

Best Practices - Scaling up of SNCUs in Madhya Pradesh

1. Title
Scaling up of Special Newborn Care Units in Madhya Pradesh
Initiative for Improving Survival of Small and Sick Newborns

2. State
Madhya Pradesh

3. Problem Statement

State of Madhya Pradesh (MP) with a population of 73 million and an annual birth cohort of 1.9 million has the highest infant mortality rate (IMR) in the country. Neonatal mortality in 2007, accounted for 68% of infant deaths and was stagnant at 51 per 1000 live births for the preceding four years from 2002 to 2006, there by slowing progress towards IMR reduction. To address the issue of high and stagnant neonatal mortality and use the opportunity of increasing institutional delivery for improving new born survival, Government of MP with technical support of UNICEF has put a strong focus on strengthening facility based new born care by establishing special newborn care units (SNCUs) to compliment ongoing community based strategies. SNCUs are primarily meant to provide specialized care to small and sick new born who account for 80% of newborn deaths. The state initiated simultaneous steps to develop infrastructure, ensure availability of equipment's and attract adequate human resources to facilitate rapid scale up of SNCUs from starting the initial two units in Guna and Shivpuri in 2007-08 to achieving state wide scale up across all 50 districts by 2013. Thereby making MP the first state in the country to achieve universal coverage of SNCUs at district level as per the norms recommended by Government of India (GoI) with 270,000 new born treated in last six years. The rapid scale up of SNCUs also highlighted the need of a robust real time data management system to monitor performance and long term outcomes of new born discharged from SNCUs. This was addressed in 2012 by piloting an online data monitoring system which was developed by UNICEF and looking at the relevance was subsequently taken up by GoI for national scale up. All these initiatives coupled with increase in institutional deliveries have contributed to the state showing 27% decline in neonatal mortality rate in last six years (2007-2013). This paper captures the processes and learning's from the MP experience which contributed to rapid and systematic scale up of SNCUs in the state with desired quality, which can be of help for many other states and districts in the country that are grappling to establish SNCUs.

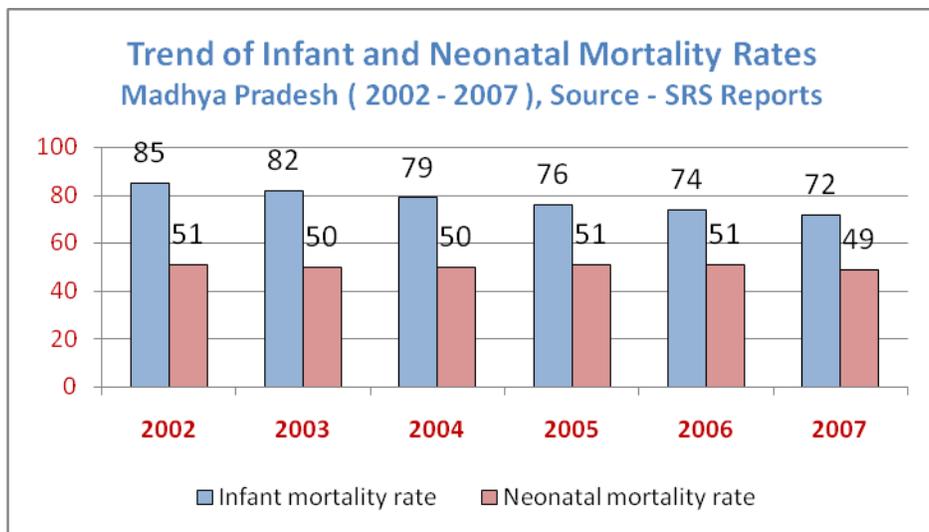
4. Project Description



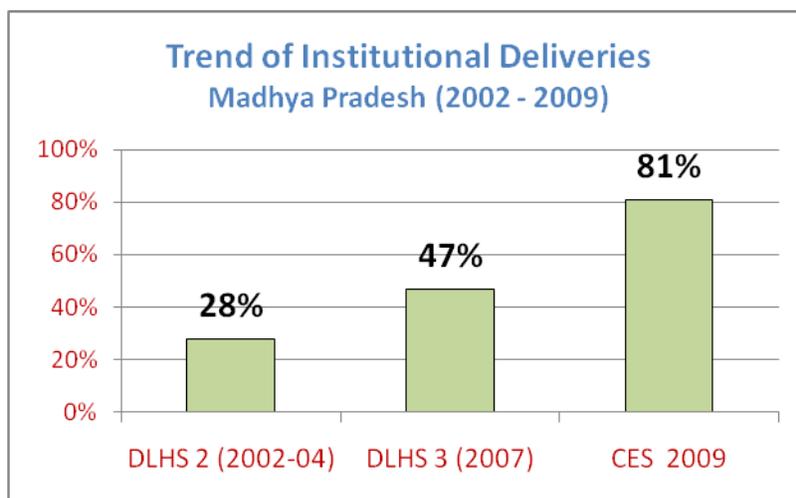
Madhya Pradesh, a state in central India with a population of 73 million¹ and 1.9 million births² each year has the dubious distinction of having the highest IMR in the country. The IMR of the state in 2007 was 72 per 1000 live births³ with neonatal mortality accounting for 68% of infant deaths. Not only was the neonatal mortality high but had remained static at 51 per 1000 live births in the preceding four years from 2002-2006⁴, slowing down the progress in IMR reduction. **As a result contribution of neonatal deaths to infant deaths increased from 60% in 2002 to 68% in 2007.** In addition due to success of Janani SurakshaYojna (JSY scheme)there was a marked increase in institutional delivery in the state, leading to increasing load of new born at district hospitals with emerging need of specialized care for small and sick new born. Facilities for such specialized care were inadequate in government sector while private sector was restricted to few cities and due to cost implications was beyond the reach of poor. This was a major challenge to leverage benefits of increased institutional delivery for newborn survival. All this led to increasing realization that if IMR reduction has to be accelerated the priority should to be given to reduce neonatal deaths.

4.1 Starting date/year

Government of MP in 2007-08, thus decided to invest on strengthening facility based new born care by establishment of SNCU at district level and Guna and Shivpuri district hospitals were selected for establishing the first two SNCUs⁵. These two districts were selected in view of prior UNICEF presence and high burden on neonatal deaths in these districts. The first SNCU in the country though was established in Purulia in West Bengal in 2003, however the state subsequently lagged pace in scale up.



High and Static Neonatal Mortality from 2002 to 2006



Increasing Institutional Deliveries bringing more Newborns

4.2 Description of Intervention

A clear road map was developed jointly with districts for the pilot and subsequent scale up with a clear understanding of roles and accountability of all stakeholders. The funding for infrastructure and equipment's for the first two units was done by UNICEF but to ensure sustainability operational cost and human resources were provisioned under National Rural Health Mission (NRHM) and a separate budget line was created for SNCU in the NRHM project implementation plan. It was also agreed that cost of scale up will be met by government resources. The strong leadership and ownership by districts along with high level of bureaucratic and political commitment at state supported by technical expertise and experience of UNICEF was critical for the successful roll out of the pilot and subsequent scale up. The establishment of SNCUs was not done in isolation but was backed up by also strengthening ongoing community based strategies and home based care for new born and putting in place, 24x7 transport network for pregnant women and newborn to improve access to health facilities.

Newborn Stabilization Units (NBSUs) :

To strengthen facility based neonatal care at sub district level Newborn Stabilization Units (NBSUs) are established at FRUs/CHCs. These units are equipped with 4 Radiant Warmers, Phototherapy Unit, Infusion Pump, Pulse Oxymeter, Oxygen Source (Oxygen Cylinder/Oxygen Concentrator), Low Pressure Suction Machine, Resuscitation Kit with Emergency/Life Saving Drugs, Disposables and Consumables. The state planned for 105 NBSUs and 97 have been made functional till date. Each NBSU has provision of 2 Staff Nurses and 2 ANMs with Support Staff. 40 posts of Medical Officers have been sanctioned by Gol for these units. 29739 babies have been successfully treated so far through NBSUs.

Services provided at sub district level through NBSU (Level-1 Care)–

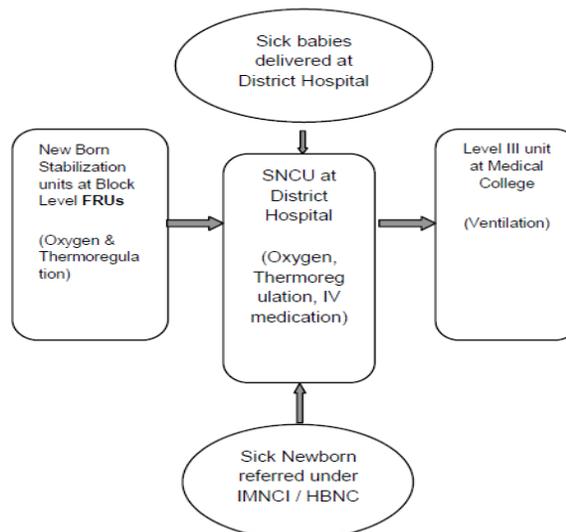
- Management of low birth weight infants > 1800 grams weight, no other complication
- Phototherapy for newborns with hyper-bilirubinemia
- Management of newborn sepsis
- Stabilization and referral of sick newborn and those with very low birth weight
- Referral Services after stabilization

Newborn Care Corners (NBCCs) :

- Each Delivery Point is supported by Newborn Care Corner (NBCC) to provide essential newborn care universally. Newborn Care Corner essentially has a Radiant Warmer, Neonatal Weight Machine, Oxygen Source, Suction Apparatus, Resuscitation Kit, Emergency/Life Saving Drugs, Disposables and Consumables. Presently the state has 1236 NBCCs against 1412 delivery points.
- Newborn Care Corner of high load facilities such as District Hospital has provision of Neonatal Nurse trained in Facility Based Newborn Care.

Referral Transport :

- Referral Neonatal Transport is provided free of charge through Janani Express and JSSK benefit provides entitlement for free transport upto 1 year of age. Since 01 January 2012, 58.5% newborns reached health facility through government provided free transport. SNCU Online Software captures referral transport details also.
- Janani Call Centres are established at District Hospital to monitor movement of GPS fitted Janani Vehicles. All delivery points display number of Janani Call Centre prominently. State level monitoring is done through Janani Express and JSSK Monitoring System which is a computerized software based system. Two dedicated Tele Callers at State randomly call beneficiaries to receive their feedback. People can lodge complaint at Janani Call Centre / CMHO Office / Civil Surgeon Office / District Collector Office / CM Helpline.



Critical Components for Scale Up of SNCUs

In order to establish SNCUs **four critical components were identified** and steps were initiated to work simultaneously instead of sequentially, on first three of these areas, so as to expedite the pace.

- **Infrastructure**– The first critical component was establishment of infrastructure and meeting the large space requirement for the SNCU. In order to expedite this an architect was hired and joint team from UNICEF and state visited each district to identify space and finalize the designs and floor plan at the site itself. In the initial phase tenders for civil modifications were done at district level, however in those districts where leadership was weak, it led to delays and subsequently to mitigate this state level tenders were floated with monitoring of progress and quality by the construction wing of NRHM. This helped in expediting progress and ensured uniformity during scale up.
- **Equipments'** – The operationalization of SNCUs require specialized equipments' and most of them were not the part of government rate contract, the supply for pilot units of Guna and Shivpuri was done by UNICEF but simultaneously the rate contract process was also initiated. Another major issue affecting functioning of SNCUs is frequent breakdown of equipment, to address this three years comprehensive maintenance contract was incorporated in tender and local capacity was built for undertaking minor repairs. Also buffer stock of critical equipment was ensured and the functionality of SNCU equipment is tracked through SNCU online software.
- **Human Resources** – The availability of adequate and trained human resources is one of the most critical factor for effective functioning of SNCU. Failure to address this had the potential of slowing down the pace of scale up and also affect the quality of care and outcomes in SNCUs. As per the requirement of 12 nurses and 4 pediatricians / Medical officers per SNCU the need for 50 districts was of 600 nurses and 200 doctors. To meet this huge need a series of HR policy related decisions were taken which not only ensured adequate HR for SNCUs but also helped in retention of trained human resources in the system. In order to fulfill the HR demand, state had an option of diverting the required resources from the existing staff pool for SNCU services and go for multitasking or to make provisions for separate cadre under NRHM for SNCU that would be trained and retained to do facility based New Born care. Both the approaches had their limitations which are summarized below -

Option 1 - Deploying existing staff of Government hospitals:

- There was already a huge shortage of staff to effectively meet current needs.
- Available staff as a result was overburdened with existing job responsibilities
- Risk of multitasking could have affected quality of care in SNCU.

- Frequent shift of trained staff between different departments of the hospital to meet immediate pressing needs often creates mismatch of skill sets.
- Reluctance for shift duties by doctors as more accustomed for on call system.

Option 2- Recruiting separate staff dedicated only for SNCU work:

- Cost implications of creating new positions.
- Shortage of pediatricians and nurses.
- Risk of conflict with existing Staff.
- Dependency on contractual staff.
- Attrition rates and job insecurity due to contractual nature of job.
- Monotony of work could lead to burn out.

After taking in account the limitations of both kinds of arrangements the state decided to go for providing separate staff dedicated for SNCU work with primary consideration of better quality of care. It was agreed that for each SNCU, position of four pediatricians and twelve staff nurses (In 2013 increased from twelve to nineteen nurses) will be created and if the posts cannot be filled by new recruitments the current staff would be redeployed to SNCU and would be relieved from other duties. The HR policy for SNCU was thus aligned to attract, redeploy and retain the required HR to meet special staffing needs of SNCUs. The key HR initiatives that were undertaken in this regard were -

Pay hike surpassing private sector packages to attract HR: The pay packages were significantly increased to attract resources from private sector with salary of pediatricians and nurses increased by four times during the six year period from 2007 to 2013. The packages for both the categories were kept above the payments offered in private sector for this job so as to attract human resources from private sector in to the government system. In addition performance based incentives and difficult area allowances were introduced to motivate the staff and reward good performance.

Pay Package in Rupees for SNCU staff including incentives⁶

Year	Pediatricians	Nurses
2006-07	18,000	6,000
2007-08	25,000	7,000
2008-09	27,500	7,500
2009-10	28,000	10,000
2010-11	35,000	10,000
2011-12	40,000	15,000
2012-13	60,000	20,000
2013-14	75,000	22,000

Walk in Interviews both at State and District level: The process of recruitment was simplified with walk in interviews initiated on a fixed day of every week. Recruitment of pediatricians is done at state while nurses are recruited at district / divisional level. Thus removing administrative hurdles in recruitment helped in roping in the necessary talent.

Opening up positions for candidates from other States: State adopted open door policy and all positions were opened for other state candidates. This especially helped to fill positions of nurses with many nurses from Kerala and Rajasthan opting to take these jobs. Even the registration in state nursing council was facilitated for outside candidates to encourage them to work in the state.

Flexibility in postings with provision of relocation to suit the need of Staff: Flexible approach in posting was kept with maximum efforts to accommodate candidates request for choice of district and in cases where requests were received for relocation on opening of new units they were accommodated ensuring functioning of existing unit is not disturbed.

Phased regularization without changing the place of posting: Pediatricians and nurses who were initially hired as contractual staff are being gradually regularized without changing the place of posting from the existing unit. Most of the nurses and pediatricians from the first batch have been given regular government jobs and retained in SNCUs, those wanting change of district were posted in the SNCU in new district. Thus the investment done on the capacity building over the period of time was not lost.

- Redeployment of Pediatricians and Staff Nurses of State service in SNCUs stabilized the units in the State. Presently 80 Pediatricians and 301 Staff Nurses from regular services have been deployed in SNCUs. Pediatricians enjoy redeployment because after training in FBNC and Observership at PGIMER Chandigarh, they are exempted from regular emergency and medico-legal duty of Hospital. As a result, court evidences and related travel are also avoided.

New recruitments are done on yearly contract basis. However, they can apply for regular posts and after regularization are usually posted in SNCUs of the same district or some other district.

- Salary of contractual Pediatrician is @ Rs. 55000/- (DCH) and @ Rs. 60000/- (MD) plus Performance Based Incentive of @ Rs.15000/- per month. Salary of Regular Pediatrician varies with seniority. Contractual Staff Nurses get emoluments @ Rs. 22000/- per month. Contractual Staff Nurses are also hired on yearly basis and after regularization are usually posted in SNCUs of the same district or some other district. Regularization requires confirmation through PSC. There is no absorption in health system.

Enforcement of Rural service bond for pediatricians: The state enforced compulsory one year rural service bond for the fresh postgraduates and the pediatric post graduates were given

posting in SNCUs. Here again efforts were done to post them as close to their home district as possible this encouraged candidates to take up the posting. Also an attempt is being done to offer them government jobs once the bond period is over.

Training of Medical graduates for working in SNCUs: To fill in the last few remaining vacancies government entered in an MOU with Maulana Azad Medical College, New Delhi for short term residential training program of forty days in neonatology for medical officers.

Capacity building and on job professional development for constant motivation: The SNCU staff has been trained as per National guidelines in partnership with National Neonatology Forum (NNF) and in addition being sent to PGI Chandigarh for two weeks of observership. In addition opportunities to attend CMEs, online training courses and workshops at state and National level are also provided for professional development of staff for further enhancing skills and motivation.



Addressing Special HR Needs of SNCUs

To meet the demand of human resources in SNCUs no single solution is available but multipronged approach like creating of additional positions, pay hikes, removing administrative bottlenecks in recruitment by opting for open door policy with walk in interviews, enforcement of rural service bond, flexibility in place of postings and judicious redeployment of existing human resources is needed. All these initiatives for attracting HR helped in ensuring 177 pediatricians and 838 staff nurses for the 48 district hospital SNCUs, with an average of 3.6 pediatrician per SNCU against the sanction of 4 and 17.4 staff nurses per SNCU against the current sanction of 19 nurses, which is the highest in the country. Many of the nurses amongst these have left private sector to join government hospital in view of better salary and work environment.

5. Evaluation

25 SNCUs of the state have been accredited by National Neonatology Forum and accreditation of remaining units is under process.



6. Financial Management

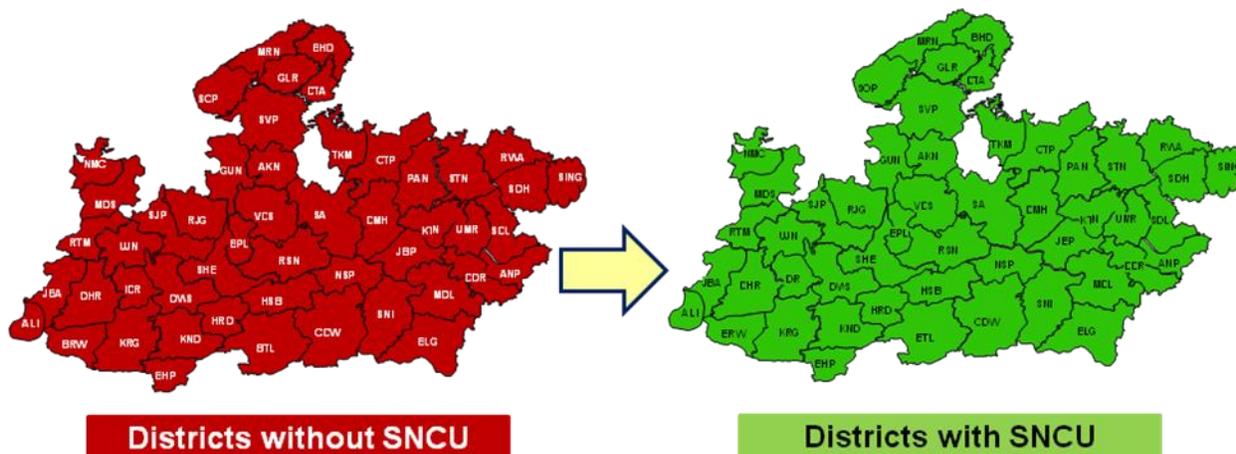
The funding for infrastructure and equipments' for the first two units was done by UNICEF, however to ensure sustainability, operational cost and human resources were provisioned under National Rural Health Mission (NRHM) and a separate budget line was created for SNCU in the NRHM project implementation plan. It was also agreed that cost of scale up would be met by government resources. In PIP 2015-16 maintenance cost for level-2 SNCUs at Rs. 15 Lakh per unit and level-3 units Rs. 20 Lakh per unit is approved. Continuous support from the Ministry of Health & Family Welfare and Child Health Division has made the dream turn into reality.

7. Lessons learnt

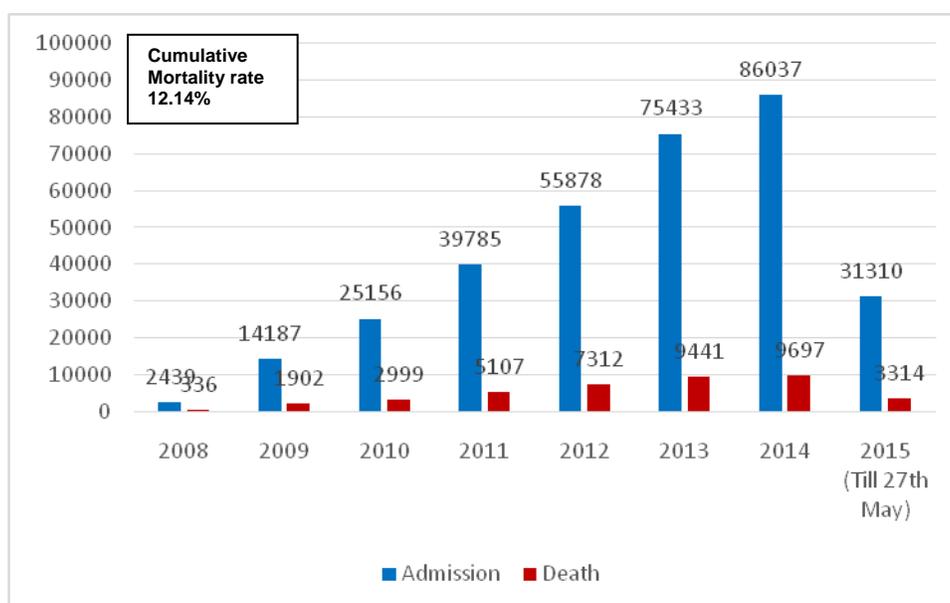
State wide scale up in Five years with 53 SNCUs and 3,05,748 newborns treated— MP has become the first state in the country to achieve universal scale up of SNCU covering all 50 districts in the state. The scale up has been fast and methodical without compromising on the quality and has benefitted more than 3,05,748 newborns in last eight years with an overall mortality rate of 12.4 % during treatment.

Year 2007

Year 2013



SNCU Outcomes, 2008-2015, Madhya Pradesh (FBNC database)

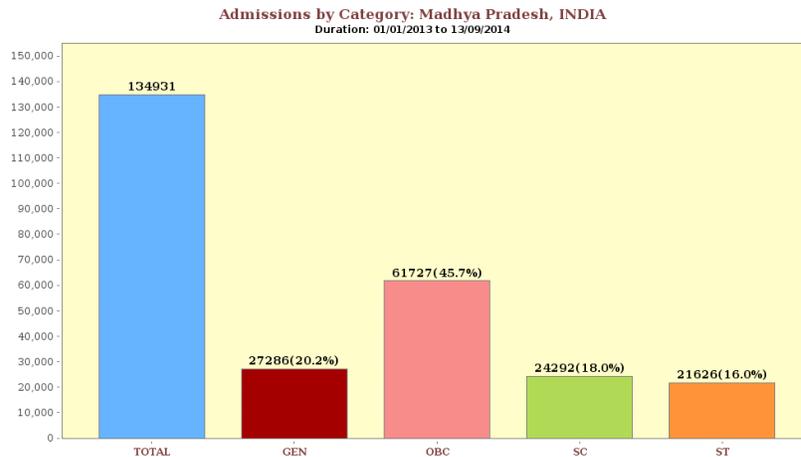


Annual SNCU Outcomes in Madhya Pradesh, Data Source – SNCU data base

Newborn Survival depends on multiple factors like socio-cultural milieu, availability and quality of antenatal and intra natal services, postnatal services through home visitation by ASHA, early identification of danger signs, timely referral and quality care at health centers. In the state of Madhya Pradesh, facility strengthening was under taken on priority for treatment of sick newborns and SNCUs were established in high case load units at District Hospitals and Medical Colleges. Comparative fall in NMR during years 2010 to 2013 revealed drop of 4.7 and 4.3 percent in Guna and Shivpuri respectively while Sagar (unit started on 17 Sept. 2013) and Harda (unit started on 09 Aug. 2013) recorded fall in NMR by 1.8 and 2.4 respectively. (Source - AHS 2010 to 2013)

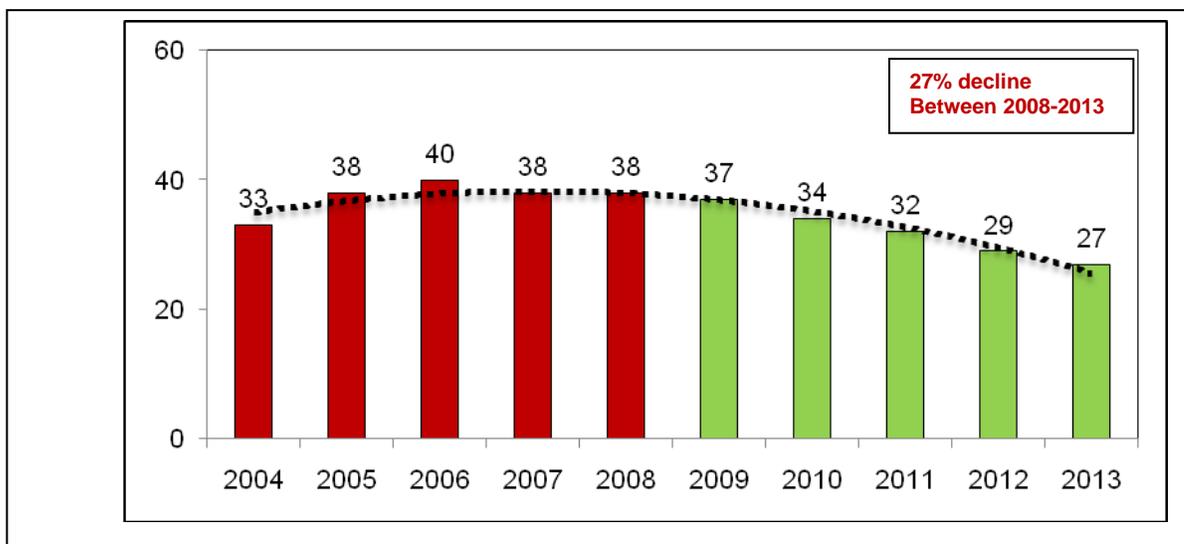
- 1) **Utilization of services across all caste categories including the most vulnerable:**
The services in the SNCUs have been kept free for beneficiaries across all castes, to

reduce out of pocket expenses and remove cost barriers for access to care. Analysis of 2013-14, data shows utilization of services by marginalized groups being pretty much in line with their population distribution in the state.



Caste Wise Beneficiaries of SNCU Care, Data Source – SNCU online data base

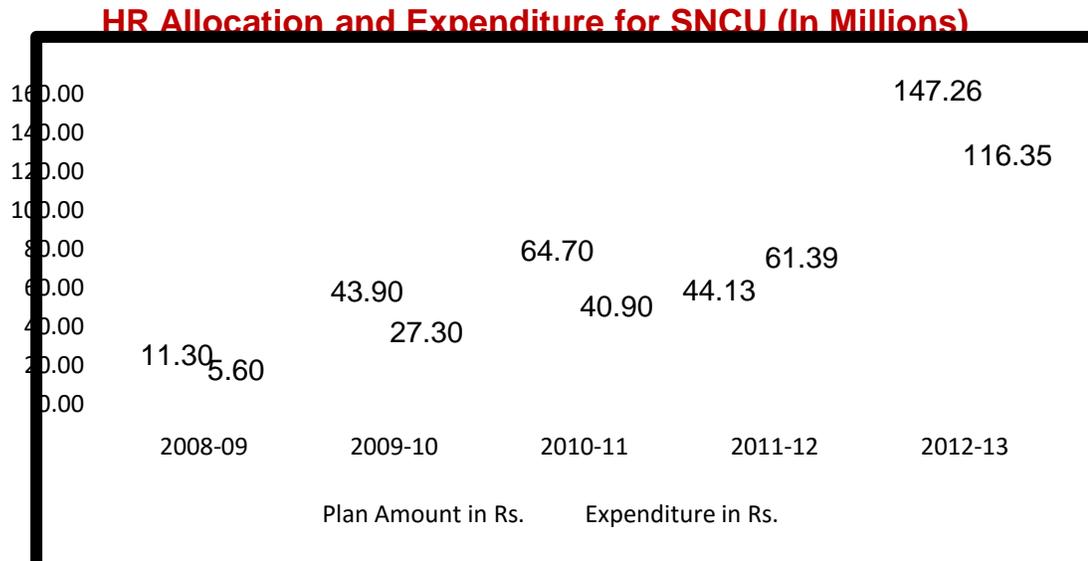
- 2) **Accelerated reduction of neonatal mortality more than the national decline – MP** recorded a 20% decline in Neonatal mortality rate (first 28 day deaths) during the period 2007 to 2012. The Early neonatal mortality rate (first 7 day deaths) which increased by 15% during 2004 to 2007 has shown a 24% decline from 2008 to 2012. The decline in of both neonatal and early neonatal mortality for the state is higher than the national decline during the same period.



Data Source – SRS Annual bulletin 2004 to 2012

- 3) **HR gains and increased allocation and spending on HR for SNCUs–** One of the major outcome has been the gain of human resources in the health system of the state with significant increase in both allocation and spending on HR. The whole series of HR

initiative led to deployment of 169 pediatricians and 843 staff nurses in the SNCUs, even attracting large numbers from private sector which is a long term gain for the health systems of the state.



Data Source – State NRHM PIP and Financial reports

4) **Ripple effect on care in labor room and at birth-** Analysis of SNCU data showed prematurity, birth asphyxia and neonatal sepsis as the three major cause for admission and deaths in SNCU. Majority of these can be prevented by ensuring good quality of care during delivery and in antenatal period. This highlighted the need to invest in improving care during delivery and at birth and helped to make a strong case for establishment of Model Maternity wings in the vicinity of SNCU and sanction of extra human resources in delivery room for care of mother and newborn. Such MNH wings have been sanctioned for all 50 districts of the state and several of them have been made functional. In addition for reducing mortality in premature babies use of antenatal steroids for women in premature labor was introduced, this again helped to influence National policy and decision on use of antenatal steroids in premature labor.

5) **Special Care for Low Birth Weight and Preterm Baby–Kangaroo Mother Care Ward** 48 districts have sanction for **Kangaroo Mother Care Ward** to provide special care to Low Birth Weight babies. Till date, 22 Kangaroo Mother Care Wards have been made functional. These wards have 4 KMC chairs, Audio Visual aids for Education of Mother and services of 4 dedicated ANMs. The units were established at the cost of @ Rs. 2 lac per unit.

There is provision to monitor SNCU discharges and low birth weight babies upto 1 year of age through home visitation by ASHA in community. Facility Follow-up of successfully

treated SNCU discharges on 7th day, 1 month, 3 month, 6 month and at 1 year ensures weight monitoring in SNCUs.

- 6) **Adaptation of best practices at national level**– Several best practices emerging from MP experience have been taken up by several states and Government of India for National scale up. The key practices adapted are; SNCU online monitoring and follow up system, provision of separate human resources for SNCUs, Neonatal / Fetal Nurses for labor room, Kangaroo mother care wards in vicinity of SNCU to reduce case load and creating pool of external mentors for supportive supervision.

Enabling Factors– The key enabling factors that helped rapid scale up of SNCU in MP were –

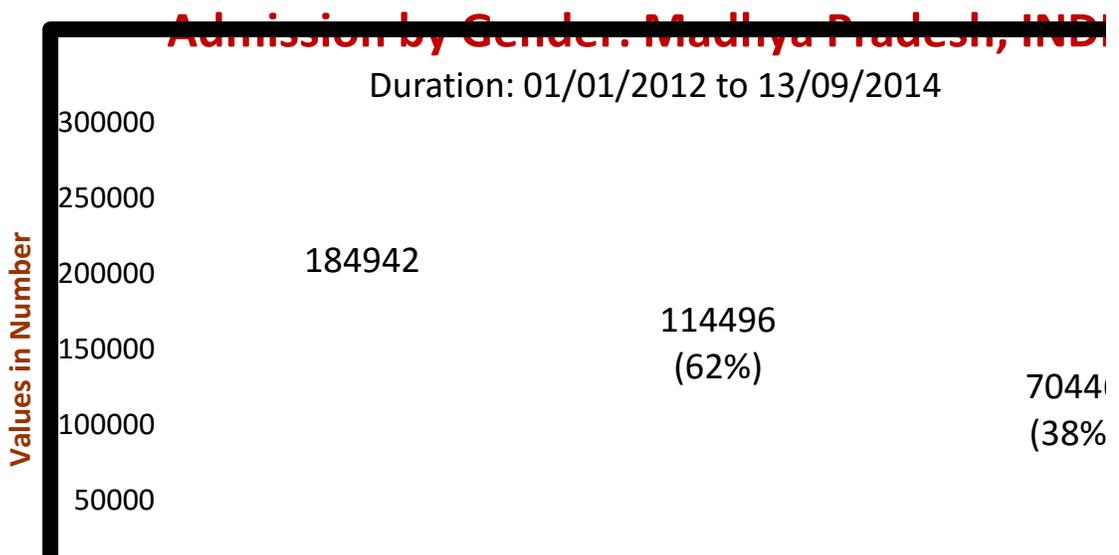
- **Felt Need of the Intervention** – As the SNCUs addressed the need at ground level, the buy in at district and state was high. In addition the intervention was technically sound and in line with proven high impact interventions for improving newborn survival. As per the recent 2014 lancet newborn series, care of small and sick newborn can reduce neonatal mortality by 30%.⁷
- **Secured funding under NRHM** – The funding under the NRHM was adequate to meet the financial requirement for scale up in the short term and to sustain the operational cost in long run. The establishment cost of each SNCU was more than 50 lakh and running cost is around 50 lakh each year. The provision of maintenance cost has helped to take corrective actions at local level and maintenance of infrastructure. The state is now spending more than 30 crores annually on the operational cost after the full scale up has been achieved, funding for which is secured under NRHM.
- **Strong bureaucratic leadership and high levels of political commitment**–The strong leadership of the health department to take the bold decisions in terms of HR, infrastructure development and fund allocation which was backed up by high levels of political commitment up to the level of chief minister were crucial to prioritize the scale up. This was further enhanced through joint visits to project sites for onsite advocacy and interaction with beneficiaries for better understanding of initiative and impact.
- **Technical support for planning and implementation by UNICEF**–The role of UNICEF beyond doing the pilot in planning for scale up, support for implementation in terms of site identification and designing of each SNCU, capacity building of human resources and continuous monitoring for quality improvement were critical to meet the milestones during scale up with desired quality. In addition UNICEF brought partners like NNF and PGI Chandigarh, this helped in capacity building and mentoring of SNCU staff.
- **Leadership at district level** – The leadership of district collectors in many districts was crucial to address the local bottlenecks and taking actions to expedite handing over of

site, tender process and HR deployment. The high visibility of intervention also lead to increased involvement of district administration and political leadership.

- **Media Support** – The intervention was very well highlighted and received positive support from local, national and even international media both for the pilot units in Guna and Shivpuri and subsequent scale up. This included initial coverage from infrastructure development stage to operationalization of the unit and subsequently success stories of small and sick babies getting saved in these units. This helped in building confidence and hugely motivated the district and state teams.

Challenges– The key challenges that still remain and are being addressed are –

- **Higher proportion of male admissions as compared to females** – In spite of making free health care an entitlement by NHM, there are more male admissions (62%) in SNCUs as compared to female admissions (38%). This discrepancy is more pronounced in out born admissions as compared to inborn, highlighting the access barriers for girl child for care in SNCU and need to also work on cultural practices, behaviors and attitude towards girl child.



Data Source – SNCU online data base

- **High case load in SNCUs** – There are issues of high case load in SNCUs in some districts, to address this Kangaroo mother care units are being established in close vicinity of SNCUs where stable low birth weight babies can be managed.
- **Ensuring equal access for remote blocks** – The data on SNCU monitoring has revealed few underserved block in each districts. This is being addressed by strengthening free transport under JSSK for new born and focusing on reduction of out of pocket expenses to address access barriers.

Data Source – SNCU online data base

8. Potential for scale up

The methodical and rapid scale up of SNCUs in MP has become a learning model for other states across the country. In 2012, GOI awarded first prize to MP for its performance on setting up of SNCUs. Several states have visited and benefitted from MP in the last few years, these included states like Andhra Pradesh, Tamil Nadu, Karnataka, Maharashtra, Haryana, Uttaranchal, Chhattisgarh and Orissa. In addition several policy initiative from MP for strengthening of SNCUs have influenced national guidelines.

- **Separate staff including support staff for SNCUs** – MP was the first state to make provision of dedicated human resources for SNCUs and created separate positions under NRHM for the same. In addition to ensure maintenance and efficient functioning, separate team of support staff was also ensured. This has subsequently been adopted by other states to avoid overload on existing staff and ensure quality. Similarly in 2013 MP initiated the concept of fetal and neonatal nurse to improve care during delivery and the same is now being adopted by many other states in the country.
- **Provision of separate maintenance cost for SNCUs** – In order to manage immediate local needs of SNCUs and ensure timely maintenance, the state created provision of separate maintenance funds of Rs.15 lakh per year for SNCUs and delegated its use at local level to SNCU committee chaired by hospital superintendent with SNCU doctor and nursing in-charge as members. The concept of maintenance fund that emerged from MP has subsequently been made part of SNCU guidelines at national level and is being used now provisioned across the country.
- **Data management and real time online monitoring system** –The rapid scale up of SNCUs also highlighted inadequacies of data recording and monitoring systems, with delay in collating credible data being a major bottleneck for monitoring performance and

initiating corrective actions. To address these gaps, UNICEF developed an online real time monitoring system for NHM, which records vital information on several parameters related to new born care, care around delivery and post discharge follow up. This provides decision makers, managers and the researchers with real time data at the click of a mouse on the performance of SNCUs and long term outcome of SNCU graduates for guiding policy and initiating action for improving perinatal care. The system was scaled up across the state in 2012 and looking at the relevance has been subsequently taken up by Government of India for use in all SNCUs in the country with scale up achieved in seven states covering 245 SNCUs. The necessary support for its operationalization in form of standardized recording formats, computers with net connectivity and data operators has been ensured under the state NRHM PIPs.

- **Follow up system** - There was no system for long term follow up of these babies after discharge from SNCU, resulting in suboptimal outcomes in terms of long term survival growth and development. (*UNICEF study in 2010 from Madhya Pradesh of 1500 newborn discharged showed 10.2 % mortality at one year of age with two third of these deaths taking place in first month after discharge – Data not yet published*). In order to address this gap, follow up system was established in 2012 incorporating six community visits in first month and five facility visits in first year of life. A provision of follow up OPD has been done with each SNCU and SMS reminders are sent to families and ASHA worker on the scheduled day of follow up. The information on follow up is recorded in SNCU software and monitored at district and state and has been linked to performance based incentives for SNCU staff. The same system has been adopted by GOI and is being used by many states, as they are initiating the online monitoring system.
- **Mentoring and supportive supervision**– The SNCU data coming from online monitoring system showed an urgent need to focus on quality of care, on job mentoring and supportive supervision to improve the performance of SNCUs. There are SNCUs with a high mortality and referral rate, while some have high antibiotic and oxygen usage. In order to address many such gaps a pool of mentors was created taking experts from both private sector and government Medical colleges both from MP and bordering states. Each mentor is assigned 2 -3 SNCU which they visit on a quarterly basis and help to identify and address the quality of care issues on site. These mentors are provided a fixed honorarium and provision of travel and stay through state NRHM funds. In addition partnership has been established with PGI Chandigarh and National Neonatology Forum for additional mentoring visits. The similar concept is now being adopted by many other states in the country to address issues of quality.

Measures to Improve Survival Beyond Neonatal Period -

To achieve Millennium Development Goals (MDGs), besides strengthening health facility it is essential to orient Front Line Workers for better community awareness and case management. The state of Madhya Pradesh has initiated 3 days training for ANMs providing outreach services on Core Skills. The training includes orientation on Newer Guidelines issued by Child Health Division of Ministry of Health & Family Welfare, New Delhi, use of Injection Vitamin-K for all newborns, use of Zinc / ORS in Diarrhoea Management, universal Antibiotics in Pneumonia, use of Injection Gentamicin in probable sepsis in young infants, identification of High Risk Newborn and Infant, awareness regarding Sanitation and Hygiene, Feeding Practices, besides orientation on issues related to Maternal Health & Immunization. 400 batches of 30 participants have been planned and 72 batches have been completed so far.

F-IMNCI training for Medical Officers & Staff Nurses enables staff of peripheral health centres to provide management of Illnesses of Neonatal & Childhood period according to Standard Treatment Protocols. Pediatric Intensive Care Units are functional in 7 Districts Hospitals and 5 Medical Colleges of the state to provide intensive care beyond neonatal period.

Conclusion

The experience from Madhya Pradesh clearly shows that it is possible to scale up facility based new born care in the government set up and with quality. The scale up of SNCUs in MP has been fast without compromising on quality. The first SNCU started in Guna in December 2007 and within five years, all fifty districts of the state were covered. The strong collaboration between state government and UNICEF working closely from pilot to scale up on different components like civil work, procurement, HR recruitment, capacity building and putting up a robust monitoring system was critical. The experience also highlighted the importance of district level leadership, secured funding under flagship, sound planning, strong bureaucratic commitment and high political buy in for an intervention addressing the need at ground level. It also showed that by removing administrative bottlenecks in recruitment, improving remuneration and pay packages and providing suitable working conditions, it is possible to attract and retain specialized human resources in SNCUs. Thus combination of all these factors helped in turning the dream of scaling up of SNCUs into reality. Future challenges will now focus around quality of care, improving outcomes, using data for decision making and ensuring long term survival, growth and development of babies after discharge from SNCU by effectively linking facility based care with community based care.

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