**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. 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.

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.
**A. Hôpital Préfectoral d’Abéché (District Hospital of Abéché), Abéché (region of Ouaddai), 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. Barrah 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 Ouaddai. 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 Ouaddai, 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 Koyalta, 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 VVF. 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. Koyalta 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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