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# Report : MamaNatalie and NeoNatalie teaching project through Panzi hospital, DR Congo, 2013 (NF13027)

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By Bjørg Evjen-Olsen, January 2014

## The Kivu region

Bukavu is the capital city of the South Kivu region in the eastern part of the Democratic Republic of Congo. South and North Kivu are both part of the Great Lakes Region, which is along the western arm of the Great Rift Valley. The landscape, lusciously fertile with its mountains, lakes, volcanoes and a concentration of some of the most valuable mineral sites globally, is extraordinarily beautiful. Bukavu is situated at the southern end of Lake Kivu, has over one million inhabitants, and the altitude is 1500 m above sea level. The city has experienced a great influx of refugees from the surrounding area during the last 20 years, due to the continuing war situation. The conflict in this area has been called a forgotten war, with an estimated 5 million people having been killed during the scope of the last 20 years, and with little international attention being given to this tragedy. The valuable minerals are perhaps the main reason for this continuing conflict, with neighbouring countries, international corporations and many other high- and middle-income countries having an interest in gaining access to these riches, thereby upholding the conflicts.

Nearly every family has a history of refugees, evacuation, and loss of family members. Many also have experienced devastating episodes of sexual violence towards women in their extended families. Many international organizations are represented in the city, and the UN and MONUSCO are present everywhere in the vicinity of Bukavu. When travelling outside of the city, one is advised to check with the UN information centre for rebel activity, and many areas outside of the city are classified as red zones, security wise.

In this setting, in spite of so much underlying grief and adversity, the population has a drive for survival, resulting in great creativity and entrepreneurial activities. This has resulted in DRC being one of the main inspirational sources for music and fashion in Africa over several decades. Christianity, Islam and traditional beliefs are the main religions, with Christianity being more prevalent in the northern part of the Kivu region and Islam being more present along the shores of Lake Tanganyika. The Église du Christ de Congo (ECC) is an umbrella organization for most major protestant churches in DRC. In the Kivu region, the Pentecostal churches are strongly represented, with the CEPAC and CELPA churches being among the largest. These two churches originate from the Swedish (CEPAC) and Norwegian (CELPA) Pentecostal mission organizations, and are responsible for a large number of health facilities and schools in the region.

The main official languages in the region are French and Swahili.

## Panzi hospital, Maison Dorcas and Dr. Denis Mukwege

Panzi hospital was founded in 1999 by Dr. Denis Mukwege. Dr. Mukwege had seen the increasing burden of sexual violence in the society due to the 1994 and 1997 wars. With funding and support from among others, the Swedish Pentecostal Mission (PMU), he built a hospital for the victims of this violence. The hospital has since been expanded to become the best general hospital in the region, with approximately 400 beds. 200 of these beds are allocated to women; cases of gynaecological conditions, obstetrics, fistula and victims of sexual violence. Panzi is renowned for its fistula repair services. Staff from the hospital run a mobile fistula service to remote hospitals in the region. There are a number of international organizations that support this work.

Maison Dorcas was founded in order to assist the victims of sexual violence with holistic rehabilitation. They provide basic education for those who cannot read nor write, legal aid, health, trauma and psychological services, and microloans to start small businesses. The women live at the transit house over a period of time. Many are helped back to society.

Dr. Mukwege has received many international awards due to his unique and extraordinary work and role as an activist and spokesperson for the victims of sexual violence and fistula in this region.

## Background for the MamaNatalie and NeoNatalie teaching project

Bjørg Evjen-Olsen is a gynaecologist working at Sørlandet Hospital, Flekkefjord. She also has a background of doctoral and postdoctoral research on maternal mortality and maternal health in East Africa, with participation in various research projects in Tanzania, Kenya, Sudan, Ethiopia and Zambia. She watched a TV documentary from NRK in 2011 on Dr. Denis Mukwege, the Medical Director of Panzi hospital in Bukavu, and was deeply touched by his work. She met him by chance at the airport in Amsterdam a few months later, and asked if it would be possible to visit the hospital. Through the colleagues gynaecologist Arne Heggheim in Stavanger, Professor Mathias Onsrud in Oslo, and Dr. Ragnhild Gunnarshaug Rosland in Bukavu, contact was made with nurse-midwife Ingeborg Madla in Stavanger and gynaecologist Renate Häger in Oslo (see R Häger's report from DRC).

Dr. Mukwege had asked Bjørg to teach, most preferably something practical. Bjørg had been involved in MamaNatalie research in Haydom, Tanzania, through a Dutch PhD candidate, and decided on using the

MamaNatalie and NeoNatalie mannequins. Together with Ingeborg Madla, who had 10 years of experience from Cameroun, Renate Häger who had worked 3 years in Tanzania, and Ragnhild G. Rosland, who worked for Danish Church Aid and the CELPA hospital in Bukavu, the initial team started planning. All of us spoke French and three of us also spoke KiSwahili. All teaching was in these two languages. Dr. Mukwege requested us to pay for local transport, food, drink and accommodation for all participants to the course, since there is little official funding for the health services in DRC. Ingeborg Madla and Bjørg took on the financial and administrative responsibility for the training programme. In order to finance this large undertaking, we asked for, and received, private donations from friends, businesses, and Rotary, Lions and Soroptimist organizations in Southern and Southwestern Norway and Läkarbanken in Sweden. We also received funding from NFOG. In addition we both took bank loans to cover the remaining expenses.

On arrival in Bukavu, Dr. Mukwege had generously provided the team with a car and chauffeur. Further, he had requested Dr. Christine Amisi, supervisor of projects in the Panzi Foundation, to be our contact person. She has an MA in Public Health from Antwerpen. We asked if she would like to join our team, and were very pleased when she agreed to this. She had contacted the Kivu Regional health authorities in advance, and we were presented to them the first day. Dr. Manou, the General Director of the Inspection Provincial de Santé (IPS), and his staff, with Dr. Robert Nyamuragaza, Director of Reproductive Health in South Kivu Province, asked us to expand our teaching programme to several hospitals in the security red zones. This resulted in our budget and expenses increasing quite substantially, but we agreed to this challenge.

### MamaNatalie and NeoNatalie

These two mannequins have been developed by Lærdal Global Health (LGH) in Stavanger and JHPIEGO at Johns Hopkins University in USA. The NeoNatalie model was the first one to be developed. Research in Tanzania from several hospital sites has shown a reduction in perinatal mortality by approximately 47 % when staff are continuously trained in these skills. There is an ongoing study at Haydom Lutheran Hospital in Tanzania to evaluate the effect of the MamaNatalie model. Both models were initially made for low income countries, needing little maintenance and no electricity in order to function. However, they are now increasingly also being used in European, Asian and American hospitals for training in skills related to birth asphyxia among newborns and postpartum haemorrhage in delivering mothers. These models address Millennium goals 4 and 5, with birth asphyxia being one of the main global causes of perinatal mortality and postpartum haemorrhage being one of the main causes of maternal mortality. The NeoNatalie course has been available for many years in French. Thus, we could order the teaching materials from China. The MamaNatalie was available as pdf files in September 2013, and LGH generously gave us permission to use these files and print the books, action plans and flipcharts with a local publisher in Bukavu, with great success! As far as we were aware of, it was the first time globally that the MamaNatalie course was held with teaching materials in French. We were also made aware of, by LGH and SAFER, the research institution which had given us guidance in Stavanger, that we were probably the first to combine the Neo and MamaNatalie teaching programmes, in addition to coupling them with simulation training using both simultaneously. We were very happy that this could take place in a war torn area such as the Kivu region.

## Teaching programme in the South Kivu Region

### Local support

The opening ceremony on Monday the 7th of October was graced by the presence of representatives for the health authorities (IPS) in the South Kivu region, Dr. Robert Nyamuragaza; the director of medical services in the ECC, Dr. Mihouhi; the acting Medical Director of Panzi, Professor Emeritus Ellinor Ädelroth from Umeå; the director for medical services in the CELPA church, Dr. Jean-Claude Mwanza; the Medical Director of the CELPA hospital in

Bukavu, Orthopedic Surgeon Dr. Sosthene Birhange; representatives from Maison Dorcas; representatives from PYM, the Pentecostal Mission in Norway, Ingrid Schärer Østhus and Willy Ludvigsen, and a representative from the office of the Norwegian Church Aid (NCA) in Bukavu. Television and radio media from Bukavu were also present. All of the above mentioned organizations and institutions were of great assistance and support in the project.

The project was anchored locally through the regional health authorities. They selected the participants and health institutions for all the courses, and sent out the official invitations. Panzi hospital graciously gave us access to a car and a chauffeur, Leki, who was an enormous blessing for us. He ensured our security at all times and encouraged us with his Congolese music, stories and jokes. He stayed with us all 8 weeks of our project. We had asked to use the localities of Maison Dorcas 3, a building which was being constructed, for our initial courses. We asked women from the Maison Dorcas to cook for the courses, with the thought that they would get some extra income from this, and we were helped with logistical and accounting assistance from the Panzi Foundation through the Maison Dorcas. The ECC and IPS opened many doors for us.

We were generously assisted by the Norwegian Church AID (NCA) staff in Bukavu and Bujumbura during the whole process, with information, transport, and personal assistance. Special thanks to Tor Martin Herland in Burundi and Madel G. Rosland in Bukavu, and NCA staff in Oslo, who have offered to take charge of the follow-up planned, revision of accounts, and application to NORAD for further funding. During our stay we lived at the Norwegian Pentecostal Mission (PYM) at Nyawera, Bukavu. We were received warmly and helped in every possible way by Ingeborg Eikeland, a missionary who had lived in DRC for 56 years and was on her way to retire at an age of 83 years, and Ingrid Schärer Østhus, who took over her responsibilities. The staff at PYM encouraged us at every stage. Lastly, the manager of the local Vodacom internet café, Safari Mushi, became one of our greatest helpers, going out of his way to help. He used his contacts to print maps of all kinds, printing of materials, burning of DVD's, and all office support that we needed.

**Teaching programme**

The teaching programme consisted of 4 major elements:

1. WHO partograph, aimed at reducing obstetric fistula and neonatal asphyxia
2. NeoNatalie mannequin and Helping Babies Breathe (HBB) programme; aimed at teaching technical skills in order to reduce complications from birth asphyxia
3. MamaNatalie mannequin and Helping Mothers Survive (HMS) programme; aimed at teaching technical skills in order to reduce complications from postpartum haemorrhage
4. Simulation technique training; aimed at improving communication, speed, and collaboration among health personnel involved in deliveries – from ambulance drivers, nurses aides, midwives, doctors, anaesthesia and theatre personnel, and laboratory staff.

The first week 22 facilitators/instructors were trained in a 5-day course, with 15 health institutions being represented. These instructors were further allocated to a following series of 10 2-day courses at 5 different hospitals in the region. The instructors were all either nurse-midwives or doctors. They were very dedicated and dynamic. Our aim was that all instructors would get training in leading workshops in order to feel comfortable in this role. This was to ensure continuation of the teaching programme after we had left.

The second week we were based at Panzi and Maison Dorcas again. The third week was at the Provincial hospital which was government run, but Catholic owned in downtown Bukavu. The fourth week was at Kasenga hospital (CEPAC run) in Uvira by Lake Tanganyika. This was a 4 hour drive from Bukavu, and we passed through Rwanda in order to arrive by the safest road. We brought the team from Maison Dorcas with us for cooking and logistical

support. The fifth week was in Kaziba (CELPA run), a 3 hour drive into the mountains south of Bukavu. Professor Mathias Onsrud had arrived before us at Kaziba and arranged all the logistical and cooking support needed on site. He and his wife have worked here for many years, and have funded a new maternity ward at the hospital. We were given the opportunity to inaugurate this building with our course. A few days later it was officially inaugurated for clinical use. The sixth week we went to Katana hospital (Catholic run) 1,5 hours north of Bukavu, towards Goma, along the shores of Lake Kivu. All hospitals outside of Bukavu were in the red zones, and we had to update on security alerts daily. The last week and a half were spent preparing the mannequins for distribution, reporting to all relevant authorities and planning for the follow-up.

We were invited to the Health Minister of the South Kivu Region, and from both his deputy, the ECC and the IPS, we were invited to come back to continue the training programme. We were told; "all doors are open to you", something which we greatly appreciated.

In the first instructor course, we trained one instructor midwife from Kyeshero hospital in Goma in North Kivu. One doctor was also trained in the first 2-day course. They received a combined mannequin set and were requested to continue training staff at Kyeshero and other hospitals in Goma. We were not allowed to travel there due to security reasons. Further, we sent one instructor to the Shabunda district, Kachungu hospital in western South Kivu. She trained 16 health staff there. This was an active war zone while we were there. She came from this hospital, and thus we considered it acceptable for her to travel back for training.

Totally, we trained 360 health staff from 73 institutions, with approximately 50 % of the health zones in South Kivu Region being represented. Each participant was given an official certificate with the signatures of the Director General of the IPS and the Acting head of the Panzi hospital. In addition, several medical training institutes and organizations were represented among the trainees. All 73 institutions received a package of posters with the action plans for the HBB and HMS flow charts, and a poster showing correct resuscitation techniques using a mask. 8 mannequin sets with the Mama- and Neo-Natalie models were left at 8 different hospitals. In addition we ordered 15 extra ventilation masks from China, which arrived the very last week. These were distributed to the 15 hospitals which had been represented in the instructor course. We wished we could have had funding to give each of the 73 institutions a mask and aspirator for the newborn children, but this was not possible.

## Looking forward

Together with the Norwegian Church Aid, we have applied to NORAD for funding for a follow-up this next year. Two of the instructors were very keen on implementing this phase. We plan that they will visit all 73 institutions every 3 months, for a year. They will check maintenance of the equipment left behind, encourage and repeat knowledge and skills with those who have been trained, and collect statistics from 2012 and for 2014 in order to see if there is any change. They will report to the local NCA office in Bukavu.

Dr. Mukwege requested that we not include per diems in the training course. We paid food, transport and accommodation. In many parts of Africa, the per diem system has destroyed the incentive for learning and teaching others from a real wish to improve conditions. We were very grateful that Dr. Mukwege had this policy. We have seen later that the instructors have continued to train health staff in remote areas from a felt need for their own people. One doctor from Panzi, Dr. Prince Imani, has already trained 22 health staff in the Katana district, travelling to remote health institutions in order to teach them. This gives great hope.

Should there be a possibility for further funding, we would like to go back in 2015 with a new training programme. Next time, we hope to have NCA on board, as the local administrative organization. The organization, administration, and financial reporting has required much work, and it would be good to have an organization with us in the future. We have discussed with the ECC if it would be possible to plan a project where resuscitation masks could be

distributed to all health institutions in the South Kivu region, in addition to training of staff. There are many thoughts and dreams as of now. Time will show what may be feasible to achieve in the years ahead.

**Conclusion and personal remarks**

I was greatly moved and impressed by the dedication of many of the health staff. They worked under difficult circumstances, many not receiving much pay, and with few resources. In spite of this, they showed great enthusiasm, dedication and joy during the training courses. Many of them work very much alone, and are left on their own, with little supervision. Many remarked that it was so encouraging to meet other health staff and to discuss and support each other. We also received feedback during the courses that staff who had been on call after training, had used the techniques they learned, with great success. This created even greater enthusiasm among us.

I believe that all of us in the team were greatly moved by the many stories we heard from the health staff, and how they solved challenges that they met in their daily personal and professional life.

I am also very grateful to all those who have supported us in Norway, Sweden and in DRC. We could never have achieved these results on our own. I have mentioned some names in this official report. However, there were many more, both in Norway and DRC, who, each in their own way, has been of great help. Personally, I was moved by this first visit to DR Congo. This trip has left me with many reflections that I need to use time on. Although I have lived and worked in East Africa for many years, this was a new and very rewarding experience for me. I have learned so much, both personally and professionally.

I experienced that many were glad that someone from outside was interested in Eastern Congo. This part of DRC has been left behind in the general economic development that has happened in the region, with Rwanda nd Uganda moving ahead. International universities are rarely involved in this area, giving the health professionals few opportunities to achieve competence enhancing degrees such as masters and phd's. Even though it is in a conflict zone, I have a dream that universities from the Nordic countries could go in and offer exchange and research development programmes to health professionals in this area. They are in great need of general scientific competence building programmes. I hereby extend the challenge.

With these remarks, thank you to the NFOG for financial support.

**Internet Sources:**

MamaNatalie : http://www.laerdal.com/us/mamaNatalie

Helping Babies Breathe: http://www.laerdalglobalhealth.com/doc/2482/Helping-Babies-Breathe

Helping Mothers Survive: http://www.laerdalglobalhealth.com/doc/2483/Helping-Mothers-Survive-Bleeding-After-Birth

PanziHospital http://www.panzihospital.org

CELPA : www.celpahospitalbukavo.org

Kivu conflict http://en.wikipedia.org/wiki/Kivu_conflict

**Facts, DR Congo, 2011** (www.thestateoftheworldsmidwifery.com)

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| Total population: | 68 mill |
| Number of women of reproductive age (19-49): | 15 mill |
| Births per year: | 3 mill |
| Literacy rate (age 15 and over, male, female %): | 78/56 |
| Total fertility rate (children per woman): | 6 |
| Prop.of births attended by skilled personnel (%): | 74 |
| Materna lmortality rate (per 100 000 live births): | 670 |
| Stillbirth rate (per 1000 births): | 32 |
| Neonatal mortality rate (per 1000 live births): | 51 |
| Under-5-mortality rate (per 1000 live births): | 199 |