Original Article

Identifying Bottlenecks for appropriate infant feeding in urban slums, Aligarh city

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Introduction:
Urban population is increasing rapidly. Majority of these families are poor or landless farmers and labourers, who settle down in peri-urban areas, creating slums. Urban slums are thus growing at an alarming rate. The present study was carried out with the general objective of identifying factors which prevent access to health services.

Objectives:
1. To determine the prevalence of stunting, wasting, and underweight in infants and young children. 2. To determine presence of certain micro-environmental and socioeconomic factors associated with poor nutritional status of infants and children.

Methodology: Baseline study was carried out in Oct –Nov 2009 (as a part of another ongoing study) and data was collected in 110 Mothers who had delivered children during the last one month. In Oct 2010 these families were visited again the infants were followed up. 39 families had shifted to another location or emigrated back to their parent state or village mostly in search of seasonal employment as reported by neighbours. One family refused to cooperate. . Two infants had died. Remaining 68 Mothers were interviewed in friendly informal manner after taking consent for study.

Results: (35.4%) study subjects had migrated to other areas, as reported by neighbours. Of the 68 mothers interviewed during follow up visit, previous baseline record showed that a majority were 20-30 years of age. , only 2 mothers (2.9%) had exclusively breastfed for 6 months. 46 (67.6%) said they had not been contacted by any health worker during the last 3 months. All 68 children were malnourished. Immunization status was poor and 94.1% children had suffered from some illness in the last one month.

Conclusion: Migration is a problem which makes it difficult for providers to give continuity of care. . Capacity building of the community can reduce the the bottlenecks leading to marginalization and exclusion of slum mothers from the mainstream urban health services.

Keywords: Migrants, Migration, Breastfeeding, Nutritional status.

Introduction

Urban population is increasing rapidly. Much of this population growth is due to migration of families from rural to urban areas in search of livelihood. Majority of these families are poor or landless farmers and labourers, who settle down in peri-urban areas, creating slums. Urban slums are thus growing at an alarming rate,[1] so much so that the urban poor population constitutes nearly a third of total urban population and is growing at three times the national population growth rate. [7]

Civic and health authorities are unable to meet the spiralling demand, resulting in social and environmental health hazards. [2,3,4]

Access to Reproductive and Child Health Services is low among Urban Poor.[4] Children living in slums are more disadvantaged than other urban children and their mothers have only limited access to health care.

Infancy is a critical period for survival and optimal growth and development. Children living in slums have poor indicators of health compared to other urban and rural areas. [5]

Universal and free access to primary health care is a prerequisite to reduce health inequalities. The health issues need to be addressed in cost effective and evidence based manner.[6]

In a fast growing city such as Aligarh, evidence base for identifying key areas for intervention is needed. The present study was carried out with the general objective of identifying factors which prevent access to health services. The specific objectives were:

Objectives

1. To assess the nutritional status of infants and young children.
2. To determine presence of certain micro-environmental and socioeconomic factors associated with poor nutritional status of infants and children

Methodology

The present study was conducted in the slum areas registered under the underserved strategy of AMU-UNICEF collaborative effort .This study is a follow up study of the baseline study that was carried out in Oct –Nov 2009 (as a

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part of another ongoing study). In 2009 data was collected from all 110 Mothers who had delivered children during the last one month in the study areas.

The infants were followed up again after a gap of one year in October 2010. Of the 110 families initially visited, 39 families had shifted to another location or emigrated back to their parent state or village mostly in search of seasonal employment as reported by neighbours. One family refused to cooperate. Two infants had died. Remaining 68 Mothers were interviewed in friendly informal manner after taking consent for study. Infants were examined and their height and weight recorded using standard procedure and indices for wasting (weight for height), stunting (height for age) and under nutrition (weight for age) calculated using z score standard deviation. Immunization was assessed by card or mothers recall. Detailed history of feeding and illness during last one month was taken. History of any contact with peripheral health workers during last three months was noted. Data was analysed using Epi Info. Proportions and Chi square test was used where needed.

Results:

Socio-economic profile of study population: All mothers belonged to low social class. Most mothers were young, (94.5% being less than 30 years of age), illiterate (81%), and living in unitary type of families (65%).

Mobility of urban slum population: The study revealed that a sizeable number of families (35.4%), specially in the non registered slum has migrated to other areas, as reported by neighbours. Thus it was not possible to monitor these infants.

Maternal health care: Of the 68 mothers interviewed during follow up visit, previous baseline record showed that a majority were 20-30 years of age (69.6%), 49 (72.1%)had received at least one antenatal visit and 53 had received at least one dose of tetanus toxoid. For the majority, ANC visit was in government hospital. 5 women who had gone to private practitioner for tetanus toxoid injection did not have a check up. 52 (76.5%) mothers had delivered their babies at home with the help of untrained dais or relatives. 100% women were breast feeding and all wanted to continue breastfeeding for at least 6 months.

Table: 1. Preferred place of delivery

Place of Delivery	Frequency	%
Home	52	76.5
Hospital	15	22.1
Pvt. Nursing Home	1	1.4
Total	68	100.0

Infant Feeding: When interviewed during the follow up visit, only 17 mothers (25%) had exclusively breastfed for 6 months. A majority of mothers were top feeding by 6 months of age using feeding bottle (44.1%) or katori (30.8%). Only 23.8% had introduced semisolids at the correct age of 6 months, but in inadequate quantity. Top milk was diluted with water. Several mothers were still only breast feeding beyond 12 months of age.

Table: 2. Infant feeding practices (N=68)

Current feeding practice	Frequency	%
Predominant breast feeds	51	75.0%
Exclusive Breast Feeds	17	25.0%
Total	68	100.0%
If top feeding, is she using	Frequency	%
Bottle	30	44.2%
Katori	21	30.8%
Not Applicable	17	25%
Total	68	100.0%

Contact with health personnel: 46 (67.6%) said they had not been contacted by any health worker during the last 3 months. 17 (25%) said that the community mobilization counsellor (CMC) had visited them for polio drops during this period. Five mothers were not sure. Only 7.4% mothers were advised about feeding by health worker.

Table: 3. Contact with health personnel

Contact with Health Provider during last 3 month	Frequency	%
Any Other	02	2.9%
CMC	17	25.0%
Health Worker from AMU Health Clinic	03	4.4%
NO	46	67.7%
Total	68	100.0%

Nutritional status of children at follow up visit: All 68 children were malnourished. As depicted in table 4 mean Z scores for all indices were greater than -2 except for height for age which shows malnutrition. Comparing the nutritional status by age, we found that in girls, wasting increased with age from infancy to 2nd year of life and in boys, under nutrition increased with age.

Fig: 1. Z- Scores:

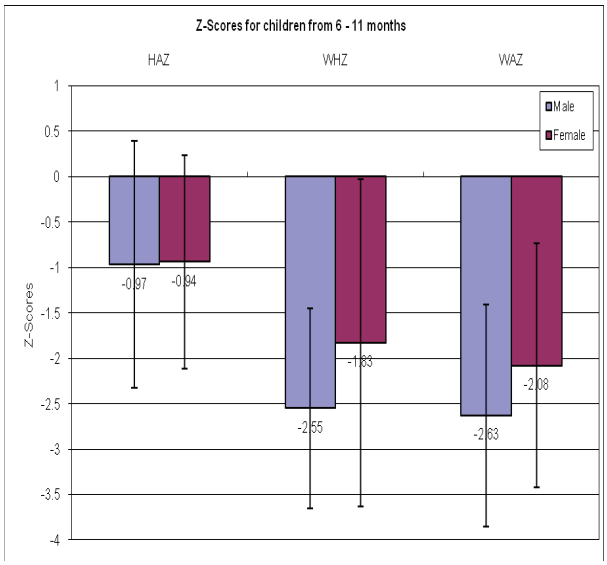

Fig: 2. Z- Scores:

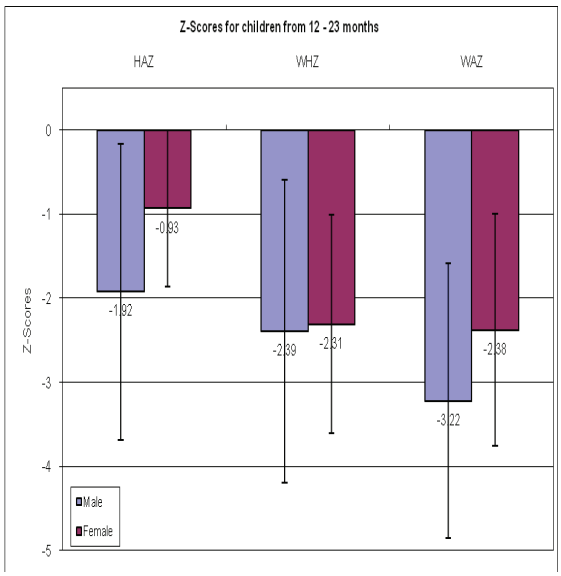

TABLE 4: Mean Z- Scores of Nutritional indices

Weight for age	-2.5 ±1.43
Weight for height	-2.23 ± 1.5
Height for age	-1.18 ± 1.36

Immunization: Immunization status was poor. Immunization card was available with 21 (30.9%) mothers. Complete immunization was observed in 25% children only.

Episodes of illness: 94.1% children had suffered from some illness in the last one month. Diarrhoeal disease was very common. Almost all children 65(95.6%) had one or more episodes of diarrhoea during the last one month, 24 (35.3%) had ARI and 12 (20.6%) had ear infection during this period.

Discussion:

The migration of families from rural to urban areas and from one urban area to another is in search of better job opportunities and a better quality of life. However, very often, the poor are caught in the trap of homelessness and poverty in an alien community, where they are not able to integrate fully and where health services are not as structured and organized as in rural areas.[8,9,10] This mobility makes it difficult for policy makers to count the families and to provide continuity of care. Like in the present study where as many as 35.4% families were not traceable at the end of one year. The women belonging to slum areas are mostly illiterate and their lack of knowledge acts as a barrier to availing what healthcare is available, leading to poor access and utilization of services despite proximity.

In the present study, the majority of women preferred to have delivery at home (76.5%) although a majority (72.1%) did have at least one Antenatal check up. The barriers to institutional delivery, despite a functioning JSY in the city needs to be further explored. Other studies have shown that urban poor prefer home deliveries despite availability of government and private hospitals, because of concerns like, securer environment at home, nobody to take care of other siblings at home in event of hospitalization, perceived unfriendly treatment at Government hospitals, and expensive private health care facilities.[4]

Unlike their rural counterparts, urban slum women do not have access to health care providers such as AWW, ASHA or ANM. CMC working under polio eradication programme is the only health workers to access these women[10].

Advice about proper feeding and nutrition is almost nonexistent. In the present study only 7.4% women were given advice about infant and young child feeding. Thus, while most mothers started breast feeding, a large number (60.2%) ended up by bottle feeding within 6 months of age. Other studies in slum areas have shown similar results [10,11]. Correct weaning practices at the crucial age of 6 months are also nonexistent.

Thus, while 23.8% mothers did introduced semisolid food at the correct age, the amount was inadequate.

Overcrowding, scarcity of clean water, and lack of sanitation facilitate transmission of communicable diseases. In the present study, 94.1% children had one or more disease in the last one month. Diarrhoea was the commonest disease followed by Acute Respiratory Infection and Ear infection.

Almost all children were malnourished. A larger proportion of children had sever malnutrition (36.2%), compared to whole of Uttar Pradesh (22%) and to children from rich families (7.35%).[5]

Routine immunization rate was very poor, and dropout rate very high in urban slums, compared to other urban area and rural areas. The main reasons stated for lack of immunization were 'no knowledge of immunization camp. According to statistics available for immunization rates, only 29.7% of 12 -23 months old children in slums are completely immunized, compared to 54.5% in urban area, and the dropout and left out rates are high at 9.7 and 49.7 respectively as compare to urban average of 30.1% dropout and 14.5 % left out. [5]

Conclusion: Migration is a problem which makes it difficult for providers to give continuity of care. Thus, indirectly it makes the population more vulnerable.

Poor utilization of institutional services in spite of monetary incentive (JSY) needs to be further explored. Capacity building of the community can reduce the bottlenecks leading to marginalization and exclusion of slum mothers from the mainstream urban health services.

Lack of structured health care services and grass root level workers in urban slums are important bottlenecks in reaching this large underserved section of population. It is directly linked to the high rate of malnutrition and low immunization coverage. Schemes such as Urban ICDS can bridge the gap and should be given priority in these areas.

Recommendations: Evolving of a healthcare system to cater to the vulnerable section of the urban poor is the need of the hour. Also a more concerted effort is required for designing behavioural health promotion campaigns through inter-sectoral collaboration, focusing more on disadvantaged segments of the population.

Local, national or international NGOs can fill the gap in sevice delivery by PPP.

National Rural Health Mission should be broadened to National Public Health Mission

References:

1. Percheon D, Guest C, Gray M. Oxford Handbook of Public Health Practice, Oxford:Oxford University Press;2003.
2. Department of Medical Health and Family Welfare, Government of Uttaranchal. Five Year Urban Health Proposal (Under RCH II) for Dehradun. Dehradun: Government of Uttaranchal. 2003.
3. Taneja S, Agarwal S. Situational Analysis for Guiding USAID/India and EHP/India: Technical Assistance Efforts in Indore, Madhya Pradesh, India. Arlington VA: Environmental Health Project.2004.
4. Health and Family Welfare Department, Government of West Bengal. Five Year Urban Health Proposal (Under RCH II) for Bally, West Bengal, Kolkata: Government of West Bengal.2004.
5. State of Urban Health in Uttar Pradesh: Urban health Resource centre UHRC, Ministry of Healh and Family Welfare, GOI, 2006
6. UN Millennium Development Goals. Available from: URL: http://www.un.org/millenniumgoals/. Accessed December 2010
7. S. Agarwal, K. Sangar. Need for dedicated focus on urban health within national rural health mission. Indian Journal of Public Health Vol.49 No.3 July-September, 2005.
8. Causal Factors Affecting Migrant's Health Chatterjee C.B., Identities in Motion; Migration and Health In India. 2006, CEHAT
9. Bontha V. Babu; Basanta K. Swain ;Suchismita Mishra Shantanu; K. Kar. Primary Healthcare Services Among a Migrant Indigenous Population Living in an Eastern Indian City. J Immigrant Minority Health (2010) 12:53–59.
10. http://www.uhrc.in/module-ContentExpress-display-ceid-43.html
11. Katiyar GP, Agarwal DK, Tripathi AM, Agarwal KN. Feeding practices in Varanasi district. Indian Pediatr. 1981 Jan; 18(1):65-70..
12. Sima Roy, Aparajita Dasgupta,[1] and Bobby Pal. Feeding Practices of Children in an Urban Slum of Kolkata. Indian J Community Med. 2009 October; 34(4): 362–363.