

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.

Key Contacts

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