Editorial

The Challenge of Neonatal Mortality in India

The neglect of the newborn care from primary to tertiary level in the health delivery system, in the curriculum of medical, nursing and even at the grass root level of midwives education and training continues(1). In the past two decades there has been an awakening to the need of strengthening the newborn care at the primary level by inclusion of Essential Newborn Care in the National Child Survival and Safe Motherhood Program(2,3), Reproductive and Child Health Program (RCH I)(4), the Integrated Skill Development Training Program and the proposed national Reproductive and Child Health II (RCH II) and Integrated Management of Neonatal Childhood Illness programs (IMNCI). The revised pediatric curriculum of Medical Council of India also reflects the same. The results of these focused attention are visible in improved facilities for newborn care particularly in urban metropolitan cities and more so in the non-government sectors. This has resulted in a decline in the neonatal mortality rate, improved survival in different birth weight groups specially low birth weight and very low birth weight, preterm and IUGR infants(2,5). Research related to newborns and perinatal period has been of tremendous interest to pediatricians and community health researchers and almost 15-20% of papers published in leading national pediatric journals have articles concerning newborns(5).

But, irrespective of these developments the situation relating to neonatal health remains a major national concern and a daunting challenge. The neonatal mortality after an initial decline is almost static with barely one point decline every year(2,6). Preventable morbidities such as hypothermia, asphyxia, infections and respiratory causes continue to lead the tables. Basic physiological support for safe births, appropriate environmental conditions in labour rooms and nurseries, resuscitation facilities such as ambu bags and warmers and more importantly trained nursing professional and pediatricians to provide these services at different levels of newborn care remain grossly inadequate. At the research level even though there is plethora of articles, most of them lack a perspective in objectivity, methodology and its relevance to the national needs.

What are the reasons? Are these remedial or just beyond redress? Do these lack in health policies, planning or direction and implementation? Are these administrative indifference or failure in prioritization of resources and their utilization? Or else the situation is so over whelmed by public health problems such as population explosion, maternal health problems, socio-economic status, literacy levels, religious and cultural practices and the myths which abound in pregnancy care, child births and newborn care practices. The issues addressing for improvement whether in survival or reduction in low birth weight are complex, enormous and certainly not easy to resolve. But, that these are beyond redress or reach is certainly not the case. The need of the hour is to assess the gains, analyze critically the failures, prioritize the resources and define the policies with limited short term objectives but with long term gains with in a certain period.

The immediate national priority is a reduction in neonatal mortality with in the time frame of the national goals for 2007 and

2010. A review of the national program and health delivery system reveals that the country has adopted a primary care approach from the inception of its health delivery services. These services have grown into a formidable infrastructure, which is firmly rooted and reaches at the grass root level. The country has from time to time also initiated several vertical and integrated programs focusing on maternal and child health(7). Unfortunately, these efforts have not resulted in the expected decline in the maternal, neonatal and infant mortality after an initial fall.

A critical appraisal reveals that the health delivery system is entirely rural based and has ignored the ever-growing urban community. It has also focused on institutional facilities, which contribute only to 32.5% of the total births, and does not reach over 60% domiciliary births conducted by traditional birth attendants and family members(6). The dai training program initiated in 1955 and being up-scaled currently, the integrated Child Survival and Safe Motherhood (CSSM) program and Reproductive and Child Health (RCH I) focused on maternal health and newborn care. The proposed IMNCI as modified for Indian needs and RCH II programs, expected to be launched soon, have not addressed the issues of home deliveries, training of traditional birth attendants, creating facilities for a triage system of primary, secondary and tertiary care, a referral system with linkages between these levels, urban newborn care and specially the care of the urban slum population. As a matter of fact at urban level the maternal, newborn and child health care is provided by multiple agencies such as Municipal Corporation, Maternal and Child care centers of state governments, Employment State Insurance Scheme (ESIS), Central Government Health Scheme (CGHS), armed forces, railways and so forth. There are no norms, or structured delivery system. **The newborn is still not considered or given the status of a hospital bed and is merely considered an appendage of the mother.** All these factors and the community's own perception and bias for a male child, myths, beliefs and religious practices add their own complexities to the problem. To add to the problem further the community for it's own reasons does not fully utilize the available facilities. The exclusion of the ever-growing private sector as a partner in public health delivery system further compounds the problems.

Thus, there is a need to rethink on all these issues. The country has the resources in terms of infrastructure of delivery of health care, substantial number of trained primary heath care workers, community recognized traditional birth attendants, facilities to provide appropriate training through suitably trained trainers and the capacity and capability to do so. More importantly, the government and the professionals are beginning to recognize these issues and are sincerely debating on restrategising. Under the given circumstances one has to think hard on issues, policies and approaches to adopt. The issues are whether to continue with the existing practices and strengthen them and / or to introduce and think of alternate strategies? I think there is need for both. A multi dimensional approach directed at the health delivery system, moving away from the exclusivity of rural based care to include urban newborn, increasing the awareness of the community to the need and necessity for newborn care and to ensure community participation in the delivery of these efforts seems to be the need of the current times.

As a first step the ongoing program of District Newborn Care (also known as Essential Newborn care) in RCH I and to be continued in RCH II must be evaluated critically. It has so far covered 80 districts and is likely to be extended to all the districts of the country by the end of 10th plan. This is a long period. The pro-

gram should be implemented as a priority within a short time frame and then monitored closely for its impact. The same would apply to the national Dai training program and other maternal health programs such as Essential Obstetric care. *A further immediate and urgent need is to ensure convergence of these programmes so that these cover the same districts and population and run concurrently rather then vertically, independently and without reference to each other.*

Yet another pressing need is to expand the District Care Program to "Beyond Essential Newborn Care" to create a triage system of care with primary, secondary and tertiary levels of care, a referral system and linkages between these at different levels of care. The program "Beyond Essential Newborn Care" can be directly related to neonatal mortality rate and can be initiated in districts with NMR 30 or below. This step will provide a much-needed tiered system of care, enhance credibility of the health workers and increase the confidence of the community in the health delivery system because of the inbuilt facility for referrals of newborns with serious or life threatening illness to higher levels of care.

The proposed IMNCI program is currently being critically evaluated to make it the pivot of the RCH II. It aims to effectively reduce neonatal, infant and under five mortality rates to meet the national goal for 2007. It is considering the feasibility of expanding or extending it to include training of traditional birth attendants, urban child health particularly the urban slum population with focus on newborns and to strengthen the health care facilities from grass root to apex hospitals and institutions.

There is also the need to assess the content, the duration and the period of training under IMNCI. The country has been for the past three decades training different category of health professional in vertical and integrated maternal and child health programs. Whether retraining the same group of professionals albeit in, different manner but on almost similar problems and for similar skills will be worth the tremendous effort is a debatable issue. But the enormity of task, the effort, time and the resources required for such an effort makes a strong case for rethinking on this issue. The IMNCI is to be implemented in selected districts of the country. An equal number of districts could be covered under a shorter capsule version to evaluate the impact and efficacy of IMNCI in the proposed form *vis-a-vis* shorter version of training. This may effectively answer some of the questions about the IMNCI and also help in crystallizing strategies of national RCH II policies.

The denial of the status of a hospital bed to a newborn cannot be justified by any logic or reasoning. The neonatal mortality at the hospital level continues to be very high in most of the institution and remains unrelenting. The sad part is that these deaths in the hospitals continue to occur with causes, which are preventable to a very large extent with simple, practical and affordable interventions. An administrative decision at the government level is needed to remove this glaring lacuna in the national and state health delivery system.

Similarly, the need of a structured health delivery system in urban areas cannot be ignored. Presently, most of the urban MCH centers do not function for which these were created. Deliveries are avoided and cases referred to other facilities. This results in over crowding in hospitals on one hand and waste of government expenditure on the other. A uniform policy with provision of minimal well-defined quality assured facilities by different agencies providing such care has to be adopted and guaranteed. The health issues of dwellers in slum colonies popularly known as JJ colonies

(*jhuggi-jhopri* colonies) have to addressed urgently and on priority basis. It is an established fact that all the demographic parameters are worst in this population. There is no model to adopt except experiences of few scattered NGO's. There is therefore a need to develop a model and strategies. As an initial and immediate action the JJ colonies could be linked to neighboring hospitals, institutions and facilities with provision of mobile clinics in these areas to meet the day-to-day problems.

The contributory role of private sector in providing health care has to be acknowledged. This sector, which is growing at a very rapid rate, needs to be brought under the umbrella of health care system. A mutually acceptable logistics and arrangement has to be developed. The country cannot afford to ignore their contribution and usefulness to society as the community trusts them and approaches them for their daily health needs.

The country, it seems has opted to focus on training and retraining rather than addressing the primary issues of reviewing the Medical Council of India (MCI) and Nursing Council of India (NCI) curriculum in the context of current national needs, development and relevance. This is perhaps the most immediate and urgent task as delivery of health care, morbidity and mortality pattern and technological advances are always in a dynamic state. The problem has to be dealt at the root level and hence a critical assessment is needed for the medical, nursing and midwives curriculum. There is a growing feeling amongst the administrators to find some ways of incorporating national goals and national programs as part of medical and nursing curricula. This is a right step and the sooner this step is taken the better it would be for the country. This step would ensure that future health professional learn about the national problems and program. This will help unburden the country of the constant need to conduct elaborate training initiatives and programs.

The country has adequate number of different training institutions and facilities at all levels. Education with hands on training with acquisition of expected skills should be an integral part of assessment. Facilities for such training should match the needs and the trainers themselves certified to train in these tasks. **It is time for the country to focus on quality and accountability–both of which should be monitored vigorously.** If these are not adopted as policies we will continue to waste our efforts and resources and remain where we are after decades of numerous vertical and integrated maternal and child health programs.

While addressing the issues of quality and accountability, we must also face the reality. If more than 70% of births occur at home conducted by trained or untrained traditional birth attendants, then a policy or decision not to include these in the umbrella of health delivery system with appropriate training and skills is ignoring a realistic need of the community. Today, the traditional birth attendants are an integral part of our community. This is an actual reality and cannot be wished away by a statement of the objectives in our health care program that all deliveries and childbirths should occur at a health care facility. The TBA training as well as the TBA kit needs to be realistically addressed. These have to be modified in the context of past experience and current technology.

The other technological advance, which needs to be included in our health care and education system, is telemedicine and teleeducation. The country is considered to be rich in this knowledge. Teletechnology and telecommunication has in many ways revolutionalised our daily life. But the

medical fraternity has shied away from this development. Only a few states, universities or educational institutions have made an effort to use this development.

There is a need and a place for this in our medical education and health delivery system. We abound in knowledge and are rich in this resource. It is only a question of its application. If adopted it will make the acquisition of knowledge and skill easier, practical, affordable and cut immensely on time, distance and cost.

The article by Narang, *et al*.(8) aptly describes and analyses the present status of neonatal research in the country. Their observations on quality, relevance and implications of finding are a cause of great concern. The research in neonatology in general reflects the national trends. It suffers from the same lacunae as any other medical discipline. The primary reason is the inherent weakness of the education and evaluating system, which fails to provide the basic ingredients for perusal of quality research. A large number of dissertations, thesis and perhaps a similar number of scientific papers are published in pediatrics and neonatology across the country. It is therefore a sad reflector that in spite of such a huge effort, time and resources the results are not worthy of application or emulation. A serious effort is therefore needed for introspection and a debate to ascertain the reasons contributing to the present state.

Perhaps, there is a need for administrative and regulatory bodies such as Indian Medical Council, Nursing Medical Council and National Board for Examinations to develop rigid criterions in basic training, education and evaluation in medical research. An appropriate curriculum and course in biostatistics, research methods, epidemiology or what ever else is deemed necessary for productive and quality research should be made mandatory for university and institutions involved in rendering medical education.

The national bodies like the Indian Council of Medical Research and the professional organizations like the Indian Academy of Pediatrics and National Neonatology Forum should be asked to interact with each other and provide technical expertise and identify areas of research at local, institutional or national level. The country cannot waste an effort in research as it is immensely painstaking and involves considerable time and utilization of limited resources. The research outcome should be aimed to provide answers and application in health care, education and training. There is no dearth of experts or their commitment The need is to involve them and make them a part of the system so that it gives them a feeling of belonging and a sense of commitment and involvement.

The newborn care in the past two decades has made some progress. There is much more to be done. But, as in the previous decades it still needs a strong advocacy, an administrative and political will and a commitment from the professionals to make it ascend to the level where it rightly belongs and delivers what matters to the country and its health care system.

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