

## Neo-Natal Survival Strategies and Challenges

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India has been at the forefront of the global effort to reduce child mortality and morbidity. Its continuous commitment and ongoing effort, has resulted in 59% reduction in “Under 5 child mortality and morbidity” since 1990.<sup>[1]</sup> India has proven that it can reach even the most hard-to-reach and vulnerable children, with affordable lifesaving interventions, as evident from its polio eradication strategies.

Despite tremendous efforts, India is still contributing more than any other country to global under 5 mortality and newborn deaths. Given its demographic and cultural diversity, India faces numerous challenges with significant rural – urban, poor rich, gender, socio economic and regional differences.

Since the progress of a developing country is measured by its infant mortality, prime focus is to reduce infant mortality and if trends of last 25 years are observed, it can be concluded that majority of infant deaths are in neonatal period (< 1 month); maximum in 1st week (74.1 %), with highest on day 1 (39.3%) followed by on day 3 (10.2%).<sup>[2]</sup> Neonatal Mortality Rate (NMR) (29/1000 live births) is contributing for 70% of Infant Mortality Rate (40 / 1000 live births).<sup>[3]</sup> This implies that if further reduction in infant mortality is demanded, then reduction in neonatal mortality is necessary.

Four states, Bihar (NMR 28/1000live births), Madhya Pradesh (39/1000live births), Uttar Pradesh (37/1000live births) and Rajasthan (35/1000live births)<sup>[4]</sup>, are contributing maximum in neonatal deaths, counting to country’s more than 50% and global 14%.<sup>[1]</sup> While the states like Kerala having NMR as low as below 10 (NMR = 7/1000 live births).<sup>[1]</sup>

Similarly, if we see the trends in rural and urban India, there is still a vast variation; the neonatal mortality rate in rural India is as high as 33 / 1000live births and in urban its 16 / 1000 live births.<sup>[1]</sup>

So, if a child is born in an urban area of Kerala or in a rural area of Uttar Pradesh we have to think differently as the chances of survival is significantly different in two states. Most of the newborns are dying because of preventable causes. Prematurity is the leading cause of newborn deaths contributing 35 %, followed by birth asphyxia (20 %), pneumonia (16 %) and sepsis (15 %).<sup>[5]</sup>

In order to reduce these preventable causes of newborn deaths, there is need for certain strategies. Government has done a lot, in this regard as is evident by trends in last 25 years. (NMR reduced 44% since 1990 to 2012).<sup>[1]</sup>

On the same lines, I have been sharing my experience of the strategy which I have used to reduce NMR, which is “HAPPY”;

“HAPPY” stands for:

- H** Hypothermia prevention
- A** Asphyxia Prevention
- P** Provisions for Antenatal, Natal, Intranatal Care  
Prevention of Infection  
Promotion of Referral
- P** Prevention of Prematurity and Low Birth weight  
Prevention of Congenital Malformations  
Promotion of Small Family norms
- Y** Yes to Exclusive Breast Feeding

Government is running following strategies under National Health Mission (NHM), which are as follows:

- A) Janani Suraksha Yojna (JSY)
- B) Integrated Management of Neonatal and Childhood Illness (IMNCI)
- C) Navjat Shishu Suraksha Karyakram (NSSK)
- D) Janani Shishu Suraksha Karyakram (JSSK)
- E) Facility Based Newborn Care (FBNC)
- F) Home Based Newborn Care (HBNC)

- G) Rashtriya Bal Swastha Karyakaram (RBSK)  
 H) India Newborn Action Plan (INAP)

These all strategies are having one or the other component of "HAPPY".

So in other words we can say that, in order to have good newborn survival even in a small village of our country, we need to implement "HAPPY" at very basic levels, but to achieve that the journey is not so easy. We have certain challenges, without overcoming them; we will not be able to achieve the target for the year 2030. To meet such challenges and in continuation to strategies, government laid down target for NMR to be achieved by 2030<sup>[1]</sup>, which has to be brought down to a single digit i.e., <10/1000 live births.

But if we go by present pace of reducing NMR, that is Average Annual Reduction (AAR of 3.4%)<sup>[1]</sup>, it won't be possible to achieve our targets. So to achieve single digit NMR by 2030, we need to increase AAR to 5.8%. To achieve this Annual Reduction Rate there are certain challenges which are to be overcome:

If we see broadly, there are three main challenges: (3 Q's)

- a) Quantity
- b) Quality
- c) Questionable Policy

Population of India is 121 crores<sup>[6]</sup>. With current birth rate of India (21.4)<sup>[3]</sup> annually 2.5 crore newborns are taking birth every year. In comparison to that, India is having merely 418 SNCU's (Sick New Born Care Units), 1554 NBSU's (New Born Stabilization Units), 13167 NBCC's (New Born Care Corners).<sup>[4]</sup> Similarly the situation for sub-centers, Primary Health Centers (PHC), Community Health Centers (CHC) is also poor, and the list is too long. Let's us take the example of the biggest state in the country as far as the population is concerned.

Considering the population of Uttar Pradesh (UP) as 20 crores (19.6 Crores as per census 2011)<sup>[7]</sup> and birth rate of UP as 27.2<sup>[7]</sup>, every year UP is producing 54 lakh newborns, of which 28%<sup>[8]</sup> are low birth weight babies which counts for around 15 lakhs new borns. Out of which about 15% require facility based newborn care, that is 2 lakh newborn every

year need facility based newborn care. If we see the present situation of UP, we are able to produce merely 119 pediatricians/year<sup>[9]</sup>, having only 15 SNCU's, 92 NBSU's and 1430 NBCC's.<sup>[1]</sup> But the burning question is, are these adequate to save the two lakh newborn needing facility based care? If we consider occupancy of each bed in SNCU, 7 days (which is most of time is more) and each SNCU is having 10 beds (approx.), then we will be able to provide services for only 7800 newborns per year. It shows how much we are lacking and what a big challenge is in front of us to improve coverage and quality of care, as far as neonatal care is concerned. Similar situation is there for many parts of our country.

***Neonatal Mortality is the major obstacle in reducing Infant Mortality Rate as well as Under 5 Mortality. To reduce the neonatal mortality, reduction in incidence of Low Birth Weight is essential. To reduce Low Birth Weight, we must have robust mechanism of provision of quality antenatal care as well as intranatal care.***

To conclude, it's a game of numbers and whether we will be able to achieve this or not, only future can tell. However, we need to have a major thrust towards manpower and infrastructure development as well as to control growing population, without which every strategy, howsoever it may sound good on paper, is not going to change ground realities.

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