

## Visit Marimanti Hospital

Foundation “Friends of Marimanti”

14<sup>th</sup> – 20<sup>th</sup> of January 2023

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The Foundation “Friends of Marimanti” has been created aiming to support Marimanti Hospital in Tharaka County, Kenya. The intention is to support the implementation of a solar system to reduce the costs of petrol (generator) with the aim of reallocating the money that is saved to improve healthcare, especially for mothers and children in the area.

The three above mentioned board members visited Marimanti Hospital in January 2023. Aim of the visits was to increase knowledge about Marimanti Hospital and to perform an assessment of needs, to meet the Kenyan members of the foundation, and to meet several persons as the county Minister of Health and the management team of the hospital. Cooperation with the hospital management and management at district level is necessary, to ensure that the foundation is approved by and embedded in the local system.

### Day 1: 15th of January 2023

After an early arrival at Jomo Kenyatta International Airport, Andrew Njoroge (Medical superintendent of Marimanti Hospital) took care of us and brought us to Chuka, a beautiful town at the slopes of Mount Kenya. Chuka District Hospital serves as the referral center of Marimanti-Hospital and is at a travelling distance of 64 km (1 hour by car) from Marimanti.

After a fantastic lunch with Andrew, his wife Miryam and their three kids, a visit was paid to mister Wilson (chief of staff of Mr. Muthomi Njuki, honorable governor of the county) and his wife miss Evelyn.

### Day 2: 16<sup>th</sup> of January 2023

After breakfast we went to Chuka District Hospital where we met the county Minister of Health Dr Gichuyia Nthuraku M’Riara and Rose Micheni, chief officer public health and sanitation. Two supportive and interested people with a huge amount of knowledge of Public Health and of the local situation. An interesting conversation followed whereby the hereafter named topics were discussed:

1) the aim to implement a solar system to save money on generator fuel and electricity. It was discussed that the money saved should be reallocated to improve care in Marimanti Hospital and should not be used for other MoH projects in the county. It was decided that this would be covered by writing a Memorandum of Understanding. To determine where the money ought to be reallocated, a thorough needs assessment of Marimanti Hospital was deemed essential. The ministry of Health offered their aid in this process, to ensure sufficient staff for this process.

2) Also, major county-wise health challenges were discussed: the antenatal care seems to be badly attended, human resources are too low, skills need to be improved with training and malnutrition is a big problem.

3) Lastly, the exchange of medical staff (midwives, doctors, interns, research students) was appointed, and the arrangements of working permits should not be a problem and will be done by Dr Gichuyia and his workers.

After the meeting, a tour was given through Chuka hospital, the referral hospital for Marimanti to get an idea about the referral system and the local situation in the referral center. It was a very fruitful visit.



From left to right:

Dr Myrrith Hulsbergen, Mrs. Rose Micheni, Dr Gichuyia Nthuraku M'Riara, Dr Mimoso Bruinooge, Dr Senned Karrar

We met John Ntwangi from Seda-Tech, who has made a quotation to implement a solar system in Marimanti Hospital. We received the first quotation several months ago, but now Seda-Tech came up with a new plan almost doubling the costs. It was clear that we had not expected this. It was decided that both proposals will be compared, the real need at the hospital will be calculated and other solar companies will be approached to request their quotation as well. The biomedical engineer in Marimanti can support Dr Andrew in this.

Around 6pm we arrived at Marimanti and had a small walk at the hospital, mainly the new outpatient department (OPD). The OPD seemed to be well organized, a television was available for patient information, and specialist consultation rooms were readily available, alongside a laboratory for full blood counts, biochemistry and a small storage for blood products.

### Day 3: 17<sup>th</sup> of January 2023

An early start, at 7.30 Dr Andrew Njoroge took us to Marimanti Hospital. A beautiful green hilly environment, many flowers, some dirt roads, many goats and women in beautiful colored local dresses.

The hospital was still quiet on arrival. The compound was clean, and we were brought to a lecturing room with beamer and place for around 20 attendants. Some velvet monkeys were playing at the hospital walls. We paid a short visit to the other wards, hospital workers were met, greetings were exchanged, and the maternity ward was visited.

Around 9am the training started. First a lecture was given by Dr. Senned about the primary survey in an acutely ill/injured patient, the (SHOM-)ABCDE approach. Nineteen people attended the lecture. After this lecture, the group was split in two, whereby 6 people were taken to the labour ward for scenario training on post-partum hemorrhage, and the other people were attending a training on neonatal resuscitation. Scenario training is not common in this setting, but as we know attendants will only remember 5% of a lecture given in the long term, and the scenario approach gives a much better retention of skills and knowledge.



Practice skills in neonatal resuscitation.



Scenario training postpartum hemorrhage

Here after, the different sections of the hospital were visited namely the operation room, ultrasound room, mother and child health (MCH) and the maternity ward. The hospital was quite clean, protocols, when available, were put on the walls of the labour ward, and the staff was friendly and cooperative. In the maternity ward, some of us joined the morning round. The available ultrasound machine was checked and needs replacement since it is partly broken.

In the afternoon, special t-shirts of the foundation were given to the board members and pictures were taken (see below) with Dr Andrew, Dr Martin and Angelica (HR).

During a late afternoon lunch, a meeting was held with all members of the board. In this meeting an informal needs assessment was performed. This was done by deliberating on the most pressing needs of the hospital and its surrounding health facilities. For more information, see the separate report.

#### Day 4: 18<sup>th</sup> of January 2023

Day 4 started with training again. The group was smaller. A recap of the day before was given by two of the attending staff. Here after, we gave a demonstration on how to resuscitate a pregnant woman after a road traffic accident. Then a lecture on sepsis was given. An important takeaway was to have a standardized approach to the septic patient, however there is no local protocol on how to approach a septic patient. We finalized the training with the same scenarios as the other day, neonatal resuscitation, and post-partum hemorrhage.

The remainder of the morning, we visited the MCH and the male and female ward. The MCH clinic was placed in another building. The clinic seemed to be quite organized. At the entrance the children are measured, weighted and vaccinations are given. The building has a consultation room where the sick children are seen, and a consultation room for family planning and postnatal care. All types of FP can be given, except the hormonal IUD (Mirena). Also, another consultation room gives room to perform “see & treat” of the cervix: visual inspection with acetic acid (VIA) in patients who are suspected to have cervical problems and treatment with cryotherapy (freezing). Unfortunately, the acetic acid is out of stock and treatment with cryotherapy cannot be given now. Nurse Elisabeth, the head of the MCH, has been trained in the past to perform these tests, however the doctors are not aware of her capability. The female ward and male ward are covered by only one nurse, so a clear shortage of staff is seen. There is no separate children ward, so children are admitted in the wards with adults.

Furthermore, many pictures of the hospital were taken, and a small video was recorded of Dr Andrew and of one of the nurses, Joselyn, to be placed on the website of the foundation.

In the late afternoon we shortly met the ophthalmologist, a nice lady who does weekly consultations at the hospital and the chief medical officer of Tharaka County, who oversees health care in the community, health centers and dispensaries.

#### Day 5: 19<sup>th</sup> of January 2023

The morning was meant to start with a small training on the use of partograph in the labour ward, but this training was cancelled since staff was not in the hospital yet. An early meeting followed with the hospital management team, with representatives of all departments, giving space to around 10 people from the hospital. The ideas of a solar system were shared, whereby the biomedical engineer

clearly shared his ideas and former experience. This was especially useful. Also, other members of the team shared their ideas of a possible solar system. It was discussed as well that the needs of the hospital are more than the solar, namely an increase of staff as well as education, the high rate of teenage pregnancies in the county (10% of women between 15-19 years age who have ever been pregnant, ref 2022 Kenya DHS) and the need to improve the maternity ward in terms of a better labour ward and the need to paint the ward and place tiles. It was discussed that most people work hard and try the best they can, but some staff are not efficient in the work they do and have enough time to get other tasks as well, and it should be evaluated whether job descriptions could be adjusted accordingly. It turns out this is quite challenging since the hospital cannot contract workers itself as staff employment is managed by the county.

After this meeting, a trip to the surroundings was undertaken, to get an idea about the area. Also, Tharaka University was visited, and we had a short meeting with the vice-chancellor. In the near future, Tharaka University will also educate nurses and clinical officers. They will be having their traineeships in Marimanti hospital, so a good collaboration is of utmost importance. Especially one of the goals of the foundation is to improve knowledge. After this visit, we further discussed the local situation, collaboration and future plans with Dr Njoroge.

## Conclusion

We had a very interesting trip whereby we met people from both the hospital staff and the county government. The people have quite the capacity and drive to improve care in their hospital and surroundings. Many needs were addressed, and it seems that the foundation can add a lot with their knowledge on trainings and expertise in hospitals in rural areas, and by providing financial means to implement a solar system with the aim to reallocate money to health care improvement projects. All parties were enthusiastic about the foundation and subscribe the core values: Respectful collaboration, sustainability, request-driven, friendship, trust.



From left to right:

Dr Myrrith Hulsbergen, Angelica Mutura, Dr Senned Karrar, Dr Andrew Njoroge, Dr Martin Mawera, Dr Mimosa Bruinooge