United Republic of Tanzania
RHMT - Lindi

# NICU St Walburg's Hospital Nyangao – History and Present

1. **Facts and Figures - A historical account of Newborn Services at Nyangao**
2. **Achievements**
3. **Plans and Challenges for the Future**

## 1. Facts and Figures

First documentation of newborn admissions, and therefore *the recognition of newborns as patients*, dates back to the year 2008, when up to 17 babies were admitted each month mainly due to problems such as sepsis, asphyxia and prematurity. At the time, the obstetric team performed neonatal reviews as part of their ward round.

Over the next 5 years admission rates increased dramatically as shown in the graphs below (Tables 1 and 2):

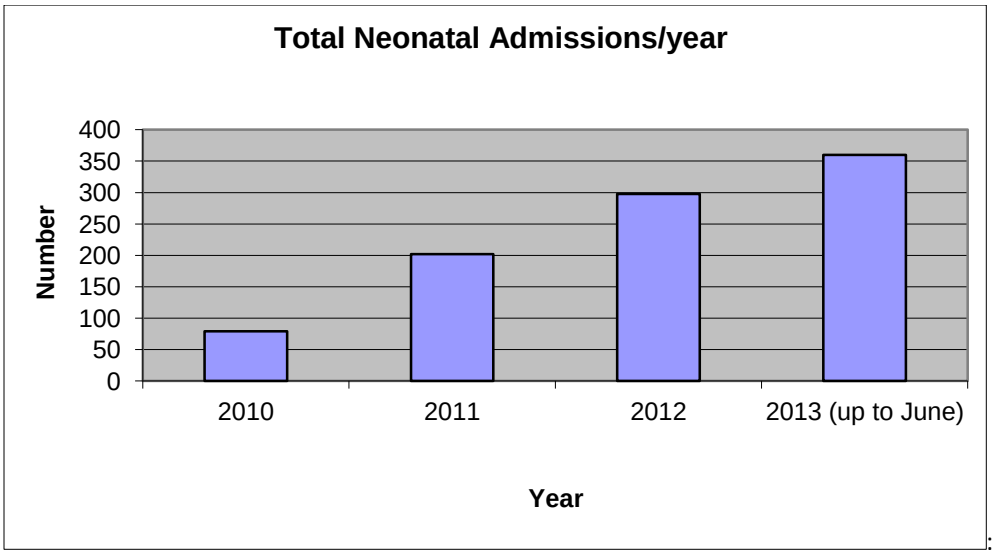


Table 1. Total Number of Neonatal Admissions/Year from 2010 to 2013

This is explained by:

a) The establishment of a dedicated and separate newborn ward round by the paediatric team in 2011, which led to the detection of a greater proportion of *existing sick babies* on the postnatal ward. This important step was initiated by Dr Jim Pauling, VSO, and Dr Wambyakale. The center piece was the newborn triage card

(NTC) in its first version; a tool that helped medical and nursing staff to detect the danger signs of a sick newborn and initiate treatment.

b) On the job training of staff in resuscitation at birth and in detection of ill babies and the NTC

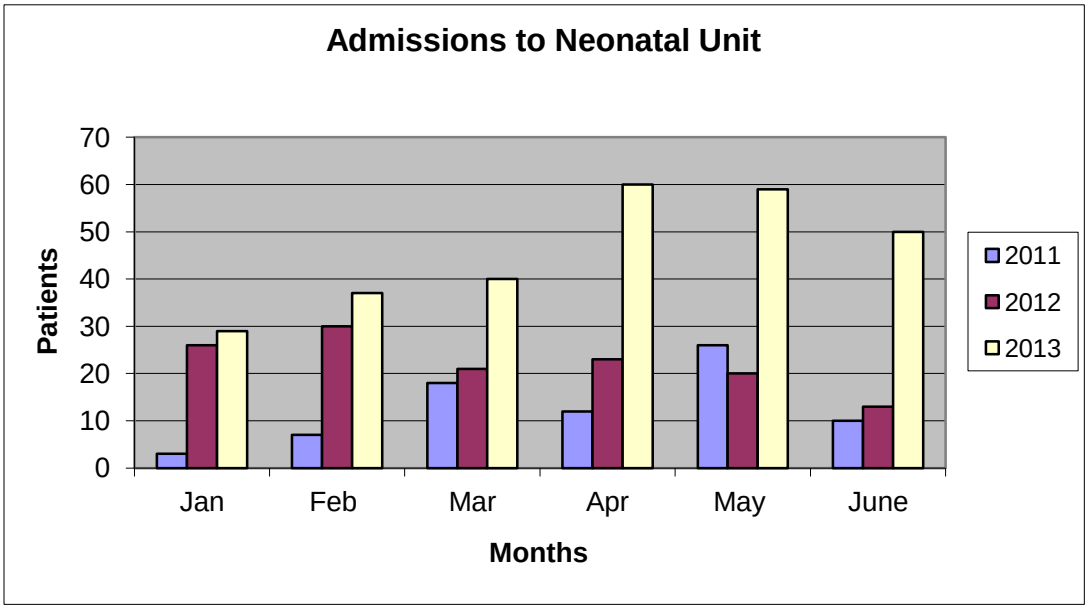


Table 2. Newborn admissions during the months of January to June, comparing the years 2011, 2012 and 2013, respectively

c) The paediatric workforce grew in numbers as well;by 2012, VSO paediatrician Dr Sandra Subtil had joined the team, together with two clinical officers and one AMO. The newborn triage card was improved, further intensive and daily on the job training of the postnatal staff performed, and the corner stones for the new Neonatal Intensive Care Units were laid.

d) Start of Outreach activity at Nyangao (November 2012) via NO BABY LEFT OUT leading to increasing referral rates to hospital.

Soon it was clear that the work load generated by detecting all of the sick babies who required treatment was too much for the postnatal ward, in terms of lack of staff and equipment and space.

With the help of VSO, funds were attracted that led to the renovation of a pre-existing building which is now the Neonatal Intensive Care Unit. It has three separate rooms, dedicated to intensive care patients, premature infants and sick term babies.
There are eight nurses/medical attendants who cover a full shift rota and look after the babies around the clock and can admit new babies at any time. All neonatal staff payments for the first 18 months are fully covered by the VSO funds.

Equipment was organized from Tameq/Dar Es Salaam, which was completely sponsored by VSO. All nurses working with newborn babies have received intensive on the job training together with a one day seminar to increase understanding and knowledge in neonatology and the training is ongoing. Again, VSO has provided the funding for this, for which we are very gratefully.

**The establishment of the Neonatal Care Unit is part of a big project, namely NO BABY LEFT OUT, which aims to reduce neonatal mortality in the Southern zone of Tanzania, according to the MDG 4/5. This is achieved by sensitization of the population, training of staff of the peripheral health facilities, and by establishing centers of Advanced Neonatal Care in the referral hospitals, namely Lindi, Masasi and Nyangao, that actively participate in outreach as well.**
**That way, VSO funds were made available to Nyangao, in order to turn it into a referral center for the surrounding dispensaries and health centers.**

## 2. Achievements

Due to the establishment of the neonatal intensive care unit, a new and much improved way of looking after the most vulnerable patient population was achieved. The NICU provides:

- Care for premature babies from 28 weeks gestational age
- Care for asphyxiated babies requiring intensive oxygen/anticonvulsive/antibiotic therapy
- Care for infected babies (mainly sepsis, meningitis, and skin infections)
- Care for jaundiced babies
- Care for newborns requiring surgical intervention
- Care for newborns with (severe) congenital malformations
- Care for babies with acute blood loss

Phototherapy and routine Vitamin K injections have been newly introduced.Babies are looked after around the clock, and mothers adhere to the strict rules of Kangaroo Mother Care (KMC), also called “Ngozi kwa Ngozi”.
We follow up all babies who have been discharged from the unit, especially those who were born prematurely, and supply mothers and families with help and support when those children become acutely unwell. This means a daily review activity of 4-5 patients following the ward round.

We have close ties with the surrounding dispensaries who we teach via outreach and who refer babies to our services if they detect danger signs. All dispensaries are now using the newborn triage checklist as well.

**3. Challenges/Plans:**

Areas that need work on are:

1. Shortage of space; at present the postnatal ward serves as an extended NICU for those babies with less severe problems
2. Obstetric Care: High asphyxia rate (50% of deaths due to asphyxia)
3. Monitoring and Evalution: As part of the establishment of the NICU and as partner hospital of NO BABY LEFT OUT we are continuously doing assessments of the effectivity of our interventions, for example neonatal mortality rate
4. Establishment of a perinatal morbidity and mortality meeting
5. Training of medical staff (every CO/AMO is to rotate through NICU for 2 weeks to learn about neonatology)
6. Sustainability of funding/health budget (under 5's go free)

Asanteni sana to everyone who contributed to the success of this neonatal intensive care unit!

Dr. S. Wambyakale Dr. S. Subtil