social workers. Post-operative care, both within the hospital and following discharge from the hospital, is critical for fistula clients, not only for their physical recovery but also for their psychological health. With some basic training, hospital staff could be made aware of and trained to meet the special needs of fistula clients.

- **Explore ways to sustain local doctors' interest in fistula repair and make the services sustainable.**

Clearly, fistula repair is not easy or glamorous surgery and has a chance of failure that is higher than many physicians are comfortable with. It also usually involves clients who cannot pay. These reasons, together with insufficient equipment and low salaries for medical staff (who, therefore, may have an interest in seeing private clients part of the day), combine to put fistula repair at the bottom of the list of conditions for which physicians

might be interested in seeking special training. Special attention to providers and issues of motivation, perhaps in the form of a small research project, would help to shed light on what might make them interested in learning how to conduct fistula repair and maintain an interest in it. Putting some educational or economic incentives into place might also help sustain the commitment of local providers.

- **Consider creating a training centre for fistula repair within Nsambya Hospital.**

Since Nsambya Hospital is the only location where local doctors perform fistula repair on a regular basis, is centrally located, and has a relatively large caseload and a reputation for high quality services, it might make sense to consider establishing some kind of ongoing training for fistula repair there.

Fact Sheets for Uganda Site Visits

A. Kitovu Mission Hospital, Masaka, visited 6 May 2002

Size: 200 beds, plus an outpatient clinic and community-based health work primarily on HIV. Part of Medical Missionaries of Mary, Daughters of Mary network

Medical staff: Nine doctors and 150 nurses. They had an expatriate surgeon, Dr. Maura Lynch, doing VVF repair until recently; now, they rely on a visiting surgeon (Dr. Brian Hancock or Dr. John Kelly) to come twice a year for several weeks at a time.

Caseload: Fairly large. In September of last year, Dr. Kelly performed 54 repairs. Dr. Lynch had typically done about eight repairs a month before, but there were many others to do. There are many more VVFs than RVFs—approximately 90:10—but a few clients have had both.

Provenance of clients: Primarily the district, but some come from outside the district as well. Rakai has a large number of women with VVF, for example, but transportation is a big issue, so the hospital sent a vehicle to pick up some of the women and bring them back for surgery. Sometimes, the community health workers from the HIV project give clients funds to pay for transport.

Typical client profile: 15 to 20 years old, first pregnancy, accompanied by female family member or friend, very poor.

Assessment and screening process:

- Clients wait on benches in the corridor, which offers more privacy than the ward.
- Screened to determine whether they have obstetric fistula. The number and location of holes is also determined.
- Blood typing done.
- Haemoglobin measured.
- Pregnancy ruled out.
- Counselling given on surgery, the need for abstinence following surgery and the need to have a C-section if another pregnancy occurs. Two months worth of oral contraceptives is provided.

Post-operative care: Clients stay for a period of a couple of weeks to a couple of months. If surgery fails, clients wait three to six months for another attempt. If IVP is needed, clients are referred to a local hospital, but funds have to be raised to pay for this procedure, which costs about \$100 USD.

Rehabilitation/reintegration: There are no social services available to help clients get back on their feet and reintegrated into a community. Most do not go back to their husbands, many of whom rejected them originally. Women have to figure out a way to support themselves and find work. In communities where VVF is extremely common, such as one described in Rakai, there does not appear to be as much social stigma. In fact, when one doctor was doing a health talk in the community and described VVF in order to let the community know that repair surgery was going to be available at Kitovu, one person in the audience said, “But doesn’t that [VVF] always happen?”

Community outreach: Once the dates for a surgeon’s visit have been set, the doctors tell the community outreach workers, who discuss it in their health talks. An announcement on the radio is also made.

Perceived support at the policy level: Very little. Staff know that the last Minister of Health was interested because he came from a mountainous region where the condition was common; it is unclear how the current Minister will respond. It is very apparent to the staff, however, that the real money is in AIDS.

Estimated fully-loaded cost per procedure: \$75 USD.

Resources: Last year, the hospital received \$5,000 USD from a Tanzanian NGO; a small amount also came from the Irish Medical Association, where a website story resulted in a large individual donation. The Ugandan government provides support to the hospital, but not for VVF. The European Union gave a large five-year grant, which is in its last year. Hospital has a user fee policy which accounts

for 30–40 per cent of the overall budget, but VVF clients usually cannot pay.

Barriers:

- Funding.
- Dependence on volunteer, visiting doctors who bring their own equipment.
- Light (need a new one).
- Clients need funds for upkeep, food and accommodation while waiting for and recovering from surgery.
- If surgery is being done on VVFs for two to four weeks, then all other surgeries must be put on hold because the theatre is small. In addition, this makes the wards congested with clients who are not paying, so the situation amounts to a loss of revenue for the hospital.
- At a community level, education is needed on prevention and saving for labour and delivery, arranging transport, etc.
- Transport needed both for emergency obstetric complications and fistula repair.

**B. Kamuli Hospital, Busoga, visited
7 May 2002**

Size: 170 beds; surgical ward has 30 beds.

Medical staff: Four medical officers, 45 nurses and 13 nursing assistants. Visiting expatriate surgeon (Dr. Brian Hancock) visits twice a year for a week at a time, usually in April and November. In the early 1980s, a local doctor also did VVF repairs.

Caseload: In the beginning, it was difficult to get clients, but when Dr. Hancock said he would do them for free, many women appeared. During one week in April, he performed 14 repairs (four were still leaking afterwards) and in November he did 22 (all ended up dry).

Provenance of clients: Most come from the district, but some come from as far away as Busia (> 50 km) and close to Kampala (> 10 km).

Typical client profile: 20 to 30 years old, poor and have had VVF from one to 10 years. Most lost the baby, but one had VVF then five more children and

then got repaired. Last year, they had three clients in their 50s who had had hysterectomies. Women often come with a sister or aunt to help them and some bring their husbands and babies, too.

Assessment and screening process:

- Women come two to three days before surgery.
- Nurse screens for malaria and anaemia.
- Doctor screens for type of fistula and exact location.
- In addition, Dr. Hancock counsels clients on how the fistula happened, how big the hole is, how he plans to approach it surgically, the chances that it will be successful and the role of a catheter post-operatively.
- The need to have every other delivery by C-section is also emphasized.
- Clients are put on antibiotics right before surgery.

Post-operative care:

- Nurse talks about family planning; client is referred to the government-funded health centre in town (about one km away) if she wants a method.
- Clients stay in hospital for two weeks.
- Clients are counselled to abstain for six months.

Rehabilitation/reintegration: No community programmes are in place to help women get back on their feet. Women are often not able to pay and simply leave.

Community outreach: About a month before Dr. Hancock comes, announcements are made on the radio; these efforts bring in more women than can be operated on. Outreach workers go out into communities for immunizations and health education. Also, in the past, a doctor would go out to four different rural areas in the district to provide services on a regular basis, but the hospital lost its transport so can no longer perform this service. Women do come for antenatal care, however. A flat fee of 1,000 shillings (less than \$1 USD) entitles them to five visits, but most just come for three at a maximum and many just come towards the end of a pregnancy. A strong culture of delivering at home exists, so the ones who come to the hospital are normally already in dire situations with an obstructed labour.

Perceived support at the policy level: Staff are

unclear whether anyone at the ministry considers this a priority.

Estimated fully-loaded cost per procedure:

120,000 shillings (about \$75 to \$80 USD). A normal delivery costs 5,000 to 6,000 shillings and a C-section costs 20,000. Most women cannot pay, however, so there is a problem with people just leaving. Sometimes, they are asked to sign a paper saying that they will pay a little bit at a time, but they rarely do.

Resources: The Ugandan Government has paid a small amount to allow the hospital to lower their user fees; they have been able to lower their children's fees by 50 per cent (it is now 1,000 shillings for a child's visit) and adult fees by 25 per cent (now 2,000 shillings per visit). In addition to the church, government support and client fees are the only two sources of income.

Barriers:

- No local doctors are trained in repairs, but some of the medical officers are interested in learning how to do them.
- If a woman needs an IVP, she has to go to Kampala (Mulago or Nsambya).
- After two to three attempts, if a woman is still leaking, she is unwilling to try again and certainly would not pay again for an attempt.
- Funding is so uncertain that staff are given "allowances" rather than salaries because the salaries might stop at any time.
- Trying to collect user fees is very difficult.
- The theatre, facility and equipment are out of date and/or inadequate.
- Insufficient theatre space: when there is an emergency, the doctor has to stop the VVF surgery, attend to the emergency and then go back to the repair.
- Transport is a big issue.
- Follow-up is limited; some women come back to thank the doctor, but that is all.
- No community services are in place to help clients.
- Some are concerned that if local doctors are trained, they will not be able to pay out of pocket for surgeries for women the way the visiting doctor has, nor will they be able to provide equipment.

C. Lira District Hospital, Lira, visited 8 May 2002

Size: 282 beds; nine wards (some of them are quite small, five beds, for example).

Medical staff: 10 physicians, six medical officers, one dental surgeon, one ophthalmologist, one gynaecologist, one medical superintendent, 35 nursing officers, 80 regular nurses, 16 enrolled nurses, and 26 midwives. Nurses get on-the-job training for VVF. Visiting doctors include Dr. Brian Hancock, who had come five times, and Dr. Tom Raasse, who had come twice (at the time the team visited).

Caseload: Enormous. When the word got out that Dr. Hancock was coming, more than 200 women showed up; of these, all were registered, only about 50 were screened and another 20 operated on. The ones who are registered but not operated on are given priority for the doctor's next visit. Some are very difficult cases: the women may have already had unsuccessful attempted repairs. About 90 per cent of surgeries have been successful.

Provenance of clients: Most come from Lira and the surrounding area, but some come from neighbouring districts.

Typical client profile: Young women 16 to 20 years old, most of whom are accompanied by their sisters or mothers. They are very poor. For most, this is their first pregnancy, and most have lost their babies. After developing a fistula, many get "into a nasty relationship" with their partners and are abandoned by them and become social outcasts. Even friends give them a hard time. In general, women in the area do come for antenatal care visits, but more from urban than rural areas. In addition, providers noted that people handle the issue of AIDS very secretly.

Assessment and screening process:

- General exam to determine size and location of fistula.

Post-operative care: Family planning unit does counselling (for everyone) twice a week at the hospital. For VVF clients, there is an emphasis on spacing children and family planning methods available (pills, depo and Norplant are most com-

mon; women who live far away want long-acting methods). VVF clients are asked to return a month after their procedure, but only the ones with problems return. HIV “sensitization” is given to VVF clients; VCT centre is on site, but it is not used very much, so now the hours are reduced only to Thursdays.

Rehabilitation/reintegration: No community services or programmes.

Community outreach: The hospital plans for the visits of the surgeons and tries to set aside funds for any additional materials needed. They use two local FM radio stations and are flooded by response to these messages. There are regular community outreach workers who are paid by the district.

Support at the policy level: The district is starting to appreciate what a big problem VVF is. The problem, in the words of the medical superintendent, is that they are used to a small investment having a big impact—like nutrition or family planning—but VVF is the opposite. The investment is large and it may fail.

Estimated fully-loaded cost per procedure: Unknown.

Resources: The Ugandan government supports them through the MOH; they also receive some funding from Lira district for special procedures/specialist visits, which VVF is considered to be. Visiting doctors bring all of their own equipment.

Barriers:

- Inadequate amount of space is a big problem. Sometimes, they try to take some space from the eye clinic, put more women in the same room/bed or use the corridor and office space for beds.
- When fistula clients are operated on, all other surgeries must stop, except for emergencies.
- Equipment.
- Training opportunities for interested medical and nursing staff.
- Strong local belief about giving birth at home exists, so even though services are free, women want to deliver at home. Only about 20 per cent deliver in the hospital.
- Hospital needs separate budget/funding for VVF special needs, like extra IV fluids. If their own

doctors were able to perform VVF repair, the hospital would need to purchase the equipment.

D. Nsambya Hospital, Kampala visited 9 May 2002

Size: 360 beds.

Medical staff: Among other medical staff, there are three consultant gynaecologists. The medical superintendent is also a gynaecologist; all of these staff conduct VVF repairs. All received some on-the-job training from an Irish physician who was previously posted there.

Caseload: Currently, Nsambya gets about two to three cases per week. They used to see a lot more, but in 1996, when the economy started to decline, suddenly many people could not pay even a little, so the caseload dropped. Last year, the staff performed 60 repairs. Previously, however, they did 120 per year. Now, the most difficult cases in the area are coming to Nsambya. Ten to 15 per cent of the obstetric fistula cases they see occur from poorly managed labour in a health unit, and poorly handled C-sections. Fistula repairs are done on a regular basis.

Provenance of clients: Although many come from the area, many also travel a great distance (from as far away as Mbarara) because they know of Nsambya and its good reputation.

Typical client profile: Some are young (16 to 19), but the majority are between 20 and 30. Most come with a relative, but some come unattended. The nurses have to cope with a range of needs, including obtaining food for everyone who arrives with a client.

Assessment and screening process:

- Haemoglobin is checked.
- Infections are checked.
- Chest x-rays are done, if needed.
- Women are assessed under general anaesthesia in the operating theatre to determine the exact nature and location of the fistula.

Post-operative care:

- Women are placed in a prone position for two weeks.
- A series of clamping regimens are used to retrain the bladder.

- If there are no signs or symptoms of HIV/AIDS, it is not mentioned.
- The doctors counsel the male partners of the fistula clients on the need to abstain.
- Clients are advised on need for C-section for subsequent pregnancies.
- Clients are informed about family planning, but no methods are given (providers noted that this is because it is a Catholic hospital).
- An HIV clinic at Nsambya runs on Wednesdays, so condoms can be obtained there.

Rehabilitation/reintegration: There are no specific community services available to women to help them reintegrate back into the community.

Community outreach: None specifically done on VVF, but people in the community are aware that obstetric fistula can be repaired at Nsambya. There is an organized outreach programme on immunizations, so perhaps VVF repair and prevention could be mentioned in this context, although one of the hospital's key donors is specifically concerned about immunizations.

Support at the policy level: Staff physicians are aware of some level of interest on the part of the MOH in this issue; the previous Minister came from a mountainous region where VVF was common so he was very interested, but now he is in a different position in the government.

Estimated fully-loaded cost per procedure: About \$120 USD, but the exact fee depends on how long the women end up staying, the interventions done and treatment given.

Resources: An anonymous local group has offered to pay \$400 USD a month to the hospital to support fistula repairs. Although Mulago (also in Kampala) does some repairs, there "women end up lying around for a long time." Fees are charged to clients, but they cannot always pay.

Barriers:

- More training is needed for doctors, especially on the management of difficult cases.
- Fees need to be reduced, so more women can come for repairs.
- More emphasis needs to be on fistula prevention.

Key Contacts

The needs assessment team is deeply grateful to the following individuals in Uganda for their assistance with this project:

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ZAMBIA

Background

The picture of reproductive health in Zambia is framed by the fact that **83 per cent of the rural population and 56 per cent of the urban population live in poverty. The impact of HIV/AIDS has been dramatic, lowering the average life expectancy from 55 in the early 1980s to 37 in 1998.** Zambia has the unfortunate distinction of being the only country (out of 100 measured) that has a human development index score that was lower in 1998 than it was in 1975.³⁴ Not surprisingly, the health situation of women has not improved during this time period. **The maternal mortality ratio currently stands at 870 per 100,000 live births according to UNFPA's *State of World Population 2002* report.**

Despite this scenario, there is some good news as well. **The contraceptive prevalence rate has grown from 15 per cent in 1992 to 25 per cent in 2002 (with 14 per cent using modern methods).³⁵ Antenatal coverage is between 72 per cent and 90 per cent,** well within international standards. The number of antenatal care visits—3.5 per pregnancy—also falls within these standards. Forty-seven per cent of deliveries are attended by a skilled health worker; while not a high figure, it is similar to other countries in the region.³⁶

The National Health Strategic Plan for 2001 to 2005 aims to address issues of reproductive health through an assessment and reformulation of the basic health care package. In this plan, **the district remains the key intervention level, with a focus on serving the needs of those considered most vulnerable.** The backdrop for this emphasis is the National Health Services Act of 1995, which addresses health care needs through a two-pronged approach: (1) the creation of a group of popular structures for citizens' involvement in priority-setting and decision-making, such as neighbourhood health committees; and (2) the creation of technical and management structures to meet health care needs in ways that conform

with best practices and evidence-based care.³⁷

The core component of the latter, the technical structure, is comprised of the district health management teams, the hospital management teams, the management teams at the Central Board of Health (CBH) and the MOH. The district and management teams are actually contracted by the CBH to provide health service delivery. District health boards can, in turn, contract with public or private sector providers (including NGOs) to deliver services within a specific area.³⁸

At the community level, a number of projects are underway. These are supported by the MOH (through which UNFPA works) and address the issue of making pregnancy safer. UNFPA has initiated a project that will include creating a booklet on safe motherhood and “mama kits” designed to provide the essential materials needed for a safe delivery. In addition, working with the White Ribbon Alliance, they have planned to support the formation of safe motherhood action groups, which includes a revolving fund for transport. Additional plans include reaching out to community leaders, including chiefs and other men, to sensitize them to issues of safe motherhood through a series of workshops and to secure their help for additional community-based work on the issue.

Issues and Challenges

The needs assessment team visited UNFPA country staff, including a technical advisor seconded to the CBH, the Director of Clinical Services and the Clinical Care Specialist of the CBH, staff from the University Teaching Hospital (UTH) and those involved in fistula repairs at UTH as well as at Monze Mission Hospital, which is the primary referral centre for fistula in the country. In addition, knowledgeable stakeholders were also interviewed, including a retired surgeon who trained the current staff at the mission hospital on fistula repair and representatives from the

Zambian integrated health programme, as well as Johns Hopkins Program for International Education on Gynecology and Obstetrics (JHPIEGO) staff working on a current bilateral project with USAID on maternal and neonatal health.

Despite Zambia's vast size (more than 750,000 square km), there is **only one location where fistula repairs are done on a continuous basis: Monze Mission Hospital**. Some repairs are done at the teaching hospital in Lusaka, but only those that can be managed, given other clients with pressing needs and the availability of supplies. Due to space and resource limitations, as well as the complexity of some of the cases, fistula clients are often referred from UTH down to Monze, a distance of about 150 km. Although in the past repairs have been done in other parts of the country, no other facilities were located that currently offer fistula repair on a regular basis.

The picture of fistula that emerged from the assessment in Zambia is that the condition is prevalent, but not in the staggering numbers evident elsewhere in the region. However, it is a distinct possibility that this is not the case: large numbers of clients may exist but be unable to locate or obtain treatment because transportation is difficult to come by and service delivery sites are scarce. In addition, given a high maternal mortality ratio, it may be that a number of women who would have suffered complications such as obstetric fistula end up dying in the process of giving birth, so the number of women seeking services is actually representative. A more optimistic interpretation would be that community-based work has made pregnancy safer, and fistulas may not be occurring at the same rate that they are elsewhere. There are no national prevalence statistics available, but comments made both by staff at UTH and at Monze suggest that **it is reasonable to think that the problem of fistula may be slightly less prevalent in Zambia than other countries in the region as well as that not all women with fistulas are seeking services.**

In addition, many local doctors have left Zambia for more lucrative employment, leading to an acute

staffing crisis. Among those remaining, interest in fistula is not perceived to be high. While **one local (very interested) OB/GYN and a urologist at UTH do some repairs, the vast majority are done by an expatriate physician in Monze, who is joined by a visiting doctor** for several weeks each year to operate on the most difficult cases. The expatriate doctor has been posted to Monze for a year and a half and was originally trained at Addis Ababa, followed by additional training from the visiting doctor. The success rate at Monze has been very good: approximately 90 per cent in the past year.

The physician who conducts most of the **fistula surgery describes the repairs as being at three different levels, in terms of how complicated the surgery is.** For the first two levels of repair, he considers the combination of the training he received in Addis Ababa and the training he has received on the job from the visiting surgeon adequate; for the most difficult level of surgery, he considers himself a candidate for further training and additional experience. The conceptualization of the level of difficulty of repairs is an important window into possible ways to meet staffing needs with a variety of levels of providers.

In addition to the desperate physician shortage Zambia is currently experiencing, there is also an **alarming nursing shortage**. At UTH, only one nurse routinely staffs each ward and she is often the manager or supervisor. Britain, South Africa and Australia are currently large draws for Zambian nurses, who are well trained but unable to make ends meet working at home. For this reason, nurse-aides are becoming more widely used, a situation that is an understandable "stop gap" measure, but undoubtedly not a long-term solution.

Clients come to Monze and to UTH from all over the country; some of them are **refugees from neighbouring Angola and Congo**. They tend to be young; the average age of fistula clients in Monze was about 18 in the previous year, an important consideration given that many have had fistulas for a year or two before seeking services. Although the vast majority of the fistulas are VVF, rather

than RVF or a combination of the two, Monze has seen several RVFs associated with AIDS in children, for which operations are not usually performed, since the children tend to be so close to death by the time they arrive.

As is true elsewhere and is mentioned above, **the issue of transport is critical**, given the size of the country, the cost of travelling and the poverty of clients in general—especially fistula clients. Frequently, the physician in Monze provides the funds for transportation for fistula clients, as otherwise they would not be able to return to their communities.

Both Monze and UTH rely on the **donations of visiting doctors to secure basic supplies** for fistula repair, including suture material and catheters. At UTH, many of the operating tables are broken and cannot be used for fistula repair in their current state.

The lack of supplies, coupled with the need for additional on-the-job training for nursing staff, has led the expatriate physician, Dr. Breen, and his predecessor at Monze, Dr. Lucy O'Brien, to **important innovations in the surgery** conducted on fistula clients and the vessels used in post-operative care. They learned from another (South African) physician how to make a double-loop of the sigmoid colon, then surgically break down the intervening double-colon wall to form a large reservoir. This larger reservoir holds a greater volume of urine and allows the client to be continent without having to void her urine frequently. In addition, with direct visual monitoring of urine output by the client herself (on a minute-to-minute basis), there is no likelihood of back-pressure building up, as it would behind a clip that has been left blocking the catheter too long either because of post-operative neglect or ignorance. In addition, in Monze they mix their own IV fluid as a way to save on costs for fistula and other surgery clients.

As elsewhere, HIV/AIDS is considered the issue that draws the most financial support. In Monze, the **Mother To Child Transmission (MTCT) programme funded by the government has provided desperately needed resources for**

nurses' salaries. Without these funds, it is possible that nurses would not receive a salary on a regular basis at all. Of note is the fact that **nurses report caring for fistula clients as being an important boost to staff morale**, given that fistula clients are often successfully repaired and leave the hospital anxious to start a new life “dry”. This outcome is far different than the one for HIV clients, who often rapidly decline and/or are never able to leave the hospital once they are admitted.

Recommendations and Critical Needs

• **Conduct research to get a clearer picture of fistula in-country.**

The picture of fistula in Zambia needs further clarification, as well as an analysis of where fistula fits into the broader framework of the country's health care infrastructure, which appears to be in crisis. With a dramatically increasing incidence of HIV/AIDS, an analysis of the relationship between HIV/AIDS and fistula will be necessary as health care priorities are reviewed by the MOH, the CBH and other key partners.

• **Consider creating a training centre for fistula repair at Monze Mission Hospital.**

Monze is the only site currently providing fistula repairs in Zambia, yet it has insufficient resources to continue to do so without a more stable stream of supplies and additional staffing. The physician on-site needs to be doing additional training of other physicians and operating theatre assistants to build capacity and increase access. At this point in time, however, it is worth noting that the physician is not swamped with cases; he can handle the number of women who arrive at Monze. As in other locations, however, it may be that with increased capacity, more women would come for repairs.

• **Advocate within the local medical and nursing training facilities to build awareness and attempt to generate and sustain interest in fistula repair and prevention among health care professionals.**

At a local level, there is very little interest in fistula reported. Those who do have an interest recognize that other colleagues know little about the condition or perceive it to be extremely difficult and discouraging surgery. If fistula repair could be more regularly incorporated into medical and nursing training, there is the potential for increasing local capacity. In addition, if physicians posted to district level hospitals could be trained to provide simple repairs, the burden on Monze and on women to get to Monze would be decreased. Incentives with educational or economic benefits might also keep providers involved in and committed to the field instead of leaving medicine for other, more lucrative work.

- **Develop innovative transportation schemes to help women reach Monze.**

Due to the size of the country and the cost of transportation, it is very likely that women are simply not able to get to Monze for repairs, even if they are aware that repairs are conducted there. Some kind of system needs to be put in place that goes beyond the physician there paying for the women's transportation out of pocket. Perhaps a transportation fund could be developed or a local industry could be enticed to establish a transportation scheme, either through donating a vehicle, paying for a railroad ticket or creating a "van pool" when trucks need to go to Lusaka for other reasons.

- **Explore the creation of links between groups of providers caring for HIV/AIDS clients and fistula clients.**

Given that some providers reported that it was satisfying to see fistula clients heal and recover and that HIV/AIDS often garners many resources, it might be worth considering ways to link providers caring for HIV/AIDS clients, and those caring for fistula clients as a way to keep staff morale high and use available funds for a variety of useful purposes.

Fact Sheets on Zambia Site Visits

A . Monze Mission Hospital, visited 15 May 2002

Size: 250 beds.

Medical staff: Consultant surgeon; five medical officers; five clinical officers; medical licensure training of five students, who perform some obstetric surgeries such as C-sections and ectopic pregnancies. They may be able to do these at more remote outposts to prevent fistulas from occurring at lower level sites. One OB/GYN does fistula repair, Dr. Michael Breen. No other doctors in the hospital have an interest in VVF. Dr. Breen notes that interest might grow after a doctor has had experience and becomes more skilled at vaginal surgery. In 2000, Dr. Breen went to Addis Ababa for three weeks training at his own expense and has also learned from Dr. Kelly. Dr. Breen feels that, even with this kind of training, it is important to work with someone very skilled to attain the next level of expertise.

Caseload: 36 obstetric fistula repairs done last year (34 VVFs, two RVFs); so far this year, Dr. Breen has performed 19, and he expects to do about one a week, except when Dr. Kelly visits for two weeks, when they will probably try to do 20 to 25. Dr. Breen saves the most difficult cases for Dr. Kelly's visit.

Provenance of clients: Monze Mission Hospital serves clients from around the country. It is the hospital that is used for referral, even from the teaching hospital in Lusaka. It appears to be the only site in the country where obstetric fistula repairs are done on a regular basis, so clients travel a huge distance to get there and transport is an issue. Previously, there were three other sites in remote places in the country that performed fistula repair, but none still do.

Typical client profile: Primarily young women, 18 on average. Many have a fistula with their first pregnancy, but may take two years or so to get to the hospital. Most have no children or, at the most, one child. They are usually accompanied by their mother or a friend.

Assessment and screening process:

- Clients are checked for malaria.
- Haemoglobin is checked.
- Examination is done in the theatre, but not under any anaesthesia.

Post-operative care:

- Drainage is into a dish rather than a bag, in order to simplify the process.
- Clients tend to stay three to four weeks.
- Clients counselled on abstaining for three months and on having the next baby by C-section.
- No specific counselling on family planning or HIV/AIDS given. Dr. Breen feels that family planning is not an issue, given the difficulties clients may have getting pregnant.

Rehabilitation/reintegration: No services known.

Community outreach: None specifically. Since it is the only hospital that does VVF repair regularly, it is well known by other hospital facilities in the country. Fees are waived for fistula clients. The antenatal clinic is also in the hospital. Antenatal clients are tested for HIV and put on azidothymidine (AZT) if positive.

Support at the policy level: None specifically, but the hospital uses Zambian government funds to pay for fistula clients and other hospital services.

Estimated fully-loaded cost per procedure: Not known since fistula clients do not pay, a policy that has been in place for more than 20 years. Clients are charged 10,000 kwacha for a normal delivery (a little more than \$2 USD). The government subsidy really helps. Of note is the fact that clients do not pay a daily fee, just an admittance fee. Transport costs are the most difficult and the doctor often pays for them out of pocket so that clients can return home. For cost-saving measures, hospital staff mix their own IV fluids and use bupivacaine spinal anaesthesia because it is much cheaper than inhalation anaesthesia.

Resources: The hospital is supported by the Zambian government and scattered donations, including a bit from the Holy Spirit sisters, the local Zambian order. There has been a drop-off in

fundraising since Dr. O'Brien left. Dr. Kelly brings critical supplies (such as sutures, catheters, etc.) with him every time he visits. Partly due to work on VVF, the hospital has been upgraded to a level two, so it gets slightly more government funding.

Barriers:

- Transport.
- Low nursing salaries; at the moment, the MTCT programme helps to support the salaries.
- When Dr. Kelly comes, a side ward is used for fistula clients. This ward could be upgraded and have designated nurses.
- Fistula clients are a bit of a financial burden on the hospital, given the needs they have and the fact that they do not pay, although they are “good for staff morale” because, unlike HIV clients, they tend to have positive outcomes.
- The lack of adequate supplies and the general need to live “hand to mouth” for materials such as sutures, gloves, catheters, etc.

B. University Teaching Hospital (UTH), Lusaka, visited 16 May 2002

Size: More than 1,500 beds, the largest hospital in the country and the only one considered tertiary.

Medical staff: The Department of Obstetrics and Gynaecology has three consultants able to perform VVF repairs, but only one does them on a regular basis, and she must find supplies to be able to do the surgery. There is also one urologist who does repairs, a man who has been at the hospital for quite a long time and has some connections to people who send him supplies from time to time. The hospital is experiencing a critical staffing shortage of nurses; the current ratio of nurses to clients is 30:1 in some wards. Additionally, the nursing sister in charge is also caring for clients in some cases. The senior registrars used to go to Monze for training when Dr. O'Brien was there, but they have not yet set up a similar arrangement with Dr. Breen.

Caseload: About 16 VVF clients per year; most are now referred down to Monze. The head of the

OB/GYN department noted, however, that when VVF cases are being done on a more regular basis at UTH, the number of clients increases due, she suspects, to word of mouth.

Provenance of clients: The clients come from all over the country. Some are refugees as well.

Typical client profile: Young, but not necessarily adolescents. Usually they experience a fistula with their first delivery.

Assessment and screening process: UTH staff explained that almost all VVF clients were going down to Monze at the moment, so the intake process there would be as reported. For clients having surgery at UTH, the basic assessment would include:

- Haemoglobin screened.
- Checking for malaria.
- Other infections ruled out or treated.
- Client examined without anaesthesia to determine the location and nature of the fistula.

Post-operative care: Post-operative care is suffering at UTH due to an extreme nursing shortage. The OB/GYN who provides repairs described a situation in which the same client had to have her surgery re-done twice because of insufficient post-operative care, such as the catheter getting blocked and the situation going unnoticed even when the client asked for help. The nursing sister put off the client until the doctor who performed the surgery returned from leave.

Rehabilitation/reintegration: No one interviewed was aware of any special services.

Community outreach: None, per se.

Support at the policy level: While the MOH is perceived to be supportive and, in fact, the health budget “looks good on paper,” according to one staff member, the reality is that they actually get about 10 per cent to 20 per cent of that budget.

Estimated fully-loaded cost per procedure: The services are free, but clients must pay a small fee (about 500 kwacha or 12 cents) at the point of referral. In addition, starting the week of 13 May, UTH initiated a fee of 5,000 kwacha (slightly more than \$1 USD) for “minor” and 10,000 kwacha for “major” surgery. Clients are sometimes asked to help with

supplies if they are able to do so. Food is free at the government hospital, which is not true at mission hospitals, so this may be one reason that clients come to UTH first.

Resources: UTH operates primarily on government funds, plus small fees from clients (as noted above) and supplies that are donated in some cases, such as the materials used for fistula surgery.

Barriers:

- Transportation to health services is a big obstacle.
- Staffing is at critically low levels at the district centres, as well as the tertiary hospital. Doctors and nurses are leaving the country at a very high rate, due to low salaries.
- Similarly, the situation with equipment and supplies is equally dire; UTH is relying on “well-wishers” to help them secure materials needed for fistula surgery, for example.
- Maintenance of equipment is also a challenge at the moment. Most of the operating tables are broken and have not been repaired.
- To do a more adequate job with fistula repairs, staff suggest that doctor-nurse teams would need to receive additional training, perhaps at the Addis Ababa hospital.

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Appendix

QUESTIONNAIRE /MAPPING EXERCISE ON OBSTETRIC FISTULA

Purpose

In order to begin to understand how best to address the universe of possible strategic interventions, it is important to understand what facilities exist, how they operate and whether they are well positioned to improve and/or expand their services. The purpose of this mapping exercise, therefore, is to begin to answer these questions in a rapid way.

Questions

1. Briefly describe the current state of the issue in the country in terms of awareness, data on prevalence, interest among public health managers, professional associations, NGOs and donors. Note whether obstetric fistula is considered an important issue and the kinds of resources available, if any are, to address it. Because it is such a sensitive issue, this initial probing may require a series of conversations with a variety of local providers to begin to find those who are knowledgeable.

2. Are specific health facilities specialized in treatment and rehabilitation of patients?

If yes, assess for the following at each facility:

- stand-alone centre or hospital ward
- number of fistula repairs per year (percentage considered “successful”, define success)
- geographic provenance of patients
- number/training/ “success” record of surgeons
- number/training of nurses
- number/training of post op staff
- routine monitoring and supervision for clinical services staff by on-site supervisors (and possibly off-site experts)
- availability of repairs “full time” (probe for what “full time” means)
- potential for improvement, expansion of services (note whether facility might show promise to become a regional training centre)

3. What are the current sources of funding for these health facilities? Probe for public sector support such as MOH/government, private institution, external assistance, user fees, etc. If there are user fees, probe to see if they are considered reasonable or are perceived by potential clients as a deterrent.

4. For all facilities, assess the following:

- infrastructure
- hostel for patients pre- and post-operation
- equipment
- supplies/consumables
- training needs for surgeons, nurses, midwives, providers of post-op care
- management issues, including salaries, maintenance costs, consumables, fees, infection prevention, etc.

5. What are the kinds of community and social needs that exist for helping women to know about services and helping them to re-enter society after receiving services? Probe for information and education about prevention in communities, services available.

6. If a new centre were to be established, briefly describe the rationale, advantages and assess the needs. See questions 2 and 4 for issues to analyse.

7. What are the needs in terms of advocacy for policy makers, providers, professional associations, and the general public?

8. Can you recommend 2-4 names of national experts, both from medical and socio-cultural standpoints? Probe for whether they have national/regional expertise.

9. Identify research needs in terms of data collection and socio-cultural aspects.

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