Chapter 5

NEWBORN HEALTH IN URBAN INDIA

OVERVIEW

The rapid population growth in urban India has outpaced the municipal capacity to build essential infrastructures that make life in cities safe and healthy. Local and national governments alike are grappling with the challenges of urbanization, with thousands migrating from villages to cities. Many of them ultimately end up living in slums, which are, in fact, a product of this uncontrolled migration. Thus urbanization in India has been accompanied by a concentration of poverty and urban public health has emerged as one of the most pressing priorities facing our country.

Children's health is primarily determined by socioeconomic conditions, which in turn are shaped by the distribution of power and resources. The consequences of having too little of both are evident in informal settlements and slums.

This chapter focuses on newborn health in urban areas in India. It discusses the challenges, roadblocks, efforts, and initiatives by the government and other national and international organizations, possible options, research priorities and the other requirements needed to gear up the urban health systems to cater to newborn health.

1. URBAN HEALTH SYSTEM IN INDIA

1.1 Health service provision in urban areas: a historical perspective

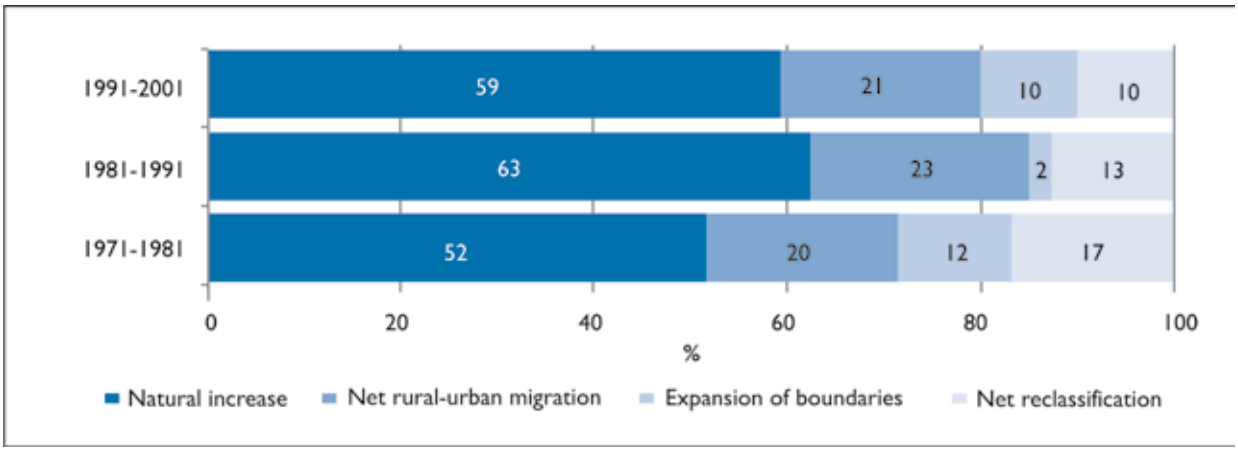
Urban Family Welfare Centres (UFWCs) have been functioning in India since the first family planning programme launched in 1951. In the 1980s, as a result of the recommendations of the Krishnan Committee Report, 1982, Urban Health Posts (UHPs) were opened to provide primary healthcare for urban slums and the urban poor. The major responsibilities of these posts are to work as channels for providing integrated service delivery including antenatal, natal and postnatal care; child immunization; treatment of minor ailments; and advice and services to family planning acceptors. The UHPs were initiated under the Urban Revamping Scheme sponsored by the Central Government. The Ministry of Health and Family Welfare, Government of India, provides an annual grant for UFWCs and UHPs.

Over the years, various committees such as the Bhore Committee 1946, Jungalwalla Committee 1967, Bajaj Committee 1996, Mashelkar Committee 2003, and the National Commission on Macroeconomics and Health 2005, have suggested ways to strengthen the health sector. Subsequently, the Ministry of Health and Family Welfare has launched a National Health Mission (NHM) with two sub-missions: NRHM (already approved by Cabinet for continuation upto 2017) and a new sub-mission National Urban Health Mission (NUHM).

1.2 Population trends in urban India

India's urban growth has been described as following a "2-3-4-5" pattern: annual population growth of 2 percent, urban population growth of 3 percent, mega-city growth of 4 percent, and slum population growth of 5 percent. [1, 2] Urbanization – the increasing proportion of the population who live in urban areas – happens in three ways. First, people move from rural to urban areas. Although this is perceived as the primary form of migration, it has not been the main driver of India's recent urban growth. [3] Second, urban populations grow, and if this growth is greater than that of rural areas – if urban birth rates remain high and death rates fall compared with those in rural areas – urban population growth exceeds rural population growth. Third, areas that were classified as rural or peri-urban are reclassified as urban: the city sprawls and the spaces between satellite towns are filled in. Figure 5.1 summarizes the sources of increase in the urban population. Natural increase is the main driver. Though a substantial contributor, rural-urban migration has contributed a fairly steady 20 percent to urban growth over three decades.

Figure 5.1: Proportionate contributors to urban growth in India, 1971-2001



Source: HPEC, 2011 [3]

Figure 5.2 shows India's steady rise in urbanization, to 31 percent in 2011. The 2011 Census describes an urban population of over 377 million within a total population of 1.21 billion. [4] This is expected to grow to 590 million by 2030. [5] Assuming a crude birth rate of 18 per 1,000, [6] about 18,600 babies are born every day in urban India.

1.3 Where do the urban poor live?

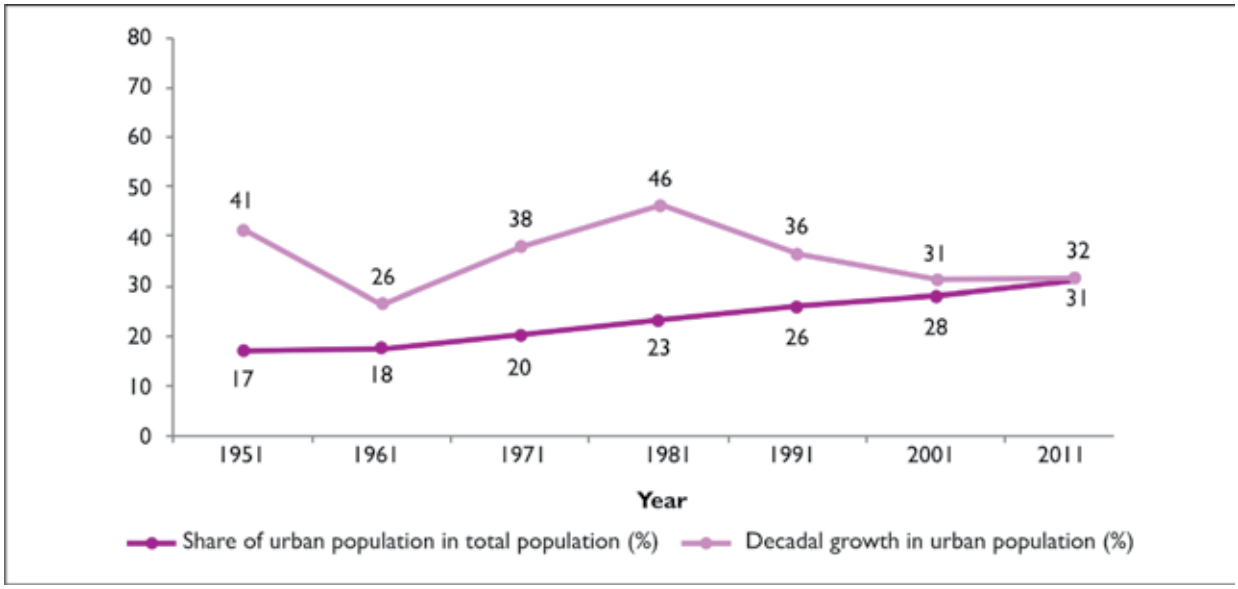
Urban Indians live in 7,935 towns and cities, of which 468 have populations of at least 100,000 and house 70 percent of urban residents. Of the 53 cities that have populations of over one million, three – Mumbai, Delhi, and Kolkata - are mega-cities of over 10 million. Although the idea of urban India conjures up images of these mega-cities, the fact is that they have functional municipal corporations with a long history of grappling with urban concerns and – at least to some degree – the health of their people. The most vulnerable healthcare systems are in rapidly growing smaller towns with less prepared governmental bodies with more fragile health services. [8]

While India awakes to the challenges of urban health, the reality is that city-dwellers are often over-supplied with healthcare choices. State government hospitals and municipal facilities at primary, secondary, and tertiary levels are accompanied by private sector providers from allopathic, Ayurvedic, Unani, Siddha, and Homoeopathic traditions (AYUSH). From single-handed practitioners to super-speciality hospitals, the market provides something for everyone - from the richest to the poorest – and this raises the possibility that the fundamental challenges may be more about quality than quantity. [9]

1.3.1 Slums and urban poverty

The 2011 Census of India defined slums as residential areas in which dwellings are unfit for human habitation because of dilapidation, overcrowding, faulty arrangement of the building design, narrowness of streets, and lack of ventilation, light, or sanitation facilities, or any combination of these factors detrimental to safety and health. Such areas are compact, have a population of at least 300 (60-70 households), and may have been formally notified, governmentally recognized as slums, or identified but unrecognized. [10] According to the 2011 Census, 63 percent of towns reported at least one slum block and 108,227 slums were included. Overall, about 17 percent of urban households are in slums, but the proportion varies across states.

Figure 5.2: Urban population in India, 1951-2011



Source: HPEC, 2011 [3]

Table 5.1 illustrates the distributions for eight cities. While 42 percent of the wealthiest third of Meerut residents live in a slum, 90 percent of Indore's poorest live in non-slum areas. There has been much debate about the classification of poverty in India, and about the differences between urban and rural poverty. That aside, the worrying issues are - although the headcount ratio of urban poverty has fallen steadily, it has fallen more slowly than that of rural poverty; the urban poverty gap is greater than the rural poverty gap; non-waged informal employment is the dominant characteristic of urban livelihoods; and urban poverty reduction has been uneven across the country. [7] The most recent estimates for 2011-2012, based on modified methods, put 14 percent of urban people below a poverty line of Rs 1,000 per person per month (compared with 26 percent of rural people, at a poverty line of Rs 816). [11, 12]

2. Urban newborn health

2.1 Indicators

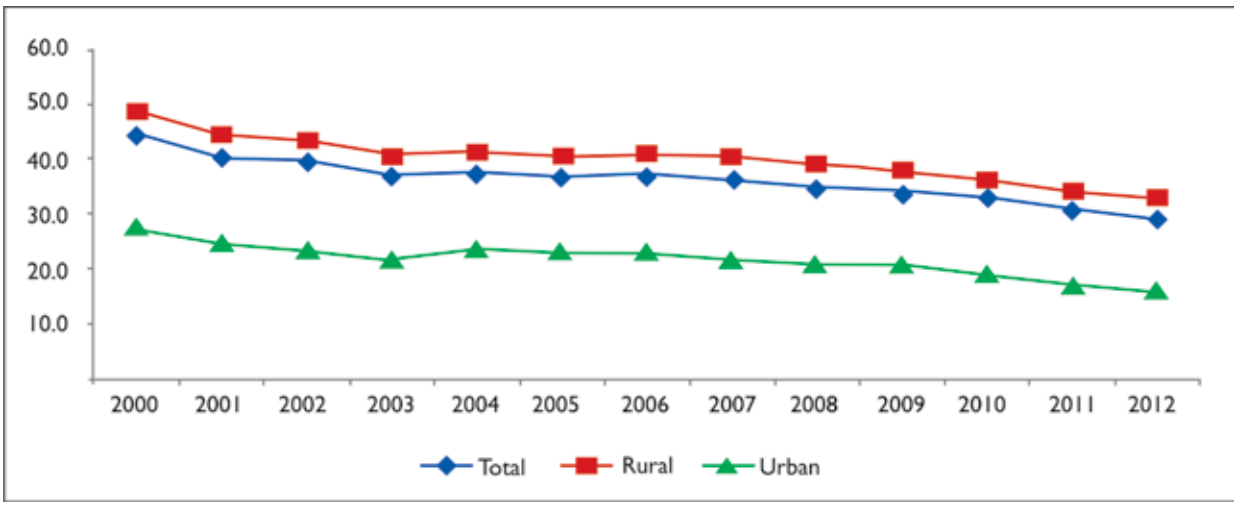
Findings from the Sample Registration Survey, and the Annual Health Survey (covering 284 districts of nine high priority states), institutional records, and isolated studies (Figure 5.3) illustrate the steady fall in neonatal mortality rates over a decade, especially, the fact that they are lower overall in urban than in rural areas, and reflect the relative lack of progress in reducing early neonatal mortality. Reliable and disaggregated urban data, especially disaggregated city data or census data that include slums focusing on the most vulnerable city dwellers (that are frequently not counted) is completely absent.

Table 5.1: Distribution of slum and non-slum population across three socioeconomic groups, in eight city samples (NFHS-3, 2005-2006)

	Poor		Middle		Rich		All	
	Slum %	Non Slum %	Slum %	Non Slum %	Slum %	Non Slum %	Slum %	Non Slum %
Delhi	60	40	72	28	14	86	21	79
Meerut	62	38	69	31	42	58	46	54
Kolkata	86	42	58	68	32	65	35	65
Indore	10	90	18	82	21	79	20	80
Mumbai	47	53	77	23	56	44	57	43
Nagpur	53	47	52	48	33	67	37	64
Hyderabad	29	71	25	75	17	83	17	83
Chennai	39	61	38	62	16	85	19	81

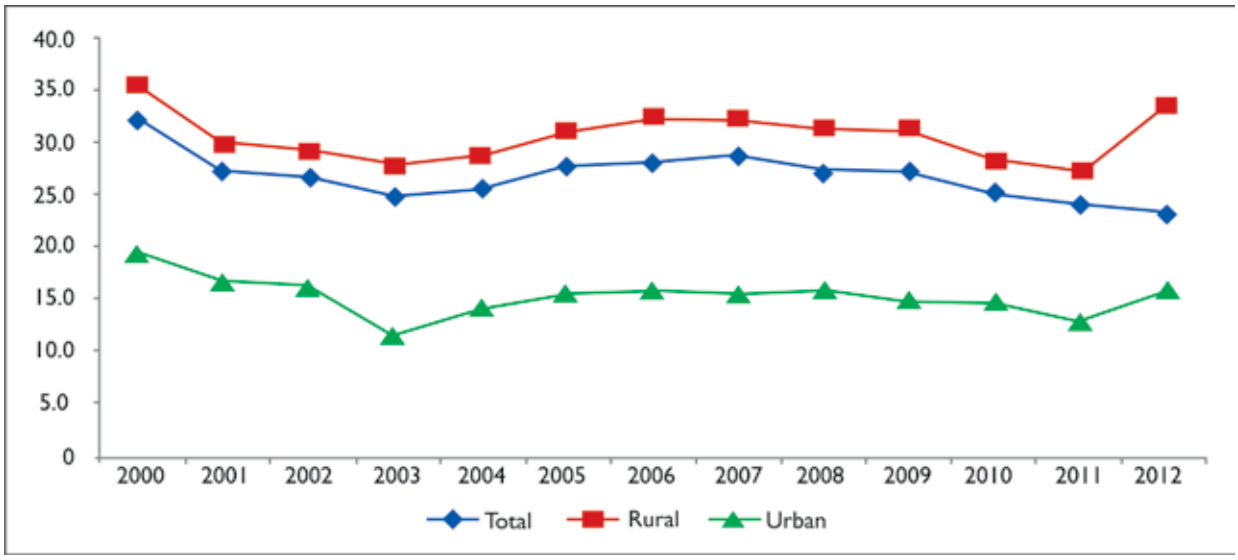
Adapted from: Goli et al 2011 [8]

Figure 5.3: Neonatal Mortality Rates by rural and urban residence



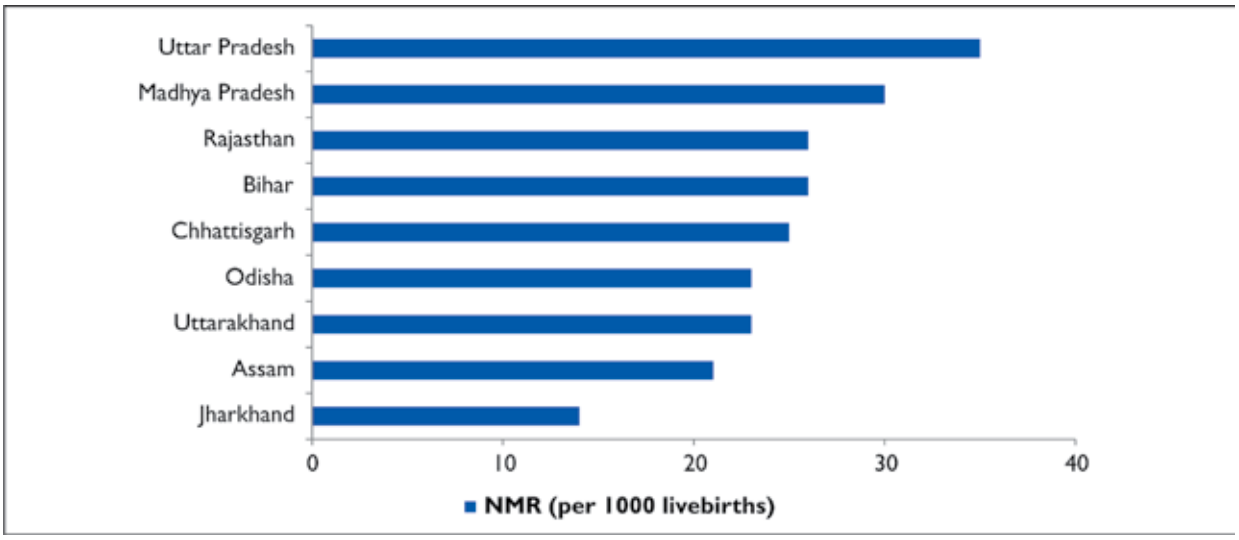
Source: SRS, RGI 2012 [13]

Figure 5.4: Early Neonatal Mortality Rates by rural and urban residence



Source: SRS, RGI 2012 [13]

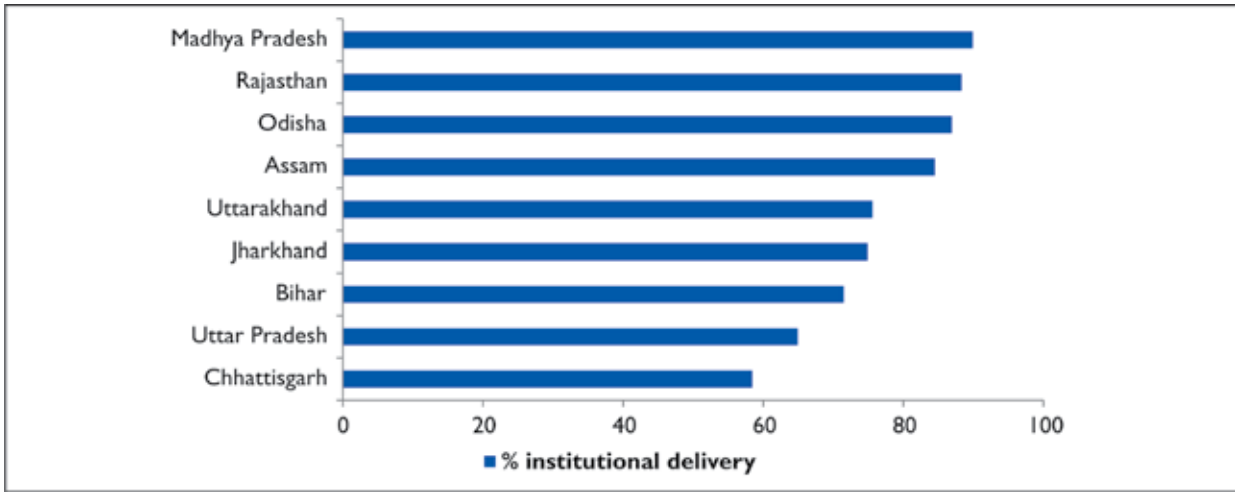
Figure 5.5: Neonatal Mortality Rate (per 1000 livebirths) in urban area of 8 EAG states and Assam



Source: AHS, 2012-13 [14]

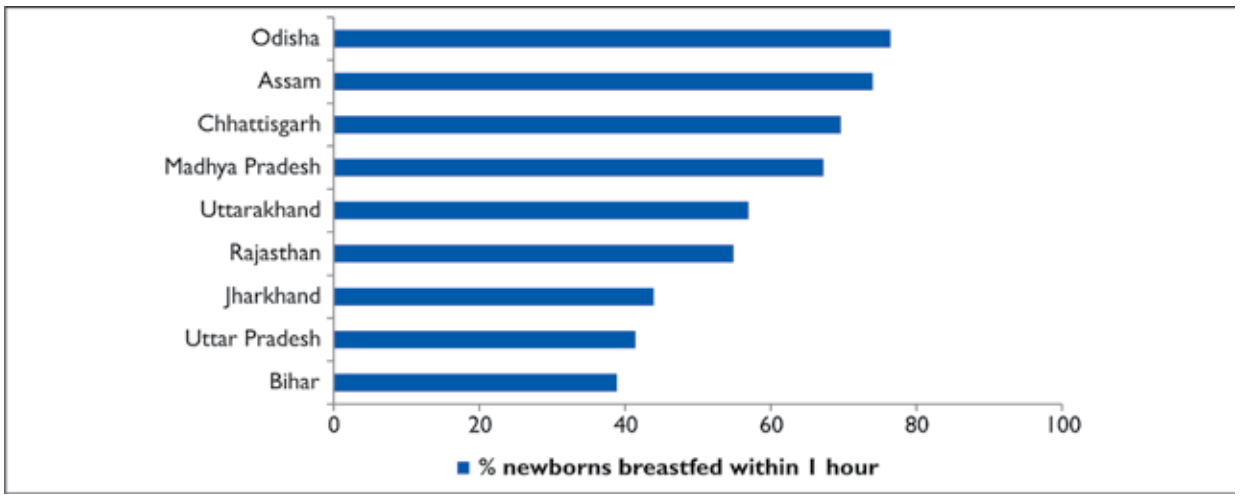
Figure 5.5 presents a series of findings from urban districts. Urban NMR varies from 14 in Jharkhand to 35 per 1,000 live births in Uttar Pradesh; this raises a question on the aspect of underreporting than about the range itself. Institutional delivery in urban areas ranges grossly between 60 percent and 90 percent, duration of hospital stay varies widely, and early breastfeeding is reported as ranging from around 40 percent to 80 percent. Low birth weight continues to be a common aspect in all states, with particular prevalence in Rajasthan.

Figure 5.6: Proportion of institutional delivery in urban area of 8 EAG states and Assam



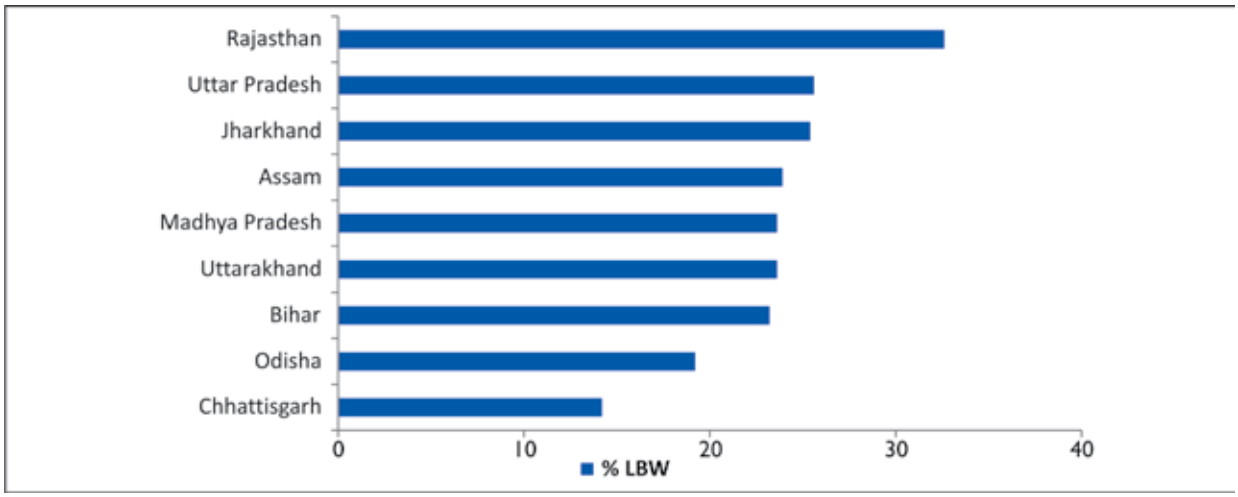
Source: AHS, 2012-13 [14]

Figure 5.7: Proportion of newborns breastfed within one hour of birth in urban area of 8 EAG states and Assam



Source: AHS, 2012-13 [14]

Figure 5.8: Proportion of newborns with Low Birth Weight (<2500g) in urban area of 8 EAG states and Assam



Source: AHS, 2012-13 [14]

2.2 Causes of newborn mortality

The causes of stillbirth and newborn deaths in urban areas are similar to those in rural areas, with some difference in the proportional breakdown. Although few studies have examined the causes of newborn mortality in urban India, the evidence from one of the studies in Mumbai slums reflect that 75 percent of neonatal deaths occurred in the first week. Intra-partum related deaths made up 28 percent, prematurity 23 percent, and severe infection 22 percent. [15] In a study of 120 neonatal deaths from Vellore, 39 percent were ascribed to asphyxia and 21 percent to prematurity. [16]

3. TOWARDS BETTER URBAN NEWBORN HEALTH

Since urban health involves the convergence of domains, a number of programmes and policies implemented by the Ministry of Housing and Urban Poverty Alleviation are also important. Launched in 2005 and revised in 2009, the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) covers the provision of basic services for the urban poor (BSUP) and the Integrated Housing and Slum Development Programme (IHSDP) in 65 cities. The Swarna Jayanti Shahari Rozgar Yojana (SJSRY, revised 2009) targets skill development for livelihoods. Other relevant schemes include Affordable Housing in Partnership (AHIP), the Interest Subsidy Scheme for Housing the Urban Poor (ISHUP), and the Integrated Low Cost Sanitation Scheme (ILCS). Launched by the Prime Minister in 2009, the Rajiv Awas Yojana (RAY) envisages a slum-free India, and proposes affordable housing by merging the AHIP and ISHUP and extending JNNURM support to states that are willing to assign property rights to people living in slum areas. The idea is that existing slums will be formalized and provided with amenities.

A few city initiatives and innovations in Uttar Pradesh, Maharashtra, and Gujarat have definitely brought forth the evidences of effectiveness of Behaviour Change Communication (BCC), KMC and other innovative strategies. However, by and large, the service delivery structure and mechanisms in the urban areas continue to be rudderless, with complete lack of clarity on roles and responsibilities vis-à-vis the rural areas, where the district administration is structured and responsible for service provision. In addition, lack of demonstrated political will to assume responsibility and accountability for urban services as well as absence of interdepartmental coordination between the Departments of Public Health, Urban Development, Medical Education, the Municipal Corporations and the local bodies have further made matters worse.

Although there are not much information on the status of newborn health and services in urban India, there were several sporadic initiatives that were undertaken in different parts of the country. Some of these are summarized below.

3.1 Public private partnership

Through policy dialogue, the Government of Gujarat and the Urban Health Alliance have addressed public-private partnership in a number of ways. Major initiatives include the Chiranjivi Yojana and the Balsakha Yojana, both of which aim to improve newborn survival. In 2011-2012, 72 percent of deliveries in Gujarat took place in private healthcare institutions and 13 percent were covered by the Chiranjivi Yojana. [17-19]

3.1.1 Private maternity and child care for lower-income families

The Lifespring initiative responds to the preference for private healthcare in lower-income groups. In 2005, a chain of hospitals was set up in Hyderabad, Andhra Pradesh, by a partnership between Acumen Fund, a private enterprise social fund, and HLL Lifecare Ltd, a public sector company. Small private maternity hospitals have been set up in low-income catchment areas (urban slums) to provide affordable, high-quality maternity care at low cost. Complicated deliveries are referred to nearby charitable hospitals. The model is for-profit, but aims at cost-minimization through the use of leased buildings, collaboration with government ambulance services, the deployment of nurse-administrators and auxiliary nurse midwives, and careful stock control for pharmaceuticals and consumables.

In Uttar Pradesh, Merrygold has implemented a private sector social franchise that provides

maternal and child care through 70 hospitals, 700 clinics and 10,000 workers across about half the state. The franchise hospitals are 15-20 bedded and pay a license fee that effectively buys them into a multi-partner private sector system with protocols, information systems, purchasing and supply networks, and quality assurance.

3.1.2 Behaviour change communication and community mobilization

In the context of multiple providers, it does seem possible to help families to choose appropriate practitioners to care for their newborn infant's illness. A study in urban Lucknow, Uttar Pradesh, examined the effect of behaviour change communication at two public hospitals on newborn care-seeking with qualified clinicians. Mothers were counselled and provided with a Neonatal Well-Being Card (Navjat Shishu Raksha Card). The odds of consulting a qualified practitioner doubled after the intervention. [20]

Along with BCC, social mobilization should be a component of efforts to improve perinatal health. [21] In Mumbai, SNEHA (Society for Nutrition, Education and Health Action) introduced a combination of supply- and demand-side approaches to newborn health in slum communities. [22] One axis sought to address low uptake of antenatal care at health posts, lack of protocols for case management, disorganized referral systems, and technical and interpersonal skill deficiencies among public health workers. In partnership with the Municipal Corporation of Greater Mumbai, mixed cadres worked together to develop protocols and systems. Health posts were equipped and their antenatal services reinstated, regional referral links were cemented, and feedback loops implemented. The model is currently being transferred to three other municipal corporations in Maharashtra, with WHO support.

The other axis hoped to build on the success of community participation through women's groups, which has improved newborn (and maternal) survival in rural south Asia. [23] In each of 24 slum areas, a facilitator supported women's groups through an action learning cycle in which they discussed perinatal experiences, improved their knowledge, and took local action. An analysis of over 18,000 births over three years did not confirm improvements in uptake of antenatal care, institutional delivery, early and exclusive breastfeeding, care-seeking, or perinatal mortality. [24] The inferences were that community-based work needs to target the most vulnerable groups more effectively, that newborn health should be integrated with other concerns, and that quality of care remained an issue.

3.1.3 Gujarat Urban Health Alliance

Gujarat is India's third most urbanized state (42 percent). [25] The Gujarat Urban Health Alliance has attempted to achieve convergence through a series of plans: an urban health system plan; an urban health administrative structural plan including state, regional, and zonal bodies; an urban reproductive and child health service plan; an urban health monitoring plan; and the formation of urban health societies.

The Gujarat Urban Health Project aims to develop and strengthen primary healthcare delivery systems in urban areas, with a focus on the health needs of poor and vulnerable groups. In consonance with the NUHM, its approaches seek to promote, support and institutionalize the involvement of urban local bodies and district, region and state bodies, and develop their management capacity, and to do the same for public-private and community partnerships. State-level oversight is provided by the Director of Urban Health, with administrative, financial, monitoring and evaluation assistance, and by professionals drawn from the NRHM.

Urban Primary Health Centres (U-PHCs) in Gujarat's eight cities with municipal corporations will be developed by upgrading existing units. New U-PHCs will be created according to mapped requirements, which will be the norm in other municipalities. Subcentres will be considered for remote slum areas and will function according to NUHM guidelines. The system will include schemes such as JSY and JSSK. Efforts have been made to provide reproductive and child health services at all levels, through outreach workers including ANMs, sanitary inspectors, Anganwadi workers, Mahila Arogya Samiti, and USHAs, with additional village health and nutrition days (Mamta Divas). Real-time Institution Management Systems (RIMS) have been introduced and the Integrated Disease Surveillance Project (IDSP) made functional.

3.1.4 Urban Health Initiative, Uttar Pradesh

The Urban Health Initiative (UHI) is part of a multi-country family planning effort to improve contraceptive use and reduce unplanned pregnancy, as a key strategy to improve maternal and infant survival. UHI strategies facilitated increased access to services and supplies, and improved communication to increase and sustain demand.

UHI works in 1,802 slums all 11 cities of Uttar Pradesh. UHI supported cities reported 148,895 new users, including 87,043 acceptors of long acting and permanent family planning methods, since 2010. UHI supports 4,464 fixed service days that provided services to 27% of all new users. UHI supports 1,958 community workers who reached 783,293 couples with counseling and referral. UHI communication strategies to generate demand also included mass media on TV, radio and cable across Uttar Pradesh and mid-media marketing in eleven cities.

3.1.5 Sure Start, Maharashtra

A recent commission on healthy cities recommended the option of trying out a range of approaches to improving urban health and choosing successful features from among them. [26] Implemented by PATH, the Sure Start initiative aimed to improve maternal and newborn health through action in slums in seven cities in Maharashtra. In each case, a common minimum programme was implemented and city-specific models – developed in partnership with NGOs, academic institutions, public health training institutions, and municipal corporations – piggybacked on it.

Sure Start Solapur aimed to mobilize communities through volunteers and self-help groups. It focused on building the capacity of group members and student volunteers to act as change agents. Sure Start Pune established linkages with integrated counselling and testing centres, working to integrate HIV and maternal and newborn status monitoring systems. In Nagpur, Sure Start established emergency health funds, through which women's groups saved money for use in emergencies. The project also tested prepaid maternal and newborn health cards that could be redeemed for healthcare services.

In Navi Mumbai, PATH collaborated with the municipal corporation and community-based organizations to develop a city model in which the private and public sectors shared responsibility for public health. The partnership included professional bodies, NGOs, and hospitals, and activities were undertaken at four levels: demand generation at household level, outreach at community level, antenatal clinics at urban health posts, and referral systems and protocols at hospitals.

Sure Start Malegaon concentrated on client satisfaction. Norms for quality of care were developed in partnership with the municipal corporation and client satisfaction was monitored by Swasthya, an NGO, and other community partners. In Mumbai, Sure Start was implemented in partnership with another NGO, SNEHA, and focused on the development of community resource centres within slums. The centres provided information and support across a range of community concerns and the model has been modified and is currently being tested in a randomized controlled trial. [27] Finally, in Nanded, a local NGO implemented a community-based insurance model to improve institutional delivery and reduce out-of-pocket expenses. An annual premium of Rs. 450 per family covered maternal and child inpatient services and some transport costs.

3.2 Current initiatives

3.2.1 National Urban Health Mission

The Government of India's Twelfth Five Year Plan builds on the National Rural Health Mission and converts it into a National Health Mission for the whole country. In doing so, it incorporates the developing National Urban Health Mission as a sub-mission.

Urban health posts are divided into four types: type A (less than 5,000 population), type B (5,000 to 10,000), type C (10,000 to 25,000), and type D (above 25,000). Almost 75 percent UHPs are of type D. The UHPs, however, are located mainly in big towns. Small towns continue to be deprived of these facilities.

Though the UHPs are expected to carry out the same activities as PHCs, their sanctioned staff strength is lesser. Type A and B have only one nurse midwife; Type C has two nurse midwives. While a subcentre with a population of 5,000 has one ANM

and one multi-purpose worker a type A - UHP has only one ANM. Services expected to be provided by the UHPs and UFWCs include ANC, PNC, intranatal care, immunization, and treatment for RTI/STI and diarrhea.

Health structures and mechanisms: Key aspects

- The ultimate responsibility of providing health services in urban areas is not clear as it is in rural areas where the district administration is in charge of public health.
- All resources invested in urban healthcare deal primarily with curative services.
- Urban health posts mainly provide three types of services: Regular (including preventive, curative, IEC activities, and training), seasonal (pre-monsoon and monsoon-related activities), and disaster management.
- The urban healthcare system is focused on secondary and tertiary care, and not on primary level services.

Service provision: Key aspects

- Health services vary from city to city. Some cities have a well-established ICDS in place. A few large cities like Mumbai, Kolkata, and Chennai have used the Indian Population Project to focus on the health infrastructure establishment in urban slums.
- Only a few large municipal Corporations with good revenue resources have demarcated special resources to provide urban health services.
- Referral services are available in corporation hospitals/district hospitals/medical college hospitals as well as several private hospitals.
- There is no mechanism for a health worker to make community or home visits and thus no outreach and follow-up services are available.
- There is no definite system of referral; no linkages between domiciliary, health centre, and hospital; and no protocols for admissions to primary, secondary, and tertiary levels.
- A link worker or community health volunteer has been appointed in a few cities that are effectively implementing the NRHM (Urban Component) and RCH II project. The main role of the link worker is family welfare, maternal and child health, immunization, health education, and demand generation.

NUHM aims to meet the healthcare needs of the urban population, with a focus on the urban poor, by making available to them essential primary healthcare services and reducing their out-of-pocket expenses for treatment. This will be achieved by strengthening the existing healthcare service delivery system, targeting the people living in slums, and converging with various schemes relating to wider determinants of health like drinking water, sanitation, and school education implemented by the Ministries of Urban Development, Housing and Urban Poverty Alleviation, Human Resource Development, and Women and Child Development.

NUHM endeavours to achieve its goal specifically through a need-based city-specific urban healthcare system that will meet the diverse healthcare needs of the urban poor and other vulnerable sections and through institutional mechanism and management systems to meet the health-related challenges of a rapidly growing urban population.

The goal of the NUHM is to improve the health of the urban population in general, and particularly of the poor and other disadvantaged groups, by facilitating equitable access to quality healthcare through a revamped public health system, partnerships, and community-based mechanisms, with the involvement of urban local bodies. Focusing

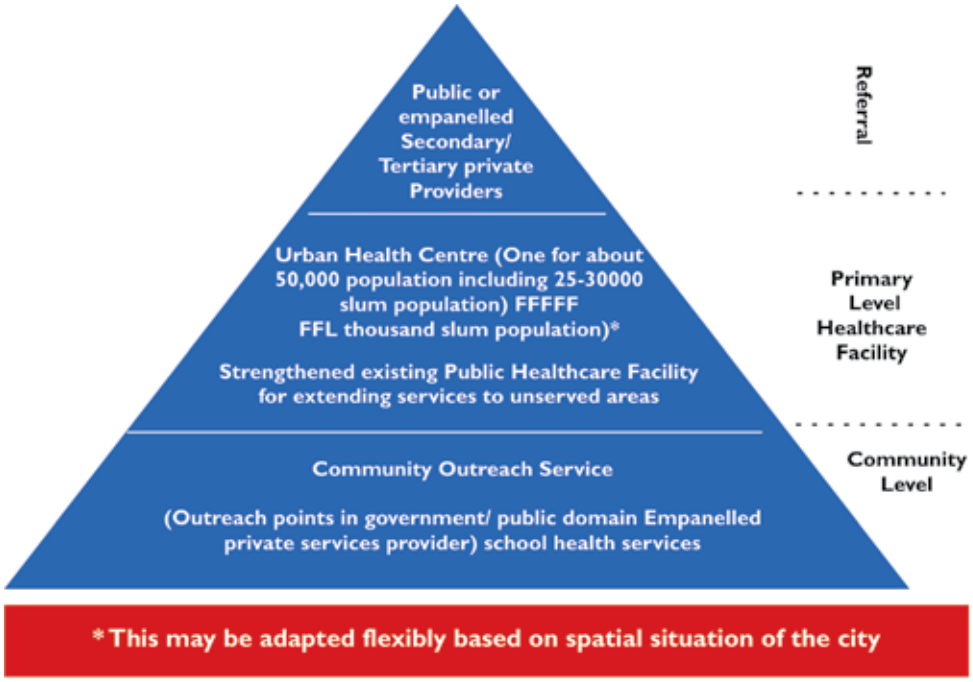
Structural and human resource propositions of the NUHM

Proposition		Serving
Urban Primary Health Centre	U-PHC	50,000 - 60,000 population
Urban Community Health Centre	U-CHC	250,000 – 360,000 population 5-6 U-PHCs in larger cities
Auxiliary Nurse Midwife	ANM	10,000 population
Accredited Social Health Activist (Urban Social Health Activist)	ASHA (USHA)	200 - 500 households 1,000 – 3,000 population

on the primary healthcare needs of the urban poor, the NUHM will be implemented in 779 cities and towns with populations of more than 50,000.

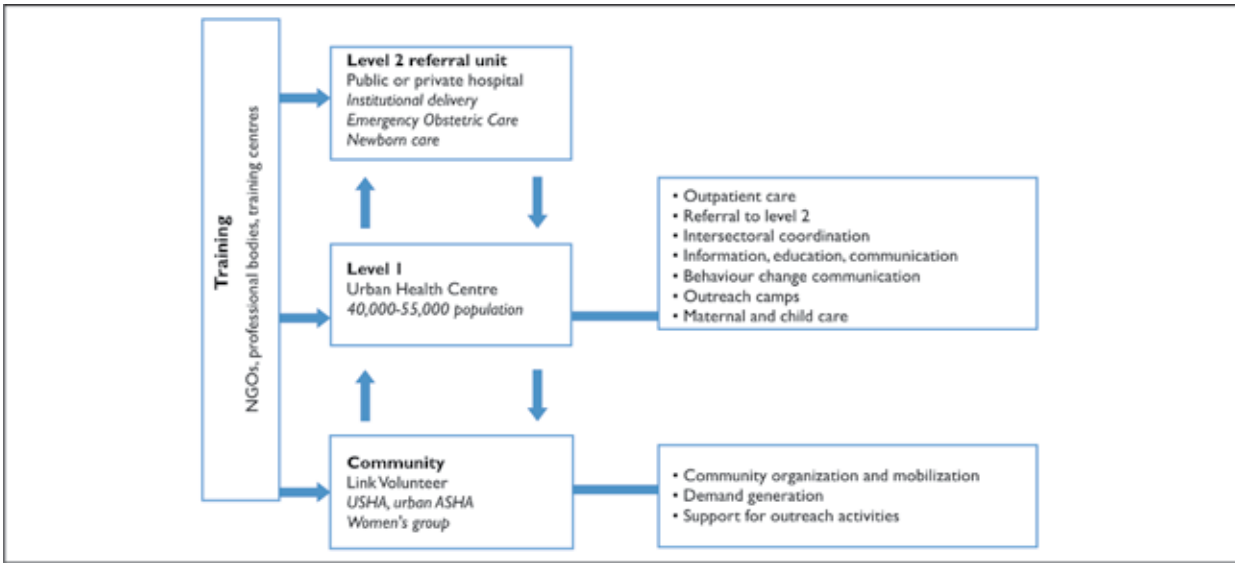
In response to the needs for convergence and public health management, the NUHM plans that every Municipal Corporation, municipality, Notified Area Committee, and town Panchayat will be a planning unit in its own right, with its own approved norms for setting up health facilities. These urban local bodies will prioritize services for the urban poor (in both listed and unlisted slums), and for vulnerable groups such as the homeless, rag pickers, street children, rickshaw pullers, construction and brick and lime kiln workers, and sex workers. Sanitation, clean drinking water, and vector control will be central to the public health remit.

Figure 5.9: Urban healthcare delivery model



Source: NUHM Framework, Ministry of Health and Family Welfare, 2013 [28]

Figure 5.10: RMNCH+A service package for urban areas



3.2.2 Reproductive, Maternal, Newborn and Child Health + Adolescent (RMNCH+A)

RMNCH+A calls for a continuum of care over the life cycle and distinguish adolescence as a distinct life stage. It includes packages of interventions for each stage, including antenatal, intra-partum, and a specific newborn package. In urban areas, the strategy focuses on unreached people in underserved localities, particularly slum dwellers, the homeless, street children, ragpickers, temporary migrants, and construction workers. A systematic plan has been developed for urban areas, including a service package summarized in Figure 5.10.

RMNCH+A will be monitored with a scorecard covering 16 indicators. Maternal indicators include early antenatal registration and three check-ups, iron and folic acid supplementation, receipt of tetanus toxoid, referral for complications, skilled birth attendance at home deliveries, registered institutional deliveries, and caesarean sections. Newborn indicators include the proportion of infants who were initiated breastfeeding within one hour, discharge within 48 hours of delivery, low birth weight, and visits within 24 hours of home deliveries.

4. CHALLENGES FOR URBAN NEWBORN HEALTH

4.1 Inequalities

Nearly every city in the country has pockets of extreme deprivation together with extreme wealth.

Table 5.2: Maternal and newborn health indicators in eight cities (NFHS 3, 2005-06)

		NMR (per 1,000)	Antenatal care: 3 or more visits (%)	Skilled birth attendance (%)	Institutional delivery (%)	Caesarean section (%)	Postnatal check within 2d (%)	Newborn put to breast within 1hr (%)
Meerut	Slum	46	61	43	35	12	51	6
	Non-Slum	36	61	60	56	15	67	7
Indore	Slum	42	84	80	76	17	76	32
	Non-Slum	31	85	76	73	17	78	28
Delhi	Slum	36	58	42	33	7	44	18
	Non-Slum	24	80	71	68	17	63	23
Nagpur	Slum	28	81	81	78	21	70	48
	Non-Slum	33	94	87	85	35	74	50
Hyderabad	Slum	24	91	90	89	33	79	22
	Non-Slum	26	91	95	93	37	84	29
Mumbai	Slum	24	90	82	83	13	62	50
	Non-Slum	27	93	93	91	15	77	71
Chennai	Slum	23	99	99	98	23	96	62
	Non-Slum	17	100	100	100	39	95	48
Kolkata	Slum	20	81	81	80	24	67	26
	Non-Slum	34	90	93	92	41	76	22
		29	75	73	67	17	53	30
India urban		43	44	37	29	6	25	22
India rural		46	61	43	35	12	51	6

Source: NFHS 3, 2005-06 [32]

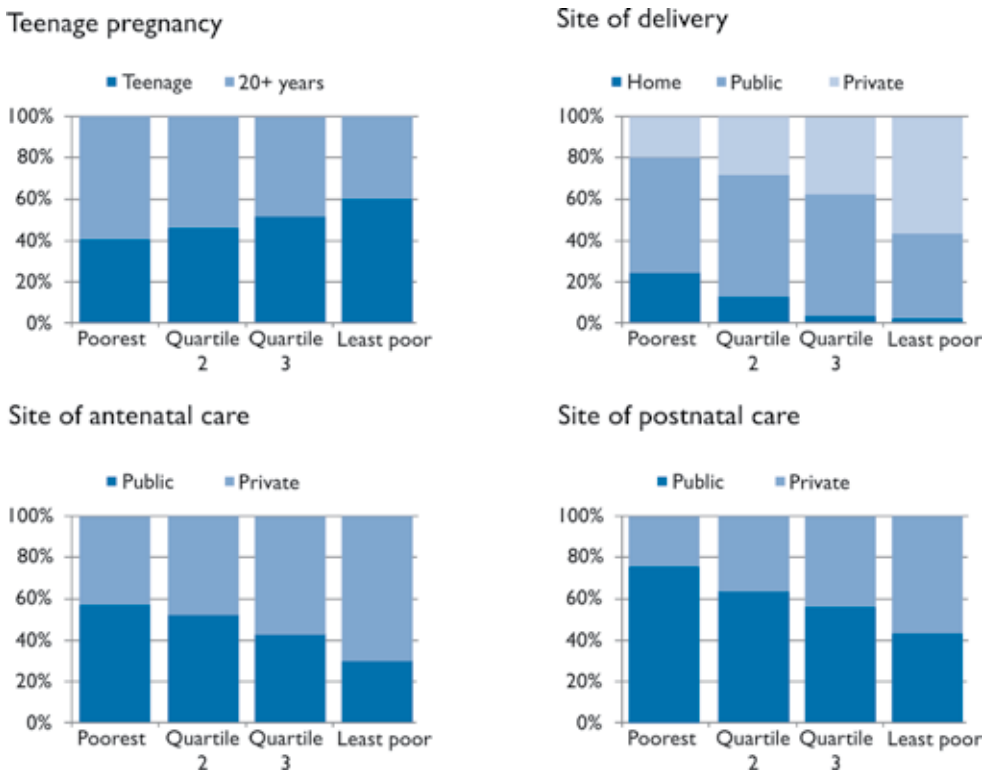
There are people who over-consume healthcare and people who forego the most basic and essential care for financial and other reasons. Certain city dwellers suffer disproportionately from poor health, and these inequities can be traced back to differences in their social and living conditions. There are no doubt that India's towns and cities enjoy a health advantage, but it has become increasingly obvious that the net benefits of urban living conceal substantial inequalities. [29, 30]

In order to see the effects of the social determinants of health, there is a need to view urban data with a greater depth of focus. The Urban Health Resource Centre used an asset score to break NFHS-3 (2005-2006) findings down into quartiles of socioeconomic status. In urban areas in Delhi and six states, compared with wealthier groups women in the poorest quartile were substantially less likely to make at least three antenatal care visits (54 percent compared with 83 percent) and to have a birth assisted by a health provider. Their children had higher under-five mortality rates, lower immunization rates (40 percent compared with 65 percent) and higher proportions of stunting (54 percent compared with 33 percent). [31]

The high neonatal mortality rates seen in Meerut and Indore slums underline concerns about health in rapidly growing cities. Even in the best circumstances (Chennai), rates of early breastfeeding were poor. A study involving about 300 mothers from 11 slums in Indore examined birth preparedness: 70 percent of mothers identified a birth attendant, 64 percent identified a health facility for an emergency, 30 percent arranged for transport, 77 percent saved money in advance. [33]

At a tighter level of focus, a study in 48 areas in Mumbai demonstrated clear inequalities between socioeconomic groups, even though all the participants lived in slums. [34] There was a stepwise increase from the lowest to the highest quartile in uptake of antenatal care, consumption of iron and folic acid supplements during pregnancy, and institutional delivery, and a stepwise decrease in teenage pregnancy and low birth weight. (Figure 5.11)

Figure 5.11: Maternity care for women in 48 slum areas, by quartiles of socioeconomic status, Mumbai 2005-2006



Source: JHPN, 2010 [33]

4.2 Environmental challenges and the need for convergence

Communities suffer deficiencies in water supply and sanitation, [35] and poor housing fabric, poor ventilation, and the density of homes contributes to the spread of infectious disease and the burden of respiratory illness. Many homes are close to sources of industrial smoke and toxins, contaminated areas such as garbage dumps and water bodies, or hazards such as railway lines. Figure 5.12 illustrates the proportions of pucca homes, access to improved sources of drinking water, and access to private improved toilets in eight cities, based on data from the NFHS-3 (2005-2006). Most slum dwellers use shared toilets, many homes are fairly robust in construction (although far short of safety levels in other countries), and the high access to improved sources of water reflects the lack of specificity of the definition in an urban context.

The mandate for provision of municipal services is unclear when settlements are not notified and their residents do not have tenure, [36] with implications for water supply and collection of waste. [37] There is a lack of coordination between the relevant departments, [28] and absence of convergence between infrastructural (water and sanitation, housing, transport) and health domains. Programmatic convergence is critical within health departments, so that maternal and newborn health is linked with reproductive health, and with malaria, tuberculosis, HIV, and immunization programmes.

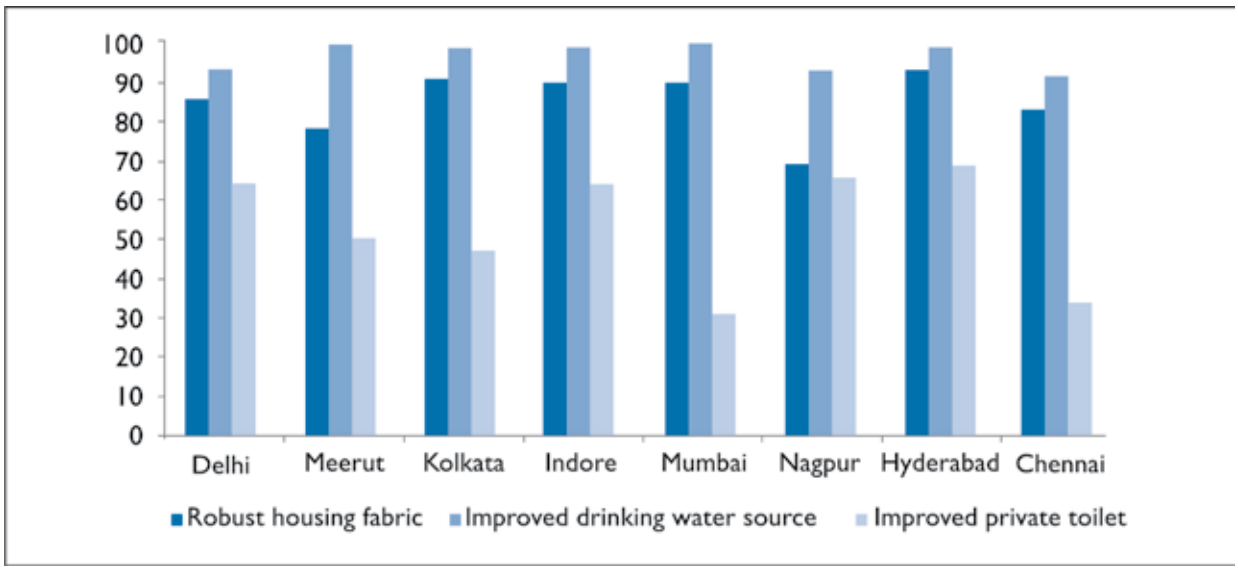
4.3 Public sector healthcare concerns

There are two general concerns for newborn healthcare: quantity and quality. In terms of quantity, the social exclusion experienced by residents of unlisted slum areas extends to provision of healthcare facilities and outreach. [37]

The varying quality of public healthcare is the product of a matrix of infrastructural weakness, deficiencies in equipment and consumables, human resource shortfalls, and limited provider competencies.

For maternal and newborn care, there is a lack of norms for service provision at different levels of health facility. No protocols exist for identifying women at risk and referring them for specialized care. Referral chains have been undefined and based more on a hospital's reputation and bed availability than on a regional plan, and referrals themselves have been unsystematic. [37, 38] Clients are sent to hospitals that have not been warned and may not have beds, the paper trail is sketchy at best, accountability is minimal, and transport is often the responsibility of the family.

Figure 5.12: Housing fabric, drinking water, and toilets in slum populations in eight cities



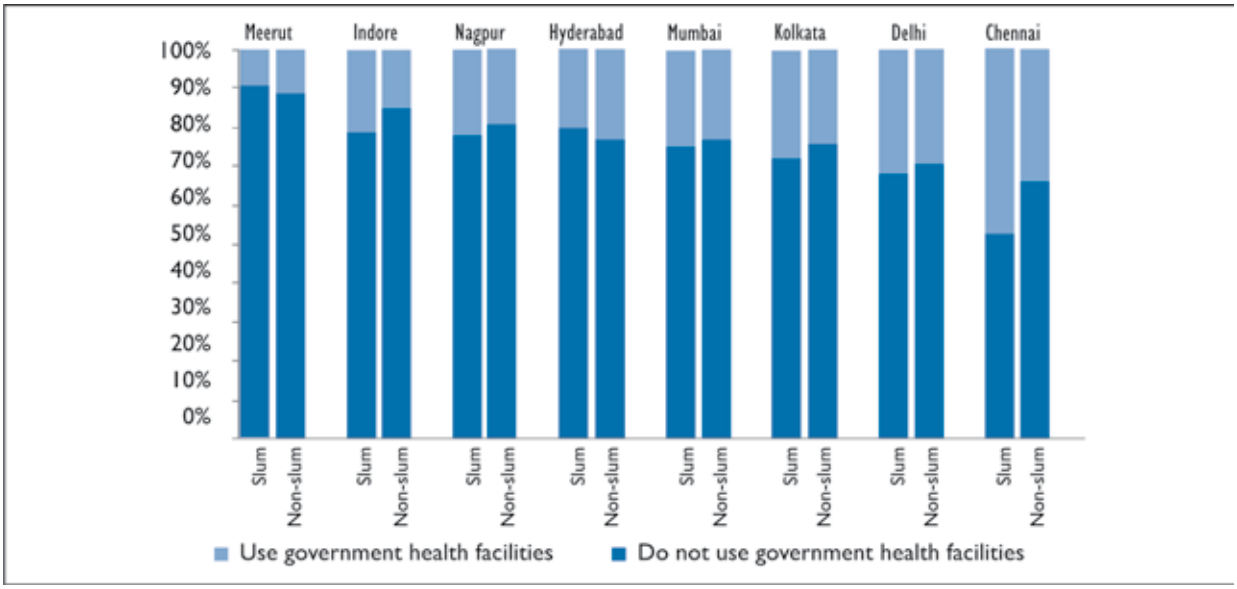
Source: Goli et al 2011[8]

4.4 Private sector healthcare concerns

A central issue is the multiplicity of providers, [39] with limited accreditation and quality assurance [40-43]. Despite the policy emphasis on state and municipal healthcare provision, 80 percent of outpatient consultations in India are with private providers. This is illustrated by the predomination of the use of non-government services in both slum and non-slum areas (with little to tell between them) in Figure 5.13.

Private healthcare clusters in towns and cities, and – through a self-organizing complex system that takes into account ability to pay - serve both the poor and the wealthy. [44, 45] The kinds of services available in Delhi are summarized below.

Figure 5.13: General use of government and non-government health facilities, for slum and non-slum areas in eight cities



Source: Goli et al 2011[8]

Multiple service providers for maternal and newborn care in urban areas: the example of Delhi	
Sector	**Provider**
Public sector	Delhi Government
	Central Government
	Municipal Corporation
	New Delhi Municipal Corporation
	Employees' State Insurance
	Central Government Health Scheme
	Railways
	Cantonment
Private sector	Corporate hospitals
	Large private hospitals
	Small private hospitals
	Nursing and maternity homes
	Non-government organizations
	Individual practices: allopathic, AYUSH, combination
	Traditional birth attendants

A study of 261 private hospitals in 10 districts of Maharashtra (India's second most urbanized state) confirmed the rising use of private care. Many hospitals are understaffed – particularly in terms of qualified health workers: more than half did not have a single qualified nurse at the time of the study – and accreditation is limited. [46] Countrywide, 86 percent of health expenditure is out-of-pocket.

Reports of malpractice, over-medication, inappropriate prescription practices and treatments, and excessive use of diagnostic tests, are common. [40] Health payments for delivery at a private health centre are about three times those for a public facility. [47] Out-of-pocket payments can be impoverishing. [48] Expenditure on maternity often requires borrowing and can be catastrophic for poor households. [49] Often, record keeping is poor and data is seldom used for improving services.

There have been efforts to ease the situation, including some form of partnership between private and public sector hospitals. Following the grant of concessional land allotment rates to private hospitals in Delhi, they are expected to allot 10 percent of inpatient beds and 25 percent of outpatient consultations free of charge to clients with monthly incomes of less than Rs. 4000. Overstretched public hospitals are expected to facilitate this through a formal system of inter-sectoral referral. [50]

4.5 Identifying beneficiaries and closing data gaps

Data on the vulnerable population in urban areas is grossly incomplete, missing out a sizable number of unlisted slums in any city. A need for targeting the most vulnerable as well as addressing the needs of the differentially vulnerable requires identification, mapping, and assessment of all slums in order to locate the hitherto missed slums and also for focusing on the neediest.

The Below Poverty Line (BPL) card system gets rather complicated due to slum notification issues. A specific information problem relates to lack of harmonization between sources, and a lack of accessibility to some of them. Bringing together the municipal data from a wide range of sources, including public and private hospitals and maternity homes, health posts, crematoria, and local surveys poses challenges and, even if successful, may systematically exclude the most vulnerable. Most cities lack epidemiological data, information on the urban poor and illegal clusters, and information on private health facilities. [28]India's cities also lack information management systems that can help with urban planning, particularly in terms of slum areas. [51]

Hidden Cities, a report by the WHO and UN-Habitat, reveals the urban health inequities that are the result of the circumstances in which people grow, live, work, and age, and the health systems they can access. [52] The report demonstrates how aggregated data often mask substantial health inequities within urban populations – inequities that are revealed when this same information is disaggregated according to defining characteristics of city dwellers, such as their socioeconomic status or place of residence. It illustrates that the urban poor suffer disproportionately from a wide range of diseases and health problems, and that disadvantage and disease tend to cluster within certain neighbourhoods of cities. In every city, disaggregated data can help identify people and areas most in need of intervention and support.

5 .WAY FORWARD

Evidence

- India is urbanizing rapidly, with an expectation that the urban population will be almost 600 million by 2030. There are 468 cities with populations of over 100,000; 53 over one million; and three are megacities of over 10 million. Most of the growth has been endogenous rather than the result of rural-urban migration.
- National health survey data show that overall neonatal mortality rates are lower in urban than in rural areas, but the figures mask substantial urban inequalities. Recent data also suggest a relative lack of progress in reducing early neonatal mortality.
- There are wide variations in urban accommodation between cities and states, and a long history of debate about urban slum policy and practice.

- Socioeconomic inequalities and environmental concerns pose major challenges for newborn health. Healthcare is concentrated in urban areas, but health outcomes are subject to variations in pluralistic provision and a lack of clarity in protocols, communication, referral, and transfer between institutions. Fragmented and weak public health systems, a multiplicity of actors, and limited public health planning capacity compromise the delivery of affordable quality healthcare.
- Data on urban newborn health are both limited and difficult to use to provide useful epidemiological and planning information.
- Within the National Health Mission, the National Urban Health Mission provides an opportunity for strategic thinking and actions to improve urban newborn health. The Reproductive, Maternal, Newborn and Child Health + Adolescent initiative adds to this an opportunity to integrate healthcare over the life cycle.
- A number of pilot initiatives have begun, including private-public partnerships, community action models, demand-side financing, and insurance, but evaluation has been limited.

Recommendations

- Develop models of newborn care for urban populations with focus on the poor within the NUHM framework.
- Develop convergence mechanisms of public, private, and third sector institutions whose work affects urban newborn health: water and sanitation, urban planning, transport and building all have a role.
- Develop platforms for harmonization and sharing of data –to provide epidemiologic and evaluative insights for programming.
- Review and redefine the roles of urban local bodies in public health including newborn health.
- Training, deployment, and support for human resources for urban healthcare remaincentral to efforts to improve newborn survival.
- Define staffing norms for urban health facilities, public and private, and within and outside NUHM.
- Involve civil society and NGOs for effective implementation of the urban newborn health programmes.
- Partner with professional bodies like NNF, IAP, and FOGSI (Federation of Obstetric and Gynaecological Societies of India)for service delivery, to develop standard norms and protocols, training and quality assurance.
- Conduct operations research to demonstrate sustainable models of newborn healthcare.

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