



Annual Activity Report
Panzi Hospital
2012



www.panzihospital.org

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Humanitarian Aid

ECHO – European Commission Directorate-General for Humanitarian Aid and Civil Protection – has during its 20 year existence, provided €14 billion of humanitarian assistance to victims of conflict and disasters in 140 countries around the globe. Over the last five years ECHO's annual budget has averaged 1 billion. In 2011 alone these funds reached nearly 150 million of the world's most vulnerable people in over 80 countries. The EU's humanitarian assistance is based on the principles of humanity, neutrality, impartiality and independence.



PMU was founded in 1965 and is operating in more than 50 countries. It is one of the larger international relief and development organisations in Sweden. PMU mainly focuses on Health, Education, Human rights and Humanitarian aid. The annual turnover is about 17 million EUR. PMU gets its funding from the Swedish Government through Swedish International Development Cooperation Agency (Sida), ECHO, Swedish Radio Aid and other organizations, Swedish member churches and private donors. PMU is a member of VOICE, EU-Cord, HAP International and Concord. See www.pmu.se

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Message from the Medical Director, **Dr. Denis Mukwege**



PHOTO: TORLEIF SVENSSON

IT IS MY GREAT PLEASURE to introduce to you the first annual Panzi Activity Report. This report is a means to showcase some of the committed staff, hospital services and projects at Panzi Hospital. While the hospital is best known internationally and nationally as providing specialty care for survivors of sexual violence and women with gynaecological conditions it is important to remember that Panzi Hospital is a general referral hospital that offers a full range of medical services and projects.

There are four departments at Panzi Hospital including internal medicine, surgery, obstetrics and gynaecology, and paediatrics. In addition to our curative services we have a variety of projects some of which are highlighted in this report, including our blood donation project, our paediatrics partnership with Toulouse University, the Fistula project and the Survivors of Sexual Violence project.

DEMOCRATIC REPUBLIC OF THE CONGO remains in a state of ongoing conflict, which was emphasised in late October with the attack on me in my home and later in November with the siege of Goma. The hospital remained open despite the insecurity. It is in times of crisis that the hospital services are needed most and I pay my homage to all the staff that bravely continued to work despite their own insecurity.

This has been an incredibly trying time for my family and me. While I have been working with survivors of brutal attacks for many years, this is the first time I myself have fallen victim at the hands of the same villains. Since the attack, I have gained a new sense of empathy for all survivors of violence,

“ *It is in times of crisis that the hospital services are needed most and I pay my homage to all the staff that bravely continued to work despite their own insecurity.*”

for those that have lost family members due to the conflict and for those that live in constant fear of the next attack.

THIS FIRST REPORT HAS a special focus on fistula, a condition which afflicts women mainly through childbirth. Every woman should be able to deliver her child in a safe, clean and well-equipped health facility. Unfortunately, in much of DRC these basic standards do not exist, and instead many women give birth at home which often leads to complications and delayed labour. Many women present to a health facility when it is too late, sometimes 2–3 days after their water has broken.

A fistula (a tear between the bladder and vagina, or between the rectum and vagina) develops, and results in continuous urinary incontinence and sometimes leakage of faeces. The fistula disables the mother and sadly usually results in the death of the baby. What should be a time of joy becomes a time of grief and suffering.

One myth is that fistula develops most often from sexual violence – this is in fact rarely the case. The articles in this report give the facts about fistula, and provide personal interviews with some patients and staff that work to repair the condition.

MATERNAL AND CHILD HEALTH must be improved in South Kivu as well as across the country. There must be a shift to ensure that child birth is just that – the birth of a new life – rather than continued stories of mortality and morbidity. I urge the international community and our own

Congolese leaders to work together to improve the capacity of health centers and to improve the available services for maternal and child health, including quality fistula repair and emergency obstetric care.

Health and human rights go hand in hand and health should be an assurance for all mothers, not for just those that can afford the services.

Panzi Hospital benefits from a number of partnerships and this report describes the work of a couple of these partnerships. We are grateful for the support of all of our partners and donors, for without you our work would not be possible. We look forward to working together to continue towards making the hospital a true center of excellence.

I HOPE THIS PUBLICATION provides you with a better insight into the work at Panzi Hospital. I also hope it encourages you to get involved and contribute your time and resources so that we may continue to work together to provide essential treatment and services for all those in need. ■

Kind Regards

Dr. Denis Mukwege
Medical Director
Panzi Hospital

A Beacon of Hope and Humanity



Jan Egeland
Europe Director, Human Rights Watch

AS UNITED NATIONS EMERGENCY Relief Coordinator, I oversaw humanitarian operations for nearly every major war and crisis on the globe. Of all these crises, few if any would match the heartbreaking suffering of the civilian population in eastern Democratic Republic of Congo. Millions are estimated to have died in Congo over the last decade as a consequence of seemingly endless wars and carnage – with political and military elites fighting for control of land, resources, and the interests of their backers in Congo’s capital, Kinshasa, and neighboring countries. Many continue to die each and every day due to the effects of ongoing violence, disease, hunger and displacement.

The horrors civilians have suffered are many, but one stands out as particularly insidious: the widespread use of rape as a weapon of war. In few places in the world is sexual violence against women and girls as horrifically widespread as in eastern Congo. Rarely, however, is this crime against humanity prosecuted. Rapes are committed by all sides to the conflict – including rebels, militia fighters, and Congolese army soldiers – in a climate of near-total impunity. Many lives have been fundamentally disrupted, and family and community bonds eroded.

IN THE EPICENTER OF this calamity, Panzi Hospital and its founder, Dr. Denis Mukwege, serve as a beacon of hope for thousands of victims of rape and sexual mutilation, ranging from children to grandmothers. It is a brave and proud local initiative, founded and implemented by local Congolese staff. Launched in 1999, it was the first initiative of its kind in Congo, one of Africa’s largest countries,

“ *With its holistic approach – treating not just the injuries, but the person as a whole – Panzi’s philosophy of care is as unique as its approach is comprehensive.*”

to provide comprehensive medical, psychological and social services free of charge to survivors of sexual assault.

With its holistic approach – treating not just the injuries, but the person as a whole – Panzi’s philosophy of care is as unique as its approach is comprehensive. Over the years Panzi has transformed the response to sexual violence in Congo, and helped raise national and international awareness of the hideous pervasiveness of these crimes.

In addition to the work Panzi Hospital does for women who have experienced sexual violence, the dedicated staff also provide treatment and care for the general population. The hospital has four departments and a professional work force, including clinicians, medical specialists and support staff who work hard to treat numerous maladies.

THE CONFLICT HAS AFFECTED all parts of the health of the population. Food insecurity continues to be a problem in many rural areas where people are afraid of being attacked in their fields. Many children present to the paediatrics department malnourished and with medical complications such as malaria or pneumonia. The department of internal medicine treats people who have traumatic injuries ranging from gunshot wounds to car accidents. Conflict also limits access and resources to provide essential medical services including maternal and child health.

In many regions of the country public health facilities are practically non-existent and severely under-resourced. Emergency obstetric care, for women experiencing complications during

pregnancy is rarely available. Women often give birth at home and when complications arise are in labour for an extended period. This often results in fistula, a debilitating condition which leads to permanent incontinence and social rejection. With improved access to health services, including maternal and child health this condition can be eliminated, as it has been in more developed countries. We must advocate for improved health services for all.

I KNOW OF PANZI HOSPITAL’S work first-hand, and can testify to its life-changing impact on patients that I saw when I went to Bukavu to meet with Dr. Mukwege and his staff at the hospital. Profoundly impressed, and in my capacity as University Adjunct Professor in Norway, I have nominated Panzi and Dr. Mukwege for the Nobel Peace Prize. It is nothing short of an outrage that the Congolese government and the so called ‘international community’ still cannot protect the defenseless women and girls against men with guns in eastern Congo. Man walked on the moon more than a generation ago and we still fail in this responsibility to protect.

While we wait for Congolese and international leadership to ensure the protection of civilians, an end to impunity, and the application of essential human rights including the right to adequate health care, we can and must continue to support the brave work of Panzi Hospital. As long as Dr. Mukwege and his courageous staff continue their work, there is hope for the women of eastern Congo that one day they will also enjoy the human rights so many of us take for granted. ■

The General Referral Hospital of Panzi and The Panzi Foundation: An Overview of Services, Staff and Partners



DR Congo.

The General Referral Hospital of Panzi is located in Bukavu, a town that has a population of approximately 1 000 000 inhabitants in South Kivu Province, DR Congo.

Established in 1999, the hospital is under the leadership of its founder and medical director Dr. Denis Mukwege, and is managed by CEPAC, (*Communauté des Eglises de Pentecôte en Afrique Centrale*) which is a Congolese Christian denomination.

SINCE 1999, THE HOSPITAL has expanded greatly; originally constructed to provide care for 120 patients there are now beds available for 450 patients.

Panzi Hospital Mission

The mission of Panzi Hospital is to assure holistic quality care to the population through improved health care service delivery, community outreach activities, and advocacy.

Panzi Hospital Vision

The vision of Panzi Hospital is to be a competitive teaching Hospital that is a center of excellence, promoting health for everyone.

The Roles of Panzi Hospital and Panzi Foundation

Panzi Hospital functions as a traditional health facility, providing medical treatment and care to the general population. While working with extremely vulnerable people it was clear that medical care was only one component of the treatment that many people needed. The treatment philosophy of the hospital is holistic where all aspects of the patient's well-being are met including, medical, psychosocial, socioeconomic and judicial.

The Panzi Foundation DRC was established in 2008 in recognition of the need to go beyond medical treatment and provide holistic and much needed complementary services. The Panzi Foundation DRC aims to support the ongoing work of the hospital and provide outreach to rural clinics and communities.

Services at Panzi Hospital

Panzi Hospital specializes in treating women with gynaecological conditions, specifically those due to reproductive trauma and trauma from sexual violence. In addition to treating gynaecological conditions, Panzi Hospital provides a variety of comprehensive medical services.

The hospital has four departments which include: obstetrics and gynaecology, internal medicine, surgery and paediatrics including a neonatology unit. Additionally, the hospital has its own laboratory, blood bank, radiology, ultrasound, endoscopy units and offers services in ear, nose and throat (ENT), ophthalmology, dentistry and dermatology.

The laboratory services are in high demand; in 2012 staff analysed a total of almost 197 000 samples. The radiology department is also highly utilized, in 2012 staff carried out 8 397 examinations. In addition, the hospital has a pharmacy equipped with essential medicines.

The maternity ward and the paediatrics unit are two of the most important departments at the Panzi Hospital. The average Congolese woman has six children and therefore these services are in high demand. In 2012, there were 3 447 deliveries at the hospital, which means close to 10 deliveries each day.

Malnutrition rates are high in the province; many patients who arrive with medical problems also suffer from malnutrition. In September 2000, the hospital established a Nutrition Center which treats patients staying at the hospital and also conducts outreach to the surrounding rural areas. Each



PHOTO: KAREN HOBDAV

Bhati Mirindi Chance, Pharmacist.

month, the Nutrition Center assists between 40 to 45 new patients, with approximately 500 children benefiting each year.

The Nutrition Center predominately focuses on providing care for children who have severe malnutrition combined with medical complications. The complications include anaemia, malaria, pneumonia and HIV/AIDS. Children under five receive daily supplements, including therapeutic milk and medical treatment. Their parents receive advice about nutrition and maternal and child health. Community outreach which involves providing nutritional information and screening for malnutrition is also conducted in villages that are identified as having poor nutrition. The UN World Food Programme provides the Nutrition Center with infant formula and food stuffs such as oil and sugar.

The hospital is one of the few health facilities in South Kivu providing treatment and support to HIV/AIDS patients and their families. The program is supported by the Stephen Lewis Foundation and provides much needed antiretroviral treatment to patients. The program also offers medication to pregnant women to prevent mother to child transmission of the virus.

Human Resources

Panzi Hospital has a human resources base that is motivated and qualified. A large number of medical services have at least one specialist on staff. By the end of 2012, the hospital and its associated projects employed 342 personnel which includes medical and support staff. This included 33 doctors

of which 14 are medical specialists and 19 generalists; 93 nurses; 58 paramedical and 66 administrative staff.

The hospital is open seven days a week and most services are available 24 hours of the day. The hospital provides emergency care assistance, and has an ambulance available to transfer patients to the hospital. Patients do not have to pay before getting emergency treatment. In DRC this is a rare feature where many health facilities demand payment before care is given.

Activities

Together the Panzi Hospital and the Panzi Foundation DRC implement a number of projects and activities. These activities are conducted on the hospital grounds and also with the Panzi Foundation DRC and local and international partners in rural areas in the Eastern Region.

Generally, the activities can be divided into one or more of the following actions:

- Preventive action: through education, awareness-raising and health promotion;
- Curative action: through the provision of medical care;
- Remedial action: restoring dignity, providing rehabilitation, restitution and repair

Activities and projects of Panzi Hospital and the Panzi Foundation DRC can also be described as providing physical care, psychological care, legal assistance, and/or socioeconomic assistance. ▶

7 *The hospital is open days a week and most services are available 24 hours of the day. The hospital provides emergency care assistance, and has an ambulance available to transfer patients.*

► Psychological care

Many of the patients received at Panzi Hospital are severely traumatized due to the violence committed against them. In these cases, the patients are assessed to determine their psychological needs and status in order to provide holistic care beyond physical treatment. Women benefit from continuous psychosocial care, including group and individual therapy which is provided through the Survivors of Sexual Violence Project and Maison Dorcas.

Maison Dorcas is a set of three transit and safety houses for survivors of sexual violence or for women under long- or medium-term care for fistula and incontinence healing. The transit houses and partner local women's associations also provide assistance with family mediation to help women who have been rejected reintegrate with their families.

Judicial/Legal assistance

In 2009, the Panzi Hospital established a judicial and legal program, through the Panzi Foundation DRC, that works to acquire justice for survivors of sexual and gender-based violence. The objective is to provide legal assistance to survivors of sexual violence and violations of human rights.

Part of the program involves raising the awareness of communities of the rights of women, children and families. It also provides legal assistance to women in general and works to strengthen local stakeholders and paralegals to fight impunity.

The program has teams of paralegals in six areas of the province who work to bring forward cases to the court in Bukavu for judgement. They also advocate for improvements to the legal system.

Socioeconomic Assistance

The significance of providing women with skills-training has proven important for holistic care, as it can facilitate reintegration into their communities. Through Maison Dorcas, the transit homes, women are provided with a safe environment in order to heal and learn new skills for their eventual community and/or family reintegration.

Women receive training in literacy and numeracy, and basic business skills. Through the Survivors of Sexual Violence project and the HIV/AIDS project, women are also introduced to income-generating activities, such as sewing and basket-weaving.

Academics: Partnership with Evangelical University of Africa (UEA)

Panzi Hospital is the main facility for the clinical training of the medical students at the Faculty of Medicine of the Evangelical University of Africa (UEA). Traditionally the medical students have spent their final year of studies as student doctors at Panzi Hospital.

In late 2012, this was changed and now students in 4th, 5th and 6th years spend more time in clinical training at Panzi and other local health facilities. UEA and Panzi have organized clinical training in an arrangement that is unique to DRC.

The vision is that Panzi/UEA will become a role model for other medical schools in the country and region. This is in line with the overall vision for Panzi Hospital to be a center of excellence in health care as well as in clinical skills training.

Financial Support

The hospital and the Panzi Foundation DRC are grateful for the support of a number of international donors, that provide funding and support for both large and small projects and initiatives. Since 2004 the European Commission has been the largest donor to the hospital.

In 2012, the hospital and Panzi Foundation DRC received support from the following donors:

- Donor Direct Action
- Eastern Congo Initiative
- EnGender Health
- ECHO – European Commission Directorate-General for Humanitarian Aid and Civil Protection
- Fistula Foundation
- Läkarmissionen, Sweden
- Norwegian Church Aid
- Open Society Initiative of Southern Africa (OSISA)
- PMU, Sweden
- Panzi Foundation USA
- Physicians for Human Rights (PHR)
- Stephen Lewis Foundation
- SV (Stichting Vluchteling), the Netherlands
- UNICEF
- USAID with IMA WorldHealth
- V-Day
- World Food Programme

Thank you also to all the individuals who have provided financial or in-kind support in various ways throughout the year. We would like to thank all our donors for their continued support!

Conclusion

Panzi Hospital provides high quality examinations and treatment to some of the most vulnerable people in society. This is done in a holistic, non-discriminatory manner.

In 2012, there were approximately 28 000 patient consultations at Panzi Hospital. The staff is very committed and perform excellent work despite often limited resources and difficult working conditions. ■

Teresa's story: Recovering from fistula

TODAY WE MET WITH TERESA, who is twenty years old from Kasai-Oriental. Teresa is a beautiful woman with a vibrant smile, who proudly showed us the washcloths she was knitting. Teresa is a patient at Panzi Hospital who just one month prior had been suffering with fistula, and leaked urine uncontrollably. Her fistula was the result of complications she had during her first pregnancy.

She married at the age of 15 and became pregnant that same year, and was looking forward to having her first child. However, unlike most mothers in richer countries, Teresa didn't consult a doctor for antenatal check-ups or make a birth plan to go to the hospital to deliver.

The fact is Teresa didn't have much choice. She lives in a rural village in the province of Kasai-Oriental, and it takes almost one hour to walk to the health center. Additionally, the costs of each check-up, medication and delivery are expensive. Teresa and her husband depend only on their crops and livestock and don't have much money. Therefore health care is unaffordable and only sought when absolutely necessary.

FOR THESE REASONS TERESA knew she would have her first child at home. Unfortunately, her labour pains became worse and after a full day her baby still hadn't come. Teresa spent one more day in extreme pain; but it seemed the baby was stuck.

On the third day, Teresa's husband was very worried and decided it was time to go to the health center. Logistically, this was extremely challenging. The roads are bumpy and rocky and they had no access to transport. Left with no other option, Teresa was carried on a chair to the health center by her husband and a friend; it took one day to finally reach the clinic.

When they finally reached the health center the doctor performed a caesarean. Unfortunately, like in many health centers in DRC the medical staff were not well skilled in performing emergency obstetric care. Teresa's baby was born healthy; however the operation left her with a fistula, a small tear on her bowel.

The operation was expensive: 40 000 DR Francs, which is approximately 40USD. Her husband had to



PHOTO: LINDA FORSELL

Many women come to Panzi Hospital to receive free fistula surgery; a life changing operation.

sell a goat to pay the fee. Three days after the operation, Teresa realized she had no control over her bowel and was leaking urine.

After returning home she continued to have this problem; she couldn't control her urine. This was very shameful for Teresa and her husband was ashamed of his wife.

FIVE YEARS PASSED WITH Teresa being in this uncomfortable and painful state. She did not know that treatment for her condition was even possible.

Then a pastor came to visit her village and spoke about the fistula repairs offered at Panzi Hospital. For the first time Teresa had hope that something would actually change and her life could improve. Her husband helped to gather some money and paid for her transport to Bukavu.

Teresa is now healthy and has fully recovered from her operation. Her smile spoke a thousand words and she's completely happy and excited to return home and have a normal healthy life.

During her stay at Panzi Hospital she learned to knit and is happy to have this new skill to earn extra income. She would love to have 2-3 more children if possible. When she returns to her village Teresa wants to spread the message and encourage all women to deliver their babies in the health clinic to avoid complications like fistula.

She also hopes that health centers across DRC will improve to prevent other women from getting fistula. ■

Understanding Fistula: An unnecessary burden for Congolese women and society

PANZI HOSPITAL SPECIALIZES IN gynecological surgery, caring for a variety of women including those suffering from fistula. In addition to the care provided at the hospital, we have teams of surgeons, nurses and support staff that travel to rural areas and provide fistula surgery for women in need.

Community awareness sessions are provided alongside these mobile clinics to help explain the causes of fistula, how to prevent it and why it is important to support a woman with the condition. It's clear that many people, both Congolese and those from other countries, remain unclear about what exactly fistula is and how it is caused.

In this article, we hope to clarify some of the myths and facts surrounding fistula and provide some recommendations.

What is Fistula?

Obstetric fistula is a hole between either the bladder and vagina, or between the rectum and vagina that results in continuous urinary incontinence and sometimes leakage of faeces.

Essentially, a woman with fistula has no control of her bowels and as a result constantly leaks urine. As you can imagine, this has terrible physical and emotional consequences for the affected women.

What causes fistula?

The main causes of fistula in the DRC are obstetric. The hole (the fistula) is torn during complicated child birth; when a woman has obstructed labour during vaginal birth or complications during caesarean delivery.

Many women in DRC give birth at home, which is a risk if there are complications and they often come too late to a health care facility. Some women can be in labour for two days, at which point a fistula occurs and the baby usually dies. Fistula can also be the result of medical mismanagement or complications during gynaecological surgery (1).

Additionally, many young girls get married and

are expected to have children at a very early age in DRC, sometimes as young as 13 years old. Young women have an increased risk of developing an obstetric fistula if they become pregnant before their pelvis is fully developed.

Living with Fistula

Fistula has devastating social and economic consequences for affected women and their families. The impacts of fistula are severe, resulting often in social shunning and divorce and can lead to depression and psychological trauma (2–4).

Living with fistula can lead to isolation when women are excluded from, or are unable to participate in, day to day activities even within their own families.

One study at Panzi Hospital found that 14% of women who had a fistula for less than five years were abandoned, divorced or separated, while this rose to 23% of women who had suffered from fistula for five to ten years (5). Fistula not only affects the individual or family, but it also has an impact on the entire society. With the widespread prevalence of fistula in the DRC, a large number of the population cannot contribute to the country's development.

Why do so many women in DRC have fistula?

Globally, fistula is most common in poor countries with limited maternal health care. Poor maternal health care in combination with poverty, a lack of awareness and poor infrastructure contribute to the high levels of fistula in the DRC.

Most health care facilities are severely damaged and offer limited services in eastern DRC due to years of war and an insufficient budget from the Ministry of Health. In addition, accessing health care is difficult due to insecurity, long distances, inaccessible roads and high costs of care.

For these reasons, women tend to deliver at home with untrained traditional birth attendants.



PHOTO: ASA RUNSTRÖM

Sifa Chitera Rose, a Social Assistant, advising a patient.

For those that manage to make the trip to a health facility, there is often a lack of emergency obstetric care services and experienced health personnel to assist the women.

How common is fistula? How come I haven't heard of it in my country?

Fistula is widespread in eastern DRC, although it is difficult to determine the exact numbers. It has been estimated that between 30 000 and 130 000 new cases develop each year in Africa (6).

In comparison, fistula due to obstructed labour was practically eliminated from industrialised nations by the middle of the 20th century through improved and effective systems of obstetric care.

How does Panzi Hospital assist women with fistula?

Panzi Hospital is one of few hospitals in the eastern DRC with expertise in fistula repair. Between 2009 and 2012 surgeons at the hospital performed 983 fistula operations.

Panzi Hospital also brings specialized medical services to women in rural areas of the country who would otherwise not be able to have their fistula repaired. For example, in September 2011, a team from Panzi Hospital visited the province of Kasai-Oriental, and repaired 178 fistulas during six weeks and documented hundreds more.

The team returned in October 2012 for four weeks and repaired 92 fistulas. In February–March 2012, the team visited North Katanga and repaired

189 fistulas and gave messages and important information to women on the prevention of fistula. In some cases, delays in seeking fistulae repair are extensive (2–3 years) (3).

There is a need in the DRC to deliver outreach services to remote areas and provide public awareness to promote the services and improve access.

Is fistula caused by rape?

This is a common misconception. The incidence of trauma-induced fistula from sexual violence is extremely rare. Fistula is commonly caused by obstetric complications, principally from obstructed labour (6-9). We at Panzi Hospital cannot stress enough that the main cause of fistula is obstructed labour.

How can you be sure? Where's the evidence?

Good question. In a retrospective study of patients undergoing fistula operations at the Panzi Hospital between 2007–2009 Onsrud and colleagues (1) found that sexual violence is a rather uncommon cause of fistula. In fact in only five cases (1%) sexual violence was the reason for fistula, all five cases were young girls who suffered gang rapes.

In an additional 4% of women who claimed to have a rape-induced fistula, the problem was linked to a difficult delivery in the forest where they lived as sex-slaves for soldiers, or to unqualified interventions after giving birth. These results show that fistula is rarely the direct result of rape.

If you include the costs of pre and post-surgery treatment, accommodation, food and hygiene kits the cost is

650 USD

per patient.

► How can fistula be prevented?

Most obstetric fistulas could be prevented by adequate antenatal care during pregnancy and also receiving care during labour from a skilled birth attendant.

These important check-ups can detect irregular progression of labour and allow for immediate intervention before labour is obstructed (6). Detection by trained birth attendants using a partograph, which gives simple graphic images of the progress of labour, can reduce maternal mortality and morbidity (6).

Health care facilities must have trained clinicians who are able to provide obstetric care including caesareans. Delaying the age of marriage and encouraging child birth in a health facility are also essential to preventing fistula.

How can you repair and treat a fistula?

Fistula repair involves a basic operation that can be performed with minimal cost under spinal

anaesthesia, however these services are unavailable in most regions in DRC (3, 6). Training to repair uncomplicated fistulas can be easily taught to doctors who already have basic surgical skills (3, 6).

Unfortunately, some medical personnel attempt to repair fistulas without adequate training which can result in failed repair that often causes further damage. Sjøveian and colleagues found a high number of patients reported to Panzi Hospital after having sought treatment two to three times previously from a different health facility (5). These and other failed repairs stress the urgent need for more qualified fistula surgeons.

Panzi Hospital is one of the few hospitals in DRC that trains doctors in fistula repair. Since 2004, 60 Congolese, one Chadian and one Cameroonian physician have received this specialist training at Panzi Hospital.

How much does a fistula operation cost?

The Panzi Hospital provides free medical care for all fistula patients. This is possible due to the kind support from EnGender Health, and the Fistula Foundation. It costs approximately 300USD to provide the surgery needed to repair one fistula. However, if you include the costs of pre- and post-surgery treatment, accommodation, food and hygiene kits the cost increases to 650USD per patient.

The European Commission and PMU support the additional costs. On average it takes three weeks to recover from a fistula surgery, which accounts for the high costs of treatment. Providing free care is imperative as the majority of women cannot afford this surgery and enforcing payment can create delays in seeking treatment.

Reducing the number of fistula cases through improved obstetric care and health-seeking behaviour is a tremendous challenge in the DRC due to the numerous complexities in the country. However it is vitally important to continue to advocate for and implement quality services that will improve the lives of thousands of Congolese women. ■

Authors: **Karen Hobday, Dr. Muhima Rehema Grâce, Sara Erlandsson and Dr. Denis Mukwege**

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PHOTO: ERIKA STENLUND

Giving birth at an equipped health centre with qualified staff is the best method to prevent fistula.

Prevention of Fistula

THE GREATEST TRAGEDY OF fistula today is the fact that almost all cases could be prevented. Globally, fistula is most prevalent in the developing world and is commonly caused by obstetric complications, principally from obstructed labour. It is estimated that between 30 000 and 130 000 new cases develop each year in Africa (1). In comparison, fistula due to obstructed labour was all but eliminated from industrialised nations by the middle of the 20th century through effective systems of obstetric care.

There are a number of strategies that can prevent the majority of cases of fistula, namely: increasing access to adequate maternal health care; increasing the number of competent trained medical personal and eliminating child marriage. Improving maternal health care must become a priority if we are serious about eliminating fistula.

FIRST, PREGNANT WOMEN MUST have access to delivering at an equipped health facility. Medical professionals can detect complications during childbirth and immediately intervene before labour

is obstructed. Detection by skilled birth attendants using a partograph, which gives simple graphic analysis of the progress of labour, can reduce maternal mortality and morbidity (1).

Health staff must also know when and where to refer pregnant women who have complications. Unfortunately, many women in DRC deliver at home due to a lack of security, lack of financial resources and/or the distance to the health center.

Services for emergency obstetric care are also not available at all health facilities and where available they can be costly. Improving the availability and affordability of maternal and child health, needs to become a priority in DRC.

SECONDLY, THERE IS A need to improve the capacity of clinicians in performing obstetric care including cesarean operations. A study conducted at Panzi Hospital by Onsrud and colleagues (2–3) analysed the surgical outcomes of 707 patients who underwent fistula repair between 2006 and 2007 at the hospital.



Although the obstetric vesicovaginal fistula has vanished from the collective memory of more developed countries, it continues to ruin the lives of tens – if not hundreds – of thousands of young women every year. This situation is a mark of shame on the world medical community and demands urgent and sustained action”
(Wall, 2006; p.1207).

► The study showed that 40% of the women with fistula had undergone a cesarean delivery. This patient group was compared with those who had given birth by the normal route. Fistulas after a cesarean had typical characteristics, and were situated higher up than those after a delivery by the vagina. It was the first time that this phenomenon had been described in the medical literature. At least 25% of the cases could be attributed to inadequate surgical techniques.

For the prevention of this type of fistula, training in surgery and alternative delivery methods is important. Onsrud and colleagues also found that 87% of the babies delivered by caesarean were stillborn. This shows that many caesareans are performed too late or done on wrong indications; many of the women should have been helped by other means.

Panzi Hospital advocates that all doctors receive certification through the provincial health inspectors to ensure quality and standards are met when conducting caesarean sections.

Training midwives in techniques to recognize and respond to the signs of complicated pregnancies is another way to reduce maternal mortality and morbidity. Antenatal care, which includes at least three check-ups with a clinician to follow the progress of the pregnancy, can also greatly improve maternal and child health and reduce unplanned caesarean's.

FINALLY, ENFORCING THE LEGAL age of marriage at 18 years would also reduce the number of women experiencing obstructed labour resulting in fistula. Young girls such as those between the ages of

10 and 16 are at greater risk of complicated labour as their pelvises have not had the chance to fully develop which limits the size of the birth canal. A young woman who gives birth at home exponentially increases her risks for fistula.

Reducing the number of fistula cases through improved obstetric care and health-seeking behaviour is a tremendous challenge in the DRC due to the numerous complexities in the country. However it is vitally important to continue to advocate for and implement quality services that will improve the lives of thousands of Congolese women. ■

Authors: **Dr. Denis Mukwege and Prof. em Mathias Onsrud**

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PHOTO: LINDA FORSELL

Fistula can only be repaired through surgery conducted by a specialist.

Repair of Fistula

FAILED ATTEMPTS TO REPAIR fistula which are completed by unqualified surgeons dramatically increase the risk of permanent damage for women. There are few surgeons in DRC that are qualified to offer this specialist care and fistula repair is unavailable in most provinces in DRC (1, 2). Fistula repair involves a basic operation that can normally be performed with minimal cost under spinal anaesthesia.

Looking at the facts from a the surgical outcomes of 595 fistula patients at Panzi Hospital, Sjøveian and colleagues found 83% of the fistulas studied were related to a preceding difficult delivery that had lasted for several days.

Average age and period of suffering were 23 years and two years, respectively. In 87% of cases the operation was successful in terms of fistula closure, but 16% had remaining loss of urinary control due to severe damage.

Failure of closure was more frequent if they had been operated upon earlier: **after three attempts of operation the risk increased five times** (2). These and other failed repairs stress the urgent need for more qualified fistula surgeons and regulations surrounding who can conduct this

specialized surgery. Training to repair uncomplicated fistulas can be taught to doctors who already have basic surgical skills (3). Panzi Hospital under the leadership of Dr. Mukwege is one of the few hospitals in DRC that trains doctors in fistula repair.

The hospital has a Fistula Project with two key objectives: to repair fistulas and train medical staff. Doctors are trained in fistula repair and nurses receive training in skills that assist in pre-operation, operation and post-operation. In addition midwives are trained in working and following parthograms to prevent fistulas at childbirth.

IN TOTAL SINCE 2004, Panzi Hospital has trained 60 Congolese, one Chadian and one Cameroonian clinician to perform this specialist surgery. Those trained included 60 physicians, 85 nurses and 31 midwives. In addition to the initial training, continued support is provided with follow up visits to the physicians, nurses and midwives in their own respective working areas.

The program is made possible by the supported of a number of donors including EnGender Health, the Fistula Project, PMU and the European Commission Humanitarian Aid.



European Commissioner Kristalina Georgieva celebrated International Women's Day with the women at Panzi Hospital, 8 march 2012.

PHOTO: ECHO

► Improve Practices in the Province through the Establishment of Minimum Standards

In DRC, regulations for fistula repair are non-existent. Minimum standards should be established and be strictly enforced to reduce the risk of failed operations and increase the quality of care.

Currently, in the Eastern Region of DRC there are limited opportunities to receive this specialized training. More training opportunities for clinical staff need to be provided at medical institutions through national and international support.

Surgeons wishing to work in this specialist field should enroll in a minimum nine month intensive training course in fistula repair from a recognized medical training institute. Successful graduates should receive a medical certificate which should be displayed in their practice and presented on request to health authorities, donors and patients. Implementing and upholding these minimum standards will greatly improve the quality of care provided to fistula patients in South Kivu province.

Donors and international actors supporting health facilities must also be responsible and demand that these minimum criteria are fulfilled.

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“ We are advocating for improved specialist competence in fistula repair for doctors who regularly receive patients suffering from the condition.”

Access to Fistula Repair

We are advocating for improved specialist competence in fistula repair for doctors who regularly receive patients suffering from the condition. Each failed fistula repair greatly enhances the risk that a woman will not be cured and forever suffer incontinence.

Fistula does not have to be a lifelong condition; therefore it is criminal when unspecialized doctors attempt the intricate surgery and fail, destroying a women's chance of living a healthy life. Instead of training all doctors in fistula repair, an expensive, lengthy and unnecessary process, we advocate that all hospitals receive adequate training to prevent, diagnose and refer cases of fistula to a trained specialist.

Finally, it is important to remember that women suffering fistula tend to be young, illiterate and impoverished woman from rural areas, who lack political influence or economic resources (5). These women cannot afford surgery; and therefore fistula repair must be offered free of charge. To ensure women have access to this essential care, Panzi Hospital, thanks to the support of our generous donors, provides fistula repair and care for free. Further work needs to be done to ensure that all women across DRC have access to this care. ■

Authors: **Dr. Denis Mukwege and Prof. em Mathias Onsrud**



If you would like more information about the Fistula Project at Panzi Hospital or would like to donate to the program please visit the Panzi Hospital website at: www.panzihospital.org

Fistula Surgeon: Interview with Dr. Shangalume Ahadi

Tell us about the path you took to become a clinician.

– I completed my medical degree at Lumbumbashi University which involved seven years at the Faculty of Medicine. In addition to my medical degree, I received my Master in Public Health, at the Catholic University in Bukavu with a focus in health economics.

How long have you worked at Panzi Hospital?

– I have been working at Panzi since completing my specialist training in gynaecology in 2009. I was trained in gynaecological surgery at Panzi Hospital with an emphasis on fistula repair. The training was provided by a team at Panzi Hospital in collaboration with a team of urologists from the Mayo Clinic who are based in the United States. It was here that I gained a special interest in helping rejected women suffering from fistula.

What was your inspiration to specialize in fistula repair?

– I wanted to work with women who are marginalized in society, those who are rejected by their community because of their condition. Women give life, but many do not receive any care throughout their pregnancy and delivery. I thought about how through fistula repair I could help them regain dignity and safety in their own community. I then made my choice.

Describe what you usually do in each day.

– We perform five surgeries each day, three are fistula and two to three are for other gynaecological conditions. I arrive at the hospital, attend the daily staff meeting and then start work in the surgical ward. I meet with the women before their surgery to ensure they are prepared and understand the process.

After the surgery, I check on each of the patients to ensure they are recovering well. I work six days a week, two days in the maternity ward

and the others undertaking gynaecological surgery. On Saturdays we prepare the program for the week and classify each woman according to the type of fistula they have.

What motivates you to work each day to repair fistula?

– When patients first come to the hospital they often feel like their normal life has ended. I give women who desperately need treatment, the surgery and care they need to regain their hope. I give something back to the life of the woman and afterwards I can see how their life has improved.

This truly pleases me and motivates me to do my work. I am able to help them regain their confidence, their courage and an important part of their life. I am able to care for those that suffer; to give them back their life. It is great work.

What is the most difficult part of your job?

– When we can't reach all of the patients who are in need, especially those in remote villages who need treatment. Some patients also are not able to reach the hospital on time and others do not know where to go for help. Many of these problems are linked to inadequate transport and the poor security situation.

Also, it is difficult to see the despair of women who come for treatment who have already had one or several failed fistula repairs and it is not possible to repair their fistula. These are the greatest challenges of my work.

In your opinion, what would you tell Congolese women to prevent fistula?

– First I would stop child marriage. It's very sad to see young girls who have fistula. Second, I would encourage all women to give birth in a health facility, not at home. I would also tell their husbands to encourage their wives to do so.

What would you say to a woman



who is suffering from fistula and does not know that she can get an operation to repair it?

– I would tell her that fistula is a normal illness that many women have and that you can get treatment for it at the hospital. We see women who are sad, depressed and who have been isolated. It is our responsibility to explain to them that they can improve their life with surgery.

I would also suggest that the Government, through sensitization sessions, encourage pregnant women to go to hospital to deliver and implement strategies to promote safe motherhood.

How can we reduce the stigma surrounding fistula?

– I would sensitize the community, starting with the husband, to understand that fistula does not result from witchcraft or some disease but, it comes from giving birth at home. So, they have to send pregnant women to hospitals for antenatal care and to deliver to avoid fistula.

We encourage husbands to support their wives who have fistula and explain the condition, and explain that it is not her fault rather it was developed accidentally from a complicated delivery. Now more than ever she needs her husband's support.

Once men receive this information they often understand, and the community also needs to understand and support the couple.

How do we improve maternal health in South Kivu?

– Make health services free. Many women have difficulty paying so they give birth at home. The consequence is tragic fistula. We also need a regular refresher nursing staff in the management of obstetric emergencies. ■

Fistula Surgery Nurse: Interview with Badera Byamungu Elisha

Tell us about the path that you took to become a clinician.

– I was born in Kaziba near the hospital. My father was working with missionaries which gave me the opportunity to volunteer with at the orphanage near the hospital. I knew from a young age that I wanted to care for people. After primary school, my father suggested I attend the nursing school in Kaziba. I completed my nursing degree in 1986. In 1987, I was hired at the Kaziba hospital as the assistant of Dr. Ruhiriri to assist him in surgeries.

After working there, I was sent to Walungu, then, to Luhindja to supervise the health centers. In 2001, I was supervising the Kalonge Health Center in Bunyikiri when I was kidnapped by the rebel groups. I was forced to work as a medic for these rebel groups in the bush for almost a year. As you can imagine, this was extremely difficult as I had very few resources and the conditions were horrible. After one year I managed to leave the jungle and return to Kalonge.

How long have you worked at Panzi Hospital in the department of gynaecology?

– I have been at Panzi hospital for nine years since 2004. In April 2002, I left my position in Kalonge for Panzi Hospital where I learnt how to repair fistulas with Dr. Mukwege. I enjoyed being back in the operating room as I was accustomed to Surgery.

I started working in the Mobile Clinic to provide gynecological care for people in rural areas. Our team made many trips to remote regions including Kasai, Maniema Province, Fizi and Katanga.

I now work at Panzi Hospital in the gynecological surgery ward. I assist and undertake fistula and prolapse surgeries and I also classify the type of each woman's fistula, which helps us prepare for the surgery. As there are only a few specialists in this area, I teach other clinicians how to classify the fistula's and undertake the surgery.

What was your inspiration to specialize in fistula repair? How did you learn?

– I believe it was Dr. Mukwege who chose me to work in the specialized field. He felt he was getting older and needed someone to help him in the operating room, so he asked me to learn from him. He motivated and encouraged me to accept this vocation.

What motivates you to work each day to repair fistula?

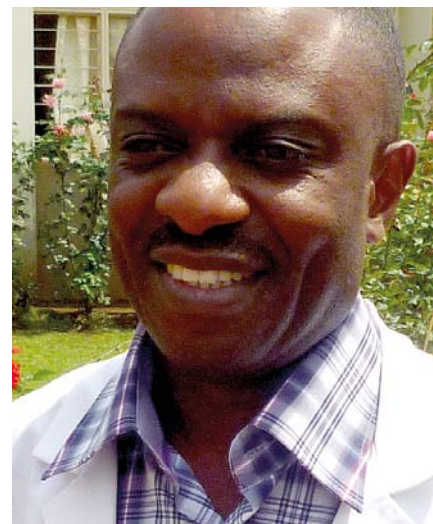
– Each successful operation encourages me. When a woman comes in with a fistula and you repair it, you can immediately see how happy she is, they openly show their gratitude and love to you. The women are so happy for the care that they receive.

“ Each successful operation encourages me. When a woman comes in with a fistula and you repair it, you can immediately see how happy she is, they openly show their gratitude and love to you.”

For me, that is my main motivation to do this work. I love my job. My work colleagues also inspire me, we have a great working environment and an excellent team. This also encourages us to continue the work.

What is the most difficult part of your job?

– When there is a fistula that you cannot repair. This happens when the former repair had been done by someone who is not a specialist. These patients with failed surgeries



are often referred to us at Panzi.

Sometimes we are discouraged when we fail to repair a fistula and a woman has to continue to suffer because of someone's mistake.

What would you tell Congolese women to prevent fistula?

– Sensitize and encourage the community to send women to hospitals for maternal health care and especially when delivering their baby. Women should have access to caesarean operations if they are needed. This operation can prevent fistula when there is a complicated labour.

Women should also be informed about the importance of reproductive health including birth spacing and family planning options. More medical staff should receive training on fistula repair.

How can we reduce the stigma surrounding fistula?

– It is important to explain what fistula is so that people understand it is not women's fault; it is an accident that happens in child birth. Husbands and communities must learn to support women with fistula and not to reject them.

We can spread these messages through providing trainings to the community including church and village leaders, teachers, farmers and medical staff. The training should explain what fistula is, how to prevent it and that it can be treated at hospitals.

How do we improve maternal health in South Kivu?

– Work with all organizations and people to change behaviours and encourage good maternal health care. Having subsidized health care also will improve the situation. ■



PHOTO: KAREN HOBDAK

Fistula often leads to social stigma, and it is important to share stories with others who have similar experiences.

A New Lease on Life: Receiving Fistula Treatment

Panzi Hospital provides essential treatment for women with severe gynecological conditions including fistula. In January 2013, PMU Communications Officer, Colette Salima, had the opportunity to interview Rose from Kabolo Territory in the Province of Katanga. Below is Rose's* story.

Hello Rose. Thank you for speaking to us about fistula, a condition that you have had for a long time. Can you please tell me a little about yourself?

(smiling) – No problem, I'm happy to speak to you today. I am from Kabalo Territory in Katanga Province. I am 23 years old, married with four children.

Can you please tell me about how you came to receive treatment at Panzi Hospital in Bukavu, a very long way from your home in Katanga?

– It's a long story. I'm going to tell you a horrible story about my illness which has really been stressful. I will tell you the story about how I started to regularly leak urine.

It started the moment I went into labour in 2010. I was at home with my husband who had brought a midwife from our neighbourhood to help me deliver. The hospital is very far from our village, and it is common to call a midwife when a woman's time to deliver has come and it usually goes well.

But that was a bad day for me because I was having difficulty delivering. The midwife was there when my water broke but then the baby could not freely come out. Due to the complications my husband decided to bring me to the hospital to see if we could save the baby's life.

The hospital is so far from my home that we had

* The patient's name in this story has been changed to protect her confidentiality.



PHOTO: ÅSA RUNSTRÖM

Teams from Panzi Hospital's Mobile Clinic and Fistula Project travel to rural areas to provide care to those who otherwise couldn't access it.

► to take a canoe and the trip took us one day to complete. When we reached the hospital, the doctor gave me a cesarean but sadly my baby had already died. Two days after the operation my problem began, and I began to leak urine each day and night.

What happened afterwards? Did you stay at the hospital or return to your home?

– After the hospital we returned home and I received traditional treatment but that did not work. I consulted many people to try to improve my condition, but no one was able to do anything.

How did people treat you when you returned home?

– People laughed at me when I went to church or the market and they would avoid me because I smelled bad. All the people who passed near me, would laugh and I would suffer on the inside. But at my house, I didn't have any problems.

My husband supported me so much and told me that one day I would get treated. This was such a big support for me. Because of my situation I never wanted to leave my house. I felt obliged to stay inside with my children.

How did you learn about the services at Panzi Hospital?

– I arrived here through the grace of the doctors at Panzi Hospital who arrived in my territory one day. This day I heard on the radio an announcement

asking all women with this condition, fistula, to come to the local hospital.

I went to the hospital and met many women from different areas of Kabalo who had the same problem as me. We were registered and some people received treatment in Kabolo but I was brought to Panzi Hospital with two other patients.

What happened when you arrived here?

– I was warmly welcomed and received a package of care. I arrived in October 2012 and received my surgery on 10 Decemeber 2012. It was successful!

How do you feel now that your fistula has been repaired?

– I feel like a different person. It is such a relief that I no longer have to worry about leaking urine. I am no longer ashamed and feel great. Thank you and God bless you! I feel really great. It's truly a miracle!

Do you see yourself having more children?

– Yes, if it is possible I would love to have more children.

Will you continue to live in Bukavu or return home?

– I will soon return to my home, while it has been good to receive care at Panzi I am really looking forward to getting home to my family. ■

Author: **Colette Salima**

Research for Innovative Solutions: Exciting New Initiative

RESEARCH IS THE FOUNDATION for development in any society. Identifying questions, collecting information, applying the results, and evaluating the outcomes is the only systematic way to ensure that policies and programs are having a positive impact on society. The process of conducting research also teaches problem solving and critical thinking to empower individuals to become involved in long-term development.

Evangelical University in Africa (UEA) and the Panzi Foundation DRC are working in collaboration to establish a research center in Bukavu, DRC. The Research Center aims to build infrastructure for problem solving and innovation, to support individuals such as doctors, professors, students and community members as they identify problems and look for solutions. It also seeks to put ownership and accountability into the hands of the Congolese, while identifying and bringing together key partners from around the world.

The Research Center will serve as an incubator for new ideas, theories and solutions for some of the largest challenges facing eastern DRC. The Research Center will also develop the research capacity of Congolese students and health professionals. These highly trained individuals will be able to identify, prioritize, test and implement projects in a systematic way that will both develop their research skills and provide a system for sustainable impact on the community as a whole.

PANZI FOUNDATION AND UEA both have mandates to strengthen research capacity, which will be carried out through the creation of the Research Center. It will establish and train a locally appointed Ethics Review Board to ensure all projects being conducted at Panzi, or in collaboration with its partners, meet international research ethics standards. An executive committee will be appointed to assess required resources and participating collaborators.

Projects will be selected based on local priorities and needs, as well as to ensure all ethics review and approvals are obtained. Projects which benefit the local institutions and/or community and give ownership for the work being done to Panzi and UEA will take precedence.

The Research Center is a collaboration between Panzi Foundation and UEA, and projects may



PHOTO: ASA RUNSTRÖM

Medical staff at Panzi Hospital undergoing training.

include direct patient care and clinical research but also have the flexibility to expand into other areas of the social determinants of health. These include social sciences, business and economics, human rights, pastoral care, and environmental sciences; projects that will support the health of women and families through food and energy production research.

THE CREATION OF THE Research Center will begin to establish an environment for scientific discovery, evidence based decision making, and sustainable development for future growth of the hospital, foundation and university for a positive impact on society as a whole. We look forward to formally establishing the Research Center in 2013.

To make this new initiative a success, we are open to hearing how you can support the Research Center, perhaps through an in-kind donation to provide training in research skills, or a monetary one to provide much needed resources.

We look forward to hearing your ideas. ■

Author: **Lisa Peters**



For any inquiries regarding the Center and how you can assist please contact Lisa Peters, Research Center Project Manager via email: peterlm@umich.edu

Chief of Medical Staff and Specialist in Orthopaedic Surgery and Traumatology: **Interview with Dr. Nfundiko**

Can you please describe to us your role at the hospital?

– I have been working at Panzi Hospital since 1999, the year it was officially opened. I am the Chief of Medical Staff and also a specialist in orthopaedic surgery and emergency medicine. As Chief of Medical Staff, I am responsible for managing the 33 medical doctors on staff.

I coordinate all their activities, oversee the scheduling and ensure that everyone is doing their jobs. I also follow up any patient complaints and give advice for complicated cases.

What are the challenges of your position?

– I would say finding the time to balance my administrative role with patient consultations and surgery. I conduct surgery three days a week and do patient consultations the other two days. This leaves me with only the mornings and evenings to attend to administrative tasks.

I also give interviews to journalists and respond to questions and emails from international partners of the hospital. It is challenging to balance all the work and there is little time left over for eating and sleeping! We are also in a constant state of insecurity which is worrying.

What motivates you to do your work?

– I was one of the first pioneers alongside Dr. Mukwege in establishing Panzi Hospital. So I am always motivated to work hard to see the hospital continue to expand and improve. When the hospital was first established it was very basic and we had limited services. To see it grow over the years has been a big motivation for the work I do and we will continue to work hard to see Panzi Hospital become a center of excellence.

I enjoy doing emergency medicine because often people come in and have lost their hope. They believe that they will never walk again or perhaps they will die. It is always satisfying to

operate on a patient and watch them recover and regain their hope, determination to heal and will to live.

What are some of the common complaints of your patients?

– I operate on patients who need emergency care, many come in with trauma-related to traffic accidents, others have gunshot wounds as a result of the conflict and other patients have serious infections.

One of the key challenges here is that many people delay seeking treatment at a hospital and instead first visit a traditional healer. This is due in part to the chronic poverty we have, many patients simply can't afford to pay for proper treatment or the costs associated with transport. We try to encourage people to seek treatment at a health facility immediately but poverty remains the ultimate barrier.

Can you please tell us your most memorable moment with a patient?

– There have been a number of cases that I will never forget. I operated on a 12 day old infant from Mulengeza. Unfortunately, he was born with a birth defect and his hip was badly infected with gangrene. I had no choice but to amputate to save his life. Years later his parents brought him back to visit and he's doing really well now.

There was also a tragic accident that took place in 2010 when an oil tanker overturned in the village of Sange, about 70 km south of Bukavu. A crowd of people, including children, rushed in to try to collect the fuel that was pouring out of the tanker and it suddenly caught on fire and exploded.

Two hundred and thirty people were killed and many injured people were transferred to hospitals in Ulvira and Bukavu. Twenty patients were received at Panzi Hospital all with severe third degree burns.

It was extremely sad as we were only able to save the lives of seven of the patients. Those that survived are



PHOTO: SPINE AFRICA

doing really well and received skin grafts to improve their appearance.

The final patient I will never forget is Mukamba, the five year old who was brought to the hospital by his parents with third degree burns as a result of a kitchen fire. Unfortunately, as he was brought in late we had to amputate his right hand because it was so badly destroyed in the fire. He also lost his left ear and has serious facial burns.

Despite his really challenging situation he is a very likeable and positive little boy. He always encourages the staff and makes us smile.

What are the greatest needs you see in the hospital?

– There are numerous needs at the hospital, but I would say one of the greatest is the need for a constant and reliable source of water. As the hospital expands, the demand for water has increased but the supply has remained the same. This is extremely important to ensure we can maintain a high standard of cleanliness and prevention of infections. Related to this is the need to improve our laundry services. If we had enough washing machines and dryers this would greatly improve the efficiency of the work.

Also, our pharmacy always needs to be reinforced with medicines that are not always available in DRC. Many medicines are very expensive and we rely on the generous donations of international partners to assist. We hope these partnerships continue in 2013 and beyond. Finally, there is always a need for more specialists to allow us to improve the type of services and quality of care offered at Panzi Hospital. For example, it would be highly beneficial if we had a specialist who could provide radiotherapy for cancer patients. ■

Training and Technology: Arrival of a New CT Scanner at Panzi Hospital

IN 2011, DR MUKWEGE won an award from the Swiss Government for his work and activism for Congolese women. The money was intended to purchase medical equipment at Panzi Hospital. Dr Mukwege believed that a CT scanner was essential for the hospital to be able to provide advanced diagnostics.

Unfortunately, the cost of a CT scanner was much higher than the amount awarded. Additionally, installing a highly technical device, such as a CT scanner, is not an easy undertaking, especially in DRC. It involves detailed logistics, a sophisticated technical environment, a reliable electrical supply, well trained physicians and technicians and adapted premises.

Dr. Pierre-Alexandre Poletti, an expert emergency radiologist, was contacted by the Swiss Cooperation regarding the rationale and feasibility of installing a CT scanner at Panzi Hospital. A brief phone call with Dr. Mukwege was sufficient to persuade Dr. Poletti, that despite the challenging logistics, this was a necessary project. The fact was there was no functional CT scanner in the proximity of Bukavu, an area of 4 million inhabitants.

Installing a scanner in Panzi Hospital would absolutely improve the quality of care at the hospital. Given that Panzi Hospital has the medical resources to offer adapted treatment to specific pathologies which can only be detected by CT, such as intra-cranial bleedings, it was absolutely the right place for a CT scanner.

Based on Dr. Poletti's assessment, the Swiss Cooperation agreed to support the project on the condition that Dr. Poletti organize and supervise the project from commencement to final installation. Dr. Poletti agreed to do so on a voluntary basis in addition to his full-time responsibilities in Switzerland.

Organization of the project

Dr. Poletti contacted some representatives from General Electric who were open to working on the project to provide the technical input needed to install the CT scanner. In April 2012, Dr. Poletti travelled to Panzi Hospital and met with Dr. Mukwege, his team and a representative of GE in DRC, Mr. Raphael Bodika.

The project was developed and adapted to the local needs and available resources. The new equipment to be installed includes a simple but robust two detector CT scanner (CT Brivo325), which has a two year warranty. Also, the CT scanner will come with its own electric generator which is essential as a CT scanner cannot support sudden electrical shortages which happen frequently in



PHOTO: KAREN HORDAY

Technician Christian Kubaburhanzi, received training and is looking forward to the arrival of the new CT Scanner.

South Kivu. This is an inexpensive and efficient system that will display images produced by the CT scanner and engrave CD Roms, without needing to print expensive silver films.

Additionally, a radiology building which will be home for the new CT scanner is currently being constructed. The project included training of two physicians (radiologists) to gain the skills needed to interpret CT images and two technicians who will operate the CT scanner. One radiologist, Dr. Jery Kasekiwaya, received complete training in a radiology center in Dakar and then in Paris.

Dr. Neema Rukunghu, also a radiologist, received a three months training in Geneva and in Sion, Switzerland. Dr Neema Rukunghu has now acquired the basic knowledge on CT images interpretation. Two technicians, Christian Kubaburhanzi and Clément Mungo, received training in Kinshasa at the C.K.R. center and Mama Yemo hospital.

Future prospects

The CT scanner will be installed in mid-2013, at which time the radiology team will have been trained, the CT room will be completed and administration will be in place. Installation will be a challenge, just by considering the poor road conditions in Bukavu.

A medical and technical team from Switzerland will assist the team from Panzi Hospital to run the CT scanner when it is first installed. Panzi Hospital will then have complete responsibility for the CT-scanner and its maintenance. Maintaining close contacts with radiology specialists, partner institutions and donors will help ensure continued good governance and optimal use of the CT facility in Panzi in the long-term. ■

Author: **Dr. Pierre-Alexandre Poletti**

The Hospital Partnerships Fund: Improving Neonatology and Paediatrics at Panzi Hospital

A LONG-STANDING RELATIONSHIP exists between Toulouse University in France and the pediatric team at Panzi Hospital. This relationship first started in 2006 when Dr. Jean-Luc Rittié visited Bukavu to initiate discussions with Dr. Mukwege regarding the establishment of a pediatric department.

The hospital Partnerships Fund (HPF) is a project born from this relationship and takes place at Panzi Hospital in collaboration with the Children's Hospital at the University of Toulouse and the French NGO "Pediates du Monde".

The objective of the program is to strengthen human resources for health in paediatrics at Panzi Hospital. The program commenced in October 2010 and will come to a close in 2014. Significant progress has been made to improve the pediatric services at Panzi Hospital, both in terms of infrastructure and equipment, and human resource development.

This four-year project is funded by Panzi Hospital and receives additional funds from partners including HPF and the Regional Council of Midi-Pyrénées in France.

Key Themes of the project

- Initial and ongoing training for medical and paramedical staff (nurses, midwives) with the aim of training local clinicians to foster long-term improvement for the health of children in the region.
- Restructuring of the paediatrics department to organize the reception and improve overall holistic care of hospitalized children at Panzi Hospital. The restructuring also promotes communication with physicians and paramedical personnel.

Pediatricians and nurses involved

Many pediatricians from Panzi Hospital are involved in this project including Dr. Birindwa, Dr. Kanku and Dr. Mambo. Those involved at the hospital Centre of the University of Toulouse include Dr. Rittié, and other colleagues from the Children's Hospital (residents).

Pediatric nurses involved include Tamagnan Melanie, Caroline Colos, Marjolaine Bonafous (General Paediatrics) and Sophie Ponsolle (neonatal resuscitation).

A snapshot of some of the program achievements

- Since October 2011, the project has supported the establishment of a third rotation of Paediatrics in the Faculty of Medicine, Evangelical University of Africa (UEA) which is attached to Panzi Hospital. Over five years, the program will train medical students in paediatrics.

The training includes theoretical and practical training on site at the University and Hospital, provided by specialists and the Toulouse Congolese team. Internships are provided in the pediatric ward of Panzi Hospital.

- As of 2013, there is a senior pediatrician and five general practitioners that have received a scholarship from UEA to undertake the program and train for their specialty in paediatrics. This program is primarily designed to increase the number of pediatric specialists who are committed to working in the future in a general hospital in Kivu Province.

The program will be supervised by the medical staff from the University and Children's Hospital

PHOTO: KAREN HOBDDAY

A new arrival at Panzi Hospital.

in Toulouse, and all the students will receive three to six months training in DR Congo and Toulouse, France on a regular basis.

- Reconstruction of the building that houses the neonatology unit which included three separate rooms, one dedicated exclusively to Kangaroo Care, and specialized equipment including incubators, a heating table and consumables.
- The creation of a new pediatric ward which provides both in-patient and out-patient care
- The reconstruction of the general pediatric ward, improving access to piped water for all the hospital services
- Training courses in neonatology, hospital hygiene and a module on infectious and communicable diseases. Additionally, a workshop was held regarding resuscitation in the delivery room, and a daily review of pediatric cases admitted for care presented by trainee doctors with collegial discussion

Conclusion

Thanks to the hard work and commitment from the team at Toulouse University and the pediatric team at Panzi Hospital a local and motivated pediatric workforce has been established. The size of the team as well as the contribution to improving the infrastructure and equipment of the pediatric department is significant considering the context and challenges of working in an insecure environment.

Training provided outside of Panzi Hospital must continue in the same fashion in the future, involving all categories of caregivers such as nurses and midwives.

The simultaneous combination of hospital-based training in accordance to best practices (i.e. hygiene, and holistic care) and the start of the third rotation of Paediatrics at the Faculty of Medicine, will continue to be conducted with good collaboration between Panzi Hospital and Toulouse University. ■

Author: **Dr. Jean-Luc Rittié**



Infant Survival: **Dr. Mambo and the Neonatology Unit**

Can you please describe to us your role at the hospital?

– I am responsible for the neonatology services at Panzi Hospital. In addition I work with paediatric patients with HIV/AIDS. I also work at the Evangelical University of Africa in the pediatric program, assisting the 7th year medical students.

I spend most of my days in the neonatology unit, supervising and supporting the staff to care for very sick and often premature infants. I am on call most days and phone to check up on the patients even when I am at home. Every Monday and Friday at 11am I work with children who have HIV/AIDS.

What has been your involvement with the Toulouse training?

– Dr. Mukwege had the vision to improve and develop a modern neonatology service in South Kivu. To make this a reality, he sought the partnership of the hospital Centre of Toulouse University in France. It is through this partnership with Toulouse University that we have developed the Neonatology Intensive Care Unit and received trainings to improve the capacity of the nurses and doctors working in paediatrics and neonatology. I had the opportunity to train in paediatrics and neonatology for three months at the hospital Centre of Toulouse University in France.

To become a specialist in Neonatology a doctor must undertake a three to four year program. I haven't yet had the opportunity to undertake this training. This training is not yet offered at the Evangelical University of Africa in Bukavu; however we hope to incorporate it in the future, as we need to increase the number of qualified doctors in this field.

What was your motivation to undertake this training?

– My first motivation to work in this field is the fact that I love children. I love caring for children and improving their chances to survive and live a full life. Children are the future, and they will improve and develop the country. They hold the hope for tomorrow.

There are very few doctors that specialize in paediatrics or neonatology in DRC and yet the need is tremendously high. There are no services similar to the ones we offer at Panzi Hospital anywhere else in South Kivu Province. The sad fact is, if critically

ill infants do not come here to receive care, then they will most likely die or have a disability for the rest of their life.

What is the need for neonatology services at Panzi?

– The need is extremely high considering that the average woman in DRC has six children and the infant mortality rate is one of the highest in the world. In 2012, we had approximately 3 500 deliveries at Panzi Hospital (live births) and 806 infants were supported in the neonatology unit.

There are numerous patients that reside outside of Bukavu and travel great distances to receive our neonatology services.

Can you please explain why premature birth is so common in DRC?

– One issue is that women continue to do heavy labour even when they are in the last trimester of pregnancy. They also walk long distances to their fields to collect firewood and water. The majority of the Congolese population are subsistence farmers, and women are expected to contribute to manual labour each day.

Another issue is when the mother gets an infection or has a complication which leads to her delivering before the baby has come to term.

What services and equipment are available at Panzi?

– We have a separate building for neonatology which includes a room for kangaroo care where women are encouraged to breastfeed and keep their infants close to them. In terms of equipment we have five incubators, heat lamps, six oxygen concentrators, feeding tubes, two aspirators, hand held oxygen pumps, a kit for intubation and a machine for phototherapy.

We are grateful for the support of the hospital Centre of Toulouse University for training the pediatric staff at Panzi Hospital and also the Swedish NGO Läkarmissionen for donating the majority of our equipment and paying for the treatment of infants whose mothers are vulnerable.

Unfortunately, we don't have the technology to put premature infants on oxygen through a ventilator which is limiting. However, the frequent electricity cuts are a big challenge at the hospital and a barrier to offering this service. It is very dangerous



PHOTO: KAREN HOBDAV

Dr. Mambo and his tiny patients.

when the electricity cuts out, particularly for the infants in the incubators. We need to improve our electrical system or find an alternative such as solar panels. This is really important for the safety of our patients.

Of course we need more equipment to support the neonatology department but it is important to first train the doctors in neonatology so that they can then use the equipment properly. The training from Toulouse University will ensure that we have the capacity to use all the equipment we have correctly.

Can you explain what ‘kangaroo care’ involves?

– Kangaroo care is a new technique in our country. It has many advantages including :

- It allows premature babies to have regular rhythm in their breathing, because premature babies forget to breath (sleep apnea).
- It prevents hypothermia
- It supports a quick relationship between the mother and child
- It is similar to an incubator but without the added costs
- It allows for quick growth of the baby
- It corrects congenital hip dislocation

Can you please tell us a story of one of your memorable patients?

– We received a call in early December 2012 from a health clinic located 200 km away. They had a case where the mother had delivered triplets at 27 weeks-extremely premature. Both the mother’s and the triplets’ lives were in danger. The mother was very weak; she was haemorrhaging and needed to have an operation to remove the placenta.

Because of her condition she was not able to breastfeed. It was clear that without a feeding tube, and an incubator, the triplets would die. The health clinic transferred the mother and infants to Panzi Hospital – we feared they might die en-route. Thankfully, they arrived and we provided treatment to the mother and babies. The triplets shared one incubator, and received feeding tubes. When they first arrived they weighed 850, 1 050 and 1 200 grams, they were tiny and slowly gained weight each day. After one month of treatment they weighed 1 200, 1 400 and 1 500 grams.

The mother was operated on and has regained her strength. It was a joy to watch their health improve each day. This is just one example that shows how crucial the services we offer here are, and also how essential it is to further develop the maternal and child health services in the Province and across the country. ■

The Survivors of Sexual Violence Project

History of Panzi Hospital

The General Referral Hospital of Panzi was established in 1999 to provide support and assistance to pregnant women in the community who lived too far away to access the General Referral Hospital of Bukavu. The hospital also serves a population of internally displaced Congolese who have fled to Bukavu from throughout the province to escape insecurity.

Panzi Hospital's first surgical patient was a woman who had been brutally raped and then shot in her vagina and thighs. Since that day, thousands of survivors of sexual violence have been treated at Panzi Hospital.

“

The objective of the SSV Project is to provide holistic care to survivors of sexual violence, and to women and girls who suffer from gynecological conditions such as fistula and prolapse.”

The advent of the Project to Support Survivors of Sexual Violence (SSV)

Over the years, the number of survivors of sexual violence (SSV) requesting care from Panzi Hospital has increased. In 2003, the Hospital submitted a project proposal to the European Commission (via the Swedish NGO, PMU) to provide medical

care and psychological support to women who had survived sexual violence.

The European Commission granted funding for the first phase of the project in January 2004, and to date, the project is in its tenth phase of funding. Throughout the years, the project has also received financial support from the Swedish International Development Cooperation Agency (Sida) and from PMU.

The objective of the SSV Project is to provide holistic care to survivors of sexual violence, and to women and girls who suffer from gynecological conditions such as fistula and prolapse. The medical staff is a highly-qualified team with a diverse clinical skill set, many of whom have specialized gynecological training. In addition to medical care, patients have access to psychosocial, legal and socio-economic services. This holistic approach recognizes that these patients require care that extends beyond clinical treatment; oftentimes, the most difficult wounds to heal are the psychological ones. The SSV Project employs a team of skilled psychologists and psychosocial assistants who provide counseling and guidance.

A profile of the SSV Project's patients

The war in 1996 caused a dramatic increase in sexual violence. For example, the word 'rape' did not exist in the local languages and it was only in 1999 that the Tanzanian Swahili word 'ubakaji' was adopted in DR Congo. The extent of gender based violence in DR Congo can only be estimated, as many women are unwilling or unable to report their case as they fear retribution and social stigmatization.

From its inception in 1999 until the end of 2012, 32 164 patients have received support from the SSV Project at Panzi Hospital. Among them, 19 270 were survivors of sexual violence ¹.

There are serious physical and psychological health implications for women who survive gender based violence. The violence can result in broken bones, unwanted pregnancies, sexually transmitted diseases, permanent disability and death. The SSV project has received patients who have been raped and sexually tortured which has tremendous implications for women's reproductive and sexual health.



PHOTO: KAREN HOBDAV

Learning a skill such as knitting, has much needed therapeutic benefits as well as the potential to become an extra source of income for the patients

The project also serves women who suffer severe gynecological conditions mainly due to a lack of access to maternal health care. Since 1999, 12 894 women with gynaecological conditions have been received in the SSV Project. Within the project, 7 365 patients have undergone surgery, of which 2 786 were women with fistula.

The majority of the project's patients are local to the province of South Kivu, but because Panzi Hospital has the most specialized healthcare center in the region, patients also travel from other provinces, e.g., North Kivu and North Katanga.

Project services

It was apparent that many survivors of sexual violence were not able to travel to the hospital due to insecurity and/or lack of transportation. As a solution, a partnership was formed in 2004 with UNICEF to provide ambulances and medical supplies to support the creation a mobile clinic. A doctor, a nurse and a social assistant travel in an ambulance and provide treatment to those living in remote areas in collaboration with health centers and churches.

In October 2011, Stichtung Vluchteling, an NGO from the Netherlands began to support an additional mobile clinic so that the team could reach

more remote areas, complimenting the services of the UNICEF mobile clinics.

The project's facilities include safe accommodation for long-term patients, some of whose treatment may last for weeks or months. All of the services in the SSV Project are provided free of cost.

Additionally, the SSV Project (in partnership with the local health zone authorities) provides medical training for government health personnel as well as international and local partner organizations. This training is primarily focused on the provision of emergency care for survivors of sexual violence, the diagnosis and treatment of complicated gynecological conditions, and appropriate referrals.

The provision of education to improve community awareness is a key element of the SSV Project, as the majority of the conditions addressed are preventable. Educational topics include understanding and exercising civil rights, accessing healthcare and effecting behavioral change.

Today, due to the SSV Project, thousands of survivors of atrocities in DRC have renewed hope for the future. ■

Authors: **Ephrem Bisima, Colette Salima, Magambo Budundwa and Dr. Neema Rukunghu**

1. Please note these statistics do not include the patients who have been consulted through our mobile clinics.

Cardiologist: Interview with Dr. Raissa



Can you please describe to us your role at the hospital?

– I am a medical doctor who specializes in Cardiology. I provide medical consultations for patients who have heart and vessel conditions. At Panzi Hospital we have the equipment to conduct electrocardiograms (ECG) and cardiac echography. We can also monitor and measure the strength of a person's heart using a treadmill attached to ECGs.

I have also been trained to conduct surgery to install pacemakers for people who have irregular heartbeats. However, we are limited in the number of these procedures we can offer due to limited resources. Of course we can order the pacemaker in from West Africa, but they are extremely expensive and cost 2 600USD each. Unfortunately, because of the high cost, the majority of patients are not able to afford this service.

We also treat patients who have survived sexual violence. They often come for consultation after they have been raped. Many have experienced severe trauma and due to that have very rapid heartbeats. They are not able to regulate or calm their physiological symptoms which developed as a result of their trauma. Their bodies are in a state of over exertion due to trauma and fear.

Can you please tell us what your training is and your motivation to become a specialist?

– I decided to specialize in Cardiology because of the need and the fact that there were few cardiologists in South Kivu. Currently, I am the only Congolese cardiac specialist in South Kivu Province.

What are the key complaints that your patients have?

– My patients usually come in to see me complaining of heart palpitations, hypertension, oedema (swelling in the circulatory system), chest pains, and difficulty breathing. Sometimes I see children who present with congenital heart conditions. I also receive many patients who are survivors of sexual violence.

“*Health should not only be a right for those with money, health should be achievable for the entire population.*”

How many patients do you see a week?

– On average I see 40 patients per week; generally they are over the age of 45 years old.

What are the challenges you face in your work?

– It is always challenging to meet patients who are survivors of sexual violence. It is often not medical treatment they need but psychosocial care and ongoing follow up once they have returned to their villages. They have physical complaints that are often

directly related to their traumatization. You see, a person's mental and physical health are interconnected.

For example, depression predisposes people to developing myocardial infarctions. The women have questions surrounding how they will carry out living the rest of their lives after being so brutally attacked and then often rejected by their husbands and families.

What suggestions do you have for people to improve their heart health?

– In fact so many people are affected by this ongoing war that I would say my largest suggestion is to bring peace to DRC. The majority of my patients are so poor that they can't afford the treatment and we are limited in the services we can provide because of limited funds.

For example, we can't provide pacemakers for people unless they are rich. Health should not only be a right for those with money, health should be achievable for the entire population. Until we have a peaceful and secure country people will continue to suffer.

The majority of Congolese have been left with absolutely nothing. Both the government and international community should work hard to bring peace in the DRC and improve the security situation because when there is peace, this will directly reduce the number of people suffering from trauma.

Peace will allow for an improved economy, where patients can pay for the services they need and the hospital can receive the payments needed to operate. ■

Donating life and hope to others: The Blood Bank of GRH Panzi

THERE IS A CHRONIC SHORTAGE of safe blood and blood products available in low- and medium-income countries. The World Health Assembly resolutions WHA28.723 and WHA58.134 urge member states to develop national blood transfusion services based on voluntary blood donation (1). The resolutions emphasise the need to collect blood only from donors who have a low risk of carrying infectious agents such as HIV.

There is a great need for blood donations in the city of Bukavu due to the high rates of maternal morbidity, malnutrition and malaria. Blood donations are needed for life saving transfusions for patients. Therefore, it was a priority to establish a regular voluntary blood donor base. Thanks to funding and support from the Stephen Lewis Foundation and the efforts of the Panzi Hospital, the blood bank became active and functional in 2007.

To coordinate the blood bank, a partnership agreement was signed between the Association of Voluntary Blood Donors of Panzi (ADOBESA / PANZI) and Stephen Lewis Foundation Project. The ADOBESA is a local organization based in Bukavu that provides the link between communities and health facilities to facilitate safe blood donation. The Stephen Lewis Foundation Project located at Panzi Hospital is responsible for coordinating the activities and improving the quality of blood transfusion at GRH Panzi.

Blood Bank Activities:

1. The safe and efficient collection of blood donations
2. Awareness of HIV / AIDS and blood donation in different schools and churches

THE BLOOD BANK TEAMS travel to churches and schools every Sunday and some week days, to disseminate information and collect blood donations for transfusions. The team consists of a doctor, four laboratory technicians and two people who deliver health education who work for the HIV / AIDS program of Panzi Hospital. All blood donations that are collected are subject to a number of laboratory tests including HIV, Syphilis and Hepatitis B and C, to ensure only healthy blood is accepted.

In the first year, the team was able to establish 11 loyal donor sites at churches and schools in Bukavu. In 2012, a total of 1 994 units of blood were collected. Of the 1 994 units, 76 were infected (3.91%) and not used. Efforts are underway to retain donors, improve the efficiency of the blood bank



PHOTO: KAREN HOBDAK

There is a great need for blood donations in Bukavu.

and to increase the number of people receiving information sessions about the prevention of HIV/AIDS.

IN 2013, THE PROGRAM has 48 sites and 2 148 volunteer members. The team collects approximately 50 donations of blood each week; membership is entirely voluntary and each member receives a membership card. Obtaining this loyal member base has allowed for a consistent blood supply for the transfusion requirements of patients at the hospital. Additionally, Panzi Hospital assists other health facilities in Bukavu with the transfer of units of blood in emergencies. There is a need to establish a similar blood bank to meet the needs of Bukavu. ■

Authors: **Bercky Masheka, Mpangaza Bampas and Dr. Steve Ntamako**

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Quality Health Care for All: Interview with Dr. Neema, Medical Coordinator

Can you please describe your role at the hospital?

– I am a medical doctor and have a number of different roles including chief of the Department of Radiology and the Medical Coordinator for the Survivors of Sexual Violence Project (SSV) at Panzi Hospital.

I divide my time between working in radiology and with the SSV project. In addition to my coordination work, I consult, operate and follow up with patients who have experienced sexual violence and also those who need specialized gynaecological surgery including fistula and prolapse. In radiology I operate all the equipment, but I have significant experience with echography in ob/gyn and conducting breast and thyroid ultrasounds.

Can you please tell us about your recent training in radiology and your motivation to undertaking this training?

– In late 2012, I undertook a three month training course in Switzerland to learn how to operate a CT Scanner. In total I spent two months in Sion, Switzerland and one month gaining practical experience using the CT Scanner in emergency ward at the Geneva Hospital.

In 2013, Panzi Hospital will receive a donation of a CT Scanner which was my main motivation for undertaking the training. It is essential that we have the capacity to operate it, and I'm proud to have the skills to do so. Two medical staff will also receive technical training in Kinshasa early 2013 to further increase the capacity at Panzi Hospital.

What is the need for radiology services at Panzi?

– The need for radiology services is quite high. There is a team who works in the radiology department and we provide approximately 60–70 ultrasounds each day and 20–25 x-rays. There is a great need for ultrasounds among pregnant women and patients who have experienced sexual violence and gynaecological conditions. We

also offer mammography, gastroscopy and colposcopy. There are doctors and technicians who provide each service according to their speciality.

Additionally, it will be hugely beneficial in terms of diagnostics and treatment to have the CT scanner at the hospital. Without it we are limited in diagnosis and often have to operate without understanding the whole picture. This is especially difficult when operating for example on gunshot wounds or tumours. Without clear imagery it is challenging to understand how serious the cancer is and sometimes it might be too widespread to operate. Having the CT scanner will enable us to avoid unnecessary opera-

“While some people may say that having such high technology is not necessary in developing countries such as DRC, I argue that all patients have the right to the highest quality of services.”

tions and refer patients out of the country when appropriate. It will also allow us to improve planning for the surgery and treatment of the patient.

While some people may say that having such high technology is not necessary in developing countries such as DRC, I argue that all patients have the right to the highest quality of services. We are a General Referral Hospital in South Kivu as well as a training institute for medical students from the Evangelical University of Africa and therefore we should have the ability to conduct advanced diagnostics. The CT scanner will greatly improve the efficiency of the services we deliver at the hospital. While it is an expensive machine to operate



PHOTO: SARA ERLANDSSON

I believe the benefits outweigh the costs.

Can you please tell us the history of the construction of the radiology building?

– Dr. Mukwege had the original idea for the building. It was clear that there was a need for an expansion of the hospital including having a space for radiology, as there is limited space to house the machines, staff and patients.

The hospital has received funding from Donor Direct Action for the construction of the new radiology building because the revenues generated by the hospital are insufficient to build it. There are eight rooms in the building and other departments will be located there including neonatology and kinesiology. We will open the building in stages, offering services as soon as possible. We would like to finish the construction as soon as possible, however this is a challenge as it is very expensive. Perhaps an organization might be able to donate funds to finalize construction of the building will be complete in April 2013.

Can you tell us more about the CT Scanner?

– In 2013, we will receive a donation of a CT Scanner. This scanner will be the first for Panzi Hospital and the first functioning CT Scanner in South Kivu Province.

We will be able to diagnose strokes and head injuries, detect tumours in all parts of the body, and diagnose injuries due to traffic and other accidents, as well as gunshot wounds. We are really looking forward to receiving the CT Scanner. ■

10 Interesting Facts

you probably didn't know about Panzi Hospital

1. There is a qualified dentist who sees on average 40 patients a month
2. The cardiology department offers electrocardiographs that can assess the status of a patient's heart during exercise on a treadmill.
3. There is a social fund to assist patients who have a critical need which they can't financially afford. Please see the web site www.panzihospital.org if you would like to support this worthy cause.
4. The paediatrics ward sees under the age of five each month.
5. On average Congolese woman have six children. Panzi Hospital assists in the delivery of 300 babies per month.
6. The hospital have 342 staff and 450 patient beds.
7. The hospital kitchen serves three meals a day on average to approximately 250 patients in the SSV Project each month. That includes 40 cabbages, 63 kilos of rice and 30 kilos of beans each day!
8. The hospital consumes 17 000 metres cubed of water and 72 000 kilowatts of electricity per year. Because of frequent electricity shortages, there is a generator that consumes 4 000 litres of fuel per month!
9. The hospital has an optometrist who sees 40-50 patients per month who are in need of various services including eye examinations, glasses, and treatment of conjunctivitis, glaucoma and cataract.
10. In 2012, Panzi Hospital started conducting screening for cervical cancer. Women are invited to come for a free screening and are provided with information about warning signs and prevention of cervical cancer.



PHOTO: KAREN HOBDAY

Get Involved: Fill the Funding Gaps!

Did you know that health care in DRC is not free? While it seems bizarre that one of the poorest countries in the world demands payment from all patients, this is in fact the case. The gap between the limited amount of funding provided from official sources and the amount that is needed is tremendously large.

Therefore, health facilities are forced to charge their patients to cover the costs of their treatment and stay. The majority of Congolese live in a state of chronic poverty, making less than a dollar a day, and yet are often expected to pay a whole month's salary to cover the expenses of their health care. The funds that are raised from the patients cover the overhead costs of running the hospital including water, electricity and administration.

Unfortunately, often patients cannot afford their stay, and stay at the hospital until the money arrives. As you can imagine this is a lose-lose situation for both the patient and hospital. Sometimes, doctors feel obliged to take on the payment of some of their patients, making contributions from their already limited salaries.

To assist with some of the most critical cases the hospital has created a Social Fund. The fund is administered by a board at the hospital who decides on each individual case.

Thinking of funding or getting involved?

Below are some of our
existing funding gaps.

1. Maternity Ward

Fund the establishment of a new maternity ward to assist in our ever growing demand. With an average of 280 deliveries per month the number of available beds can barely meet these needs. The Panzi Hospital receives an average of fifteen expectant women per day in the maternity section.

The maternity facility is overcrowded and does not have enough beds to accommodate all of their patients. This leaves the needy expectant mothers struggling to get sleeping space on the few available beds. Others scramble for space on the cold, hard floor and many share a 0.80 meter bed – four people (two mothers and two babies) on one bed.

According to Dr. Mukwege, it is difficult to ask expecting women to return home or go to other hospitals as they are far and the women could die along the way. As such, the hospital has agreed to accept women even if there is no space. The hospital currently contains a total of 60 maternity beds, an outpatient department, antenatal care, ultrasound, an early pregnancy unit and a day ward.

2. Infectious Disease Ward

Infectious diseases are transmitted through the spread of bacteria or viruses through a number of ways including water, air or personal contact. In October 2012, a separate ward for contagious tuberculosis patients was established at Panzi Hospital with space for eight to ten patients. This ward reduces the risk of spreading the disease to other patients.



PHOTO: KAREN HOBDAV

Solar panels will significantly reduce the hospital's carbon foot print.

While this is an important step to reducing hospital acquired infections the hospital also has a need for another facility for other infectious diseases such as gastro-enteritis including cholera and salmonella, as well as other highly infectious diseases. Preventing these infections will lead to quicker recovery times and improved health outcomes.

3. Solar Project

The hospital was founded in 1999 and during the first six months, petroleum lamps were used to provide light at the hospital. Since then the hospital has been connected to the rather expensive Congolese electricity company, SNEL, but still faces many challenges, such as regular and long-lasting interruptions of electricity.

Three generators have been purchased for the hospital but are difficult to maintain. Even with generators it is very expensive to keep the hospital running. For the time being, the hospital kitchen, which is serving between 450 and 500 patients, uses firewood to cook. Using solar energy as a source of electricity at the hospital will help solve some of these problems and provide a much more sustainable source of energy. It is also an environmentally friendly solution to the electricity and water problem at Panzi Hospital.

Interested in shedding some light on the matter? A solar panel project is underway which will cover sections of the hospital's services; however additional funds are needed to install solar panels for the entire hospital. The solar panels will make a

huge difference in combatting the weak supply of electricity and reducing our dependency on the generator.

4. Maison Dorcas

Maison Dorcas is a transit and safety home for patients who have experienced sexual violence or severe gynaecological condition and are undergoing longer term treatment at Panzi Hospital. Apart from lodging the transit house offers activities aimed at empowering the women and also provide family counseling.

The specific objective of the new Maison Dorcas is to provide vulnerable women in and around Panzi Hospital with a transit and resource center, focusing on improving their capacities to function, both through direct or indirect support. During their stay at Maison Dorcas, the women are introduced to different trainings such as vocational skills training and reading and writing skills.

This will encourage the women to express and use their rights, with the aim at building self-respect and to equip them with skills relevant for their empowerment.

5. Research Center

The Research and Training Center will be a collaboration between the Panzi Foundation DRC and UEA (Université Evangelique en Afrique).

This Center will also provide training on how to perform all aspects of research including identifying a research question, study design, proposal writing, ▶



PHOTO: ASA RUNSTRÖM

Panzi Hospital ambulance.

- ▶ data collection, analysis, informed consent and publications. This will ensure that local investigators have the skills to conduct high quality research and implement programs. Results will be disseminated to relevant communities including, scientific, national and international institutions.

This will also ensure that data collection will be handled in an ethical way with full scientific responsibility, accountability and appropriate credit to the original institution, Panzi Hospital.

6. Facilities for Medical Students

Panzi Hospital serves as the teaching hospital for the Evangelical University of Africa (UAE), where medical students spend their 7th and last year of clinical training before receiving their MD degrees.

From 2012, some medical students will spend their clinical training at Panzi Hospital. The medical students need dedicated space for training activities including resource and study rooms with computers and access to internet. Also, an area for resting and eating meals is needed for the students.

7. Reconstruction and Upgrade of the hospital

Panzi Hospital has been operating for 12 years and has expanded greatly. There is a need to reconstruct and improve the existing buildings. Ensuring that there is water and sanitation facilities in all departments is essential to reduce the risk for hospital acquired infections. Ensuring that all staff and patients have access to working toilets demands constant maintenance and is an absolute priority.

There are four laundry machines at the hospital

and only two are currently working. Repairing them is high on the list but receiving parts from overseas has caused delays. Waste management is also an ongoing challenge.

8. One Stop Center

Since 2004, Panzi Hospital has been providing integrated care to survivors of sexual violence (SSVs) and women in need of specialised gynecological assistance according to a One Stop model. Women, and to some extent men, have been offered medical, psychosocial, legal and socioeconomic support all at one place.

Spreading the concept of One Stop Centers in South Kivu will be done in close collaboration with the provincial health authorities (IPS) and focus on building the capacity of the general hospitals to better support the women, children and men in their health zones. By working together with the national structures the programme will also support the long-term development of the DRC health care system.

The hospital intends to take a leading role in spreading the concept of One Stop Centers in South Kivu, but needs the funds to carry out the project. ■



If you are interested in supporting or learning more about one of the above initiatives please visit our website at www.panzihospital.org

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