

Neonatal Care and Transport Among the Urban Poor: Challenges and Options

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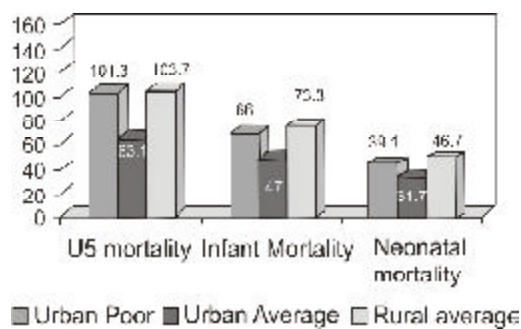
Urban growth and poverty

The urban population of India accounts for 27.8 percent of the total population equating to 285 million and is estimated to reach 576 million by 2030 (1,2). 23.6 percent of the urban population is poor i.e. their expenditure on consumption goods is less than Rs 454 per month (3); 43 percent dwelling in the eight EAG states. These estimates do not reflect the true magnitude of urban poverty because of the “unaccounted” for and unrecognized squatter- settlements, floating population and other invisible populations residing in pavements, construction sites, urban fringes, etc. Using estimated population from other studies there may be nearly 90 million urban poor in the country (4). The benefits of urbanization have eluded this burgeoning urban poor population, most of whom live in slums.

Maternal care and neonatal survival among urban poor

Data averages mask inequalities and disparities: urban poor have significantly worse rates of

Fig 1: Neonatal, infant and U5 mortality across residence and socioeconomic status in India



neonatal mortality indicators than suggested by urban average data. The Neonatal Mortality Rate (NMR) is 31/1000 for urban India while it is nearly 40/1000 for the urban poor. Neonatal mortality constitutes 40 percent of U5 mortality among urban poor in India (Fig 1).

Notwithstanding the direct causes of newborn deaths, 60-80 percent of deaths occur amongst the Low Birth Weight (LBW) newborns (5). In a multi-centric study on urban slums, the prevalence of LBW ranged from 25.9-56.9 percent which is to a large extent higher than the national average of 30 percent (6). It cannot be denied that the incidence of LBW is grossly underreported due to paucity of data on birth weights.

Maternal factors resulting in higher incidence of LBW and neonatal mortality revolve around the age of marriage and child bearing as well as maternal under nutrition. 43.2 percent of urban poor women were below 18 years at the time of first delivery (7). Fertility rates are higher amongst urban poor which is associated with increased risk of maternal deaths, complications as well as neonatal mortality. Total Fertility Rate determined as births per women aged 15-49 years was 4.3 amongst the poorest urban quintile vis-à-vis 2.1 in the richest quintile (8). Birth interval for 30.4 percent of the births was less than 24 months (7). Closely spaced births deplete mother's stores, making her anemic prior to conception and throughout pregnancy.

Low reach and utilization of maternal and neonatal care services among urban poor is evident from the following facts a) less than half (47.7 percent) of mothers received at least 3

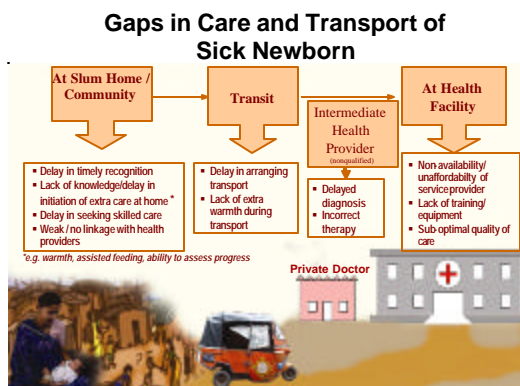
antenatal visits b) home deliveries are still a norm in urban slum communities with 1.1 million births taking place in the debilitating environment of slums c) 1 in 25 eligible couples use birth spacing methods. As a result of lack of skilled or trained attendant at birth post-partum and neonatal care is amiss - only 36,000 of the 2 million babies are breastfed within one hour of birth (7).

Conditions are worse-off amongst urban poor in Empowered Action Group (EAG) states. NMR in Madhya Pradesh is 1.8 times higher than the corresponding national urban average for neonatal mortality. Home deliveries among urban poor are 6.5 times higher (86.9 percent) in Uttar Pradesh compared to Tamil Nadu (14.4 percent) (7).

Program challenges, gaps in care and transport of lbw and sick newborn

The various challenges confronting prompt and quality care and transport of sick newborn have been categorized at four levels based on sequence of events around a newborn's illness a) slum home/community b) during transit c) intermediate provider or first provider d) health facility (Fig 2). *At Slum Home and Community:* There may be a delay in recognition of early symptoms and in some cases even danger signs by the mother/family members due to lack of knowledge of the same. Young mothers, who have no prior exposure to observing or nursing a sick newborn, may be

Fig 2: Gaps in care and transport of sick newborn



particularly inept in absence of experienced elderly members. As nuclear families are a norm in slum settings this is more often the case. Once recognized there may be delay in providing appropriate home based care (9). Newborns condition may worsen consequent to inappropriate practices like restrained breastfeeding, feeding *ghuttis* etc. The family may not be able to decide when to seek treatment from a health service provider and continue traditional treatment. Alcoholisms, violence, lack of family and social support may deter mothers from expeditious care seeking. As a family decides to seek treatment it faces the challenge of whom to go to due to weak / no linkage with qualified health providers, lack of community support and guidance.

Transit

Geographic proximity of providers/ hospitals in urban areas reduces time taken to reach point of service. However, the expenses involved in arranging transport and cost of services are contentious issues for an urban poor family who have no prior financial reserves and may need to borrow money at interest rates as high as 20 percent from local money lenders. Lack of extra warmth during transit, worsens the condition of the neonate and sometimes contributes to mortality.

Intermediate providers

The first choice of the urban poor family is the health provider- qualified or non-qualified available at walking distance from the slum. Their proximity, availability, behavior and perceived competence builds community's faith in them. A large number of private practitioners frequented by the poor, however, lack formal training in neonatal care. Evidence suggests that a majority of these practitioners often misapprehend chronic diseases as common problems and the delay in diagnosis leads ultimately to prolonged therapy and an increase in health expenditure (10).

At health facility

Non-availability / absence of staff round the clock, lack of training and equipment to attend to neonatal emergency or sub optimal quality of care and service provision results in delayed care and neonatal mortality. The Health Facility Survey conducted under RCH Project, found only 10 percent of District Hospitals to have a medical officer trained in newborn care (11).

Options for improved care and transport of sick newborn

India is committed to bringing Neonatal Mortality Rate below 20 by 2010 (12). This requires special focus on the first month and more particularly the first week of life. Evidence from parts of India and from other countries has shown that key low-tech interventions can significantly improve neonatal survival. Suggested options for care and transport of sick urban neonate have been discussed in this section.

Build capacity of Accredited Health Volunteer and slum based birth attendant: AHV such as ASHA (proposed in National Rural Health Mission, NRHM) and slum based 'Dai' could be trained to identify and manage danger signs in neonate through simple methods (eg algorithms suggested by Bang and coworkers and NNF (13)). One AHV may be identified per slum or two slums depending on the population size.

Provide regular MNH counseling to mothers / key decision makers: It is essential to change behaviors through frequent and sustained communication and counseling activities. An effectively trained AHV and 'Dai' will motivate mothers and key decision makers to adopt optimal new born care practices. Arming the Community Based Organisations (CBOs) with pictorial material can enable them to counsel (14). Behavior Change Communication involving elder women and key influencers needs to be initiated since traditions reinforced by them prevent optimal behaviors

(15). Rewarding and learning from mothers practicing optimal behaviors and having healthy babies motivates others in the community to adopt positive behavior (16). Helping mothers analyze the net saving of time and money by quick and appropriate action helps improve health seeking behavior. It is essential to identify and provide counseling to households with special problems/ at risk newborns eg. families where breadwinner is an alcoholic. Mass media due to a better penetration in urban areas, can play a crucial role in improving appropriate practices among urban poor communities.

Develop community support system: CBOs, AHVs, 'Dais', AWW-the '*Basti* Child Health team' provide support to mothers, even in absence of family and neighbour's support (17). Community health fund ensuring membership of vulnerable households could serve as resource in time of need. Elderly women in the slum / 'Dai' could be encouraged to start day care centers which would absolve mothers of the worry of where to leave other siblings if the newborn is to be taken to a health facility.

Link community with health facility through Accredited Health Volunteer: AHV can shortlist health facilities (government and private) that are geographically proximate, affordable, provide unhindered access, quality and specialized services. Medical and nursing staff at health facility could be encouraged to conduct quarterly cluster level meetings with AHVs. These meetings would provide a forum for the link volunteer to communicate and discuss community concerns. This can be effectively used to generate ideas for further improving service delivery and strengthen community provider linkages. Health facility could also conduct outreach / mobile MNH camps for cluster of slums in collaboration with NNF and nearby private/Govt. hospitals to- a) provide technical guidance to trained CBOs to enhance credibility b) counsel mothers, respond to queries

and address apprehension in used of fixed facility
c) provide advice and support to 'Dais'.

First contact health providers: There is a long standing need of involving non-qualified private providers in child health programs. Training on screening cases for referral to specialized facilities and linking them with these centers would go a long way in reducing delays in the chain of events for seeking care. There may be a possibility of notifying the hospital which will receive the newborn, and initiate arrangements for appropriate transport through the first contact provider.

Ensure availability of trained staff at the health facility: Vacant positions at the health facility can be filled by contractual staff. Updating skills and management capacity of doctors and building sensitivity among health facility staff towards the poor is essential for timely and appropriate treatment of the sick newborn. Linkage of community with health facilities through AHV/ 'Dai' where there are special neonatal care units need to be fostered so that *a*) the AHV/ 'Dai' can more confidently and readily refer or better still escort cases with complications and *b*) seek advice from the doctor if a phone is available.

Provision of neonatal care equipment at 2nd Tier facilities: Special 'Sick Newborn Care Units' staffed with 2 pediatricians and 6 nurses, established in a rural district has shown to avert 330 newborn deaths per year and reduce the NMR of the district by 5 annually (18). The unit included a 12-bedded facility with controlled environment, individual warming and close monitoring devices, intravenous fluids and medications by infusion pump, central oxygen and bedside procedures, portable radiograms and in-house laboratory treatment. Expenditure involved in setting up such specialized units at 2nd tier urban health facility is a little cost to save several deaths considering the

fact that utilization of the facility would be much more in urban areas.

The National Neonatology Forum (NNF) has the experience of operationalizing newborn care and training in CSSM and RCH-I programs. The NNF has accredited 60 Neonatal Care Units across the country for special newborn care. These Units are run by NNF members. The infrastructure of these units and services of NNF trainers can be utilized in training in RCH-II program (Urban RCH II has been subsumed within NRHM) (19).

Emphasis on quality of care at the health facility: Most neonatal deaths at the hospital level can be prevented to a large extent with practical and affordable interventions to improve quality of care eg. SNEHA, Mumbai, has launched an action-research program 'The city initiative for newborn health' in collaboration with the Mumbai Municipal Corporation. The initiative is aimed at improving maternal and newborn survival by establishing an arrangement of referral in the existing public health system. In the first year of the project workshops were conducted across health system, bringing together health providers from different levels of service. Action groups were formed which meet on a monthly basis. These action groups have created a database of existing facilities for maternal and neonatal services using a self-assessment tool. Facilities have been designated into Level I, II & III and transfer protocols have been created. The action groups have standardized technical and administrative protocols. Antenatal and neonatal services are also being introduced at the health posts, which form the primary centre at the slums. To ensure sustainability of the project besides the participatory approach 'Appreciative Inquiry' a behavior methodology is being used to empower health providers in the public system to bring about the change they envision in their respective facility (20).

Subsidized treatment options in for-profit facilities: There is a need to establish a mechanism for subsidized treatment options in for-profit facilities to target the needy. Voucher scheme adopted by CINI-LIP project in urban slums of Kolkatta and by Sewa Mandir in Rajasthan increased access to health services for women and children (21,22).

The Health Ministry has declared its commitment to improving neonatal care and survival with the launch of the Rs 300 crore Integrated Management of Neonatal and Child Illnesses project as proposed under RCH II / NRHM in select districts having high child mortality rates in the states of Orissa, Madhya Pradesh, Bihar and Rajasthan. A strategy appropriate for addressing urban neonatal survival needs to be incorporated in an operationally feasible manner through the proposed urban health delivery system (23). Physical proximity to private, charitable and public sector health facilities in urban areas as well as presence of active NGOs in most cities presents a unique opportunity to assure improved neonatal care.

“There is one thing stronger than all the armies in the world, and that is an idea whose time has come” - Victor Hugo

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Endnotes

Empowered Action Group (EAG) is an administrative mechanism to facilitate the preparation of area-specific programs, with special emphasis on the eight states which have lagged behind in containing population growth to manageable limits. GoI constituted the EAG States Uttar Pradesh, Madhya Pradesh, Rajasthan, Bihar, Orissa, Jharkhand, Chhatisgarh and Uttaranchal. in the MoHFW w.e.f 20th March 2001.