

Special Care Neonatal Unit (SCNU) – World Vision Afghanistan

Project info:

Start/end dates: 15th August 2005 - June 2013
Funding: World Vision US, Private Non-sponsorship funds

Project goal:

Reduce the infant mortality rate in Herat Maternity Hospital (HMH)

Project target:

Beneficiaries: Newborn babies admitted to the SCNU
Location: Herat Maternity Hospital (HMH)

Neonatal unit – Project Overview

In the maternity ward of the Ministry of Public Health (MoPH) Regional Hospital in Herat - and in many other hospitals across Afghanistan - premature babies are often sent home with their mothers just hours after birth, and frequently die at home not long after. Their deaths can be attributed to several factors:

- The absence of required resources to take care of premature babies
- Lack of understanding and skills in the care of premature neonates, and
- Lack of knowledge among mothers and families about the needs of the premature.



The idea of a neonatal unit

Afghanistan has one of the highest infant mortality rates in the world. (77 per 1,000 births according to the 2010 Afghanistan Mortality Survey (AMS)). These circumstances led World Vision Afghanistan to take the initiative to establish the Herat Maternity Hospital's Special Care Neonatal Unit (SCNU), which officially opened on August 15, 2005.



The establishment of the neonatal unit paved the way for saving the lives of more neonates, improved newborn services in the Maternity Ward and provided an environment for midwifery students to practice their skills responding to the standards of quality midwifery care.



In 2006 the infant mortality rate was 152/1000 (National Risk and Vulnerability Assessment; in 2010 it declined to 77/1000 (AMS 2010)

Care is provided for infants of the following ages in the Herat's SCNU:

37 to 42 weeks

A full-term pregnancy lasts 37 to 42 weeks. Some infants born during this time need intensive care for problems related to infection, pneumonia, feeding difficulties and/or birth defects. Other full-term infants may need intensive care because of maternal diabetes or problems that may have occurred during labor and/or delivery.



In February 2011, Public Health Directors from 15 provinces in Afghanistan and representatives from the Ministry of Public Health visited the World Vision's project at the Herat Maternity Hospital. After touring the facilities one of them said: "This is so amazing! It is like we are visiting a neonatal unit in Europe. Everything is so organized and professional." The visitors were so impressed with the quality of the program that they stated they would like to replicate the program in their own provinces.

35 to 36 weeks

Premature babies born at 35 to 36 weeks are called "late preterm infants". These babies are about 20 inches long, and usually weigh between 5 1/2 and 6 pounds. Although 35 and 36 weekers look just like full term babies, they are still premature, and may face some problems of prematurity.

In the last weeks of pregnancy, most babies have turned to a head down position within the womb. They have reached their full height, and are gaining weight rapidly. Although they look like full term babies, 35 and 36 weekers are premature babies. Their lungs will not be completely developed for another couple of weeks, and they may not have enough fat to stay warm or enough strength to breast or bottle feed effectively.



33 to 34 weeks

At 33 and 34 weeks, most premature babies will have fairly short **NICU (Neonatal Intensive Care Unit)** stays with only a few complications. They may need help breathing for a short time, but learning to eat may take the longest. The suck-swallow-breathe reflex is not well coordinated, and these babies may not be strong enough to take in enough nourishment to grow and gain weight.

31 to 32 weeks

By 31 to 32 weeks, premature babies weigh between 3 1/2 and 4 pounds and are between 18 and 19 inches long. That's almost as long as a baby born at term! Premature babies born at 31 and 32 weeks are called "moderately preterm babies". Although they're still immature at birth and will require several weeks of NICU care, most 31 and 32 weekers quickly catch up to their peers and have few long term effects of prematurity.



28 to 30 weeks

By 28 to 30 weeks, a growing baby has matured a lot. Premature babies born between 29 and 30 weeks will still require long NICU stays, but their vital organs are much more developed than those of babies born earlier.

By 28 to 30 weeks, premature babies weigh about 3 pounds and are about 17 inches long. Although they are still very small, 29 weekers and 30 weekers have more fat stored under their skin, so they look more like "real" babies. They are starting to shed their lanugo, the fine hair that covers a preemie's body.



Who will care for the babies in the unit now?

At the Herat SCNU, a skilled team comprised from different professions will care for the babies.

Some staff members are employed by World Vision Afghanistan. They include:

- Two midwives who graduated from the Herat midwifery program
- one Neonatal specialist



services for newborn babies, these services include:

Services provided in Herat Neonatal unit

- Vaccination
- Eye care
- Treatment of infection
- Asphyxia
- Premature (till their vital signs get stable)
- Low Birth Weight (LBW)
- Jaundice

The information related to baby weeks is taken from:

<http://preemies.about.com/od/preemiesandstages/ss/PrematureBabiesWeekbyWeek.htm>

At the special neonatal unit

(SCNU) premature newborns stay for a period of one to two months for resuscitation and observation of weight gain and further signs of septicemia and asphyxia.

Low birth-weight babies, weighing between 960 to 1,500 grams, are cared for over a number of weeks in the neonatal unit until they attain a weight of 2000 grams, and the families are able to feed and keep the babies warm at home.

Discharged premature babies are required to return once a week or twice a month to the Maternity Hospital for follow-up and growth monitoring. Mothers of infants registered at the neonatal unit receive health education on hygiene, feeding and mother and child care.



Training

Continuous on-the-job training was provided to the neonatal unit staff by World Vision as part of the objective of providing a good learning environment for midwifery students.

Two Neonatologists and two midwives received a national Training of Trainers (ToT) on basic new-born care in 2007 in Kabul; in addition one midwife received a National ToT in Pakistan (2009).

Nightly six doctors and midwives from different health facilities in Herat received a Basic New-born Care training.

In 2010 the ToT facilitators received an advanced newborn care training in Kabul, and they replicated the training for 16 participants.



Activities of the SCNU from 15 Aug 2005 up to the end of Dec 2012

Premature	3669
Asphyxia	11942
LBW	791
Sepsis	2667



“There are many reasons why babies are admitted to the Special Care Neonatal Unit but the most common reason is a premature birth. “The SCNU is the best center that provides intensive care for the newborn babies,” says Wahab Zada, an neonatal specialist.

“I have been here for about 20 days now. My four previous babies also were premature and as my deliveries were conducted at home by TBA (Traditional Birth Attendant), I did not know there is as such place for premature babies. I had my fifth baby at the hospital; she was also premature so the staff immediately transferred her to the Special Care Neonatal Unit (SCNU). Her weight was 950 grams. My baby spent two weeks at the Neonatal unit in an incubator under the special care of the midwives. The midwives here are so kind; they feed and weight my baby every day. Now she weighs 1800grams.”

Shafiq, a premature baby’s mother

Success story of the SCNU



the Neonatal Unit of the Herat Maternity hospital. It was a crowded night, and I was very tired because there had been many asphyxia and premature babies during the day, and I had to check their vital signs and open their veins. At 2.00am, whilst I was working in the Neonatal unit opening the vein of a premature baby, another midwife came in carrying an episiotomy bowl.

I asked her, "What is this? She replied that it was a premature baby, who had no heart rate, and that the mother had severe bleeding. I looked at the baby and determined that it had central cyanosis, was not breathing and weighed just 800grams. One of the baby's relatives was watching through the glass and crying. I took the baby, wrapped it in warm clothes and put it in the warmer and provided resuscitation. After 10 minutes, the baby had 3 breaths a minute. I was surprised and therefore decided to open her vein to give her more liquid.

The baby's relative was so happy when she saw the baby was getting better. After 2 minutes, the baby's breathing improved, and she opened her eyes.

I spoke with the relative who informed me that the baby's mother had been trying to get pregnant for 10 years, and this baby was her last hope.



The baby stayed in the neonatal unit for 2 months being fed for the first 20 days through a Nasal Gastric Tube, then for the next 20 days by a spoon and was cared for by all midwives in the hospital. After 2 months, her weight increased to 2,500 grams and she was discharged and began breast feeding from her mother. Laila is now 2 years old and weighs 15,000 grams.



SCNU as a learning environment for midwifery students

The SCNU is one of the effective training areas in newborn care for the Midwifery and Community Midwifery Training Programs in Herat, Ghor and Badghis. Up to now more than 300 student midwives from the Institute of Health Sciences, in addition to 44 students midwives from Ghor Community Midwife Education (CME) program were certified as competent in the care of newborns. These skills comprise:

Clinical Skill	Checklist Reference
Newborn resuscitation	3.1
Newborn eye care	3.2
Newborn immunization	3.3
Newborn examination	3.4
Assessment of new-borns with a problem	22.1
Measuring body temperature in the new-borns	22.2

