SICK NEWBORN CARE UNITS

An initiative to provide quality facility based newborn healthcare to sick newborns.

BACKGROUND
Globally around 3.1 million babies per year die in the first four weeks of life. 30 percent of the global neonatal deaths occur in India and little progress has been made in reducing it in the last one and half decade.

India needs to address the problem of high newborn mortality to achieve MDG-4. Most of these deaths occur within the first week of life. Thus, serious, concerted efforts have to be made to address the needs of a newborn in its first days in order to reduce neonatal mortality in India. Meeting basic needs of all newborns such as Breastfeeding, Warmth, breathing and prevention of infection remain the corner-stone in tackling newborn mortality, an effective link between healthcare facilities and community based newborn care is needed. According to global reviews, roughly 15% of newborns require facility based care.

WHAT IS SNCU?
Sick Newborn Care Units are special newborn units in a large hospital generally at district level meant to reduce the case fatality among sick newborns, either born within the hospital or outside including home delivery. It also acts as the teaching and training hub for imparting the skills of newborn care.

The achievement of major reductions in early neonatal deaths will depend on provision of individualized clinical care; concurrent expansion and scaling-up of clinical care for sick neonates will be vital for bringing IMR down. Strengthening the clinical services within the health care system is a much needed but neglected component of a comprehensive intervention for reducing neonatal deaths.

STATUS OF SNCU FUNCTIONING WITH NIPI SUPPORT:
9 SNCUs has been made functional, and additional 4SNCUs will be functional during 2012. Around 20,000 sick newborns have been managed in these units enhancing their chances of survival.

- SNCUs in Rajasthan (3) became functional in August 2009 and those in Madhya Pradesh (2) and Orissa (3) during mid 2010.
- SNCU in Narsighpur MP became functional in December 2011
- SNCU Training and treatment centre became functional in Hoshanganad
- SNCU in Bihar (3) will be functional before December 2012

INNOVATION:
Innovations in the UNOPS NIPI model includes an Emergency Treatment and Triage area, a neonatal ward and a step down ward apart from the core SNCU facility. Typically this SNCU complex is 25 bedded, and addresses the needs of an average size district. Here the stabilized newborn stays with the mother for the completion of treatment.

Around 20,000 sick newborns have been managed in NIPI supported SNCUs - Enhancing their chances of survival.
KEY FEATURES

SNCUs in Rajasthan and Madhya Pradesh have an Emergency Triage area to avoid delay in treatment and a Neonatal Ward in the SNCU where the newborn is kept with the mother for management, the same has been proposed for the three SNCUs being supported by NIPI in Bihar.

Some of the NIPI supported SNCUs will have a video link with Newborn Care Resource Center, IPGMER, Kolkata.

NIPI’S SUPPORT IN 2011 AND 2012

Since 2009 NIPI has been focusing on the establishment and operationalization of SNCUs; and the support was for:

• Hiring Pediatricians and Nurses (gap filling only)
• Training of the doctors and nurses
• On the site training
• Procurement of equipment
• Procurement of consumables
• Customized designing and construction
• Supporting referral of sick newborns identified by the ASHA as a part of the HBPNC Package

After supporting the successful operationalization of SNCUs by NIPI, the states are now in the process of taking over most of these activities.

During 2012 NIPI will focus on providing managerial and mentoring support by:

• Establishing a system of State Level Management of all SNCUs including supportive supervision
• Establishing a SNCU Treatment and training centre in each of the 4 States

SNCU TREATMENT AND TRAINING CENTRE

NIPI’s vision has been to provide strategic support to the states that would make a vital and sustainable difference to child survival strategies in the state. NIPI in collaboration with the NCRC will establish one SNCU Treatment and training centre in the SNCU for each of the NIPI intervention state. This will provide continuous support to other facilities and also serve as a training centre for the Medical Officers and Nurses in facility based newborn care. This center will be equipped with the latest training materials and aids; Medical Officers and Nurses from all over the state could undergo the two-week observership in this centre. SNCU Treatment and training centre has become operational in Hoshangabad.

TRAINING OF SNCU STAFF

• All Doctors trained on Facility Based Newborn Care. Doctors and Nurses from Rajasthan, Orissa and Madhya Pradesh underwent the two week observership training at IPGMER Kolkata,
• Teams from IPGMER Kolkata provided on site training of doctors and nurses at SNCUs.
The concept of this sick newborn care unit is based on the learning from the “Purulia Model” of the last decade when the first SNCU has been developed. For the first time this model demonstrated that the modern scientific development can be taken to the door steps of the people without diluting the principles of science. The core philosophy was that it not only saved life but also became the centre for teaching and training art and science of neonatal care of the entire district. This model is now being scaled up with various essential add-on components in various states of the country with support from NIPI under the banner of NRHM. It now encompasses all the other areas which are usually overshadowed in our attempts to plan the activities of the main SNCU, as for example, guidelines and protocol for housekeeping. In the world of antibiotic resistance the key area of importance should be to prevent infection and this would require a proper scientific way of cleaning of floors, provision for washing and drying the mops, area for keeping dirty linens, clean utility area for storage, area and equipment for autoclaving and sterilization and so on. Issues of providing 24 X 7 laboratory backup, storing of breast milk and data recording and interpretation are also important components. The proper usage of electricity and safety measures to prevent any accident including fire are also needs to be emphasized. Construction of such a unit requires proper scientific and architectural planning which would not only reduce the cost of antibiotic but also include the functionaries of SNCU complex.

NIPI’s Support for Facility Based Newborn Care Component of the Continuum of Care.

NIPI has been working in the states of Rajasthan, Orissa, Bihar and Madhya Pradesh on a Comprehensive Newborn Care intervention with the core principle of “continuum of care”- from pregnancy, birth and during the newborn period and a continuum of care from the home and community, to the health centre and hospital and back again. While NIPI is implementing a comprehensive Home Based Post Natal Care (HBPNC) package providing effective care of mothers and newborns during the post-natal period through home visits focusing on providing care at home and community, NIPI has also established Sick Newborn Care Units (SNCU) providing individualized clinical care for sick neonates.

Components of the SNCU

While the issue of mortality and case fatality are addressed in the SNCU the quality survival of such babies is also an essential component and responsibility of such initiatives it has been amply demonstrated that the babies saved in the SNCU are at higher risk than the other babies to develop disabilities. To prevent this, for early intervention and treatment the SNCU complex should have a follow up room with a proper protocol to evaluate the sensory functions including vision, hearing, intelligence as well as the motor functions.

Sick newborn care unit has been planned to be the district skill lab for improving the skill of newborn care, this was best demonstrated at the Purulia SNCU where due to shortage of nursing staff class X passed girls from local community were trained as “Neonatal Aides”, and this substantially alleviated the human resource constrains for SNCU and SNSU (Sick Newborn Stabilisation Unit).

The SNCU Complex Comprises of a Number of Essential Components Like:

1. Teaching and hands on training room.
2. Triage room - where the sick newborn will be received, emergency treatment given and admitted in the proper area.
3. Main SNCU room.
4. Step down units.
5. Neonatal Ward - a buffer zone where newborn who are not so sick could be managed with same degree of asepsis but with far less equipments, thus reducing the running cost. Also here the mother and newborn both stay on the same bed.
6. Ancillary areas - for breast feeding and breast milk storage, washing and sterilisation, laboratory, sluice room and janitor closet, store.
7. Follow up clinic.

High Neonatal Mortality Rates Will Hamper India Achieving MDG4.
NIPI is supporting the State Maternal and Child Health Cells in Orissa and Rajasthan to incorporate newborn care into the cell. The goal is to strengthen the quality neonatal care being provided at various health facilities (SNCU, Newborn Stabilizing Unit (NBSU) and Newborn Corners) in the state. The unit provides technical advice on all matters related to policy-making, program implementation, monitoring and evaluation, training content for different levels of health functionaries, project monitoring and evaluation related to Newborn Care. It provides leadership and guidance for qualitative implementation and scaling up of the facility based neonatal care through SNCU, SNSU and Newborn Corners.

NEWBORN CARE RESOURCE CENTER

The objective of establishing the Newborn Care Resource Center (NCRC) – a Regional Center of Excellence at the IPGMER, Kolkata is to improve the quality of facility based newborn care being provided at various SNCUs in the 4 NIPI States.

Having the right information, the right guidance, and right materials at the right moment can mean the difference between a health facility providing care and a health facility providing effective, efficient and quality care and thus make a difference between life and death.

The innovative support provided by the NCRC has been for
- Providing “continued” support to operational SNCUs; not just in the initial stage of establishment.
- “Hands-On Training” both at identified centers as well as on site.
- Training of nurses and support staff.
- Acts as “on line” knowledge hub for newborn care; eminent neonatologists would respond to online queries from across the country.
- Establishing a system of reporting and data analysis.
- Establishing a system for quality assurance for SNCUs.
- Collaborating with the State SNCU Cell to provide support and guidance for qualitative implementation and scaling up of the facility based neonatal care.
- Customized designing of units.