



*The most beautiful necklace a mother can wear
is not gold or gems,
but her child's arm around her neck."*

- Michael Meade



PROJECT REPORT

Operationalization of SNCU

A strategic approach to impart quality newborn care through 18 special New born Care Unit in Chhattisgarh.

CHHATTISGARH | December 2014 - 2017

EKAM FOUNDATION

Chhattisgarh:

1st Floor, Flat -8 Premkunj, Civil Line,
Raipur, Chhattisgarh - 492001, India.
Helpline: +91 9302388881

Head Office:

New No 16, Old No 19, 2nd Floor, Jayalakshmpuram 1st Street,
Nungambakkam, Chennai, Tamilnadu – 600034, India.
Phone: +91 44 42072785 | Helpline: +91 9445922333
Email: info@ekamoneness.org



Executive Summary

Chhattisgarh, a state carved out of Madhya Pradesh in 2000 has been on the bottom end of the pyramid in terms of health indicators. It has fared the worst in Child Health and maternal indicators (in comparison to other states) over the last few years due to the poorly coordinated efforts of overall socio economic development, the political scenario and the defunct health system.

Maternal and child survival is a mirror reflecting a country's spectrum of social development. The rate of decline for Neonatal and Infant Mortality for the state of Chhattisgarh in the current decade has been satisfactory. NMR reduced to 26 in 2016 as compared to 31 in 2013 & IMR reduced to 39 in 2016 as compared to 46 (SRS 2013). Although there are equity issues in mortality rates (IMR is 41 in rural area while its 31 in urban area, similarly, NMR is 27 in rural areas and 20 in urban area) there are not much gender wise differentials.

There are the critical gaps and challenges in getting skilled health care professionals in the government facilities mainly in LWE affected areas. Interventions like outsourcing of equipment maintenance and recruitment of staff nurses has proven successful in certain pockets in India. It was noted that the quality of care and services within SNCUs were increased by improving the standards within the SNCUs. To this effect, earlier the Government of Chhattisgarh and UNICEF signed an MOU with Ekam Foundation in 2014-2015, for improving the quality care in SNCUs across the state; subsequent to which the project activities were started from Dec, 2015 for a period of 2 years.

The project was piloted in 9 SNCUs and then scaled up to in 15 SNCUs targeting human resource, equipment maintenance and microbial surveillance as the key features. The collaborative effort in form of a triparty agreement in area of HR Recruitment & Training, Equipment Maintenance systems, Microbial Surveillance

has led to a phenomenal success. The project was implemented across 15 SNCUs (Raipur, Dantewada, Durg, Dhamtari, Bilaspur, Rajnandgaon, Ambikapur, Jagdalpur, Koriya, Korba, Raigarh, Mahasamund and Kawardha) providing 24/7 care delivery to the infants through catering the above mentioned areas of work.

Key results achieved were Operationalization of 18 SNCUs; recruitment of 208 SNs, 18 MOs, 5 Pediatricians, 5 Bio Medical Engineers and 10 Data entry Operators all under the payroll of NHM; status of functional equipment was almost 97%; 18559 new born were admitted in 18 SNCUs and 24% of total collected 1260 samples were found positive in Microbial Surveillance.

The support improved quality of care around birth with focus on survival of girl child through increased admissions in SNCUs and maintaining high standards of service delivery with care.. Majority of the population in all districts with equal focus on marginalised population from all social categories were catered to. Efforts were also taken to maintain a gender balance by creating opportunities for staff nurses, majorly females and enhancing capacity of staff nurses posted in the units.

The intervention demonstrated a successful model for alternate mechanism of HR and equipment management for specialised clinical care of new born through operationalization of SNCUs. Successful advocacy to include and extrapolate these models in other districts of the state with adequate budget allocations in annual plans were followed by handing over the SNCUs to Govt. for continuation of services. The nurses recruited and trained during the project were efficient enough to replicate the same model in other districts of the state. Involvement of less human resource added on to the sustainability, and scalability of the intervention, thus making it easily replicable.

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Founder's Message

I am pleased to present Ekam Foundation's SNCU Up-gradation Project report for the years 2014-2017. Though this report, I look forward to sharing our work and accomplishments while we continue to strengthen our base and extend our vision, mission and values for the next year.

Right from the time of its conception, Ekam foundation was based on the concept of unity and oneness in this vast wondrous world. We have always maintained that every life holds equal value and that no child should be denied the right to freedom of life.

In Chhattisgarh we have expanded our scale of operations from 13 to 18 district hospitals in partnership with NHM and UNICEF, Raipur. Special thanks to Dr. Sarveshwar Bhure, MD, NHM; Prashanta Das, Chief field Office, Unicef; Dr Ajay Trakroo, Health specialist, Unicef along with Mr. R. Prasanna, ex MD NHM, Chhattisgarh; Mr. Saurabh Kumar, Collector of Dantewada and Dr Aiyaz Tamboli, Collector of Bjaipur for their great support.

I thank you all for being a part of this incredible journey and for helping us carry forward the work of the almighty.

Looking forward to a fruitful upcoming years filled with unconditional love for the children and community that await us.

**Dr Sailakshmi B,
Founder & Managing Trustee,
Ekam Foundation**

Foreword - Chief, UNICEF

The first 28 days of a child's life are the most vulnerable for its survival. Infants are at risk of losing lives by easily preventable diseases. Globally, 2.6 million children died in the first month of life in 2016 – approximately 7,000 newborn deaths every day – most of which occurred in the first week.

Over the years there has been a substantial decrease in the loss of infant lives in India. Being a new state, Chhattisgarh has also made significant strides towards lowering the risk by adopting innovative technologies to save lives of children. Data shows significant progress in health indicators that depicts the status of child health in the State in 2004 IMR of state was 60 which came down to 39 per 1000 live births in 2016, Similarly NMR rate was 43 in 2004 which came down to 26 in 2016 (Source-SRS). Setting up of Special Newborn Care Units also known as SNCUs were setup across state by government of Chhattisgarh is one such innovation. The government also set up Labor rooms and First referral units with the help of National Rural Health Mission.

Special Care New-born Units (SCNUs) have been set up provide quality level III and II new-born-care services in several government hospitals so as to saves lives of infants while First Referral Units are provided with New-born Care Centers, New-born Stabilization Units. At present 18 SNCUs are functional out of 25 sanctioned SNCUs. Similarly, 108 Newborn Stabilization units (NBSU) and 898 Newborn care corners (NBCC) are functional. Since start of SNCUs more than 41000 sick newborn have been treated.

The smooth functioning of these units is crucial in saving lives of children. To ensure efficiency and to address the primary concern of Equipment breakdown and maintenance related mortality and morbidity, UNICEF and Government of Chhattisgarh signed an MOU with Ekam Foundation, an NGO based in Chennai working in the field of Infant and Maternal Health Since 2008. Ekam Foundation has been supporting 18 SNCUs in 17 districts through multi-pronged approach. As a result, total 758 equipments were inventoried out of which 749 (99%) are functional. Since inception of project total 346 preventive visits have been done by Bio-medical engineers.

For improving quality at point of care in SNCUs a project was designed and implemented with Dept of Microbiology AIIMS Raipur, EKAM and DHS with financial and technical support of UNICEF with basic objective to reduce NMR and to reduce development of antibiotic resistance. As a result, total 1260 environmental samples and 314 patient samples were collected from different SNCUs of Chhattisgarh.

**Mr. Prasanta Dash
Chief Field Office
UNICEF**

From the desk - DHS

In 2016, 2.6 million children died in the very first month of life from conditions and diseases associated with lack of quality in care at birth or skilled care and treatment immediately after birth. The main cause of under 5 mortality in 2016 included preterm birth complications, pneumonia, intrapartum related events, diarrhea, neonatal sepsis and malaria.

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 (24) 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 (Source: WHO website).

The State of Chhattisgarh has high rates of Neonatal (26) and Infant mortality (39) when compared to the rest of the country. Urgent interventions to reduce these deaths need to be brought in to address the pertinent issues plaguing the state.

Interventions like outsourcing of equipment maintenance and recruitment of staff nurses has proven successful in certain pockets in India. It was noted that the quality of care and services within SNCUs were increased by improving the standards within the SNCUs. As a key priority to respond to the high neo natal mortality in the state, it has embedded on strengthening of facility based new born care. As a natural progression after setting up of the SNCUs in state, the focus of Government of Chhattisgarh and UNICEF is moving towards improving quality of care in the SNCUs. In accordance with strengthening of SNCUs, UNICEF and Government of Chhattisgarh signed an MOU with Ekam Foundation. EKAM foundation is a not-for-profit NGO that works towards proving quality healthcare to sick children and mothers.

The project was piloted in 9 SNCUs in the state of CG and was a huge step in the delivery of neonatal care in the state. The collaborative effort was a phenomenal success and based on the outcome of the decisions taken at the core committee project review meetings, it was recommended to continue and expand the program to all the districts in the state. In short span of three years the state has been able to operationalise 18 SNCUs with full trained HR and Functional equipments. For all the achievements made in this critical area of Newborn and child health, EKAM has been a critical partner and contributor. This has ensured more than 4178 admissions of sick newborns in the SNCU where they are provided with appropriate care for saving lives.

Mrs. Ranu Sahu
Director
Directorate Health Services

From the desk - MD, NHM

Nobel laureate Economist Amartya Sen has convincingly argued that the Health achievements of a given society are a better signal of social well-being than any conventional macroeconomic measure. Public health thereby, is one of key indicators reflecting a nation's overall growth and development, no matter how big or small; how developed or undeveloped a country is, it speaks of the past, present, and future of its generations. Health of the people is an essential requirement for accelerated economic growth of any country or state. Therefore, early childhood health and nutrition is a key reflection of a country's level of development.

At the global level, while the sustainable Development Goals (SDGs) promote the maxim "leave no one behind", it is also a reality that marginalized communities all over the world experience health inequalities. Our health affects everything from how much we enjoy life to what work we can perform. That's why there's a Goal to make sure everyone has health coverage and access to safe and effective medicines and vaccines. In the 25 years before the SDGs, we made big strides—preventable child deaths dropped by more than half, and maternal mortality went down by almost as much. And yet some other numbers remain tragically high, like the fact that 6 million children die every year before their fifth birthday.

From the time of inception, Chhattisgarh state it would go has been striving hard towards strengthening its health systems through various initiatives since the beginning of the National Health Mission (NHM). The State has been making continuous efforts towards improving its health indicators through a multi-pronged strategy. One of the key objectives has been to improve quality of care for neonates and reduction in neonatal mortality. Recruitment and capacity building of health personnel for improving health outcomes is an integral part for any state or project.

With this initiative, in 2014-2017, a tripartite partnership was signed with UNICEF and EKAM, to reduce the neo natal mortality through strengthening of SNCUs all over the Chhattisgarh. I am highly indebted to both of them for their guidance and constant supervision as well as for providing necessary services to strengthen the SNCUs of Chhattisgarh by holistic approach i.e. by providing skilled human resource, decreasing downtime of Equipments through preventive maintenance visits and infection control in the units (microbial surveillance).

I would like to express my gratitude towards UNICEF and EKAM Foundation for their kind co-operation and encouragement which helps in completion of this project.

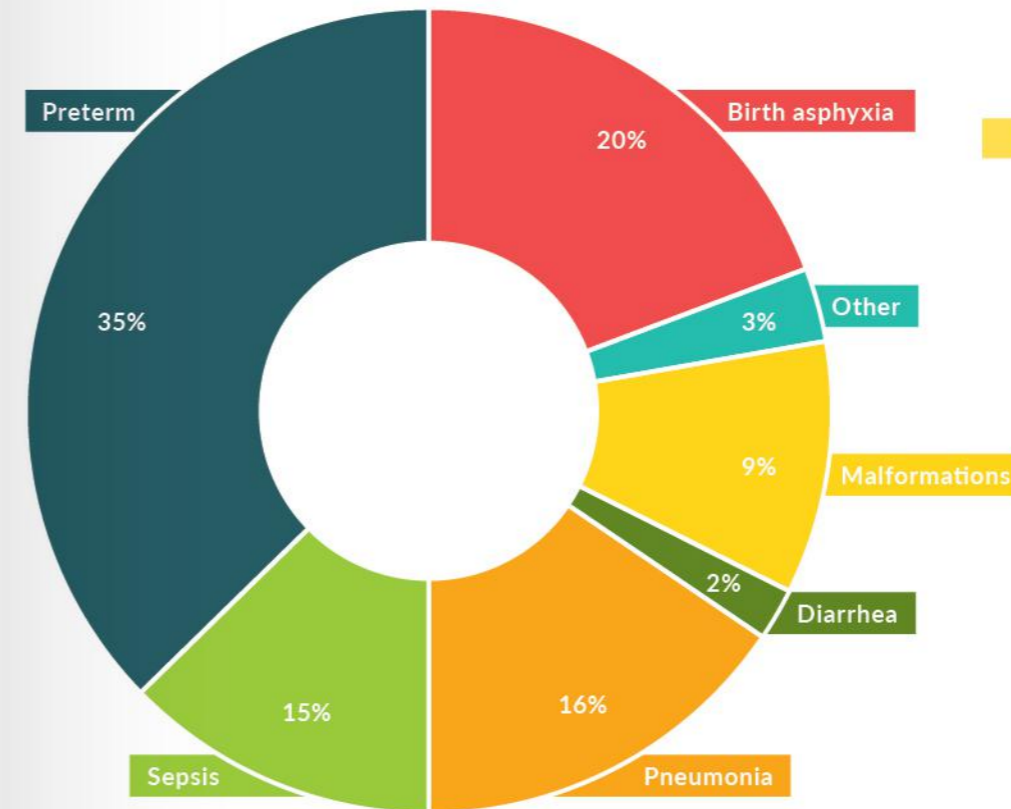
Together we are making sincere efforts in reducing the neonatal deaths in Chhattisgarh by providing enormous services. I congratulate the team for their sincere efforts, dedication and commitment and wish them all the best for the coming years.

Dr. Sarveshwar Narendra Bhure
Mission Director,
National Health Mission

The Introduction

The birth of a child should be a time of wonder and celebration. But for millions of mothers and babies in developing countries, it is a dance with death. The neonatal period, the first 28 days of life, carries the highest risk of mortality per day than any other period during the childhood. The daily risk of mortality in the first 4 weeks of life is 30 times higher than the post-neonatal period, that is, from 1 month to 59 months of age. Neonatal deaths account for a major proportion of the world's pediatric deaths. India is home to 0.75 million new-born deaths every year before they complete their first month of life, accounting for one-fifth of the global live births and more than a quarter of neonatal deaths.

India's Current neonatal mortality rate (NMR) is of 24 per 1000 live births (SRS, 2016). Given the infant and under-five child mortality rates of 34 and 39 per 1000 live births, respectively, 70% of total infant deaths and more than half of under-five deaths fall in the neonatal period. Indeed, with the early NMR of 18 per 1000 live births, deaths in the first week alone account for approximately 45% of total under-five deaths. Prematurity (35%) accounts for maximum number of all deaths followed by neonatal infections (33%) and intra-partum/Birth asphyxia (20%) respectively.



CAUSES OF NEONATAL DEATHS IN INDIA

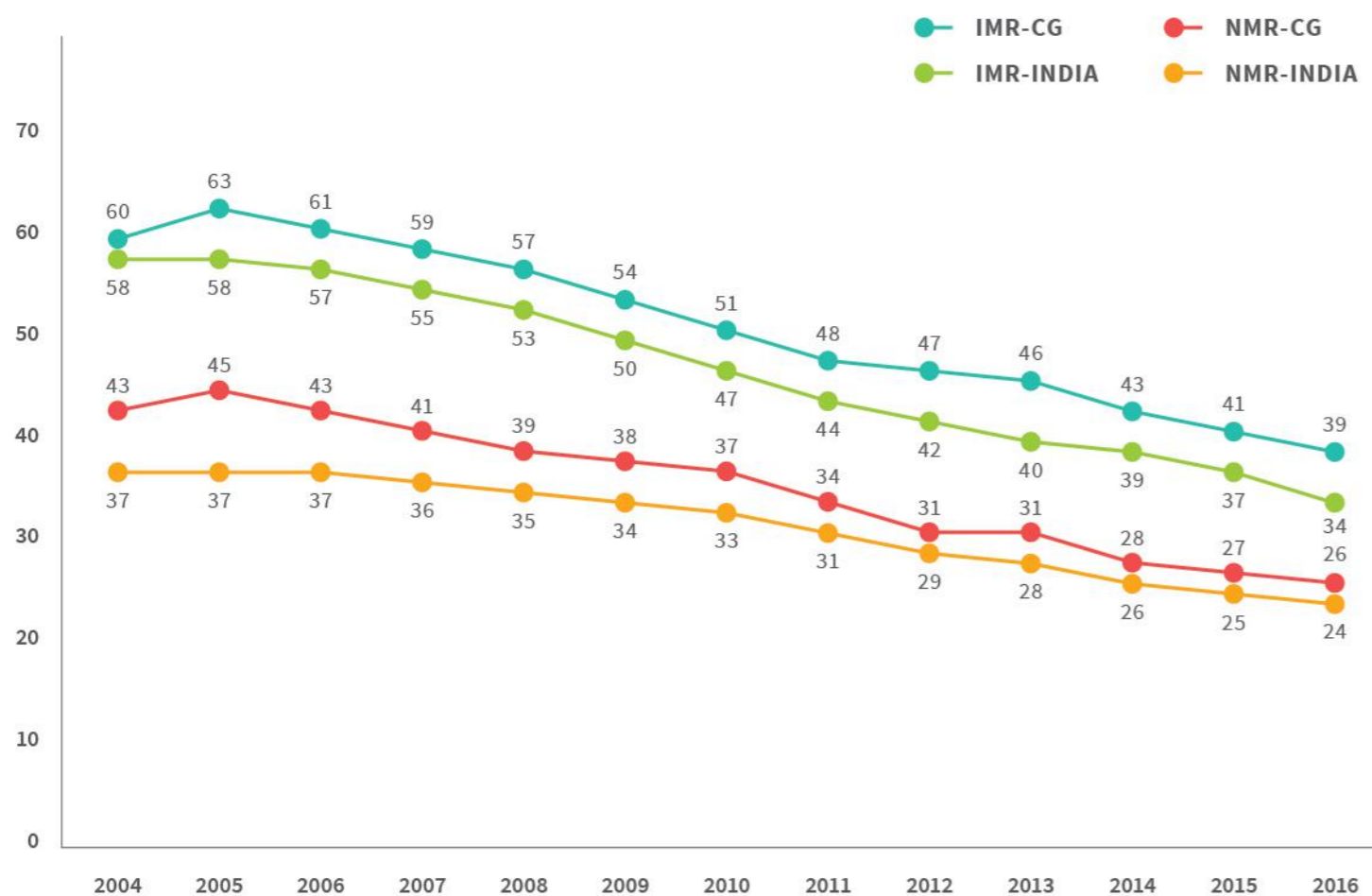


India's Public Health system has been developed over the years as a 3-tier system, at the primary, secondary and tertiary level of health care. A district hospital is the tertiary referral health centre in India's rural health service. According to the Ministry of Health and Child Welfare, the role of the District Hospital (DH) is to provide effective, affordable health care services (curative including specialist services, obstetric and neonatal services and preventive health services) for a defined population.

Improved survival of neonates from these causes requires the availability and adequacy of specialized maternal and child health-care personnel, and easy access to obstetric and neonatal facilities for pregnant women and newborns.

Chhattisgarh, a state in central India, carved out of erstwhile Madhya Pradesh in 2000 inhabiting 27 districts, 146 blocks, and 20,308 villages. The state has been facing several challenges in improving the health and nutritional status of its people. Although with the advent of upcoming newer public health interventions, the state has however not fared well on Child Health and maternal indicators over the last few years. The current Infant Mortality Rate (IMR) of 39/1000 live births and NMR of 26 is comparatively higher than other districts. Although the rate of decline in the current decade has been consistently higher than in the previous but the harsh reality prevailing neonatal deaths constituting the major proportion of child mortality in India, cannot be neglected.

MORTALITY TREND-INDIA & CG



Source: SRS

The 2006 World Health Report stresses the positive correlation between infant, child and maternal survival probabilities and a higher density of competent health workers and adequate health infrastructure. The increase in institutional deliveries and delivery of high risk new-born has necessitated the establishment of Facility based new-born care centers. Further, it is widely accepted that improving the standard of Maternal Healthcare is important as it directly impacts the health of the child.

Holistic approaches to targeting these gaps are therefore very important. Interventions like outsourcing of equipment maintenance and recruitment of staff nurses has proven successful in certain pockets in India. For instance, it has been observed that the quality of care and services within Sick Neonatal Care Units (SNCU) was increased by improving the standards within the SNCUs. In order to address the primary concern of Equipment breakdown and maintenance related mortality and morbidity, the Tamil Nadu Government in the year 2010 partnered with Ekam Foundation (an NGO based in Chennai working in the field of Infant and Maternal Health) to undertake the servicing, repair and monitoring of all SNCU equipment within 64 SNCUs. The initiative helped improve the quality of care given within SNCUs, decreased the downtime; and reduced the number of neonatal deaths related to equipment breakdown.

To this effect, the Government of Chhattisgarh, National Health Mission and UNICEF joined hands with Ekam in order to replicate the similar model across the SNCUs of Chhattisgarh. The project was laid down for initial period of 1 year starting from Oct 2014- Dec 15 with initial target of 13 SNCUs. The partnership was huge success resulting in Operationalization of 13 SNCUs which runs to its full capacity.



A review was conducted, then it was agreed that there is need to extend this agreement with UNICEF and NHM for two years 2015 - 2017 for further scale up of strengthening 16 SNCUs.

* Working together for Health, The World Health Report 2006, WHO

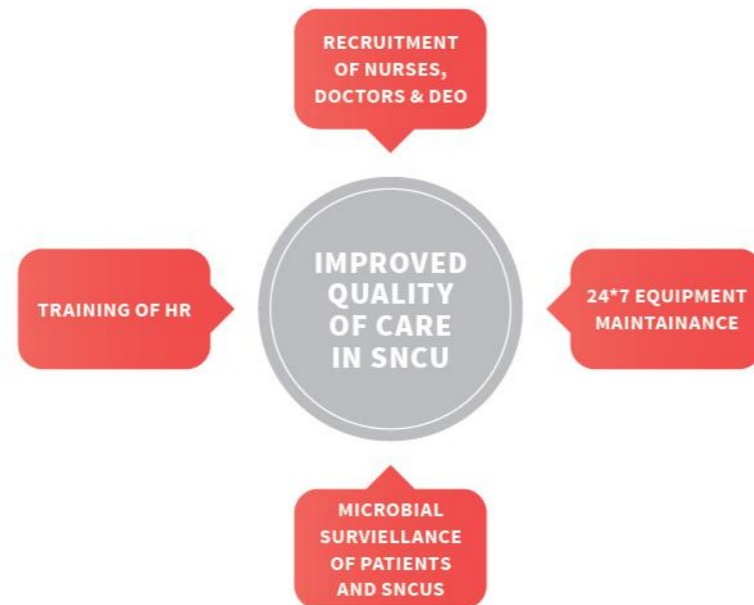
The Intervention

The project aimed at improving the quality of care in the SNCUs through the upgradation model focusing on 4 comprehensive areas.

- Timely equipment maintenance.
- Recruitment & training of nurses, doctors and data entry operators (DEO).
- Training of doctors & nurses.
- Microbial surveillance.

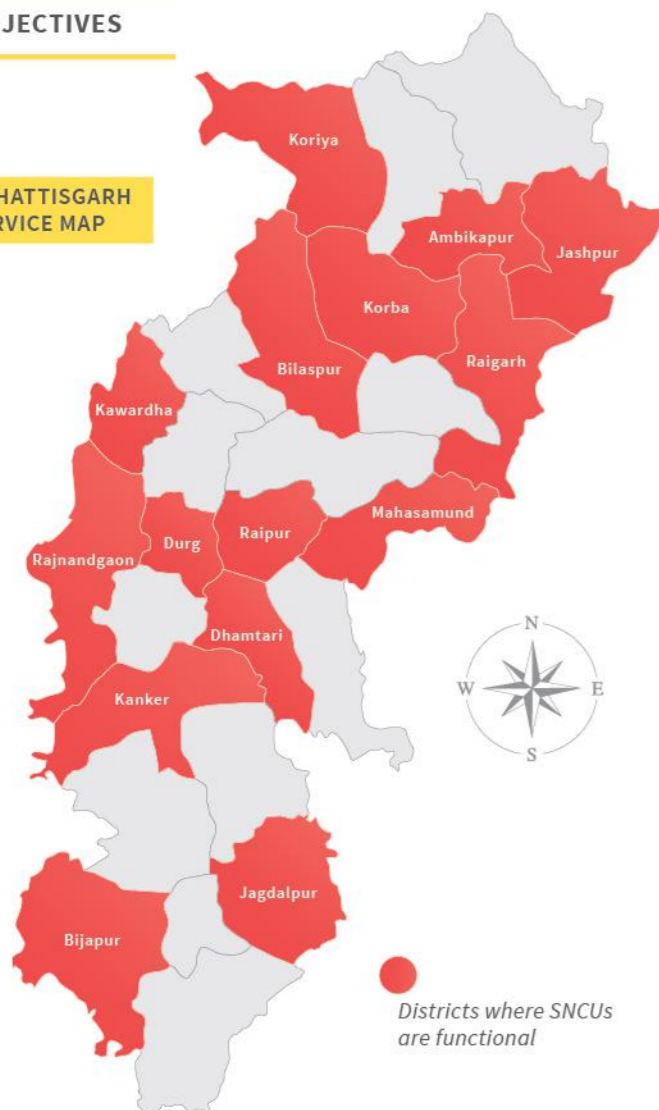
With progression of time, the intervention was carried across 18 SNCUs of 17 districts, which are as follows:

Ambikapur District hospital(DH), Balod DH, Bijapur DH, Bilaspur DH, Dantewada DH, Dhamtari DH, Durg DH, Jagdalpur DH, Jashpur DH, Kanker DH, Kawardha DH, Korba DH, Koriya DH, Mahasamund DH, Raipur Medical College, Raipur DH, Raigarh DH and Rajnandgaon DH.



OBJECTIVES

CHHATTISGARH SERVICE MAP



The overall broad objective of the project was to contribute towards a reduction in neonatal mortality by enhancing healthcare delivery within the health units that provide Mother and Child Healthcare in all the First Referral Units by the following specific objectives.

1. To provide equipment maintenance support.
2. To establish a central helpline call center for equipment maintenance in collaboration with CGMSC.
3. To facilitate, recruit, train and monitor personnel like Date Entry Operators which will benefit record maintenance.
4. To set up a microbial surveillance system that will routinely monitor the lab diagnosis uptime within the said SNCUs.
5. To set up an efficient Data Entry Management system.

OPERATIONAL STATUS OF SNCUS

At start of the project, 13 SNCUs were sanctioned and operational. With Efforts of EKAM, at end of project i.e. Dec 2017, 18 SNCUS were functional out of 25 sanctioned SNCUs. By 2015-16, the total number of SNCUs that were proposed to be established in the state of CG was 16. Compared to the proposed number of SNCUs, 13 SNCUs (81%) were fully operational as on April 30, 2016.

Whereas, in 2017, as per the 18 SNCUs that were sanctioned by National Health Mission (NHM), 16 were fully functional as on Dec 17. In the remaining 2 units (Balod & Jashpur), only recruitment of nurses was completed.

RECRUITMENT

Human beings are the most important resources in health care. Machines and gadgets which are integral parts of health care require the human touch, expertise, and commitment for their full utility and application in delivery of health care. Therefore planning of human resources is the key to any health care provision. The functioning and growth of health systems depends on the availability of human resources and on time, effort and skill mix provided by the workforce.

As per the tri-party agreement of Ekam with NHM and Unicef, Unicef was looking after the equipment maintenance part, microbial surveillance and supporting the financials of the Data entry operators and the Project Team. On the other side NHM was looking after the recruitment of Nurses, Doctors and DEO. EKAM does the process of recruitment and NHM pay their salary directly from districts.

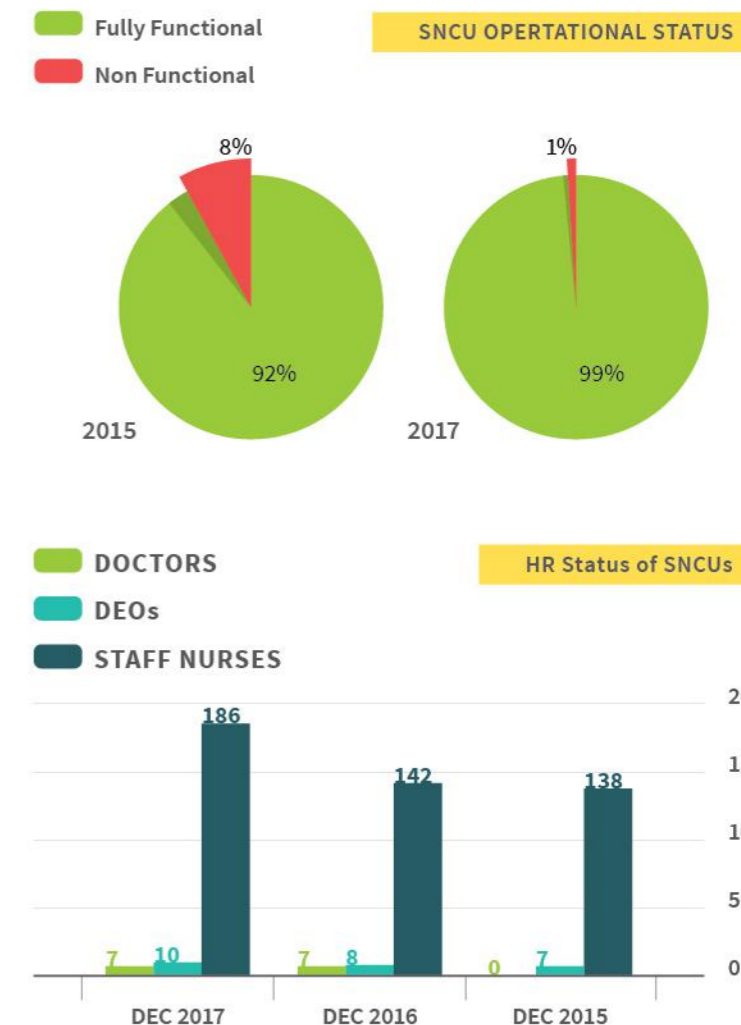
A total of 138, 142 and 186 nurses were retained as on Dec 2015, 2016 and 2017, respectively; along with 7 doctors in 2016 and 2017. Data management is one of the key areas in any field. Systematic and well maintained data helps in research and analyzing the outputs and outcome of the project. In order to keep track and record of the patient status and care delivery in the SNCU, 8 Data entry operators, one per SNCU, were recruited during the year 2016 which was scaled up to 10 in 2017.

PROCESS OF RECRUITMENT



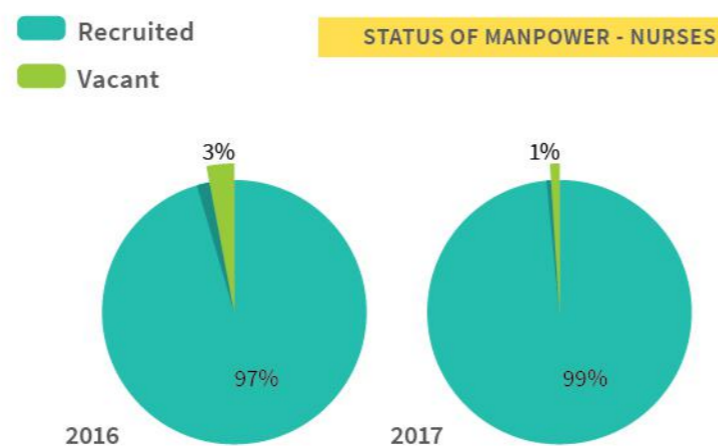
The following process is followed for HR recruitment, and is slightly different than the usual process.

1. Unlike other Government norms for hiring human resources, no reservation system is followed for candidates.
2. Employment opportunities are encouraged by strengthening mother and child health among qualified staff nurses and doctors in Chhattisgarh and across other states too.
3. All pre and post follow-up, coordinating, interview arrangement, identification of panel, assessment & post-communication is done. Once selected, the identified candidate is given a letter of intent with a copy to all stakeholders.
4. Selection of the candidate is purely done on the basis of knowledge and skills.
5. Due to efficiency and periodic training, the staff is capable enough to be deployed anywhere in the state.
6. All queries, issues due to and with the recruited staff are handled by Ekam as the one point of contact.
7. Due to accessibility issues, availability of some health staff has been a big challenge in the state.
8. Regular follow-up and review is done based on performance of the staff.



STAFF NURSES

During baseline it was observed that out of 13 SNCUs, only 9 SNCUs were adequately staffed with nurses and 4 SNCUs (Rajnandgaon, Raigarh, Koriya and Jagdalpur) were not fully staffed. Of the 143 vacancies that were to be filled, it was found that 97 % [138 vacancies] were filled in 2016. Whereas, during end line, there was adequacy of staff across all 18 SNCUs. Out of the 197 vacancies, 99 % (195) positions were filled. FBNC training was also conducted for all recruited nurses for 4 days in Raipur medical College hospital.



DATA ENTRY OPERATOR/ MANAGER

As per the partnership agreement, it was imperative to place one Data Entry Manager/Operator per SNCU. In accordance with this partnership, it was found that only one SNCU did not have the required Data Entry Staff in place.

While conducting the end line, it was found that 16 DEOs were placed and only 2 positions are vacant in Jashpur and Bijapur. (Jashpur and Janjgir SNCU was started in March, 18)

TABLE 1: UNIT WISE STATUS OF HUMAN RESOURCE

	Nurses			Doctor			Deo		
	Required	Recruited	Vacant	Required	Recruited	Vacant	Required	Recruited	Vacant
Raipur MC	11	11	0	0	0	0	1	1	0
Raipur DH	11	11	0	4	1	3	1	1	0
Durg	11	11	0	4	3	1	1	1	0
Rajnandgaon	11	11	0	3	3	0	1	1	0
Dhamtari	11	11	0	4	1	3	1	1	0
Bilaspur	11	11	0	3	2	1	1	1	0
Raigarh	11	11	0	4	1	3	1	1	0
Mahasamund	11	11	0	4	2	2	1	1	0
Korba	11	11	0	4	3	1	1	1	0
Koriya	11	11	0	4	2	2	1	1	0
Ambikapur	11	11	0	4	1	3	1	1	0
Jagdalpur	11	11	0	4	0	4	1	1	0
kawardha	11	11	0	4	1	3	1	1	0
Bijapur	10	10	0	4	0	0	1	1	0
Kanker	11	11	0	4	1	3	1	1	0
Jashpur	11	11	0	4	0	0	1	0	1
Dantewada	11	11	0	3	2	2	1	1	0
Balod	11	11	0	0	1	4	1	1	0
Janjgir	11	11	0	0	3	4	1	0	1
TOTAL	208	208	0	65	23	42	18	16	2

DOCTORS

Due to non-availability of work order from NHM during baseline, doctors were not appointed until June 16. Once issued for 48 doctors with a mandate of 3 Medical Officers and 1 Pediatricians for each SNCU, the process of recruitment was started. As per the latest statistics of Feb, 2018, 23 doctors were placed across the 15 units (Refer Table 1 for details).

TRAINING OF HR

A successful training and development program will evaluate the current competencies of the employee; analyze the learning environment and potential deadlines, with their goals and objectives. It will also create a proper implementation method and track its effectiveness. With this concept, 11 Facility Based Neonatal Care (FBNC) trainings were facilitated for nurses and doctors with an average of 25 per batch. Also, 5 batches across 10 districts were sent for observership training at AIIMS, Delhi and KEM Hospital, Mumbai with 6 per batch.



OUTPUT - HR

- Recruited 206 nurses in 3 years since 2015
- Recruited 18 medical officers
- Recruited 5 pediatricians
- Recruited 16 DEOs
- Conducted 11 FBNC trainings
- Coordinated 5 batches for observer ship training

MICROBIAL SURVEILLANCE

One of the main challenges faced by the units in achieving their target of reducing NMR is nosocomial (derived from a Greek word nosokomeian, nosos meaning disease and Komeian meaning hospital) infections among the neonates, which increases morbidity and mortality among them. These SNCUs harbor a very hostile environment containing a wide selection of pathogenic, antibiotic resistant organisms, thus affecting the scope of treatment and improvement.

Surveillance studies provide important information that is critical for creating and refining approaches to controlling antimicrobial resistance and for guiding clinician decisions regarding appropriate treatment. For improving the quality care of SNCUs, collaboration was done with the All India Institute of Medical Science (AIIMS), Raipur with a major aim of decreasing the infection among the neonates and ensuring rational use of antibiotics. This activity proposed the collection and transportation of the microbial samples from the SNCUs to AIIMS for further testing and evaluating the scope of treatment.



A two day orientation workshop was organized for staff nurses, Doctors and Runners of SNCU in the month of February 2016 at AIIMS, Raipur with an objective to enhance the participants understanding on microbial surveillance and participant's skills on sample collection from SNCUs. Total 18 doctors, 26 staff nurses and 4 Runners (For Sample Transportation) received the training.

A cost-effective partnership was established with a private us service (Kanker Roadways), for delivering samples efficiently and punctually. As a social responsibility, the activity was carried out free by them for which high amount of gratitude and acknowledgement has been expressed.



OUTPUT - MICROBIAL SURVEILLANCE

- Microbial surveillance started in 13 units
- Total 1487 environment samples were collected from 13 SNCUs over a period of 3 months (May-July 17)
- 80 Patient samples have been collected from 14 SNCUs from Oct to Dec 17.

EQUIPMENT MAINTENANCE

Equipments allow healthcare personnel to more accurately manage and perform all sorts of functions from the emergency room to the operating table. If a piece of medical equipment fails, the quality of patient care can decrease, which can even affect patient safety. Properly functioning medical equipment can be a critical tool for any healthcare professionals. Therefore; a very important feature of any intensive care unit is equipment maintenance. Thereby, SNCUs need to be essentially equipped and functional with the requirements like radiant warmers, phototherapy units, oxygen concentrators, pulseoxymeter, and intravenous infusion pumps in order to cater and treat babies with ailments such as birth asphyxia, jaundice, sepsis, and LBW babies. In order to cater to a drop in the down time of equipments, an innovative and holistic approach was used i.e.-

1. Preventive Maintenance (PM) of equipments: One weekly visit is conducted by the engineers as a preventive measure to maintain the equipments efficiency in all SNCUs.

2. Call Process: Cold call is a call in which helpline office make call to staff nurses and DEOs every alternate day for getting the information of equipment. And in breakdown call, helpline officer receives a call from unit for equipment repairing.

3. Set up of 24*7 Helpline number: One 24x7 equipment help line number was established in Chhattisgarh office for maintenance of equipments. A central Helpline has been set up to handle breakdown calls and cold call for equipment maintenance. Helpline officer makes cold calls to staff nurses every alternate day for getting the status of SNCU staff and equipments. Breakdown of equipments are also reported to central helpline wherein the appointed engineer would react to the complaint within 24 hours. On an average 8 to 10 calls were received over the year 2016 and 2017 respectively.

4. Online Equipment Maintenance Software (IMSIE): For smooth functioning of equipments online software was designed with the help of UNICEF and is being used for the same. Software has been established for maintenance of equipment's and inventory with following objectives:-

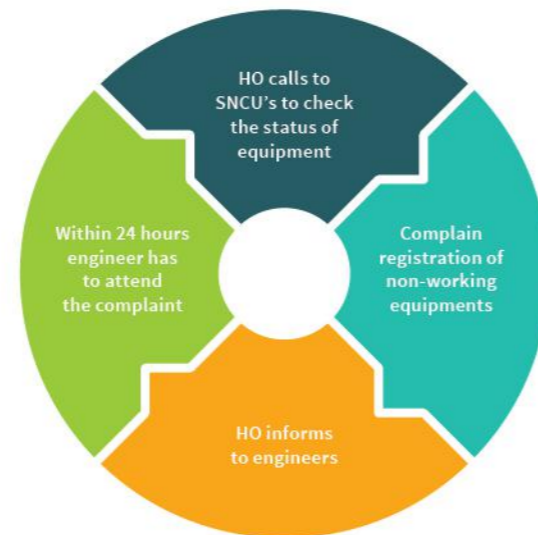
- Central inventory for the equipment's.
- A central and to handle breakdown calls.
- Timely equipment maintenance.

After using the application, it was observed that engineers get automatic updates for Breakdown call and preventive visits. Prior to which, the helpline officer had to individually call each engineer and inform about the same.

BREAKDOWN CALL PROCESS



COLD CALL PROCESS

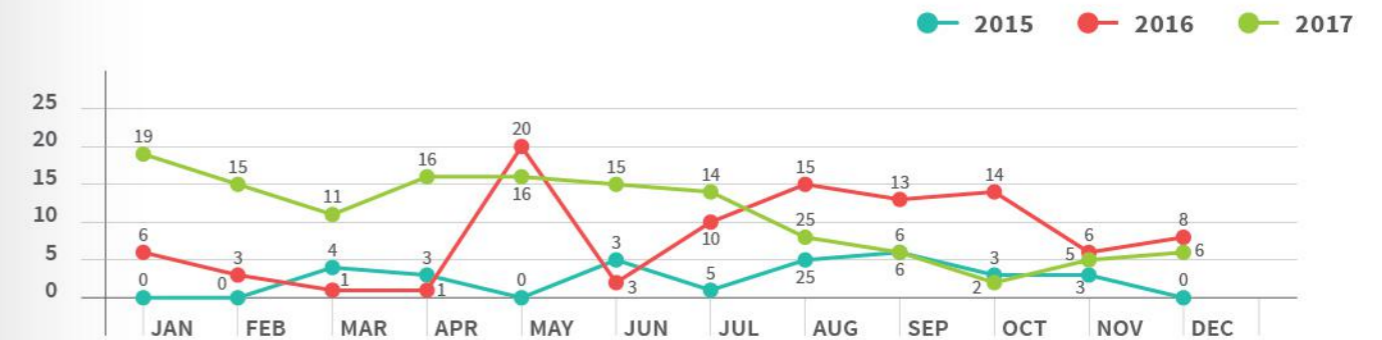


IMSIE APP

- 594 number of equipment of 18 SNCUs equipments were inventorised.
- 157 PM visits were done by Engineers.



BREAKDOWN TREND



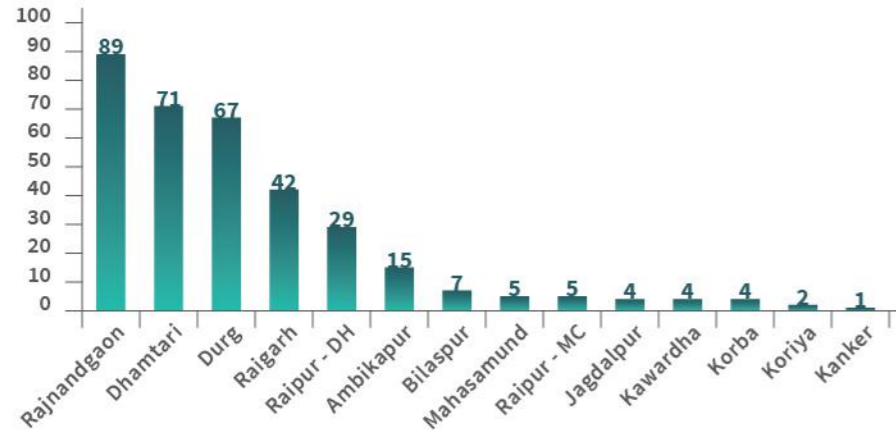
It has been observed that over the period, number of breakdown calls was increased due to the continuous follow up with SNCUs and also due to an increase in the number of non-warranty equipments.

EQUIPMENT STATUS

As per 2017, 782 equipments were inventoried within the 16 SNCUs out of which 382 (49%) equipments were covered under the Annual Maintenance Contract or still under warranty while around 51% of the equipments (400 equipments) are not under warranty. On an average, 96% of the equipments are functioning. While only 4% of both, the non warranty and warranty equipments were not functional¹.

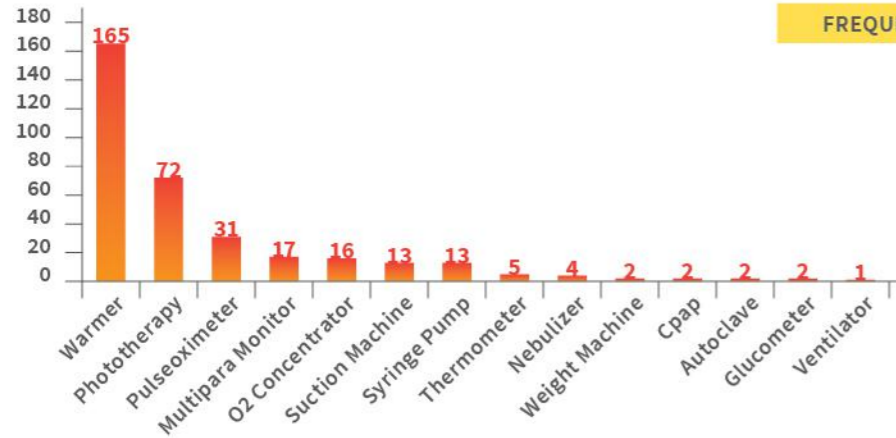


EQUIPMENT MAINTENANCE



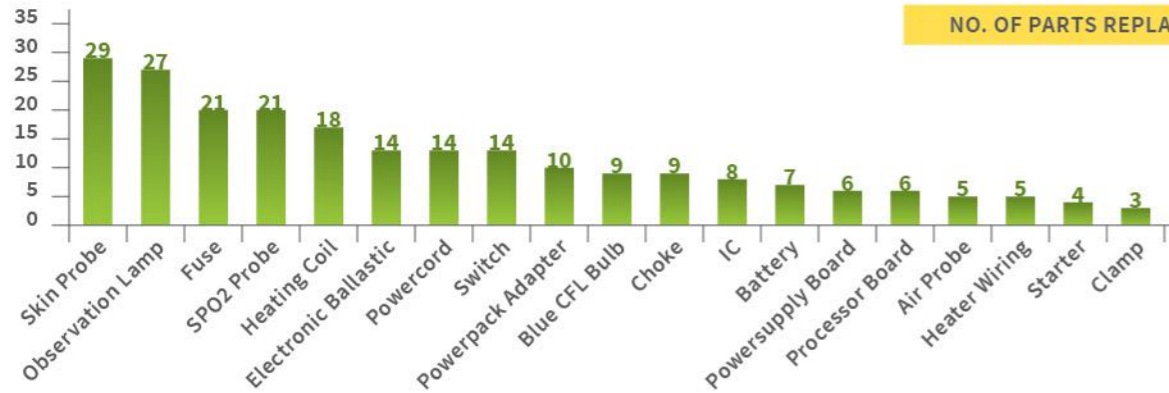
MAXIMUM NO. OF CALL IN UNITS

It has been observed that max no. of calls for equipment breakdown were received in Rajnandgaon (89), Dhamtari (71), Durg (67) and Raigarh (42) during the reporting period of 2 years (2015-17).



FREQUENT ISSUES WITH EQUIPMENTS FROM 2015-17

Data reflects, maximum breakdowns occurred in warmer (165), followed by Phototherapy (72) and Pulseoximeter (31). Hence spare parts like skin probe, Observation lamp, SPO2 probe and Fuse were replaced most of the time.



NO. OF PARTS REPLACED FROM 2015-17

STATUS OF EQUIPMENT

Baseline: 477 equipments were inventoried and audited within the 13 SNCUs. 304 equipments were covered under the Annual Maintenance Contract or were still under warranty while around 38 percent of the equipment [173 equipments] was not under warranty. A breakup of the total number of equipment [SNCU wise] is given below.

Out of all the equipments inventoried, 91% were completely functional. About 9% were non functional. Around 62% (304) of the equipments were covered under the AMC scheme or warranty. 38% (173) of the equipments were old and not covered under any warranty.

TABLE 2: SNCU WISE EQUIPMENT DETAIL AS ON DEC 17

SNCU NAME	Under Warranty	Not Under Warranty	Total
Raipur MC	57%	43%	143
Raipur DH	63%	37%	38
Durg	30%	70%	63
Rajnandgaon	51%	49%	68
Dhamtari	30%	70%	56
Bilaspur	0%	100%	40
Raigarh	1%	99%	75
Mahasamund	24%	76%	41
Korba	11%	89%	36
Koriya	22%	78%	41
Ambikapur	35%	65%	57
Jagdalpur	25%	75%	67
Kawardha	20%	80%	46
Kanker	100%	0%	21
Dantewada	100%	0%	56
TOTAL	40%	60%	848

WARRANTY STATUS OF EQUIPMENTS

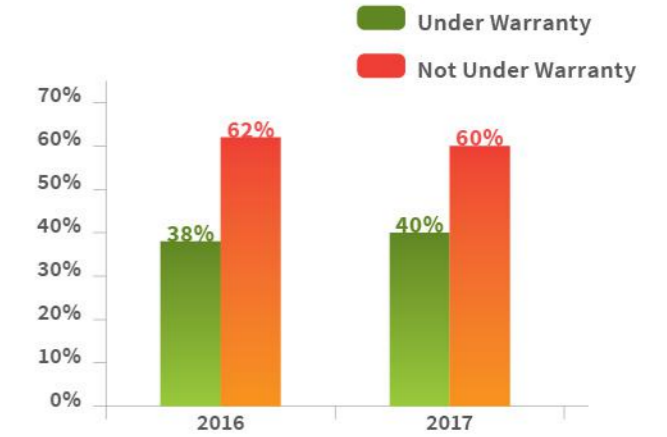


TABLE 3: EQUIPMENT STATUS IN 2016 AND 2017

	2017		2016	
	Equipment Working	Not working Equipments	Equipment Working	Not working Equipments
DH- Raipur	37	1	23	2
MC-Raipur	142	1	64	7
Durg	62	1	38	2
Rajanandgaon	66	2	42	5
Dhamtari	55	1	19	6
Bilaspur	39	1	45	0
Korba	34	2	34	2
Raigarh	72	3	30	1
Jagdalpur	66	1	38	9
Mahasamund	41	0	22	2
Kawardha	44	2	22	2
Ambikapur	56	1	34	2
Koriya	37	4	24	2
Dantewada	56	0		
Kanker	21	0		
Total	828	20	435	42

End line: 866 equipments were inventoried in 15 SNCUs, out of which 18 equipments need condemnation, summing up to an inventory of 848 equipments across the SNCUs. Out of the 848, 340 (40%) equipments were under warranty where as 508 (60%) were out of warranty. 98% were functional, with only 2% non-functional.

Bilaspur Medical College SNCU from Bilaspur district fared the best in terms of maintenance and functioning of equipment while Jagdalpur SNCU fared the worst in terms of overall maintenance. An overview of the status of the equipment per SNCU is given in the table 3.

BEDS OCCUPANCY

During the period of Jan-April, 16, out of the 13 SNCUs, three did not have the stipulated number of beds. The Raigarh unit had only 10 beds, whereas Dhamtari and Ambikapur each had just 4 beds. The rest of the units had adequate number of beds.

Whereas at the time of end line, all 15 SNCUs had the sufficient number of beds.

BUDGET

The overall budget for the project was Rs.1, 71, 06,500/-for two years (93.28% of the cost was borne by UNICEF and the remaining 6.72% by the partner – Ekam). This included

Equipment maintenance	<ul style="list-style-type: none"> • Salary of 5 engineers(Recurring-r) • Preventive and breakdown visits by engineers including boarding and food(r) • Telephone and internet expenses for engineers(r) • Helpline officer expenses(r) • Spare parts for non-warranty equipments (one time cost- o) • Baseline and end line report (o) • Software development (o) 	<ul style="list-style-type: none"> • Overall: Rs.64, 67,700/- (37.81%) • Human Resource: Rs.51, 83,500/- (80.14%) • Administration: Rs.10, 24,200/- (15.84%) • Software: Rs.2, 60,000/- (4.01%)
Data management	<ul style="list-style-type: none"> • Salaries of 8 DEOs(r) 	<ul style="list-style-type: none"> • Overall: Rs.23, 04,000/- (13.46%) • Human resource: Rs. 23, 04,000/- (100%)
Microbial surveillance	<ul style="list-style-type: none"> • Sample facilitating cost(r) 	<ul style="list-style-type: none"> • Overall: Rs.7, 68,000/- (4.48%) • Administration: Rs. 7, 68,000/- (100%)
Management & Monitoring	<ul style="list-style-type: none"> • Salaries of 4 staff (r) • Honorarium for Project Head(r) • Monitoring visits by state in charge(r) • Monthly/bimonthly visits by Head office(r) • Office maintenance and supplies like stationery, office rent, printing, courier postage, electricity-water, internet and telephone(r) • Office setup (o) 	<ul style="list-style-type: none"> • Overall: Rs.75, 66,800/- (44.23%) • Human resource: Rs.55, 78,800/- (73.73%) • Administration: Rs.19, 88,000/- (26.27%)

The doctors and nurses recruited were directly under the payroll of NHM. An administration fee of Rs.8,50,000/- per year was provided to Ekam for running the show on behalf of NHM.

CHALLENGES FACED DURING PROJECT IMPLEMENTATION

• **Recruitment of doctors and experienced nurses:** In the interior districts of the state, there was a major hurdle of identifying human resource for service delivery. Various options like tapping in medical colleges, nearby states, Government website, job portals were explored to overcome the scarcity of human resource.

Also, getting quality nurses was a bigger challenge as there were a pool of nurses but quality and experience was the major task line while dealing with recruiting nurses.

• **Retention of doctors & nurses:** In advent of pursuing higher education, better job location facilities, better financials and benefits, retaining the recruited staff has been a major challenge overall.

• **Transportation of samples for microbial surveillance:** The cost for transporting the sample from AIIMS to hospital unit and back for 14 units was not cost effective. Hence, a partnership with kanker bus service was done where the samples were dropped in the bus in a secured and safe way following all protocols by the data entry operator of that unit and collected at Raipur by Ekam staff. The sample was transported to AIIMS on the very same day of receipt or the next day, thus saving time and money over sample collection.

• **Following and tracking of warranty equipments:** Under warranty equipments were taken care of through the helpline. However, the equipments under warranty had to be dealt by the company in charge. Following up and punctuality was the major issue due to which the complaint was not closed on time, thus affecting the status of functioning equipments and quality of care.

• **Condemned Equipments:** A total of 14 equipments had to be condemned as per the shelf life and working status. However, disposal of the same was due since a long time, thus negatively affecting the percentage of functioning equipments in the inventory. Way forward, those 14 equipments were removed from the inventory after discussing with NHM.

OUTCOME

- Improved Quality of healthcare delivery across the 16 SNCUs

IMPACT

- Contributing to reducing neonatal mortality rate across CG (NMR:27, SRS, 2015 and 26, SRS, 2016)

A peek into the Units

AMBIKAPUR DISTRICT HOSPITAL

*No. of Beds: 12 IN 2015 AND 18 IN 2017



	Admissions	Mortality Rate	Bed occupancy Rate	Total HR Status (Staff Nurses, Doctors and DEO)	Equipment status of Dec
Aug - Dec 15	725	25.5	158.06	12	92%
Jan - Dec 16	1916	19.2	247.25	12	94%
Jan - Dec 17	2184	18.6	257.85	12	99%

	Required	Recruited as on Dec 17
Paediatrician	1	1
Medical officers	3	-
Nurses	11	11
Data entry operators	1	1

CALL DATA:

- 17 breakdown calls were received
- 302 cold calls were made to staff.

MICROBIAL SURVEILLANCE DATA:

- 84 environment and 10 Patient samples were collected.

BILASPUR DISTRICT HOSPITAL

*No. of Beds: 12



	Admissions	Mortality Rate	Bed occupancy Rate	Total HR Status (Staff Nurses, Doctors and DEO)	Equipment status of Dec
Aug - Dec 15	164	3	22.92	13	92%
Jan - Dec 16	462	1.1	26.5	13	84%
Jan - Dec 17	864	0.1	74.04	13	99%

	Required	Recruited as on Dec 17
Paediatrician	1	1 (By Govt)
Medical officers	3	2
Nurses	11	11
Data entry operators	1	1

CALL DATA:

- 15 Breakdown calls received since 2015.
- 313 cold calls have been done to staff.

MICROBIAL SURVEILLANCE DATA:

- 118 Environment and 4 Patient Samples were collected from unit.

DURG DISTRICT HOSPITAL

*No. of Beds: 18



	Admissions	Mortality Rate	Bed occupancy Rate	Total HR Status (Staff Nurses, Doctors and DEO)	Equipment status of Dec
Aug - Dec 15	885	10.6	92.84	12	94%
Jan - Dec 16	1730	10.3	110.35	12	95%
Jan - Dec 17	1905	6.8	112.69	12	99%

	Required	Recruited
Paediatrician	1	1 (By Govt)
Medical officers	3	2
Nurses	11	11
Data entry operators	1	1

CALL DATA:

- 14 breakdown calls received since 2015.
- 321 cold calls have been done to staff.

MICROBIAL SURVEILLANCE DATA:

- 120 Environment and 10 Patient Samples were collected from unit.

DHAMTARI DISTRICT HOSPITAL

*No. of Beds: 13



	Admissions	Mortality Rate	Bed occupancy Rate	Total HR Status (Staff Nurses, Doctors and DEO)	Equipment status of Dec
Aug - Dec 15	262	17.9	57.93	12	70%
Jan - Dec 16	668	14.2	95.29	12	76%
Jan - Dec 17	764	14.5	98.13	13	95%

	Required	Recruited as on Dec 17
Paediatrician	1	1
Medical officers	3	0
Nurses	11	11
Data entry operators	1	1

CALL DATA:

- 12 breakdown calls received since 2015.
- 293 cold calls have been done to staff.

MICROBIAL SURVEILLANCE DATA:

- 132 Environment and 11 Patient Samples were collected from unit.

JAGDALPUR DISTRICT HOSPITAL

*No. of Beds: 20



	Admissions	Mortality Rate	Bed occupancy Rate	Total HR Status (Staff Nurses, Doctors and DEO)	Equipment status of Dec
Aug - Dec 15	731	22.7	103.93	12	89%
Jan - Dec 16	1815	23.7	149.17	12	92%
Jan - Dec 17	1645	24.7	164.11	12	99%

	Required	Recruited
Paediatrician	1	1 (By Govt)
Medical officers	3	0
Nurses	11	11
Data entry operators	1	1

CALL DATA:

- 24 breakdown calls received since 2015.
- 317 cold calls have been done to staff.

MICROBIAL SURVEILLANCE DATA:

- 121 Environment and 2 Patient Samples were collected from unit.

KAWARDHA DISTRICT HOSPITAL

*No. of Beds: 12



	Admissions	Mortality Rate	Bed occupancy Rate	Total HR Status (Staff Nurses, Doctors and DEO)	Equipment status of Dec
Aug - Dec 15	170	9.4	17.84	12	89%
Jan - Dec 16	614	8	30.42	12	81%
Jan - Dec 17	1099	3.2	46.55	13	100%

	Required	Recruited as on Dec 17
Paediatrician	1	1 (By Govt)
Medical officers	3	0
Nurses	11	11
Data entry operators	1	1

CALL DATA:

- 9 breakdown calls received since 2015.
- 358 cold calls have been done to staff.

MICROBIAL SURVEILLANCE DATA:

- 120 Environment and 2 Patient Samples were collected from unit.

KORBA DISTRICT HOSPITAL

*No. of Beds: 12



	Admissions	Mortality Rate	Bed occupancy Rate	Total HR Status (Staff Nurses, Doctors and DEO)	Equipment status of Dec
Aug - Dec 15	177	10.7	42.8	12	90%
Jan - Dec 16	338	15.7	42.81	12	95%
Jan - Dec 17	591	7.4	55.41	13	95%

	Required	Recruited
Paediatrician	1	1
Medical officers	3	2
Nurses	11	11
Data entry operators	1	1

CALL DATA:

- 22 breakdown calls received since 2015.
- 342 cold calls have been done to staff.

MICROBIAL SURVIELLANCE DATA:

- 80 Environment and 2 Patient Samples were collected from unit.

KORIYA DISTRICT HOSPITAL

*No. of Beds: 12



	Admissions	Mortality Rate	Bed occupancy Rate	Total HR Status (Staff Nurses, Doctors and DEO)	Equipment status of Dec
Aug - Dec 15	249	11.6	40.49	12	91%
Jan - Dec 16	840	6.7	77.55	12	92%
Jan - Dec 17	759	7.9	81.32	13	99%

	Required	Recruited as on Dec 17
Paediatrician	1	1
Medical officers	3	1
Nurses	11	11
Data entry operators	1	1

CALL DATA:

- 20 breakdown calls received since 2015.
- 194 cold calls have been done to staff.

MICROBIAL SURVIELLANCE DATA:

- 64 Environment Samples were collected from unit.

MAHASAMUND DISTRICT HOSPITAL

*No. of Beds: 12



	Admissions	Mortality Rate	Bed occupancy Rate	Total HR Status (Staff Nurses, Doctors and DEO)	Equipment status of Dec
Aug - Dec 15	249	11.6	40.49	12	87%
Jan - Dec 16	840	6.7	77.55	12	92%
Jan - Dec 17	903	10.9	81.32	13	99%

	Required	Recruited
Paediatrician	1	1
Medical officers	3	0
Nurses	11	11
Data entry operators	1	1

CALL DATA:

- 20 breakdown calls received since 2015.
- 297 cold calls have been done to staff.

MICROBIAL SURVEILLANCE DATA:

- 118 Environment and 13 Patient Samples were collected from unit.

RAIGARH DISTRICT HOSPITAL

*No. of Beds: 27



	Admissions	Mortality Rate	Bed occupancy Rate	Total HR Status (Staff Nurses, Doctors and DEO)	Equipment status of Dec
Aug - Dec 15	672	25.7	99.57	12	90%
Jan - Dec 16	1707	22.8	150.89	12	97%
Jan - Dec 17	1945	21.1	207.03	13	98%

	Required	Recruited as on Dec 17
Paediatrician	1	1
Medical officers	3	0
Nurses	11	11
Data entry operators	1	1

CALL DATA:

- 19 breakdown calls received since 2015.
- 327 cold calls have been done to staff.

MICROBIAL SURVEILLANCE DATA:

- 127 Environment and 13 Patient Samples were collected from unit.

RAJNANDGAON DISTRICT HOSPITAL

*No. of Beds: 16



	Admissions	Mortality Rate	Bed occupancy Rate	Total HR Status (Staff Nurses, Doctors and DEO)	Equipment status of Dec
Aug - Dec 15	843	10.3	115.97	12	92%
Jan - Dec 16	908	7.4	140.06	12	89%
Jan - Dec 17	2218	12.6	127.9	12	97%

	Required	Recruited as on Dec 17
Paediatrician	1	1 (By Govt)
Medical officers	3	3
Nurses	11	11
Data entry operators	1	1

CALL DATA:

- 19 breakdown calls received since 2015.
- 323 cold calls have been done to staff.

MICROBIAL SURVEILLANCE DATA:

- 125 Environment and 6 Patient Samples were collected from unit.

RAIPUR DISTRICT HOSPITAL

*No. of Beds: 12



	Admissions	Mortality Rate	Bed occupancy Rate	Total HR Status (Staff Nurses, Doctors and DEO)	Equipment status of Dec
Aug - Dec 15	198	1	23.9	12	92%
Jan - Dec 16	118	0.4	70.85	12	92%
Jan - Dec 17	697	0.1	53.38	13	99%

	Required	Recruited as on Dec 17
Paediatrician	1	1 (By Govt)
Medical officers	3	1
Nurses	11	11
Data entry operators	1	1

CALL DATA:

- 19 breakdown calls received since 2015.
- 323 cold calls have been done to staff.

MICROBIAL SURVEILLANCE DATA:

- 125 Environment and 6 Patient Samples were collected from unit.

*No. of Beds: 35



	Admissions	Mortality Rate	Bed occupancy Rate	Total HR Status (Staff Nurses, Doctors and DEO)	Equipment status of Dec
Aug - Dec 15	682	47.1	68.59	12	92%
Jan - Dec 16	2559	28.4	214.79	12	90%
Jan - Dec 17	2450	25.8	264.1	12	99%

	Required	Recruited as on Dec 17
Paediatrician	1	1 (By Govt)
Medical officers	3	3
Nurses	11	11
Data entry operators	1	1

CALL DATA:

- 21 breakdown calls received since 2015.
- 302 cold calls have been done to staff.

MICROBIAL SURVIELLANCE DATA:

- 144 Environment and 3 Patient Samples were collected from unit.

Success Stories: MAKING A DIFFERENCE

BECAUSE EVERY LIFE MATTERS

Extreme Low Birth Weight with Asphyxia and Sepsis

- Raipur Medical College SNCU

How crucial and intense is the survival of a baby when a mother conceives and delivers a child after 7 years. Such was an experience with one of the mother, Deepti (name changed), 28 years old from Bastar. Through an institutional delivery at a private clinic she was coined as a mother of two little baby girls (Twins). However, Happiness doesn't come easy, and unfortunately both of them were Extremely Low Birth Weight (ELBW) cases weighing 0.65 gm and 0.60 gm (Healthy baby weight is 2500 gms). A major struggle for a low birth weight baby is dealing with lack of oxygen (asphyxia) and sepsis (complicated infection); they two, unfortunately were victims of the same. Due to complexity and severity of the case they were referred to a private hospital at Raipur. However, with time, the intricacy of the case increased and the doctors had almost given up. It was then on 29th Aug, 2016 they were shifted to the biggest SNCU inhabited in the oldest medical college of Raipur city. Surviving the battle

of life is not easy, and due to delay in time, one baby succumbed to death. Reading about a child's death and being an audience to it is very different; especially when you have to face the woman who is responsible for the baby's first breath. It was then under the authority and guidance of the Head of the Department, Pediatrics, the management and treatment of the other soul was initiated. Due diligence, punctuality and a proper attitude is very important for any healthcare staff especially the one serving any intensive care units. Our training undermines this attitude and spirit. The SNCU doctors and nurses thus paid special attention to her and after putting in a rigorous 2 months 24*7 effort; her journey from 0.65 to 1.5 Kg wasn't finally achieved in October 16. She was discharged with all mandatory postnatal instructions and care given to the mother. The growth and health of the baby is being tracked periodically and she is doing well in her follow up process.



Extreme Low Birth Weight with Asphyxia

- Ambikapur District Hospital

In an interior block of Ambikapur district called Surguja, happiness knocked the door of 25 year old Shanti (name changed) and her family after four years of marriage when she gave birth to a Baby girl. The baby was born through an institutional delivery at Ambikapur district hospital. Unfortunately the baby was just 880 gm and as per the standards was categorized as ELBW (Extremely Low Birth Weight). Low birth weight brings along a lot of complications, one of the most common one is asphyxia (lack of oxygen). Daughter of Shanti also belonged to the crowd and was ultimately referred to the SNCU at Ambikapur District hospital. Two days before the New year, on 29th Dec, 2016, she was admitted in the SNCU with uncertainty lingering whether she would be a witness to the coming year of 2017 or not. When the entire world was in the preparation of a new chapter of life, Shanti and her family was patiently waiting and held the rope of Hope high.

Handling critical cases is a skill and requires expertise and proper knowledge. An SNCU is thereby established to deal with such intense cases only. Timely effort, dedication, routine monitoring, special attention and care round the clock, yielded good result. After a rigorous 71 days of extensive 24*7 support and care, finally the baby weighed 1.7 Kg. on 10th March 2017, where she was discharged marking her New Year. All the post discharge instructions were given to Shanti in order to track and monitor the growth and health of the baby in the follow up process. Shanti and her family religiously followed all advice and the baby showed massive improvements during the follow-up visits. Her weight was 1.24 kg at the 1st follow-up (i.e. 8 days post discharge), 1.7 kg in the 2nd follow-up (1 month post discharge), 6.14 kg at the 4th follow-up (6 months post discharge) and 7.8 Kg on the 5th follow-up (1 year after discharge).



At the time of Discharge



At the time of 3rd follow up



At the time of 5th follow up

FEEDBACK FROM TEAM

It was a wonderful experience working with a foundation like 'EKAM'. They have always been supportive towards any problems we faced, treating us like a family. They always call us to inquire for any problem or difficulties we are facing and help us overcome it. Thank you for giving us the opportunity to work for you and I will always be very grateful for this.

- Staff Nurse, SNCU, Durg, District Hospital

First of all, getting such an opportunity through Government would have been difficult, hence I am thankful to Ekam as through them I got this noble opportunity to serve & learn in the SNCU. I have learnt a lot about preterm and ventilator care. It is because of Ekam that my knowledge and confidence has been enhanced through FBNC training in Raipur and observer ship in Mumbai. The purpose of Ekam has always been proper baby care, improving our skills and knowledge and not just recruiting. I have learnt to be systematic because of them; all our activities are timely monitored, timely feedback or query addressal, salary disbursal. Since, the time I got a review about Ekam through my colleagues, I wanted to work with them and hence even though the location was far. I agreed to work in a far off district away from home

- Staff nurse, SNCU, Jagdalpur District Hospital

I have been enjoying working with Ekam family like a family member. Our all honorable sir/ma'am always supports in our work helps us to resolve any issues related to our work and also in our own personal problems. I am very happy to work with Akansha, Bharti, Poornima, Aafrin ma'am and kaushal sir, all of them supports us in every field. If it's possible in future I would be ever ready to join the Ekam family once again. For me, Ekam is not a consultancy it's a family for me, which has been taking care of us very well, since the past three years. Ekam shows faith to all of us by posting us in such a sensitive unit, and it is because of their faith we have reciprocated by working nicely in a special unit- SNCU with their guidance.

- Data entry operator, SNCU Kawardha District Hospital

My experience with Ekam has been really good. Well organized and punctual system of working, really happy for the concerns Ekam shows for its staff, swift response to our problems, well conducted academic workshops, timely and regular monitoring of the system & many more. Will be very happy to be associated with Ekam for long.

- Pediatrician, SNCU, Ambikapur

It was an immense pleasure working with EKAM. The staff whether managerial or service providers always extended hands for helps whenever required. The manpower crunch was managed skillfully. Every pain was taken to resolve all issues to provide care and services to newborns. I hope to see such alertness and readiness to serve for the benefit of the needy. I extend all my support required to fulfill our goal.

- Child Consultant, DHS

Nothing great has ever been achieved without the support of a good Team. In the making of great things, multiple hands are involved. This project consumed huge amount of work, research and dedication. Still, the inception would have never been possible without the support of many individuals and organizations. Therefore we would like to extend our sincere gratitude to all of them who supported us in the course of this project.

Firstly, we are thankful to National Health Mission, Chhattisgarh and UNICEF, Chhattisgarh for their financial, technical and logistical support and for providing necessary guidance concerning project implementation.

Special thanks to Dr. Ajay Trakroo, Health Specialist, UNICEF who has given enormous and continuous support to project since the inception. His superior knowledge and experience enriched the project with remarkable outcome, thus his support has been essential.

We are grateful to Directorate of Health Services, Chhattisgarh; CMHO Offices of Ambikapur, Balod, Bijapur, Bilaspur, Dantewada, Dhamtari, Durg, Jagdalpur, Jashpur, Kanker, Kawardha, Korba, Koriya, Mahasamund, Raipur, Raigarh and Rajnandgaon districts and AMS Solutions Inc., Chennai for provision of expertise and technical support in the implementation.

Also, we would like to express our sincere thanks to the Administration staff of all the district hospitals and all the Doctors, Staff Nurses and Data entry Operators of all the SNCUs.

Not to forget Kanker Roadways for their kind co-operation and support in the smooth running of this project.

Nevertheless, we express our gratitude toward our families and colleagues for their kind co-operation and encouragement which helped us in completion of this project.

Last but not the least, Almighty God, for the strength, vision & patience to execute this project.

जिला अस्पताल में अब तक हजारों बच्चों का हो चुका इलाज

कमजोर नवजातों को जीवनदान दे रहा एसएनसीयू



एसएनसीयू में भर्ती (कुल एडमिशन 11,259)

वर्ष	एडमिशन	इंडीय पैथेट रिशु	आउटस्टाण्ड रिशु	हायर ट्रीटमेंट	कम चजन
2010-11	947	774	173	50	270
2011-12	1450	1020	430	21	396
2012-13	1699	1165	529	39	1020
2013-14	1598	987	611	90	999
2014-15	1861	1087	774	209	500
2015-16	1868	1008	860	154	331
2016-17	1742	1064	678	157	54

अधिक लोग फ्लू, कमजोर, प्रीमैच्यूर, कम वजन के नवजात शिशुओं को एसएनसीयू में रखकर नया जीवन प्रदान कर दिया जा रहा है. शिशु को फ्लू, प्रीमैच्यूर या प्रीमैच्यूर नवजात शिशुओं को जीवन देने में काफी मदद मिल रही है. शिशु को फ्लू, प्रीमैच्यूर या प्रीमैच्यूर नवजात शिशुओं को जीवन देने में काफी मदद मिल रही है. शिशु को फ्लू, प्रीमैच्यूर या प्रीमैच्यूर नवजात शिशुओं को जीवन देने में काफी मदद मिल रही है.

दो साल में डेढ़ हजार शिशुओं को नया जीवन

जिला अस्पताल में संवर्धित एसएनसीयू बच्चों के लिए बरदान

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कायाकल्प प्रतियोगिता में कुल 7 जिला अस्पताल पहुंचे अतिथि धरम में जिला स्तरीय टीम ने किया अस्पताल का निरीक्षण

अतिथि धरम में जिला स्तरीय टीम ने किया अस्पताल का निरीक्षण

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मात्र 4 प्रतिशत नवजात जिला अस्पताल से हायर सेंटर में होते हैं रिफर शिशुओं के सर्वाइवल एसएनसीयू वार्ड का गुड परफार्मेंस

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बाई घंटे तक हुई मेकॉज के एनआईसीयू की पड़ताल

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जिला अस्पताल को विशेष इकाई ने सुनों होने से बचाई साढ़े तीन हजार माताओं की गोद

खास इकाई को चलते सात साल में सौत की दहलीज पर पहुंचे बच्चों को वापस

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बीमार नवजातों को मिलगा स्वास्थ्य लाभ, नहीं करना पड़गा दोबारा अस्पतालों में रिफर आज से शुरू होगा एसएनसीयू वार्ड

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