



CAPACITY BUILDING FOR FISTULA REPAIR IN EASTERN DRC



PHASE I EVALUATION REPORT AND RECOMMENDATIONS

**THE HARVARD HUMANITARIAN INITIATIVE
DRC FISTULA EVALUATION TEAM**

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I. ACKNOWLEDGEMENTS

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II. ACRONYMS

The following acronyms are used throughout the document:

CELPAC-- Communauté des Eglises Libres Pentecôte en Afrique: Community of Free Pentecostal Churches in Africa

CEPAC-- Communauté des Eglises Pentecôte en Afrique Central : Community of Pentecostal Churches in Central Africa

CRS-- Catholic Relief Services

DRC-- Democratic Republic of Congo

GBV—Gender-Based Violence

HHI—Harvard Humanitarian Initiative

IMC-- International Medical Corps

IPS-- Inspector Provincial Santé: Provincial Health Inspector (of South Kivu)

MOH-- Ministry of Health of DRC

MSF-- Médecins sans Frontières (Doctors without Borders)

NGO-- Non-Governmental Organization

PMU-- (Swedish) Pentecostal Missionary Union

USAID-- United States Agency for International Development

UNFPA-- United Nations Population Fund

VGB--Victim of Gender Based Violence

VVF—Vesicovaginal Fistula

VVS-- Victimes des Violence Sexuelles: Victims of Sexual Violence, (PMU program at Panzi Hospital)

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III. EXECUTIVE SUMMARY

OVERVIEW

The Harvard Humanitarian Initiative has proposed to EngenderHealth a two phase program aimed at enhancing the capacity of Panzi Hospital to perform surgery for women suffering from fistula in the eastern Democratic Republic of the Congo. The first phase of this project included a detailed analysis of the opportunities and barriers to increase access to fistula surgery in South Kivu Province. The report that follows is a description of this assessment and the recommendations for accomplishing this goal.

MAJOR FINDINGS

Although the initial intent of this project was to evaluate the capacity of Panzi Hospital and to explore possible expansion of fistula services there, it became clear during the evaluation that multiple opportunities for expanding surgical services for fistula exist outside of Panzi Hospital, in nearby institutions. The HHI assessment team completed a detailed evaluation of the clinical, surgical and managerial capacity at Panzi Hospital, and also evaluated the capacity of the reference hospitals in Kaziba, Kalonge, Walungu, Uvira, Kakawende, Kaniola, and Nyatende. Detailed findings from the HHI team are found in the body of this report.

RECOMMENDATIONS

1. Decentralize surgical services to include capacity building in Kaziba and Uvira.
2. Support the comprehensive fistula program in place at the General Reference Hospital of Kaziba by providing funding on a fee per patient basis.
3. Provide funding for a sensitization program in Uvira, followed by funding for fistula surgical services on a fee per patient basis.
4. Continue to support capacity building efforts at Panzi Hospital by sending teams of physicians to Panzi. Six trips over the course of the next year will assist in increasing the numbers of fistula surgeries performed at Panzi to a total of 480.
5. Support the continued use of Panzi Hospital for the training of medical and nursing staff in fistula repair and safe surgical practices, including safe cesarean sections, and subsequent use of those staff to disseminate the knowledge further afield.

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6. Provide consistent professional education and mentorship to enhance the technical capacity to perform bladder augmentation and urinary diversion and to manage other complex fistula and gynecologic complications by sending teams of urologists and urogynecologists from the US to train clinical staff at Panzi and Uvira, and possibly Kaziba.

SUMMARY

There is significant unmet need for treatment of fistula throughout the eastern DRC. Multiple factors contribute to this unmet need, including lack of financial resources, lack of knowledge that treatment options exist and lack of training and expertise for necessary repairs. Despite the significant challenges, this region is fortunate to have many well trained physicians, some well equipped facilities, multiple supporting donor organizations and a universal desire to definitively address the problem. We feel that the recommendations for a comprehensive approach to fistula care outlined in this proposal will lead to increased overall awareness in the region and will enable many more women to be treated, while simultaneously decreasing the occurrence of new fistulas.

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IV. INTRODUCTION

SOUTH KIVU OVERVIEW- *FOR MAP: SEE APPENDIX A*

Decades of civil unrest, armed conflict and weak or absent governance have resulted in unique public health consequences and inconsistent access to health services for the population of the eastern DRC, leaving this population with some of the worst health and development indicators in the world. One of the most vicious and salient features of this conflict is the wide-spread sexual violence being perpetrated on the women of eastern DRC. Although the second Congo war officially ended in 2002, there are multiple indications that sexual violence has increased steadily over the past five years. One of the most devastating physical effects of rape and sexual violence is the pelvic trauma experienced by women that can lead to vesico-vaginal and recto-vaginal fistula. In eastern DRC, as elsewhere in Africa, the majority of fistulas are a result of obstetric causes, most commonly prolonged obstructed labor, but also from improperly performed cesarean sections. Whether from obstetric causes or a result of sexual violence, however, fistula is particularly devastating to the lives of women because it can lead to loss of livelihoods, chronic infections and rejection from their families and communities.

The combined factors of poor nutrition, severe sexual violence and restricted access to obstetric care have resulted in a high number of complicated gynecologic and obstetric problems such as fistula and uterine prolapse. The prevalence of these medical problems is unknown and will likely remain so given the difficulty of population research in the area. Much has been done to address these problems but continued violence, and inadequate access to health care results in ongoing new cases. There is widespread belief among the public health and health care community that many patients remain untreated.

PANZI HOSPITAL

The General Reference Hospital of Panzi is a full service hospital that has become the regional leader in complicated obstetric and gynecologic surgery, with patient catchment areas throughout the Eastern DRC, Rwanda and Burundi. It is the tertiary referral hospital within the MOH structure for South Kivu Province. The hospital was founded by Dr. Denis Mukwege, who currently serves as the hospital's Director and Chief Surgeon. Dr. Mukwege is an internationally known advocate for women's rights issues in the DRC, and he has raised international awareness regarding the epidemic of rape and sexual violence in the region. Dr. Mukwege created a training program at Panzi in fistula repair and has trained dozens of surgeons in simple and complex fistula repair since its inception. In 2009, 294 fistula operations were performed at Panzi. Many additional programs related to fistula

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are ongoing at the hospital. A brief review of several of them is included in this report, although it is not intended to be a comprehensive review of all fistula related programs in the region.

V. METHODS

PROJECT DESCRIPTION AND TIMING

A team of three physicians with public health experience and an understanding of the medical and social aspects of fistula and of the current sociopolitical situation in South Kivu spent a combined four weeks based in Bukavu completing the assessment. Dr. Lauri Romanzi was on the ground from August 8-21. Dr. Nadine Semer was on the ground from August 18-September 8, and Dr. Stephen Morris was on the ground from August 20-September 9. Roger Buhendwa Zahurhwa, a Congolese professional translator and language teacher fluent in English, French, Swahili and Kinrwanda, was employed by the team for the month to translate all interviews as they occurred. The interviews were conducted with previously designed survey instruments providing a suggested guide for questioning. See appendix B for copies of the survey instruments used.

DOCUMENTS

Key documents were obtained from stakeholders, key informants and during site visits. These were reviewed by team members for background knowledge and statistics on various program activities. A list of documents reviewed appears in Appendix C.

KEY INFORMANT INTERVIEWS

A selection of informants was chosen based on involvement in and understanding of the complex healthcare system and its relationship to the occurrence of fistula. While not comprehensive, every attempt was made to engage a variety of stakeholders including those with direct involvement with current fistula programs, those at the program management level, women's and civil service organizations, government officials and clinicians. All key informants were asked for recommendations for additional contacts and an attempt was made to include them in the assessment. Direct patient interviews were not obtained due to the sensitive nature of conducting interviews in a clinical setting. Logistical barriers made interviews with community leaders in rural areas difficult to arrange, so those working with community groups such as Malteser International and hospital clinical and social staff were interviewed as a proxy. Community leadership in the urban area of Bukavu was represented by the coordinator for Women for Women International, a well respected NGO working extensively in the area.

Interviews with clinical and program staff were conducted in a semi-structured manner, with additional questions based on individual experience, involvement and knowledge of the subject.

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Interviews with support staff at Panzi Hospital and at other sites were conducted in a tailored manner emphasizing their areas of expertise or experience. A list of key informants interviewed and a brief summary of their views can be found in Appendix D.

SITE VISITS

Key informants were questioned regarding multiple aspects of fistula repair and prevention and all informants were asked to suggest sites in South Kivu Province for possible expansion of fistula programming. These recommendations were then used to plan rural site visits for the team. Sites were chosen by consensus on the following criteria:

- Perceived unmet need for fistula programming
- Potential for surgical capacity
- Safety of the team
- Representative geographical consideration
- Proximity to underserved or conflict prone area

An attempt was made to visit sites managed by different stakeholders. A total of eight sites were visited by the team, including two health centers and six reference hospitals.

Two very important sites (the General Reference Hospitals of Kaziba and Walungu) were not visited due to perceived redundancy in facility type and logistical reasons. Information about Kaziba Hospital was obtained from a video produced by UNFPA which gave an overview of the physical plant and surgical capacity of the site. In addition, the medical directors for each of these sites were interviewed by phone in the style of a site visit interview and their comments and information are included in the assessment.

Contact with the sites was made in advance, permission to visit the sites was granted by the MOH, as well as health zone directors and managing agencies when possible.

Permission to take photographs of the site was obtained from the responsible clinical officer at the beginning of the site visit. Any photograph taken including a patient was done so after verbal agreement was given by the patient or patient's guardian.

At each site a structured interview was conducted with the responsible clinical officer with or without additional staff present. The structured interview tool can be found in Appendix B. A translator was used when language barriers were encountered (French, Kiswahili, English, Lingala,

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and Mashi were all used, at different times during the interviews). Following the interview, the team toured the clinical facilities and assessed available equipment and supplies, and clinical capacity.

MINISTRY OF HEALTH STRUCTURE

The MOH maintains authority over all aspects of healthcare delivery but given weak governance and limited resources, a great deal of control has been delegated to other bodies. In addition, oversight is weak, there is compromise on major management issues and negotiation is common (for example, fee for service). Implementation of a national plan for GBV is currently in progress and MOH officials are attempting to guide local policy and practice in accordance with national policies. Dr. Cuma Byoumingu, the Director of Maternal and Family Services for South Kivu Province, oversees planning and implementation and was a participant in this evaluation.

REFERRAL SYSTEM

South Kivu is divided into health zones based on population and geography. Rural health zones are intended to have between 100,000-200,000 inhabitants but population estimates are difficult in the region. Each health zone has a health management staff, a reference hospital and a number of health centers. Reference hospitals and health centers are variable in their staffing and capacity to provide specific care. Of significant importance, health centers do not necessarily have even one trained midwife or birth attendant, none of the health centers provide cesarean sections and only a few referral hospitals have any capacity for fistula repair.

HEALTH MANAGEMENT SYSTEM

Management of health facilities and programs is maintained by a patchwork of religious groups, NGO's, and the MOH. A given hospital is managed by either a church group or the MOH. The differences in funding and priorities create significant variability in services and supplies.

HEALTH FACILITIES EVALUATED

The initial goal of this project was to evaluate the surgical and managerial capacity of Panzi Hospital and explore the opportunities for, and barriers to, expanding fistula surgical services at Panzi. During the evaluation it became clear that multiple opportunities for expanding surgical services for fistula exist outside of Panzi Hospital, in nearby institutions. To achieve the goal of decentralization of fistula services in the province, over the past few years doctors from several other health zones have been receiving training in simple fistula repair. These programs are centered primarily at Panzi Hospital, although with UNFPA support, training has been done at Kaziba Hospital as well. To maximize opportunities for women with fistula, it is necessary to understand and utilize the surgical

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capacity at Panzi and other regional sites as well. Thus, we have included an analysis of the capacity of Panzi Hospital, as well as an evaluation of regional health centers and reference hospitals to provide surgical services for fistula. If indeed the future goal of this program remains to double the number of fistula surgeries performed in South Kivu Province, it is necessary to evaluate all possible sources of intervention.

GENERAL REFERENCE HOSPITAL OF PANZI

Internationally known as Panzi Hospital, this reference hospital is located just outside of Bukavu, in South Kivu Province. A population of 265,000 is directly served by this facility. In addition, Panzi Hospital is the tertiary care and referral center for gynecologic services in the entire province and it is also the main referral hospital and teaching center concerning fistula repair for central Africa.

Panzi Hospital does offer a full range of medical services, however, this description will be limited to its gynecologic capabilities only.

OBSTETRIC AND GYNECOLOGIC SERVICES

Dr. Denis Mukwege is the medical director and head of the fistula program at Panzi. Dr. Mukwege received specialty training in Obstetrics and Gynecology in France, followed by fistula training in Addis Ababa, Ethiopia. He has extensive experience with all types of fistula repairs. In addition to Dr. Mukwege, there are five other physicians with advanced training who do fistula, incontinence, prolapse, fibroid and other complex gynecologic surgeries at Panzi. For women who present with fistula, 2/3 of them are presenting for the first attempt at repair of the fistula, while the remaining 1/3 have had one or more prior attempts at repair. While some of those presenting for primary repair may have extremely complex fistulas, many are simple fistulas that could be repaired elsewhere.

Dr. Mukwege has expressed a desire to develop a urinary diversion program at Panzi for women whose fistulas cannot be repaired or who remain chronically incontinent despite successful closure. HHI has assessed the capacity of Panzi to support a diversion program in the past and found that Panzi has the necessary components for a successful program. Currently, Dr. Mukwege has placed initiation of this program on hold and instead, is interested in learning various techniques for bladder augmentation for women who remain incontinent despite successful closure of their fistulas. He has expressed a desire for technical support from visiting urologists in this endeavor.

There are several different fistula programs at Panzi. Panzi has recently formed a new Program Management Team intended to coordinate efforts and provide support for the various programs. Bev Roberts Reite is the new Program Manager and the team also includes a Communications Officer and an Executive Assistant. A brief summary of existing programs follows:

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THE VVS PROGRAM

The VVS programs are a collection of clinical and public health programs sponsored by PMU focusing on victims of sexual violence and women with complicated gynecologic surgical needs. Patients eligible for VVS clinical and support services include those in need of care after sexual violence who present, or who are referred, with fistula, incontinence, prolapse, cystocele, rectocele or gynecologic malignancy. VVS programs include training of partner organizations to identify and give immediate care to victims of sexual violence and to make appropriate referrals. They support mobile medical clinics comprised of a team from Panzi, including an MD, RN, and Social Assistant who travel to remote areas of the province. Approximately 100 patients per day are seen and treated at these mobile medical clinics, and patients in need of higher levels of care are transported back to Panzi. VVS also supports wide ranging sensitization programs on sexual violence, safe maternity issues, and fistula treatment, reaching out to churches, schools, and local leaders and also the general community via weekly radio addresses.

THE FISTULA FOUNDATION

The Fistula Foundation supports programs at Panzi Hospital including a mobile surgical team and core hospital clinical services. Core clinical services supported include staff salaries, patient transportation, material support and communication services. This support has been critical in enabling Panzi to continue its extensive capacity building programs.

The mobile surgical team provides direct surgical repair of fistula and complex gynecologic conditions at five outlying sites using teams based at Panzi Hospital. Since the program's inception in March 2010, these repairs represent approximately one third of the total fistula repairs performed at Panzi each month.

ENGENDERHEALTH

EngenderHealth supports fistula services at Panzi Hospital through a variety of efforts with its Fistula Care program. The program reimburses the hospital with a set fee per patient of \$380 USD. Approximately 300 fistula surgeries were financed by this program throughout 2009. EngenderHealth has provided a great deal of surgical equipment necessary to perform the repairs and they have supported the training of over 20 surgical residents and surgical team members in fistula repair, including follow up training and site visits. Additionally, Engender has other programs targeting prevention of fistula, including the training of nurse midwives in the use of the partograph and other means of fistula prevention.

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TRAINING PROGRAMS

Panzi Hospital has active physician training programs in fistula repair. Some consist of three months of training in simple fistula repair, while others focus on more advanced surgical training to repair complex fistulas and other complicated gynecologic conditions. Panzi also trains nurses in anesthesia and support services for these operations. Additional training is offered here in the proper use of the partograph for birth attendants to prevent fistula. Active community outreach to provide information on safe maternity care and sensitization regarding fistula treatment is ongoing.

PHYSICAL CAPACITY

The hospital has separate operative suites dedicated to gynecology cases, with their own well-trained nursing and anesthesia support staff. Approximately 20-25 fistula operations are performed each month. There is adequate lighting, adjustable gynecologic OR tables and sufficient general surgical supplies for their operating rooms. Electricity is generally available; however, water can be a challenge in the dry season. The hospital has 35 pre-operative beds and 35 post-operative beds for women with fistula. The pre- and post-operative beds generally run at capacity.

Additional housing is available for women, based on an initial assessment of their condition and needs. Each woman who presents to Panzi for evaluation of fistula is classified into one of three categories:

1. In good health and nutrition, operable fistula
2. In poor health and nutrition, operable fistula
3. Non operable fistula/Not fixable (diversion candidate or Dorcas House candidate)

Patients who are healthy and deemed operable usually have surgery within a week. They are housed in one of two facilities, called Maison 1 and Maison 2, until immediately prior to their surgery when they are moved to one of the hospital's 35 pre-operative beds. Maison 1 and 2 are both funded by PMU and are located within walking distance to the hospital.

Patients who are in poor health or who need nutritional support are also admitted to either Maison 1 or 2, where they spend several weeks to months (typically three months) gaining strength and being treated for any other medical issues. Once they are deemed healthy surgical candidates they are scheduled for surgery. Patients deemed inoperable, but who may be candidates for urinary diversion may also wait in Maison 1 or 2 housing.

Women with truly unfixable fistulas are candidates for long-term, possibly permanent housing in Dorcas House, which consists of two buildings: Dorcas House 1 houses 30 women, while Dorcas House 2 houses 32 women. Funding for these houses has varied over time. They were originally funded by UNICEF and then by PMU. A new Dorcas House facility is currently under construction and will house 150 women, however, PMU is withdrawing funding and the future of the new house is in jeopardy. Dorcas House is intended to provide long term housing for women who cannot return home to their communities, whatever the reason. Most of the women there have inoperable fistulas and/or are survivors of sexual violence who cannot be repatriated due to the stigma of rape. There

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are active job training programs at Dorcas House, including sewing and weaving programs where women learn to make hand bags and clothing for adults and children.

HOSPITAL FEES

The hospital does charge fees for vaginal deliveries (\$7 USD) and cesarean sections (\$15USD), fees which are in line with the amount charged throughout the DRC. There are no fees for fistula repair services. This is only possible due to extensive support from several international NGO's, primarily EngenderHealth.

IN SUMMARY

With its dynamic and expert medical director, well-trained staff, and support from various NGO's, Panzi Hospital is the leader in gynecologic surgery for South Kivu Province. The hospital could potentially increase to 35-40 fistula operations/month based on current hospital capacity. Multiple staff members at Panzi expressed significant concern regarding the possibility of any attempt to increase the numbers of cases done at Panzi beyond this amount, however, and they did not think that doubling the number of cases performed was possible.

The staff also expressed the concern that the fee per patient that the hospital receives through various programs is insufficient to cover the true costs of care for each fistula patient. Coverage of other essential elements, such as food, psychological counseling, and housing of accompanying family members need to be added into the payments.

In addition, the staff at Panzi is committed to decentralization of primary/simple fistula repair throughout the province, which would in turn allow Panzi to be a true referral hospital, and handle the more complicated/recurrent fistula, as well as more advance gynecologic pathology. Promotion of prevention programs throughout the province to reduce the incidence of fistula is a high priority as well.

GENERAL REFERENCE HOSPITAL OF KAZIBA

GENERAL INFORMATION

The General Reference Hospital of Kaziba is a referral center located 60 km southwest of Bukavu. Kaziba provides access to care for women from the more remote areas of southern and western South Kivu Province, where there are inadequate services and ongoing violence. A population of approximately 102,000 is served by this site. The closest health center is within a kilometer of the hospital; the farthest health center is approximately 100 km away.

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Kaziba has the capacity to conduct fistula surgeries and to train other surgeons in fistula repair. Many consider it to be the equivalent of Panzi Hospital in terms of quality of care. The hospital's greatest challenge to increasing services is financial, due to inconsistent funding and supplies. Founded in 1928 by missionaries, this hospital has very little government support and most of its support is through partner organizations. UNFPA and USAID have provided funding in the past. No ambulance is available for transport within the health zone. Security has been problematic with armed groups active in the surrounding area; fortunately, this has improved and armed conflict has been relatively absent for the past two years.

OBSTETRIC AND GYNECOLOGIC SERVICES

Dr. Nussy Basimike is the medical director and primary fistula surgeon at Kaziba Hospital. Dr. Basimike spent many years at Panzi Hospital training under Dr. Mukwege, and also trained at Addis Ababa. He has extensive experience with all levels of fistula surgery. The hospital is staffed by four physicians, 23 nurses, and 53 support staff. Cesarean sections are available at the hospital, but not at any of the surrounding health centers in the region. Women with complex fistula or recurrent fistula after repair can receive care at this facility. This site has an active community outreach program utilizing a network of community workers to provide information on fistula and safe pregnancy.

Dr. Nussy feels there is a large unmet need in South Kivu Province for fistula services. "Many (of these women) are sensitized to the possibility of repair but cannot pay, many are not yet sensitized, and many who show up to the various health centers with other complaints are found to have fistula". Cultural barriers to care continue to be problematic. Women with fistula are "shameful" (i.e., filled with shame) and as such, "they won't report their problem to other people". He is confident that robust sensitization programs with regards to fistula treatment can overcome this barrier, but financial support is critical.

TRAINING PROGRAMS

UNFPA has partnered with this site to run physician training programs in fistula repair. The program includes a three-pronged approach, with physicians coming to Kaziba for an initial three month training session in fistula repair, then returning to their home hospitals to begin community sensitization and outreach and to begin to recruit patients, followed by a visit by a team from Kaziba to the home hospital to assist with the initial fistula cases.

PHYSICAL CAPACITY

Water and electricity are consistently available at this hospital.

HOSPITAL FEES

Hospital fees are charged for all services not actively covered by a program. Fistula services have been provided recently free of cost in partnership with USAID/CRS and UNFPA (2 separate programs) and a total of 217 patients received fistula operations over the past two years. The hospital was paid \$300 per patient, obviating the need for collection of fees directly from the

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patients. The UNFPA program was intended to treat 50 patients over a two month period of time, but due to excessive need, it was extended to six months and a total of 71 fistula patients received surgery.

Another program funded by USAID, with management from Catholic Relief Services, recently supported 146 patients. Dr. Basimike expressed concern that these types of programs support surgical costs only, while other essential services such as nutrition, transportation, psychological counseling, legal services, and socioeconomic reinsertion programs are not supported. At the present time, there is no ongoing programmatic support for any fistula related services at Kaziba.

Examples of fees charged for various procedures are listed below:

Normal delivery	\$5
Cesarean section	\$40
Gynecologic operation	\$80
Fistula repair	\$100

GENERAL REFERENCE HOSPITAL OF KALONGE

GENERAL INFORMATION

The General Reference Hospital of Kalonge is located approximately 68 km northwest of Bukavu and lies adjacent to Kahuzi-Biega National Park. The last 20km stretch of road closest to the hospital is treacherous, taking hours to traverse and often impassable in the rainy season. Kalonge serves as the referral hospital for a population of 110,000 over a large and dispersed area with ongoing insecurity at its periphery. Within the health zone there are seventeen health centers; seven of these have expertise in maternal care, but without cesarean section capabilities. The health centers are located up to 52 kilometers away from the referral hospital and the furthest health zone is in an area completely under control of armed groups. IMC has provided an ambulance for transport, but its use is limited by road conditions and lack of communication with the health centers (there is no cellular communication in the area.)

OBSTETRIC AND GYNECOLOGIC SERVICES

In 2009, in partnership with IMC, a Reproductive Health Complex was built on the grounds at the hospital in an effort to promote provision of services in a remote, difficult to access area. Dr. Alain Mikatho is the Director of Kalonge Health Zone and he is also the Interim Director of the General Reference Hospital of Kalonge. The hospital is staffed by three physicians, 22 nurses, nine administrators, and 27 support staff.

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There are two surgeons at Kalonge who trained at Panzi Hospital who can perform uncomplicated fistula operations. Trained support staff is available to care for these patients. Despite the completion of the new center in 2009, however, no fistula surgeries were performed at Kalonge until a mobile team from Panzi Hospital initiated services in March 2010. To date, nine fistula repairs have been completed and an additional seven patients are awaiting operation pending arrival of supplies (foley catheters, anesthetics, etc.) Patients with complex fistula or recurrent fistula are referred to Panzi Hospital for treatment. However, great geographical, financial and cultural barriers exist for patients to travel to Panzi and it was noted that there is a general distrust about having care in the urban Panzi site.

The hospital has made great efforts to improve maternal health care for its patient population. Active community outreach programs are based at the site, which educate the community on fistula services and preventative obstetric care. Nursing education improvements have resulted in at least one trained mid-wife in each health center. Seven of the health centers as well as the hospital itself have “waiting” maternity wards, to encourage women, particular high risk ones, to deliver in a medical setting. They estimate that 90% of deliveries are in medical facilities. Nurses also receive family planning training and a fistula sensitization program exists.

A poignant example of the difficult nature of health care delivery in the region occurred two weeks prior to our arrival. A young patient at an outside hospital with a previously undiagnosed fistula was suffering a prolonged obstructed labor. An MSF team conducting a routine site visit happened to find her at a distant health site. An emergency cesarean section was conducted in the field and the patient was transferred to the referral hospital where her fistula was subsequently repaired. With no means of communication between the health center and the hospital, it was only luck that this patient’s outcome was favorable although services were available within the health zone. In discussion of this example the idea of shortwave radios at health centers was introduced. It was noted that a similar program had occurred in another areas in the past but had increased the vulnerability of the health centers by making them targets for armed groups.

TRAINING PROGRAMS

Several doctors and nurses at Kalonge have received training in fistula repair at Panzi Hospital in the past. There are currently no training programs in place at the General Reference Hospital of Kalonge.

PHYSICAL CAPACITY

This referral hospital started out in 1967 as a health center but has grown to its current 100 bed capacity. IMC, CEPAC and MSF-Spain are involved in the staffing and management of the hospital. Each month approximately 65 operations are performed: 35 cesarean sections, 12-15 gynecologic procedures (hysterectomy, cystocele, fistula) and the rest general surgical cases. There are three operating rooms (two of which are in the reproductive clinic) and anesthesia is typically spinal or Ketamine. Water and electricity service are inconsistent; a generator and a water bladder were in

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use at the time of the site visit. Suction equipment and concentrated O2 are available, but there are no solar batteries.

HOSPITAL FEES

At the present time with IMC programmatic support, patients are not required to pay fees for fistula repair. However, IMC is in the process of “turning the site over to the community” and once IMC support is withdrawn, the hospital will re-instate fees for provision of services. This will likely become a significant barrier to care for patients in this area.

IN SUMMARY

This facility is a good example of an attempt to decentralize women’s and maternal health services in South Kivu. Of particular concern to the long term viability of this facility are the changes in funding and re-imburement, and the lack of comprehensive services such as patient nutrition. Currently, despite IMC, funding supplies were not available to conduct fistula repair at the time of the visit.

GENERAL HOSPITAL OF UVIRA

GENERAL INFORMATION

The General Reference Hospital of Uvira is 128 km south of Bukavu at an international crossroad on Lake Tanganyika and serves patients presenting from Tanzania, Burundi, Zambia, Rwanda and Congo. The health zone services a population of approximately 230,000 mixed urban and rural patients. Within the Uvira health zone there are 21 health centers, all of which have at least one midwife but no cesarean section capabilities. The closest health center is approximately 500 meters from the hospital; the farthest is approximately 30km away.

OBSTETRIC AND GYNECOLOGIC SERVICES

Dr. Yves Bagale is a general surgeon trained in fistula repair and he is one of ten doctors on staff. The hospital is staffed by 67 nurses, and 43 administration and support staff. The hospital averages 230 vaginal deliveries per month. They do not use “waiting” maternity wards anywhere throughout the health zone. Armed conflict in the catchment area is sporadic but sexual violence is consistently reported. Dr. Bagale stated that for women with fistula who understand treatment options, they generally would prefer to go to Panzi, as the care for fistula patients there is free, but most do not because of the long distance from Panzi. It is widely believed there is much unmet need for fistula repair in the region. The hospital is awaiting a funding stream to help scale up a sensitization program and fistula repairs.

TRAINING PROGRAMS

There are no training programs in place. Two physicians and four nurses have participated in fistula training at Panzi Hospital. However, due to a lack of financial support the hospital has not initiated

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an outreach program, as patients cannot afford hospital fees. The hospital would welcome additional training in surgical techniques and nursing care.

PHYSICAL CAPACITY

The hospital has 100 beds and it is managed directly by the MOH with support from NGO programs. Ambulances are available to assist with patient transport. Each month approximately 90-100 operations are performed: 40-45 cesarean sections, 50-60 general surgical or gynecologic surgeries, and approximately two fistula repairs. There are three operating rooms which have concentrated oxygen, suction machines, and functioning anesthesia machines, and a new surgical complex is currently under construction. Water is plentiful, but electricity is a challenge. Approximately 3 times per year they will be short of sutures or other necessary supplies. Because of its location, it has a high volume of patients and traumatic injuries are common.

HOSPITAL FEES

Sample fees charged by the hospital are listed below.

Normal delivery	\$8
Cesarean section	\$45
Fistula repair	\$100
Uncomplicated medical admission	\$25

IN SUMMARY

The General Reference Hospital of Uvira has the capacity to significantly increase fistula services and improve maternal health care. Dr. Yves has several strategies he would like to implement. First, he would like to organize an obstetric “team” at the hospital- whereby specific doctors, nurses, and support staff coordinate care. He would like to improve linkage between the health centers and their transport services. A sensitization program on safe delivery and fistula services consisting of an educational campaign with outreach to the health centers, the educational system, religious groups and village heads, would be conducted. And finally he’d like to see the fees associated with obstetric and gynecologic care to be dramatically decreased.

GENERAL REFERENCE HOSPITAL OF WALUNGU

GENERAL INFORMATION

The General Reference Hospital of Walungu is 45 km west of Bukavu. A population of approximately 209,000 people is served by this hospital and the twenty-three health centers of the health zone. The

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health center farthest from the hospital is approximately 32 km away. Only five of the health centers have a midwife on staff. Despite its proximity to Bukavu, the area has large numbers of women needing fistula repairs.

This hospital is managed by Catholic Relief Services, and funded by a combination of Catholic groups, NGOs and hospital fees. The region has long suffered from fighting among armed groups, and despite generally decreasing levels of armed violence, Dr. Mukenga noted that the area has a history of ongoing GBV and that the incidence of community violence, including sexual violence, is actually increasing.

OBSTETRIC AND GYNECOLOGIC SERVICES

Dr. Mukenga is the medical director of Walungu and he provided detailed medical information about the hospital, although the interview itself was conducted in Bukavu. Walungu is staffed by five doctors, 30 nurses and 38 support staff. The hospital averages 250 total vaginal deliveries per month (300 total deliveries including cesarean sections per month). The hospital has limited but adequate services for fistula repair. However, for financial reasons including patient fees the hospital performs few fistula operations. The patients would prefer to go to Panzi, as the care for fistula patients is free, although most do not seek treatment due to distance and other reasons. Patients with complex pathology or recurrent fistula are referred to Panzi Hospital. Dr. Mukenga is confident there are many women in his health zone in need of fistula repair.

The hospital has a number of outreach, safe delivery and training programs and uses the ambulance to facilitate early presentation for obstetrical complications. They also have an area for expectant mothers considered to be at risk to await delivery.

TRAINING PROGRAMS

One physician and one nurse at Walungu participated in a fistula training program at Panzi Hospital in 2008 and they are able to repair uncomplicated fistulas. There are no training programs currently in place at Walungu.

PHYSICAL CAPACITY

Each month approximately 70-75 operations are performed: approximately 50 cesarean sections and 20-25 general surgery and gynecological procedures. Water and electricity are in limited supply. A program to use solar batteries is being implemented throughout the hospital. Supplies and medication are also often in short supply due to financial constraints. The hospital has an ambulance for patient transportation.

HOSPITAL FEES

Typical fees charged by the hospital are listed below:

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Normal delivery	\$10
Cesarean section	\$40-50
Fistula repair	\$50

IN SUMMARY

This hospital has trained providers ready to provide primary fistula repairs. Unfortunately, with financial constraints and an impoverished community unable to afford hospital fees, very few patients get treated and fistula patients are currently being unnecessarily transferred to Panzi. There is a concern that without continued flow of operative cases, clinicians will lose technical expertise. Dr. Mukenga has a good understanding of the referral system and feels that his hospital is prepared to play a larger role in a more appropriate referral system for South Kivu, caring for uncomplicated fistula repairs locally, and increasing more appropriate transfers to Panzi Hospital.

GENERAL REFERENCE HOSPITAL OF KAKAWENDE

GENERAL INFORMATION

The General Reference Hospital of Kakawende is approximately 90 km (2 ¾ hrs.) southwest of Bukavu along difficult, unpaved roads. Kakawende is high in the mountains and adjacent to a major area of violence between the military and armed groups. Armed groups are in the hills visible from the hospital. The area is considered to be in 'perpetual conflict' with high rates of sexual violence.

The health zone and hospital are impoverished and neglected. The hospital is the referral center for eight health centers in the zone, covering a population of over 80,000. Given the lack of an ambulance and the mountainous terrain, health center distances from the hospital are measured temporally with the closest being approximately 20 minutes away and the farthest more than 10 hours away. Each of the health centers has a nurse who has received training in maternity care, however, none provide cesarean sections.

OBSTETRIC AND GYNECOLOGIC SERVICES

The interview was conducted with Dr. Marcel Rurhesa Basengere the Hospital Director who is one of two doctors at the hospital. Additional staff includes nine nurses and fifteen administrative/support personnel. The hospital director and staff have been trained in fistula repair and are conducting intermittent repairs as funding and supplies allow. They are enthusiastic to offer this service to their patients. Dr. Marcel conducted a sensitization program with outreach to the supporting health centers, surrounding markets, churches, and community groups concerning fistula and services of

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the hospital. Following this, he performed 20-30 additional operations/month due to the increased number of patients presenting in need of fistula repair.

As an example, for Dec 2009, in addition to the usual caseload, 14 patients had VVF repair, 5 had cystocele repair, 1 had rectocele repair, and 11 had repair of uterine prolapse. The hospital has subsequently been short of supplies and between Feb-May 2010, 5-8 women per month underwent VVF repair. Only one repair has been unsuccessful. Patients with complex fistula get referred to Panzi Hospital, but Dr. Marcel states that few women go, given the distance, economic and cultural barriers.

TRAINING PROGRAMS

Dr. Marcel and a nurse were trained in fistula repair at Panzi Hospital in 2009. There are currently no training programs at the hospital.

PHYSICAL CAPACITY

The hospital has 60 beds and usually runs at approximately 60% capacity. In addition, there is a “maternity waiting” ward which, although it has only 13 beds, frequently houses over 60 women. Construction was begun but not completed on a new operating, pre- and post- surgical area. Approximately 35-45 OR cases per month are performed with the vast majority (over 80%) being obstetric or gynecologic in nature. A nurse has been trained to provide anesthesia. The hospital has a backup generator, but does not have adequate fuel supplies, due to the extremely high cost of fuel in this remote area. Solar batteries support the operating room lights, but overall electricity is a challenge, and often the doctors and nurses operate only with the use of headlights. Water is in adequate supply. The operating room has two OR tables with stirrups and suction but no oxygen.

HOSPITAL FEES

The hospital charges for services, but fees are not often paid. CEPAC currently supports hospital services and previous funding was provided by Malteser International. Typical fees are listed below:

Normal delivery	\$6
Cesarean section	\$42

IN SUMMARY

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This facility has a motivated surgeon and the capabilities to offer fistula treatment as well as an underserved population. A limited outreach program demonstrated a large unmet need for these services. Dr. Marcel has demonstrated that Kakawende can scale up the numbers of operations offered each month, without decreasing the provision of essential basic services. A critical shortage of supplies and financial resources hamper efforts to meet the substantial needs of this community.

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GENERAL REFERENCE HOSPITAL OF KANIOLA

GENERAL INFORMATION

The General Reference Hospital of Kaniola is approximately 60 km (two hours) northwest of Bukavu over difficult unpaved roads. This hospital serves 15 health centers, covering a population of over 150,000. These referral centers range from 5-90 km from the hospital. Three provide maternity services with trained midwives, however, none offer cesarean sections. There is no transportation between facilities; patients arrive on foot or are carried. The hospital is managed by the Catholic Church. Security at the hospital is stable, but there is an area of armed activity separating a portion of the population from the hospital.

OBSTETRIC AND GYNECOLOGIC SERVICES

Dr. Kyalondawa Netho is the hospital director and one of two doctors (plus an occasional additional physician from the health zone), twelve nurses, and ten administrative/support personnel who staff this hospital while being paid only ~70% of their salary. They acknowledge using their salaries to purchase supplies for patient care.

Dr. Netho and the lead nurse at Kaniola received training in fistula care at Panzi Hospital in 2009. They are enthusiastic to offer this service to their patients. Dr. Netho has an excellent understanding of the pathophysiology of obstetric fistula. Within the health zone, providers at the local centers are aware of fistula being a complication of obstructed labor and know that their referral hospital can treat women with this problem. Dr. Netho successfully operated on two patients with uterine prolapse, but the fees for their operations have not yet been paid by UNFPA. As of yet no patients with fistula have had operations, although two patients are awaiting treatment, pending funding of the services. Although there are no prevalence numbers for patients with fistula, Dr. Netho is quite confident there is an unmet need for these services.

Dr. Netho reported that the primary cause for fistulae is that “women get care late”. He is not just referring to limited access for advanced obstetric care when a woman is already in labor, but rather he is referring to a “holistic approach”—a multifaceted approach to obstetric care that would include family planning, nutrition support and prenatal care, as well as improving the security situation for women in the DRC. He notes that security has improved significantly in the past few months, but is still problematic. One intervention his hospital has implemented is a maternity ward, where high risk women in their last trimester of pregnancy can come and stay for the duration of their pregnancy, at no cost to them. However, the women are responsible for their own meals and laundry. This “waiting” maternity ward allows patients to have ready access to advanced obstetric care, with the goal of fewer obstetric complications.

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TRAINING PROGRAMS

Dr. Netho and the lead nurse at Kaniola (Flory) received training in fistula care at Panzi Hospital in 2009. There are no ongoing training programs at the hospital, other than the instruction to the nursing staff by the lead nurse on providing anesthesia.

PHYSICAL CAPACITY

The hospital has a 64 bed capacity with a male ward, a shared female/pediatric ward and a maternity ward, as well as a “waiting” maternity ward. A new building for pediatric patients has been built, but there are no funds for completion. The hospital on average is filled at 65% capacity. Hospital fees are largely unpaid and given the impoverished community contribute to underutilization. Approximately 32-36 OR cases per month are performed with the vast majority (over 80%) being cesarean sections. The lead nurse provides anesthesia, which is usually spinal or Ketamine. The lead nurse is actively training another nurse in these techniques.

The hospital has a generator, but electricity and water are inconsistently available. Solar batteries are available to supplement electricity supply. Concentrated oxygen is available, but places stress on the electrical system, as well as adding to electricity costs. There are two operating rooms and three OR tables with stirrups and operative lights. Suction and anesthesia machines are available, but are not in use because of lack of training in the proper use of the equipment, technical and supply issues.

HOSPITAL FEES:

Typical fees charges by the hospital are listed below:

Normal delivery	\$7
With episiotomy	\$10
Cesarean section	\$42
Hospitalization pediatrics	\$13
Hospitalization adult	\$20

IN SUMMARY

Dr. Netho would welcome a mobile surgical team to come to his hospital to treat additional patients. Of primary concern are the required medications, supplies and financial resources for this type of undertaking. Even without visits by a surgical team, with adequate resources he could provide simple fistula repairs at the hospital.

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GENERAL REFERENCE HOSPITAL OF NYATENDE

GENERAL INFORMATION

The General Reference Hospital of Nyatende is a Catholic supported reference hospital located approximately 10 kilometers southwest of Panzi Hospital.

OBSTETRIC AND GYNECOLOGIC SERVICES

Dr. Vincent Cibavunya is the senior surgeon at the hospital and has worked there for 10 years. There are six other physicians working with Dr Cibavunya at Nyatende.

When Dr. Cibavunya arrived, almost all deliveries took place at home resulting in high infant mortality and stillborn rates, as well as many fistulas. He determined that the reason for the high home delivery rate was due to a cultural bias against hospital birth, ignorance of the benefits of obstetric care, and financial barriers due to hospital fees. To overcome these barriers to safe deliveries, he instituted an outreach program to local churches and pastors in the health zone explaining the benefits of obstetric care and hospital birth. They in turn helped spread the word throughout their villages. In addition, to overcome financial barriers to care, Dr. Vincent helped create a health care credit union which has led to a reduction in all obstetric fees.

As a result of these ongoing programs, he estimates that now ~85% of births in the Nyatende health zone occur with medical supervision. Infant mortality rates have dropped and fistulas are a rare occurrence. Uterine prolapse is more commonly encountered than fistula; approximately 10 cases per month of uterine prolapse are diagnosed. Any patients identified with fistula are referred to Panzi Hospital for definitive treatment.

TRAINING PROGRAMS

There are no training programs at Nyatende.

PHYSICAL CAPACITY

This hospital is well maintained and has a separate maternity building. There are three large water tanks on the grounds, which provide a consistent supply of water. There is also an intact incinerator. On-site gardens grow some of the patients' food.

HOSPITAL FEES

Dr. Cibavunya noted that throughout the Congo, women pay on average 7 USD for a routine vaginal delivery and 15 USD for a cesarean section. As a part of his fistula prevention outreach program,

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however, he formed a type of credit union for patients in Nyatende's catchment area to reduce these fees. The current rates are variable, but well below these DRC averages according to Dr. Cibavunya.

IN SUMMARY

It is remarkable that Dr. Cibavunya and his colleagues generally do not see fistula in their patients at Nyatende. They believe that this is due to the outreach programs on safe delivery conducted by the hospital, which have been tremendously successful in changing the cultural delivery practices in this area. The vast majority of deliveries now occur in the presence of medical supervision. Significant declines in maternal and infant mortality have been noted, as well as a marked decrease in the incidence of fistula. The last fistula that was seen at the hospital occurred several years ago, and the patient was referred to Panzi.

HEALTH CENTERS

Two additional site visits were conducted that shed light on the significant challenges faced by medical personnel in the region.

CENTRE DE SANTE KALAGANE

GENERAL INFORMATION

The Centre de Santé Kalagane is a health center founded by CEPAC in the 1960s. It is located approximately 10 km from Panzi Hospital. It receives supplies from various sources, including USAID, CEPAC, MOH and PMU. Three nurses staff the facility; Mr. Emanuel Murhula is the titular nurse and he was interviewed for this report. There is no electricity, no generator or other source of power at the center. A kerosene lamp is all that is available. Water is unreliable. Fees are collected for treatment. A general consultation is \$1.50, an infant consultation is \$1.00, prenatal care costs \$1.00/5 visits, and a vaginal delivery is \$10.00. A rudimentary lab is available for basic testing. The pharmacy is minimally stocked.

CLINIC OVERVIEW

The clinic treats all types of patients including children. The most frequent health conditions treated are malaria, URI, parasites and malnutrition (all ages). Prenatal care and "easy" non-operative vaginal births are handled at this health center. Approximately 25 deliveries per month occur at this health center. The nurses are trained in use of the partograph, and combining this information with fetal auscultation and blood pressure measurements, the nurses decide when patients require transfer to hospital for delivery. Their closest hospital is four km away, and transport is often by hand-held gurney or chair.

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Due to a noted increase in general unrest and proximity of the center to the FARDC camp, the health center is seeing more rape victims, approximately 10 per month. Post-exposure prophylaxis kits are unavailable.

Although the nurses have not received special training for examining patients for fistula, approximately 5-10 patients with incontinence per month are seen in the health center. It is reasonable to expect that some of these patients have a fistula. The staff is aware of Panzi Hospital and its capacity for fistula repair as well as a wide range of services for women. Mr. Emanuel believes that fistula and pelvic floor problems are a bigger issue in the remote villages, as these populations have little access to care and no means for transport to Panzi hospital.

CENTRE DE SANTE CROIZ- ROUGE/RDC NGUBA

GENERAL INFORMATION

The Centre de Santé Croiz-Rouge, founded in 1964, is one of the health centers in the immediate health zone around Panzi Hospital. It is funded by CEPAC. It is located nine kilometers from Panzi Hospital. Nurses Desiree and Mesdal were interviewed. Approximately ten patients per day are treated in this small center, considered by the health ministry officers to be one of the least resourced health centers in the zone. Available laboratory services include hemoglobin, sedimentation rate and urine testing. Prenatal care is offered, but there are no trained birth attendants or midwives at this center.

CLINIC OVERVIEW

The clinic treats all types of patients including children. Patients are charged for all services except for pediatrics and birth control visits. Malnutrition is seen in this population. Although the nurses have received training concerning identification of patients with incontinence/fistula, they do not encounter many patients with these symptoms. There is no clear outreach concerning fistula, the importance of prenatal care or of overall medical care.

Clinic staff respect the care given at Panzi Hospital and they are aware that any woman who has received prior care at Panzi needs specialized care for any subsequent pregnancies or deliveries and should be referred back to Panzi Hospital.

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VI. FINDINGS AND IMPRESSIONS

FISTULA PREVENTION

There was uniform consensus that prevention of fistula through improved obstetrical services should be the priority of any fistula related program. Current safe delivery programs are making substantial progress. Safe delivery programs based at Kaniola, Kakawende and Kalonge Hospitals have increased numbers of women delivering within the health system. Identification of at-risk women was reported to be a priority at many of the health sites. These women were encouraged to wait at the hospital in “waiting” maternity wards in the weeks leading up to delivery. Training and availability of midwives in health centers has increased, but midwives at many sites remain insufficiently trained and the health centers generally lack supplies. Lack of access to safe delivery techniques, most importantly cesarean section, was indicated as the predominant cause of fistula.

SENSITIZATION/ OUTREACH

Cultural and shame issues and a lack of awareness concerning treatment options are some of the many obstacles to treatment for fistula. Key informants stressed the importance of consciousness-raising or “sensitization” of the community regarding the true nature of obstetric fistula and options for treatment. Community based educational campaigns by the MOH and other organizations have resulted in a good understanding of the problem of fistula within the health system. Despite these efforts, however, much of the population, particularly in remote or violence-prone areas, remains untouched by sensitization programs. In addition, when fistula sensitization programs have been conducted, the number of non-fistula related health concerns has greatly outnumbered fistula cases. This creates a burden on the regular health system and highlights the need for overall increased medical capacity throughout South Kivu.

Two recent sensitization programs demonstrate the large unmet need for fistula repair services. Prior to the arrival of a Panzi-based mobile surgical clinic in Shabunda, a sensitization campaign was conducted with community groups which indentified thirty patients with fistula. This large number exceeded the surgical team’s ability to treat or transport all the patients and a repeat program has not been conducted. In Kakawende, a sensitization campaign by visiting churches identified such a large number of patients that supplies ran out, and no further outreach was possible. In Uvira, the hospital director expressed fear at the idea of a community based fistula sensitization program, stating that he was sure if one was conducted the hospital would be overrun by women seeking fistula repair but without means to pay for the operations.

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ECONOMICS

The economics of health care delivery in South Kivu play a dominant role in patient's access to care. Financial reasons were listed as either the primary or secondary attribute contributing to decreased access to fistula repair. According to U.S. State Department statistics, the D.R.C. is one of the poorest countries in the world, with per capita annual income of about \$171 in 2009. Surgical and hospital fees and supporting costs such as transportation and food often represent insurmountable barriers for the great majority of the population.

Several clinicians and program workers expressed profound sadness at financial constraints that prevented them from helping women with fistula. The extreme poverty of the population and the inconsistencies of the system result in women being afraid and/or unable to access the system, patients being held within hospitals until they elope or their families are able to pay, and fistula patients being turned away.

There are significant inconsistencies in the healthcare fees charged by different hospitals in the province. On one extreme are hospitals such as Panzi and MSF-run facilities which offer comprehensive free care. This care often includes transportation, medical and surgical fees, psychological counseling and auxiliary items such as soap, housing, meals, family and child care, cash allowances and vocational training. On the other extreme are hospitals which strictly follow MOH guidelines and charge fees for all services. In between are hospitals and clinics which offer some services for free, but charge for others. Women who have fistulas who live within the catchment area of one hospital, even if they are very close to it, may not seek services there if they must pay a fee. They will often wait until a Fistula Foundation mobile clinic comes to the area or they may undertake a much longer journey to a place like Panzi, where they can receive free care. This system places an undue burden on hospitals that provide free care and works against efforts to decentralize fistula care.

The inconsistencies within the system also result in untoward consequences. One clinician stated that victims of sexual violence have been known to delay seeking care, even when they live near a health center. Instead, they wait until a mobile clinic providing free care visits the area, missing the opportunity for post-exposure prophylaxis and other timely treatment.

Salaries for clinical staff are inconsistently paid. At least one site reported that clinician salaries were regularly withheld to pay for surgical supplies, medications, sutures and generator fuel for emergency surgery.

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HUMAN RESOURCES

South Kivu is fortunate to have well educated and motivated clinicians and support staff, as well as an active medical education system. The MOH efforts and various training programs, in particular those based out of Panzi, have resulted in many clinicians being trained in fistula repair. The exact number is difficult to ascertain due to the fragmentation of the programs in place, the lack of a coordinating body and frequent migration of surgeons once they are trained. Clinician skills are variable and many who have undergone training are not experienced with or comfortable enough with the surgery to operate independently.

Difficulty maintaining adequate clinical coverage for fistula repair is a major concern at many of the referral hospitals, including Panzi. “Brain Drain” is a constant challenge to maintaining staff at key sites and positions, once they have received specialty medical training. Clinician salaries are very low in underserved areas, and even those in urban areas are inadequate to provide a living wage. Supplemental funds to keep trained staff at many urban facilities are often tied to particular programs and are therefore temporal in nature. Insufficient salaries results in a dearth of trained clinicians in rural areas and often forces urban physicians to seek multiple jobs in an attempt to make ends meet, which limits clinical effectiveness. Even surgeons at the highest level often support their salaries by managing a public health or social service project, or by moonlighting clinically. A typical medical doctor’s monthly income is in the \$250-\$500 range at State funded facilities, while monthly income can exceed \$500 as a project manager for a NGO sponsored health program. A range of \$250-\$500 can be earned working nights or in a single weekend at private clinics.

A lack of opportunities for training in general and not enough specialty training were reported as causes for a lack of surgical expertise in the region. Doctors leave the region to seek advanced training elsewhere. The lack of qualified delivery attendants at the health center level was a commonly noted deficiency. Delivery attendants often lack sufficient training to diagnose the need for transfer to higher level of care and almost universally lack cesarean section skills.

SECURITY

Security plays a role in every aspect of life in South Kivu, including access to medical care. While the direct violence of military groups is episodic, the impacts on freedom of movement and economic insecurity are constant. Large populations are separated from health facilities by unsafe areas and those seeking care risk sexual violence, assault and death. Soldiers and armed groups are largely unpaid and, without income, extract resources from the communities nearby. This results in higher rates of violence during harvest seasons as groups enter populated areas to rape and pillage the population.

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Security also affects health care providers as some clinics remain completely within control of armed groups or in areas of active combat. Mobile teams including those conducting fistula repair and sensitization programs, are often forced into contact with armed groups and risk being harmed.

Sexual violence continues at extraordinarily unacceptable rates. A 'culture' of community sexual violence was also cited as having developed throughout the region. An example of this came from a small clinic in an area that has been free from recent violence and is currently under government control. Despite having a catchment of only 10,000 people, the clinic continues to see 15 victims of sexual violence a month, down from 45 cases per month during the period of active combat. It is a commonly held belief that the vast majority of victims of sexual violence do not present for care and therefore any reported numbers are likely a gross underestimate of true incidence.

LOGISTICS

Steep terrain, heavy rains, poor roads and long distances, combined with low population density in rural areas frame the great role geography plays in access to care. Transportation is inconsistent, expensive and unreliable, further hampering access. Some areas in the province are accessible only by airplane, as no roads exist or, when they do, they are impassable in the rainy season. For example, a patient in a distant rural area may require \$5-\$10 just to access the regional hospital and \$20-\$30 to reach the free care at Panzi Hospital. In addition to the often insurmountable expense, the great distances result in the cultural isolation of some segments of the population, creating fear of traveling to distant locations for care. A clinician from a rural area stated that often, women would not go to have a fistula treated, even if assured that the treatment was free, simply because the distance is too great. Shabunda and Fizi were repeatedly cited as areas of extreme need due to difficulty of access and security.

PROGRAMMATIC CHALLENGES

The political instability and weak governance has resulting in fragmentation of the management of the healthcare system. Health centers, hospitals and public health projects are run by a patchwork of religious organizations, NGO's and the MOH. While the MOH provides oversight for all projects and institutions, there is limited or no consistency throughout the region and conditions are often markedly different in two adjacent health zones or between two facilities within the same zone.

With regard to programs that work within the related fields of obstetric care, fistula, and gender based violence, there are elements of disharmony that result in programs working independently and inefficiently. Even programs within the same health facility do not have open communication

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and in some places are providing parallel or overlapping services, such as counseling. UN agencies were cited often as having offered funds and services that were delayed beyond usefulness or that never arrived. In one regional hospital staff salaries were being used to cover funds contractually promised by an aid organization that were never delivered. One organization no longer works with UN agencies for this reason.

Vertical programming surrounding specific projects has also directly affected the efficacy of health systems. The need to meet donor's goals, such as numbers of surgical cases completed, was cited as a hindrance to purposefully directed health care services. An example of this includes patients who are malnourished and in need of a surgery covered by a free program, but lack nutritional support because no funds are available for this aspect of patient care. This lack of a comprehensive approach ultimately undermines successful outcomes for the patient.

VII. RECOMMENDATIONS

COMPREHENSIVE FISTULA PROGRAMMING

PREVENTION, CAPACITY BUILDING, TRANSFER OF TECHNOLOGY, SOCIAL SUPPORT

To have a major, long-term impact on the problem of fistula, and to significantly increase the numbers of patients receiving treatment within South Kivu Province will require the rationalization of the current system of care. Panzi has been designated as the tertiary care center for the province, but due to resource allocation realities, it serves as the defacto primary treatment center. Unfortunately, there is no realistic way for this one facility to treat all the women in need. In addition, because of the expanse of the province and the challenges of travel, the majority of women in need are unable to receive vital treatment. Strengthening the decentralization process, advocated by Dr. Mukwege, and all key players in the health system, including IPS officials, WHO leaders, NGOs, and the various reference hospital directors, will likely have the greatest impact on increasing the numbers of women who can receive care.

Historically, all successful programs have been comprehensive in nature. Transportation, surgical fees and supplies, nutrition, psychological support, family support, training and infrastructure must all be components of the program. In facilities that currently have comprehensive services such as Kaziba, a set fee per patients has been a successful model and with minimal effort could be sustained there and reproduced elsewhere. In other appropriate sites such as Uvira and Walungu, support staff and facilities such as psychological and nutritional support would need to be arranged. Use of a social worker to address the unique needs of fistula patients has proven successful at Panzi.

CAPACITY BUILDING FOR FISTULA REPAIR IN EASTERN DRC

Supporting safe delivery as a means of fistula prevention should be a major component of any comprehensive fistula program. Marriage of fistula prevention and repair has many advantages, including similar sensitization programs, enhanced surgical capacity for fistula and cesarean section, and similar support services such as nutrition, family planning and psychosocial support.

Current program monitoring and evaluation across the Province is largely based on number of fistula surgeries conducted. Although some data on surgical success, morbidity and mortality is available for Panzi Hospital, it is unlikely that results from Panzi would be generalizable to other reference hospitals, given the significant differences in training of surgical personnel, available facilities and supplies, and acuity of the patient populations treated at the different locations. Ideally, data would be collected on each patient in a comprehensive manner, including outcomes data for surgical success. However, given the extreme financial constraints, population needs and the logistical difficulties tracking long term outcomes, it could be argued that this would be a poor use of limited resources.

ENGENDERHEALTH CAN MAKE A MAJOR IMPACT INTO ADVANCING THIS AGENDA BY SUPPORTING THE FOLLOWING CONCRETE PROGRAM RECOMMENDATIONS:

The General Reference Hospital of Kaziba has already shown that given financial and material support, they can increase numbers of women receiving care, with good operative outcomes.

1. HHI recommends that EngenderHealth coordinate with the medical director, to determine a realistic remuneration per patient treated and set a realistic time frame goal to provide this funding. This would allow the hospital to start outreach throughout their area, and bring women in for treatment.

The General Reference Hospital of Uvira is a busy hospital with a well trained fistula surgeon. Due to financial constraints, however, few fistula operations are performed per month compared to the suspected need (because of their large catchment area, numbers of women in need could be quite large).

2. HHI recommends funding to support an active sensitization program in the community to see how many women need surgical repair, followed by funding to support fistula repair surgeries on a fee per patient model. In addition to this financial support, we recommend providing physician support from the United States or Panzi to help initiate the program.

The following is an example of the number of new cases that could be completed by sending teams of surgeons to Uvira: a team of two surgeons, each performing 1-2 surgeries per day for each of 10 days on the ground, would result in 20-30 new fistula repairs during one visit. Six such trips over the course of the next year would result in 120-180 new cases at Uvira.

Sites without capacity for comprehensive services should not be ignored. Kakawende and Kaniola, for example, while not ideal, have adequate capacity to perform simple fistula surgeries.

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3. HHI recommends providing financial resources, increasing supervision by visiting surgeons from Panzi Hospital, and implementing a funding scheme to insure supplies, which would bolster the capacity of sites like Kakawende and Kaniola to treat women who are unable or unwilling to travel to sites with more comprehensive care.

Strengthening the reference hospitals that draw from more rural parts of the province, will allow Panzi to provide tertiary care to care women in need of more complex interventions. Panzi has indicated that it could support an increase of up to 15 additional fistula cases per month (to a total of 40 cases per month, 480 per year), with the existing infrastructure and staff.

4. HHI recommends continuing to send teams of urologists and urogynecologists for short term trips to increase the numbers of surgeries performed at Panzi. Providing foreign physician support will allow Panzi physicians to travel throughout the Province, participating in site visits to conduct ongoing fistula training at existing reference hospitals and as a part of mobile surgical clinics where there are no existing services.
5. HHI recommends supporting the continued use of Panzi Hospital for the training of medical and nursing staff in fistula repair and safe surgical practices, including safe cesarean sections, and subsequent use of those staff to disseminate the knowledge further afield. Dr. Mukwege has established a successful training program for surgeons from outlying reference hospitals which couples visits to Panzi to learn fistula repair techniques with sensitization programs in the outlying community and a visit by a mobile surgical team from Panzi to the surgeon's home hospital to assist with the initiation of the fistula program. The program is in jeopardy due to lack of funding. This program would further strengthen decentralized services and would concomitantly strengthen the ties between Panzi and the other reference hospitals. Regular and improved communication between the hospitals will lead to more appropriate referrals to Panzi, allowing Panzi to function as a true tertiary care center.

Strengthening the support for Panzi as a regional teaching facility will provide an opportunity for meaningful clinical engagement. This can include basic skills in safe delivery and cesarean section, as well as complex procedures such as urinary diversion and persistent post surgical fistula problems.

6. HHI recommends continuing to send teams of urologists and urogynecologists for short term trips to Panzi to provide consistent professional technical education and mentorship to enhance the technical capacity for all fistula-related complications.

CAPACITY BUILDING FOR FISTULA REPAIR IN EASTERN DRC

VIII. CONCLUSION

Fistula remains a devastating condition affecting unknown numbers of women throughout the eastern region of the DRC. Regardless of the cause (obstetric trauma or sexual violence), fistula can lead to loss of productivity, loss of livelihoods, chronic infections and wholesale rejection from families and communities for women who suffer from them. There is significant unmet need for treatment throughout the region. Multiple factors contribute to this unmet need, including lack of financial resources, lack of knowledge that treatment options exist and lack of training and expertise for necessary repairs.

Despite formidable challenges, the eastern DRC is fortunate to have many well trained physicians, some well equipped facilities, multiple supporting donor organizations and a universal desire to definitively address the problem. We feel that the recommendations for a comprehensive approach to fistula care outlined in this proposal will lead to increased overall awareness in the region and will enable many more women to be treated, while simultaneously decreasing the occurrence of new fistulas.

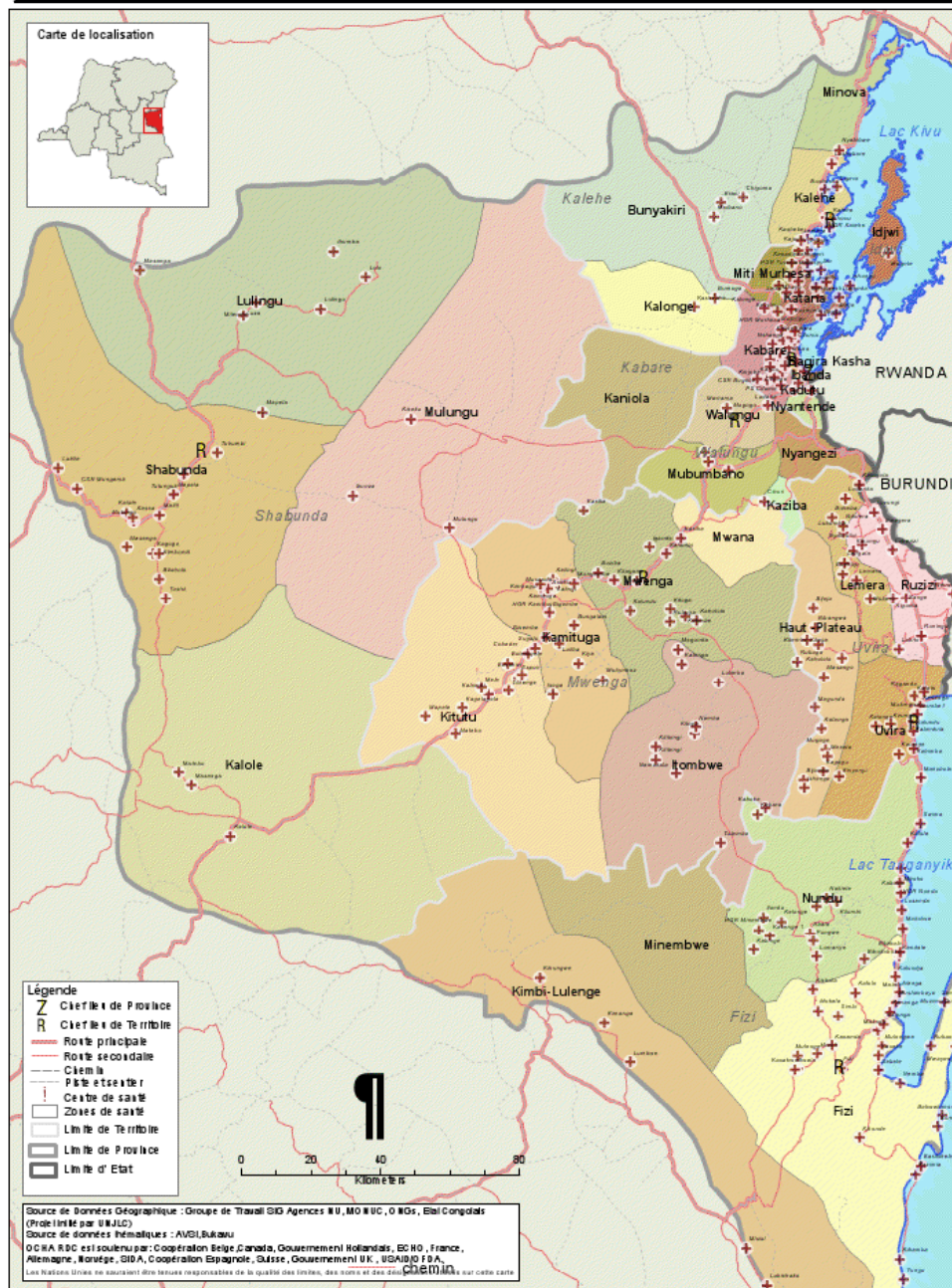
APPENDICES

CAPACITY BUILDING FOR FISTULA REPAIR IN EASTERN DRC

APPENDIX A—MAP SOUTH KIVU PROVINCE WITH HEALTH CENTERS AND REFERRAL HOSPITALS



UN Office for the Coordination of Humanitarian Affairs - République Démocratique du Congo
R D Congo - Province du Sud-Kivu - Centre de santé
21 Mai 2009



CAPACITY BUILDING FOR FISTULA REPAIR IN EASTERN DRC

APPENDIX B—SURVEYS USED TO GUIDE INTERVIEWS PANZI HOSPITAL SURVEY

PRIOR TO OPERATION/EVALUATION:

- How do patients arrive?
 - Foot
 - Car
 - Bus
 - Other
- Where do they come from? (regions and distance from hospital)
- How many patients/day (on average) present for care?
- Do patients arrive with children/family members?

INTAKE PROCESS:

- Cost of initial evaluation
- What if patient cannot pay?
 - What is the process?
- Who does the exam?
- Data collection (information sheets if available)
- Classification of fistula- trauma or OB
- First attempt or prior repair
- Waiting time until examination
- Who decides if patient is candidate for operation and when the operation will be done?
- If candidate for operation- what happens next (i.e., do they stay in hospital, do they go home and come back at a given time, etc...)?

ACCEPTED FOR OPERATION AND NOW WAITING FOR SURGERY:

- What is the average time from acceptance to operation?
- Medical interventions? (pre-operative protocols?)
- Are patients in the acute care part of hospital the entire time?
- Is there a feeding program available?
 - For patient?
 - For family?
 - Other ways to get food at the hospital?
- Other activities for patients (support group, schooling, work/skilled activities)
- Activities for family (work/skilled activities, schooling, etc.)

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CAPACITY BUILDING FOR FISTULA REPAIR IN EASTERN DRC

FACILITIES FOR OPERATIONS:

- Adequate lighting
- Gynecologic OR tables
- Surgical equipment
- General supplies (sutures, gloves, IV fluids, etc..)
- Anesthesia used
- Monitors
- Medications
- Data on actual procedure done on each patient
- Number of providers who can do the operations

POST-OPERATIVE CARE:

- Average post-operative stay
- Special interventions/studies/tests done during this time
- Are patients in hospital the entire time, or is there another place for them to stay?
- Is there a re-integration program?
- How do patients get home?
- How many go home?
- Data collection of complication/success rates
- Discharge process

PANZI HOSPITAL SPECIFICS:

- cesarean sections?
- Number functioning ORs
- Number beds for patients with fistula
 - Pre-operative
 - Post-operative
- Is there an area for patients to stay outside of hospital, when not in the acute pre/post operative phase of care
 - If not, would this be useful to increase throughput of patients?
 - If so, can this be optimized to increase throughput?
- Could you do more operations/yr with current situation (staffing, supply chain, etc..)
- What would you need to do more operations/yr?
- Electricity/generators
- Staff (see subsequent section)
- Supplies

CAPACITY BUILDING FOR FISTULA REPAIR IN EASTERN DRC

STAFFING ISSUES

- Intake staff
- Clinical/examining physicians
- Fistula surgeons
- House staff to provide post-operative care
- Nursing staff for all of above
- Anesthesia providers (nurse and/or physician)
- Social service/mental health staff

COST ISSUES:

- Initial evaluation
- Workup
- Prior to operation care (feeding/care/family/etc)
- Operation
- Post-operative care

OUTREACH TO COMMUNITY

- Offer training of local health care/community providers?
 - Related to fistula
 - Related to obstetric care
 - Related to family planning
- Offer transport to/from rural health centers?
- How could local health centers help your patient throughput?

CAPACITY BUILDING FOR FISTULA REPAIR IN EASTERN DRC

HEALTH CENTER SITE SURVEY

INTERVIEWEE:

- Name
- Level of medical training

HEALTH CENTER CHARACTERISTICS:

- Name
- Distance from Bukavu/nearest village
- Type of care offered at center
- Acute primary care issues (adult/pediatric)?
- Basic gynecology services- not related to ob?
- Obstetric services?
- Surgery/trauma?
- Other
- Inpatient services?
- Average number of patients seen/treated each day
- Patient fees?
 - What if someone cannot pay?
- Number of rooms/beds
 - Inpatient beds (if applicable)
- Lab capabilities
- Medicines
 - Antibiotics
 - Pain medicines
- Birth control medicines/devices
- Equipment for ob/gyn care available:
- Exam table with stirrups?
- Light?
- Speculum?
- Gloves?

OBSTETRIC SPECIFICS:

- Do women come here for obstetric care?
 - How do patients get there?

CAPACITY BUILDING FOR FISTULA REPAIR IN EASTERN DRC

- Do women arrive in labor?
 - If so, do they deliver at the center?
- Forceps or vacuum available? And someone with skills to use them?
- cesarean sections offered?
 - If not, where do you refer?

FISTULA:

- Do you know what fistula is?
- Do patients show up leaking urine/stool?
 - If yes, how do you evaluate them
- Any data collection- on causation (assault, obstructed labor)
- Intake form copy if available
- Do you offer any treatment?
 - If so, what treatment?
- Where do you send them?
- Do you feel there are women in your community with this problem that do not come for evaluation/treatment?
- If yes, why don't they come for evaluation/treatment
 - Belief that nothing can be done to help them
 - Embarrassment
 - Financial issues
 - Child care
 - No permission from husband/family
 - Transportation issues

GENDER BASED VIOLENCE:

- Do women present complaining of rape?
 - If yes, number/month?
- Do women present complaining of domestic violence?
 - If yes, number/month?
 - If no to above, do you feel there are women who have been subjected to violence that do not come to the center for care?
- Reasons: fear, cost, embarrassment, etc...
- Information collected on these patients, if any
- If so, where is the information kept?
- What do you offer women who have been subjected to violence?
- Labs?
- Medicines?

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- Police report?
- Treatment?
 - If none, referral?

PANZI HOSPITAL:

- Do you know of Panzi Hospital?
 - If yes, what do you know? Reputation?
- Do you send women there?
- Are patients willing to go there?
- Barriers to getting patients there
- How can we spread the work that Panzi Hospital offers fistula care/treatment?

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COMMUNITY LEADERS SURVEY

CHARACTERISTICS OF THE COMMUNITY:

- Location
- Size of the community
- Electricity?
- Access to potable water?

CARE FOR PREGNANT WOMAN IN THE COMMUNITY:

- Do pregnant women receive care during pregnancy?
 - If so, care is provided by..... nurse midwife, lay midwife, etc.
 - If not, why not: cost? no trained providers available in the community?, etc.
- Do pregnant women receive care at time of delivery/labor?
 - If so, care is provided by whom?
 - If problems during labor (bleeding, prolonged labor, etc..) what is done?
 - Access to cesarean sections locally?
 - If not, where would they go for cesarean section?
- Transport to facility for advanced care?
- Costs? basic costs of pregnancy care
- Do you know of women who have died during labor?

FISTULA EXPERIENCE IN THE COMMUNITY:

- Have you heard of the problem of fistula?
 - If so, do you know of women in your community with this problem?
 - If so, how many?
 - If don't know of fistula, do you know of women with leaking urine/stool?
 - If so, how many?
- Are women with fistula allowed to stay with their families?
- Do they seek treatment?
 - If so, where?
 - If not, any ideas why not?
 - Embarrassment
 - No childcare
 - No transport
 - Don't know where to go
 - No permission from husbands/families
 - Too expensive for exam, transport

CAPACITY BUILDING FOR FISTULA REPAIR IN EASTERN DRC

- No knowledge the problem is treatable

PANZI HOSPITAL

- Ever heard of Panzi hospital?
 - If yes, reputation of the hospital
- How would someone get to the hospital?
 - Transport
 - Cost of transport
- Recommendations on how to spread the word that Panzi Hospital can successfully treat women with fistula.

CAPACITY BUILDING FOR FISTULA REPAIR IN EASTERN DRC

APPENDIX C—LIST OF KEY DOCUMENTS REVIEWED

1. Fistula Foundation: Grant Proposal 2009
2. Fistula Foundation: Mid Report on Project to Reinforce the Fistula Care at Panzi hospital 2010
3. République Démocratique du Congo: Appui Global aux Soins de Sante Primaires Pour le Renforcement et le Développement du Système Sanitaire Locale 2010
4. République Démocratique du Congo Ministère du Genre de la Famille et de L'Enfant: Plan d'action de la Stratégie Nationale de Lutte Contre les Violences Basées sur le Genre 2009
5. Gynecological Fistula in the DRC- Sjoveian and Solbgorg 2009

APPENDIX D—KEY INFORMANT INTERVIEWS

DR. DENIS MUKWEGE--MEDICAL DIRECTOR, GENERAL REFERENCE HOSPITAL OF PANZI, BUKAVU

Dr. Mukwege has spearheaded the fistula program in South Kivu Province. Although provision of operations to treat and correct the fistula is vital, he strongly believes this should be only one part of a multipronged approach to the treatment. First, there must be a 'sensitization program' where word gets out to women in the community about the true nature of fistula through outreach to the community leaders, churches, women's groups, health centers . In this way, the stigma that is often associated with fistula is lessened, so that more women seek treatment.

Second, there must be a decentralized approach to treatment, as is it prohibitive for many women in the rural areas to travel to Panzi for surgery, and Panzi does not have the capacity to treat all of the women who need it. Dr. Mukwege has developed a training program where physicians-surgeons from other health zone referral hospitals and nurses can be trained in fistula repair. He had funding from UNFPA for a project which included the following elements for each surgeon accepted into the program:

- Travel to Panzi for three months of training in fistula repair
- Return to home hospital to start sensitization and outreach programs to recruit patients
- Visit to home hospital by team from Panzi to assist with initial operations
- Return to Panzi for three additional months of training

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Participating surgeons were required to remain at their home hospitals for a minimum of two years following the training and the MOH was required to fund the physician's salaries during the training period. Unfortunately, funding for this project was stopped before completion. Dr. Mukwege is still doing training at Panzi, but without the extensive follow-up trainings he'd like. He envisions Panzi being the referral hospital for complicated or recurrent fistula and for incontinence repairs, with the simple repairs being done in the referral hospitals closer to the patients.

Third, there must be a prevention and prenatal care component to any fistula program, with more training of midwives and trained birth attendants to encourage more women to deliver at a medical facility. Family planning projects are needed, so women have access to birth control and more control over timing of pregnancy.

And finally, the status of women within the community must be strengthened, so she has a say in her overall health-reproductive options.

DR. CUMA SOCRATE BYAMUNGU, MATERNAL AND FAMILY HEALTH DIRECTOR, INSPECTOR PROVINCIAL SANTÉ

As the head of maternal and family health for the South Kivu province he feels that more women with fistula will come forward for treatment when treatment is available closer to their homes. Thus, decentralization of care, away from Panzi hospital for uncomplicated fistula repair is a priority. Panzi should be the referral center for recurrence, complex fistula, and complicated gynecologic conditions.

RON KREMER, MEDICAL COORDINATOR, MSF—HOLLAND

MSF-- Holland has been working in South Kivu province since 1993. In 2003 they opened a hospital in Baraka, a rural area ~180 km south of Bukavu, in Uvira health zone, where they also run 15 health centers. They offer surgical services, pediatrics including feeding programs, HIV/TB treatment and inpatient medical care without fees to the patients. Last year over 40,000 outpatient visits were provided and they expect to reach 100,000 visits/year.

In terms of women's health programs in Baraka, they assist with 250-350 deliveries/year, with a 15% cesarean section rate. He is concerned that this rate is a bit high and would like to see training in other advanced delivery techniques as cesarean section is not without risk. They offer family planning, but due to cultural barriers there is limited uptake by the patients (for example, husbands must agree before birth control can be given out). Gender based violence programs are active and post exposure prophylaxis is available. However, most patients do not show up within the 72 hours

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window for optimal medical care. The numbers of women affected by sexual violence “comes and goes in waves” depending on rapidly changing security in the surrounding area.

They do not provide services for repair of fistula/incontinence, but do provide referral and transport for patients to go to Panzi Hospital for care. The patients in their community are familiar with Panzi Hospital and it has a good reputation. Currently MSF--Holland does not conduct active outreach to find patients with fistula, but would be willing to participate with such a program. By providing prenatal and obstetric care, they are providing a vital service to decrease the incidence of new patients with obstetric fistula.

GIORGIO TROMBATORE, CHEF DE MISSION, IMC

As noted in the body of the report, the International Medical Corp teamed with the General Referral Hospital of Kalonge to build a Reproductive Health Complex in 2009. The goal was to decentralize fistula care away from Panzi hospital so as to provide services closer to people in the rural areas. Their overall goal is to improve women’s health services to people with little access to medical services. Their doctors and nurses involved with fistula care were trained by Dr. Mukwege at Panzi Hospital. They are currently in the process of turning over the running of the facility to the local medical community. CELPAC is involved this process.

Currently, in partnership with USAID, IMC is working to expand more holistic fistula care services, including preventive measures such as training midwives and community outreach to promote delivery in health centers, while also developing additional “reproductive health complex” sites such as Kalonge in other remote areas which are also in unstable security areas (N. Kivu province and Fizi in South Kivu).

URSULA SALESSE, IMMEDIATE PAST MEDICAL COORDINATOR GESTIONNAIRE PROJECT VAS, MALTESER INTERNATIONAL

Malteser International is working in over 90 health centers throughout South Kivu province, often in the more remote areas. Their programming is quite varied and includes all of the following:

- Sexual violence programs, including medical services such as post-exposure prophylaxis, as well as psychosexual services with psychologists
- Nutrition programs/food security initiatives
- Rehabilitation services for several rural health centers
- Road building to support humanitarian access to health centers in areas of insecurity
- Innovative family mediation program (which includes men), helps women with fistula/sexual violence become reintegrated into their family/community.

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They have been involved with various fistula programs, helping to coordinate physician training at Panzi hospital (from Canadian funding via UNFPA), as well as promoting sensitization outreach programs in local communities. In addition, they have provided outreach to the very difficult to access Shabunda health zone, where they transported 60 women with fistula to Panzi Hospital for treatment. A major barrier to patients in need of fistula services is inability to access treatment due to distance to health care facilities.

DR. RICHARD LETSHU, EPIDEMIOLOGIST, WHO, SOUTH KIVU PROVINCE

Dr. Letshu has been at the WHO South Kivu for three years. He has a unique perspective. Gender based violence has been a problem in South Kivu for about 10 years (averaging 5000 reported cases/year) while obstetric fistula has been a problem for women in resource poor areas for a much longer time. As a consequence of the epidemic of GBV, attention to women suffering from fistula also grew, even though the majority of women with fistula are from obstetric complications and not from GBV. Approximately 5-6% of rape survivors have traumatic fistula in the immediate aftermath of the assault, and an unknown number of these women become pregnant after rape and are at risk for obstetric fistula

Regarding the state of fistula services in South Kivu, Dr. Letshu emphasized that of the 28 referral hospitals in the province, only three have the capacity to do more than simple fistula repair: Panzi, Kaziba, and Walungu. Each of these has physicians who received fistula training from Addis and each hospital has some funding for fistula services, through various sources. However, these centers are doing most of the repairs in the province, both simple and complex fistulas. He wants to see reference hospitals in the other health zones increasing their capacity for fistula repair. Particularly in the more rural areas of Uvira, Fizi, and Shabunda, there is great need for these services and traveling to Panzi is such a hardship that many do not seek care. In addition, physicians need increased training in fistula services and the training needs to be adapted to the needs of the local community. Finally, improved coordination between the sites would be beneficial to the province as a whole, but with all the disparate funding and administrative mechanisms, this is a significant challenge.

Prevention is vital through improvement of maternity care and increasing access to skilled maternity services. WHO estimates demonstrate a greater than 50% decrease in maternal mortality following the introduction of community outreach programs on the importance of safe delivery/delivery in a medical environment. Dr. Letshu feels this should translate into reducing the numbers of women with fistula.

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HUGEUTTE MBOMBO- WOMEN FOR WOMEN INTERNATIONAL

This international women's organization concentrates on socioeconomic issues that affect women, especially those who are victims of sexual violence. Their goal is to increase women's capacity for self-support and reliance. They have four main programs centering on:

- Economic issues, including breaking dependency patterns
- Health issues, including sexually transmitted diseases, hygiene and nutrition)
- Enhanced decision making capabilities
- Business group networking

They do not offer direct medical services, however they feel it is important to increase sensitization about issues surrounding sexual violence, to encourage women to come forward in <72 hours, for example, to obtain optimal post-exposure treatment. She feels that barriers that keep women from seeking health services are primarily lack of financial means, distance to hospital, and local customs. For example, home delivery is the custom and communities must be sensitized to encourage use of health centers\hospitals for childbirth. Finally, increasing health center\hospital funding throughout the province is essential to improving the overall health and status of women.

DR. TINA AMISI NOTIA (DR. TINA) PHYSICIAN, FISTULA PROGRAM PROJECT MANAGER, PANZI HOSPITAL

Dr. Tina is a physician at Panzi Hospital with extensive program coordination experience (worked with MSF-Holland with HIV programs). She came to Panzi initially to work on HIV programs specifically involving women affected by sexual violence. She has gradually become more involved with the fistula programs at Panzi and has received technical training (in 2009, at Panzi) in fistula repair and coordinates several programs based at Panzi. From her perspective, the least robust part of their multifaceted approach to fistula care is their outreach program. Getting patients to understand that fistula is not a punishment or something the woman brought on herself, as well as realizing that treatment is possible and available to correct the problem is vital. She would like this sensitization program to involve community leaders, churches, local health centers, radio campaigns to help overcome the cultural barriers and stigma associated with fistula. In addition, prevention measures are key: increasing the availability of trained birth attendants or midwives in health centers and improving their training, including the use of the partogram so that women potentially at risk for fistula can be quickly referred to the local hospital for cesarean section. Better coordination between health centers and reference hospitals is vital as well. Mobile clinics to reach rural areas are a great tool, unfortunately funding for these programs is becoming more difficult to obtain. Finally, enhanced training of physicians in fistula repair and proper technique for cesarean sections are important prevention measures. Panzi has found that 17% of obstetric fistulas are iatrogenic, and of these 70% are from injury during cesarean section.

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She also feels that Panzi Hospital should be seen as the true tertiary care center. Uncomplicated primary repairs should be decentralized, and the referral hospitals' capacity to do primary repairs strengthened. Women are reluctant to travel the great distance to Panzi, so treatment closer to home is a critical part of a successful sensitization program. Panzi should be the referral hospital for recurrent fistula, complex fistula and more challenging pelvic floor-incontinence disorders.

DR. JEAN-PAUL MAKAY, NATIONAL PROFESSIONAL PROJECT PERSONNEL, UNFPA
DR. AZIZA AZIZ-SULEYMAN, NATIONAL PROGRAM ASSISTANT/GENDER, UNFPA

The reproductive health program in South Kivu Province is working to decrease the incidence of fistula throughout the province. Unfortunately, it is difficult to fully assess the magnitude of the problem in South Kivu due to the state's inability to collect reliable data (insecurity and remote areas make data collection challenging). They have provided funding for several programs which centered on training of physicians from various health centers/hospitals. Training occurs at facilities which are recognized for having strong chief surgeons (Panzi, Kaziba) who were trained at Addis and that provide ongoing, multimodal fistula services. To take a physician into the training program, the physician must agree to stay at their home facility for a minimum of 2 years, the state must continue to pay these doctors during training and the hospital must commit to promotion of fistula services in the community. In 2009, five doctors were trained at Panzi through this program. More recently, an additional five physicians have been trained at Kaziba, and they are currently recruiting for partners for a new program in Kaziba. The current training program is a combination of classroom teaching and actual hands-on teaching and then when the physician returns to their hospital, a doctor from the training hospital will come for a site visit to provide assistance.

In addition to training, they have also supported repair of fistula. A recently completed project centered at the General Reference Hospital of Kaziba was designed to provide operations for 50 women. However, because of the overwhelming response from the community over 71 women received operations over a six month period of time, with an 86% success rate (success being defined as dry following surgery). UNFPA paid the hospital \$150/fistula operation and also supplied the patients with all medications/supplies/hygiene kits/etc., so the actual financial support is closer to \$300/fistula patient/operation.

They perceive the main barriers to care are as follows:

- Lack of information: patients don't know that their problem can be corrected and don't know where to go to seek health. Sensitization programs and outreach to the health centers, community health workers and organizations are vital to get women to treatment.
- Lack of funds for medical care: the Kaziba project and Panzi's fistula program provide services for these patients without cost. In most other areas, there are significant fees for services which are prohibitive for most patients.

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- Socioeconomic/cultural issues: in the community, women are responsible for overall care of the family. As such, many men will not allow them to leave home to get care. The dynamics must be changed so that women can seek treatment.

The best way to improve fistula services throughout South Kivu Province is to decentralize services so that women can be treated closer to home. This means not only training additional health care providers in fistula treatment, but also getting the proper equipment, supplies, support services and sensitization programs to more diverse regions throughout the province. This will decrease the patient's burden of being away from their family for so long, and will allow family members to help with postoperative care in the hospital, particularly assistance with feeding, which will decrease the cost of services.

MANU BERHOLE, MD, MPH, INSPECTOR PROVINCIAL DE SANTÉ

Dr. Manu identified the region's top female health issues as:

- Economic: heavy physical labor, "an enslavement" coupled with high unemployment among their spouses
- High fertility: too many children per woman, minimal use/access to contraception, with estimates that <2% of women use contraception
- Malnutrition: this affects pelvic bony growth/configuration and he feels this directly contributes to obstructed labor

One of his top priorities with respect to fistula is to begin a two-pronged *prevention* program. One part emphasizes the training of midwives (Sage Femme); the second part works to improve basic and surgical/interventional skills of all providers working in primary care settings, in both the reference hospitals and local health centers.

As the prevalence of fistula is unknown, funding for a properly done, community based prevalence study is critical, and a high priority for the IPS. Without this information he feels it is difficult to ascertain the need for funding of a program which only serves to increase the number of patients treated.