Are Urban Poor Doing Better than their Rural Counterpart in India?

A Study of Fertility, Family Planning and Health

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Abstract:

India is the country that shelters the highest number of poor. Most of the underprivileged class is residing in rural parts. As a consequence, urban poor are being neglected for decades. How better is the urban poor compared to their rural counterparts is an issue of concern. Whether the poor of the small and medium size towns or cities are finding their livelihood relatively better than what they are getting in large cities or metropolis is a subject of serious research from policy point of view. This paper tries to throw light on the demographic aspects, health condition and utilization of health care facilities of the poor residing in three places namely, large cities, medium towns and countryside. The data used for the analysis is the National Family Health Survey II (1998 -99), which incorporates the household and individual information of women aged 14-49. Results indicate that though economically, urban poor is better off compared to their rural counterparts, wider gap exists between the rich and the poor of large cities with regard to the indices of fertility and mortality. Child and under-five mortality are the highest among the poor of large cities. At state level, Maharashtra no way presents a better representation of the poor residing in Mumbai compared to the other urban centers or even villages in terms of women's anemia level, body mass or contraceptive use. Even, the level of anemia among the poor women is significantly lower in non-metros of Maharashtra. In West Bengal too, poor of urban areas other than Kolkata and those residing in villages are considerably less anemic. Tamilnadu proves an insignificant difference among the poor by their place of stay in terms of body mass as well as anemia. However, contraceptive use is significantly more among the poor inhabiting in Chennai. It is increasingly becoming evident that the overburdened big cities cannot address the social problems beyond a certain critical mass. Hence, it is necessary to promote the mid size towns and cities as a model to effect a significant qualitative improvement in the life of the underprivileged section.

Introduction:

Explosive quantitative increase of Indian population is thinning down the quality of life of the mass due to skewed distribution of resources. Added problems are the rapid rate of urbanization, growth of large cities in volume without adequate infrastructural robustness, migration of the poor into already overcrowded cities, resulting into overburdening of the facilities available in urban hubs[1]. One of the major areas of concern in India is the unsatisfactory situation of the poor in the field of mortality and health not only in the rural areas which is partly devoid of the facilities but also in the urban areas where the facilities are insufficient to cater to the service to a satisfactory quality. As mentioned by the United Nations in 1950s', rural people of India need to travel a greater distance to obtain health care, yet the health status of the urban population is inferior to that of rural inhabitants because of the fact that urban dwellers are plagued by inadequate housing condition, social problems and diseases, assuming that the instances of higher mortality can not be explained entirely in terms of differences in the quality of vital statistics between rural and urban areas (UN, 1953).

Poverty is one of the serious problems in India. Out of the total poor, about 82 per cent lives in the countryside. As a consequence, little attention has been given on the urban poor since independence. However, from the period of the fifth five-year plan onwards, a change has been observed in the approach to urban poverty issues. From welfare-oriented strategy, a shift has been taken place to enhance the job opportunity and productivity of the poor. Nevertheless, urban poverty is a complex and multidimensional problem- not only entangled in economic obscurities but also with social welfare facets, which are left neglected. If serious attention is not paid to this underprivileged section, it is likely to pose a severe threat to the urban future of India (NIUA, 1989).

Need for the Study:

Urban population will be doubled or tripled in the next ten years [2.] The challenges associated with rapid urbanization is complicated by the fact that 40-50 per cent of the metro city population in India are slum dwellers (NDTV, 2003). With growing number of poor in the cities, developing nations face increasing difficulty in offering living standards consistent with the expectations of modern life. In this regard, cities of India are often been marked out as a classic example of urban failure (Thomas, 1996). Now the question is, whether the poor of the urban areas are obtaining better facilities or behaving in a superior fashion in demographic parameters (like lower fertility and mortality) or enjoying better quality of healthcare than the poor of the rural areas as a consequence of which they are sacrificing their housing needs. If the demographic and health parameter of the poor of urban centers is superior to their counterparts in rural areas, then the pull factor oriented migration would expedite city's growth.

In this context the present paper has tried to investigate the condition of the poor living in rural areas, medium size urban centers, large urban hubs and three largest metro cities in terms of some welfare indicators, their fertility, infant and child mortality, contraceptive use, antenatal care and health status. It could be hypothesized that in terms of fertility, family planning and natal care, urban poor will perform better for superior family planning and antenatal care services. However, with regard to health status of women and children, the poor of the urban areas will be lagging behind because of poor environmental conditions and poverty (McDade and Adire, 2001).

This paper explores the situation of the large cities (>100,000 population), medium urban areas (99,999-5000 population) as well as villages of all the major states of India with regard to demographic and health indicators by their standard of living. Further to that, it has tried to understand the situation of the poor of three states of India namely, Maharashtra, West

Bengal and Tamilnadu, which embraces the three major metropolitan cities or million cities (1000,000 population and above), like Mumbai (Bombay), Kolkata (Calcutta) and Chennai (Madras) respectively, with the contention that the situation of these states might differ than the rest of the country.

Methods and Materials:

Analysis of the paper is based on the National Family and Health Survey II (1998-99) [3] by applying bivariate and multivariate techniques. In multiple regression analysis, only those women with low standard of living are taken into consideration. It is important to mention here that standard of living index in NFHS is a combined output of eleven items, which potentially can reflect the economic condition of the respondent. Poverty line, as defined by the Planning Commission of India in 1977 has not been emphasized in NFHS. Hence those with low SLI index are considered as poor in our study [4]. The main variables chosen for the above analysis are as follows:

Life style indicators: Standard of living (a weighted index of 11 items where the scores range from 0-14 for low SLI to 15-24 for medium SLI and 25-67 for a high SLI), education level of husband and the wife.

Fertility Indices: Total fertility rate, Children ever born

Mortality Indices: Infant Mortality rate, neonatal and post neonatal mortality, child mortality, under-five mortality, child loss

Contraception: Current use of modern method, sterilization.

Health care: antenatal care and safe delivery (i.e.delivery by doctors, Auxiliary Nurse Midwife, Midwife, other health professionals) for the last birth

Health status: Body mass index, Anemia among women of the reproductive age and among children.

Place of residence [5]:

Metro city or million city 1000,000 and above population
Large city >100,000 population
Medium city and town 99,999-5000 population
Village/countryside <5,000 populations

The units of analysis are women of reproductive ages and children. To understand the extents of contraceptive use and health condition of women, the chosen explanatory variables are: age, education of husband and wife, work status, place of stay, children ever born and child loss. In the regression analysis, 'other urban centers' includes towns and cities with 5000-9,99,999 populations. We have not included child spacing in the multivariate analysis in the sense that the analysis considers all ever married women of reproductive ages to assess their health and contraceptive use and to include child spacing as a predictor, we need to exclude those women who have not yet given birth. Moreover, the variable 'child loss' included as a predictor in regression analysis, itself controls the effect of child spacing.

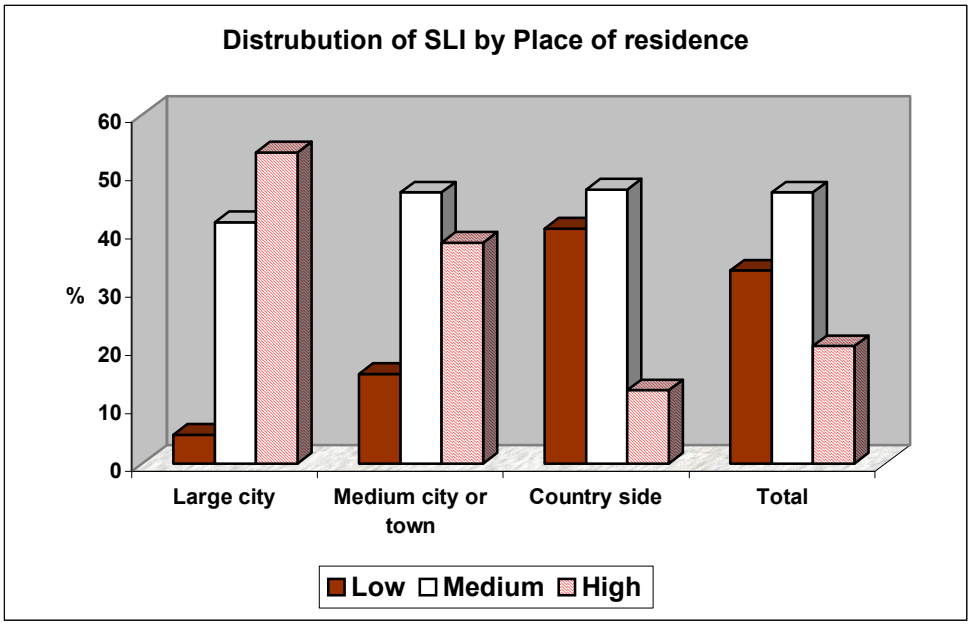
Results

As evident from Table 1 and figure 1, with the increase of the size of place of residence, standard of living also increases. For instance, 13 per cent of the rural population are enjoying high standard of living against 54 per cent in large cities. Similarly, when only one twentieth of the population residing in large cities are having low economic standard, it is as high as 40 per cent in countryside. Hence, there is a clear-cut disparity in living standard of big cities, towns and villagers. Villagers are the poorest of the poor followed by people of medium urban units.

Table 1: Percentage distribution of SLI by place of residence

Place of residence	Percentage distribution by Standard of living			
	Low	*Medium*	*High*	*Total*
Large city	5.0	41.5	53.5	100 (5674)
Medium city or town	15.4	46.6	38.0	100 (17211)
Country side	40.4	47.1	12.6	100 (64624)
Total	33.2	46.6	20.2	100 (87509)

Fig:1



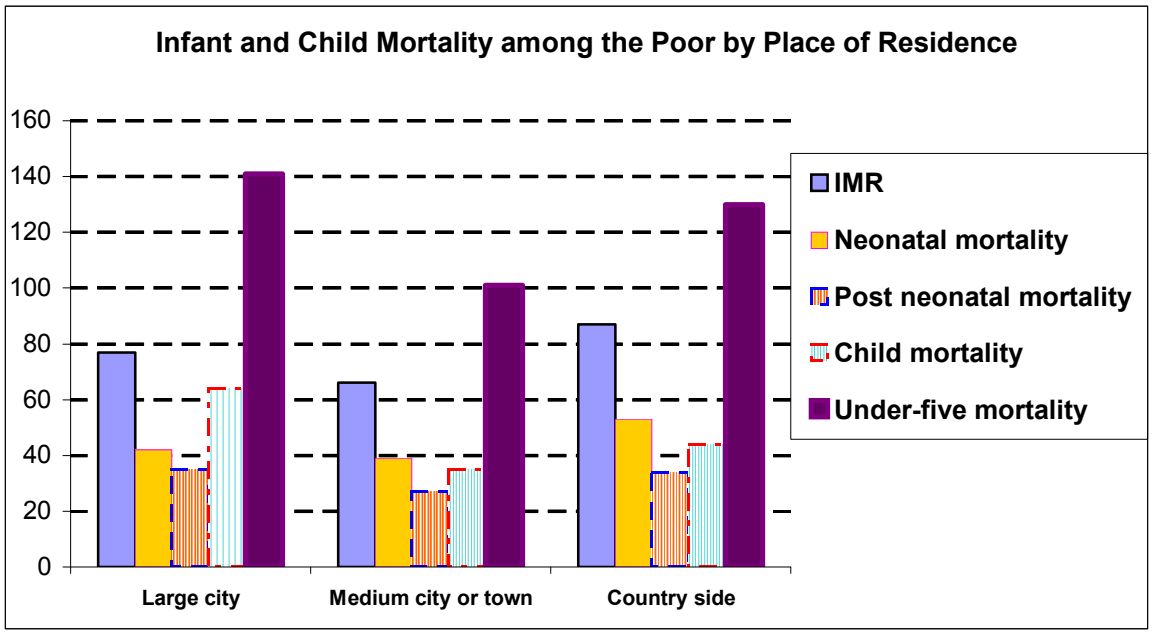
Coming to Table 2, it is again distinct that with increasing size of place of residence, literacy level of the poor increases. For example, among the poor of the large city, half of the women are illiterate against four-fifth of the countryside, while the figure is 67 per cent for the medium size cities. When only 7 per cent women have studied above primary level, it is two times more in medium size cities and towns and 3 times more in large urban centers.

Table: 2 **Percentage distribution of women with low SLI according to level of education by Place of residence**

	Large city	Medium city	Country side
Illiterate	53.7	66.7	79.7
Literate up to primary	24.4	19.5	13.4
Primary and above	21.9	13.7	6.9
	100	100	100
	(283)	(2658)	(26069)

Looking into the aspects of infant and child mortality indicators, as shown in Table 3 and Figure 2, it can be said that among the poor group, there is less difference in these indices between large city and countryside and many a times medium cities are performing better than these two places. For instance, among the poor group of people (low SLI), infant mortality, under-five mortality, neonatal, post neonatal and child mortality are the minimum in medium cities compared with large cities and villages. Interestingly, under-five mortality and child mortality are the highest among the poor group in urban hubs.

Figure:2



For most of the mortality indicators, the differentials between the well-off (high SLI) and the poor (low SLI) is widest in large cities e.g. IMR of the poor of large urban centers is 2.9

times more than those with highest living standard, while it is around 2 times more in country side and in medium towns. Vast difference between the rich and poor exists in under-five mortality and child mortality. For instance, 4.5 times difference between the rich and the poor has reduced to 2.5 times in countryside for under-five mortality, while a drop of nine times in the rich–poor differential in child mortality is observed between large city and villages.

Table 3 Some indicators of infant and child mortality by place of residence

Place of residence	Standard of living	*IMR*	*Neonatal mortality*	*Post neonatal mortality*	*Child mortality*	*Under-five mortality*
Large city	**Low**	77	42	35	64	141
	Medium	44	34	10	15	59
	High	27	18	9	5	32
Medium city or town	**Low**	66	39	27	35	101
	Medium	56	36	19	19	75
	High	31	23	8	5	36
Country side	**Low**	87	53	34	44	130
	Medium	70	44	26	27	97
	High	45	33	12	11	56

Thus, it can be concluded from Table 3 that medium urban centers reflect a better picture of the underprivileged with regard to mortality indices. Rich of the countryside show a poor performance compared to the rich of the cities, which is not true to that extent in case of the poor people in different places of stay.

Total fertility rate (Table 4) of the poor class of large cities is only 0.4 points lesser than the same group in case of countryside. Here again, the gap between the poor and rich is wider in big cities than in countryside. Cohort measure of fertility, i.e. children ever born does not differ much among the poor, though a wide gap exists among the high SLI by place of stay. With regard to child loss, 8 per cent point difference exists between the countryside and large cities among the poor and 10 per cent points among the middle-income class population. Looking into the aspect of modern use of contraception, it is found to be the lowest among

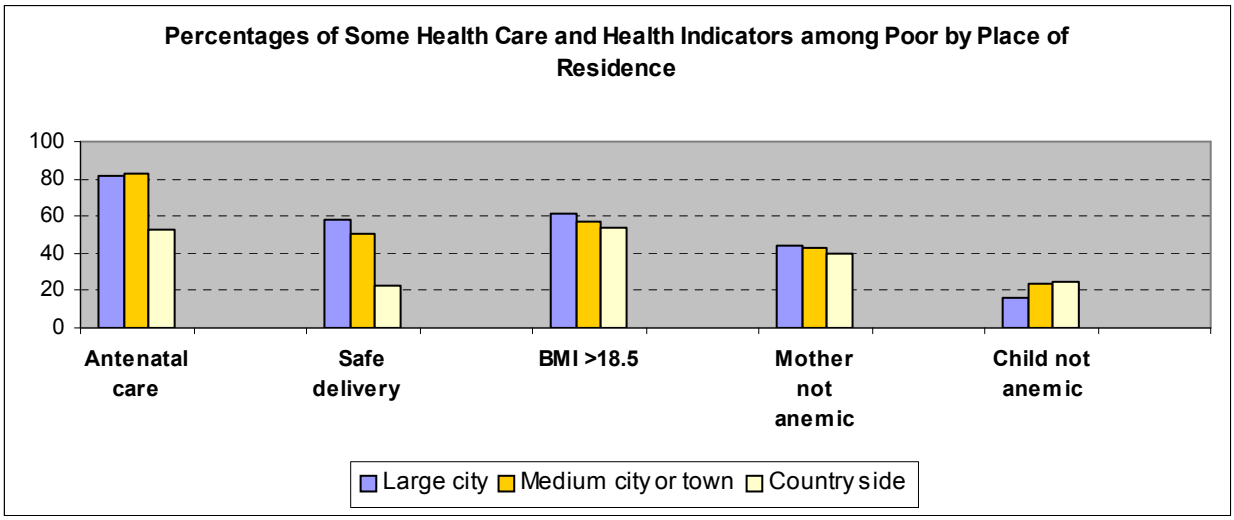
village poor followed by the poor in the medium and large cities. Proportion not using any modern family planning method among the middle class women of the countryside is almost equal to the poor class of the large urban hubs.

Table: 4 Percentage of some fertility and family planning characteristics by SLI according to place of residence

Place of Residence	Standard of living	Percentage					
		TFR	CEB <4	No child loss	Current users of modern contraceptive	Sterilized	n
Large city	**Low**	3.02	65.8	75.4	40.5	34.9	284
	Medium	2.32	69.9	83.5	47.6	36.7	2355
	High	1.83	83.1	89.9	54.8	33.6	3035
Medium city or town	**Low**	3.05	63.8	70.7	36.8	33.6	2658
	Medium	2.54	67.4	79.3	46.1	37.8	8019
	High	1.83	78.7	87.4	52.4	34.0	6534
Country side	**Low**	3.40	59.7	67.5	32.0	29.9	26078
	Medium	2.98	63.1	73.3	39.3	35.2	30430
	High	2.42	47.7	82.7	48.9	38.3	8116

Looking into the aspect of maternal and child health (Table 5), distinct disparity is observed between urban and rural areas in antenatal care and safe delivery. Percentage who took antenatal care for the last birth is much higher for all socioeconomic groups in urban centers compared with the same group of population in rural areas. To simplify, when more than 81 per cent poor of large cities and towns are receiving antenatal care, it is only for the 53 per cent poor residing in the countryside. Similarly, 58 per cent poor of large cities went for safe delivery against 23 per cent poor of villages. Therefore, in terms of health services, poor of the countryside is far behind the poor of the urban areas (Fig 3).

Figure: 3



However, in terms of health, which is measured by body mass index and anemia in NFHS II, not more than 10 per cent point variation is identified among either the poor or the middle or rich class population across the three places. Point noticeable is the presence of higher percentage of anemic child of the poor in large cities compared with the village poor.

Table: 5 Percentage of some health care and health indicators by SLI according to place of residence

	Standard of living	Per centage									
		Antenatal care taken for last birth		*Safe delivery for last birth*		*BMI >18.5*		*Mother not anemic*		*Child not anemic*	
			n		n		n		n		n
Large city	**Low**	81.3	96	58.0	112	61.2	237	43.8	256	16.0	81
	Medium	90.7	653	73.9	759	76.0	1961	53.0	2128	27.4	610
	High	98.4	679	92.7	751	89.9	3002	61.9	2661	42.3	588
Medium city or town	**Low**	83.3	873	50.2	1027	57.0	1958	42.8	2397	23.8	804
	Medium	92.7	2338	68.5	2721	72.6	6164	53.4	7193	31.6	2098
	High	84.6	1476	87.3	1649	87.7	5670	58.5	5817	37.0	1231
Country side	**Low**	52.7	9381	22.9	10556	53.6	19872	39.9	22969	25.0	7645
	Medium	62.0	9858	36.8	11326	63.0	25271	49.3	27370	28.7	8532
	High	81.5	2273	63.7	2645	77.5	7824	57.2	7424	32.9	2076

In a nutshell, the bivariate analysis reveals that with the increase of settlement size, proportion of population with low standard of living goes down. Literacy level is also higher

among the urban poor over their counterpart in rural areas. Child and under-five mortality are the highest among the poor of the large cities compared to all other economic classes. Medium urban centers reflect a better picture among the underprivileged with regard to mortality situation. The gap between the poor and the rich is wider in big cities than in the countryside when fertility and mortality rates are considered. Looking into the aspect of modern use of contraception, it is the lowest among the village poor surpassed by the poor of the medium and large cities. In terms of availing health care facilities (antenatal care and safe delivery), it is much higher for all economic groups in urban centers compared with the same group of population in rural parts. However, in terms of women's health, we compare similar socio economic groups by place of residence, not more than 10 per cent point variation is identified either among the poor or the middle or rich people. Nevertheless, percentage of anemic child of the poor in large cities is more than the village poor. Therefore, in certain aspects of fertility, family planning and health, poor of the large urban centers are better off than the poor of the towns or villages like contraceptive use and antenatal care, while in certain other aspects like child and under five mortality and child's anaemia, the reverse is true.

Many a times presence of metro cities impart negative effect on the hinterland for skewed resource allocation, because of which the metropolis grows and the hinterland remains poor. To check whether the poor of metro cities are better off in terms of health and family planning than the poor of non-metros and villages, we have chosen three states namely, for Maharashtra, West Bengal and Tamilnadu as these three states of India include the leading metro cities with million plus population. Regression equations of three above-mentioned states, considering dependent variables as Body Mass Index, level of anemia of women and use of modern contraception among ever-married women with poor economic status, are revealing varying pictures as shown in Table 6 (Appendix I).

In current use of modern contraception (Table 6), our analysis reveals that in Tamilnadu, with respect to those women residing in the Chennai, the probability of using modern contraception among the poor of non-metros or villages are 50 per cent lower. However, in Maharashtra and West Bengal place of residence does not play an important role in the use of modern family planning methods. Similarly, education of either wife or husband is not playing a significant role in the sense that with increase in the level of education of the poor, the chance of using modern contraception does not improved accordingly. Loss of at least one child definitely stimulates the risk of not using modern contraception significantly in all the three states. To illustrate, compared to those who have not lost any of their children, women who experienced death of their child are currently using 40 to 50 per cent less contraceptives. In Maharashtra, the chance of using modern methods of family planning is 53 per cent more among the non-working women, contrary to Tamilnadu where the chance is 20 per cent lower for non-working women judged against those who are working.

Table: 6

Regression Analysis showing the Coefficients of current use of modern contraception and health condition of the poor women of three states

	Maharashtra	**West Bengal**	**Tamilnadu**
	Exp (b)	Exp (b)	Exp (b)
Use Of Modern Contraception			
Metro city #			
Other urban centers	1.507	.680	**.544****
Country side	1.918	.677	**.501****
Body Mass Index			
Metro city #			
Other urban centers	.662	**.428****	.907
Country side	.613	**.475****	.683
Anemia			
Metro city #			
Other urban centers	2.126*	**2.335***	.754
Country side	1.859	**2.398****	.716

Note: using modern contraception=1, not using modern contraception=0,
BMI >18.5=1, <18.5=0, # reference category
Anaemia: Not anemic=1, Anemic=0, # reference category
** significant at 1% level and ** significant at 5 level.
age, education of husband and wife, work status, place of stay, children ever born and child loss are controlled

Table 6 also reveals the determinants of appropriate body mass i.e. the body mass index more than 18.5. In West Bengal, poor women residing in urban non-metros have significantly

lower body mass compared to those in Kolkata. In Maharashtra and Tamilnadu, no such variation is observed by place of stay. Husband's education in Tamilnadu does play an important role in this regard. For instance, if the husband is literate at least till middle school or high school, the chance of having satisfactory body mass of wife is 1.5 times more against those whose husband is illiterate. Anemia of the poor in West Bengal is significantly less among those who are living in urban centers other than Kolkata and in villages. In Maharashtra also the poor urban women living in non-metros are 2.1 times less anemic in contrast to those in Mumbai. Nevertheless, no such variation is observed in Tamilnadu.

The main points emerging from the regression analysis are as follows:

At state level, poor of Maharashtra is having the same status in terms of body mass or contraceptive use irrespective of their place of residence. However, those in medium urban centers are significantly less anemic compared to those in Mumbai and villages. In West Bengal, poor of the non-metros and villages are much less anemic but in terms of body mass, they are inferior compared to those in Kolkata. Tamilnadu proves an insignificant difference of the poor by their place of stay in terms of body mass as well as anemia. However, contraceptive use is significantly more among the poor staying in Chennai.

Discussion

Poor of the large urban centers or metropolis are not the most disadvantaged set in all aspects, as commonly assumed. As indicated in our study, in economic standard, proportion of the population living in low stratum is much less in urban areas as against the countryside. With increasing urbanism, standard of living also moves up. Same is the case of literacy. In India, majority of the population move to urban centers from villages in search of job opportunities and whatever they used to earn before their move, they can bag more after coming to urban centers, and hence stick on those places even if their place of stay is of unsatisfactory quality. Urban poor is having greater access to health care facilities, better use of family planning

methods and even lesser infant mortality and more safe delivery. In this context the medium size urban centers are even performing better than the large urban hubs. Significantly, large proportion of urban poor is receiving antenatal care compared to the countryside all over India. Moreover, in terms of body mass, large cities are portraying a better standard as well. However, Maharashtra presents, in no way a better picture of the poor of Mumbai compared to the other urban centers or villages in terms of body mass or contraceptive use and incidentally the level of anemia is significantly lower (i.e. less anemic) among the urban poor of the non-metros of this state. Similarly, in West Bengal, though poor of Kolkata have a lead over others with respect to body mass, they are significantly more anemic. While in case of the poor of Chennai in Tamilnadu, definitely they are using more modern contraceptives, but they do not have better health against the poor of the other urban centers and countryside which could be the outcome of filthy environment, overburdened urban infrastructure and malnutrition of the poor class.

Mortality indicators of a child starting from neonatal phase to under-five years are important parameters of quality of health as well as health care system of a country. These indices are also a reflection of nutritional status, immunization coverage and other environmental factors. If the infant/child mortality condition of the poor people in India is looked at carefully, as reflected in our study, it is clear that poor of the urban hubs are having less neonatal and infant mortality as internal factors like biology and antenatal health care facilities that play a crucial role in this regard are much better in urban areas. But, as soon as exogenous factors (environmental condition, child care and nutrition) start playing more important role over endogenous factors on determining child survival, large cities fall behind medium urban centers and even sometimes behind villages. In this context, medium urban areas show the best condition because of the availability of sufficient health facilities on one hand and a clean surrounding on the other. Poor of the villages lack health infrastructure while poor of the large cities need better hygienic living environment.

Most of the variations in infant mortality between areas within a city are the resultant of infectious and parasitic diseases combined with perinatal and obstetric component. The same is true for the following four years of life (without the obstetric component) [6]. At par with our study, Lata *et.al.* (2000) also concluded that under -five mortality and contraceptive use was more in urban areas compared to the rural part. The reason for higher under-five mortality in urban areas after 1994, as cited by the authors, is the development of slums. These slums are in every respect similar to rural areas-plunged with high mortality and morbidity, illiteracy, overcrowding, bad sanitation etc. In the struggle for survival of the poor, private initiatives play major role to solve their problems because poor have no option but to spend major portion of their income for food, energy, and left with very little to improve their physical condition (Kundu, 1990). Many of the major cities of the world are having infant mortality rates of 75-90/1000 live births and among the urban poor, the rate is far more (Cook, 1984). For instance, slums of New Delhi indicate overall child mortality (0-5 years) as 220/1000 children. In Manila, Infant Mortality rate is three times higher in slums than the rest of the city, twice more is found to be anemic and three times as many are suffering from malnutrition, as in the rest of the city. In Lima, 60 per cent are malnourished in the Shantytowns and they cannot meet even 80 per cent of their caloric requirement. As Cook (1984) opines, the rise of malnutrition in urban centers are due to a set of factors like loss of the tradition to encourage sharing of food, however meager, lack of land to grow vegetables nearby, no storage facilities in overcrowded housing plots, high price of food etc.

Another point worth mentioning is the wider gap between the rich and the poor of large cities compared to the villages and medium urban centers regarding the indices of fertility and mortality. Interestingly, even though urban poor are better user of modern method of family planning, their total fertility rate (TFR), or the cohort measure of fertility (CEB) do not show a remarkably better level against those of the poor of the countryside, in spite of the fact that upper socio economic class does have a much less fertility level when compared to their

counterparts in rural areas. The explanation may lie in lack of correct knowledge about the proper age of accepting the permanent method of family planning, intention to have higher number of children irrespective of their place of stay, family migration to urban areas at an age when the family building process is complete.

Based on the findings from the study, it could be concluded that the answer to the problem lies in promoting the mid size cities and towns as a model to effect a significant qualitative improvement in the life of the underprivileged section who forms the vast majority of the Indian populace. Contrary to the popular choice of the metros as the place of salvation among these sections, it is increasingly becoming evident that the overburdened metro cities can not address the social problems beyond a certain critical mass This is effecting in stretching the limited resources too thin which in effect is making the life of the poor vulnerable. Hence, the cure to this problem lies in finding suitable means of livelihood that could be mastered in areas, which are labour intensive and does not rely on technical complexities. Ideally, a mid size town could become the hub of labour intensive enterprises through public- private pertnerships[7]. A secured source of income with adequate health infrastructure facilities can bring about the desired improvement in the life of this downtrodden.

End Notes:

1. The positive role of urbanization has often been over-shadowed by the deterioration in the physical environment and quality of life in the urban areas caused by widening gap between demand and supply of essential services and infrastructure. Imperfections in the land and housing markets and exorbitant increases in land prices and rates have virtually left the urban poor with no alternative except seeking informal solution to their housing problems leading to mushrooming of slums. It is estimated that about one third of the urban dwellers live below poverty line. About 15 percent of the urbanites do not have access to safe drinking water and about 50 percent are not covered by sanitary facilities. Traffic congestion has assumed critical dimensions in many metropolitan cities due to massive increase in the number of personalized vehicles, inadequate road space and lack of public transport. Source : http://urbanindia.nic.in/scene.htm

2. Percentage of Indians in Urban areas (2000) is 30 %. About one-third of Urban India lives in metropolitan cities (million plus). The number of such cities in India has increased from 1 in 1901 to 5 in 1951 to 27 in 2001. In 15 years, more than half of Indians will be urban dwellers; 1/3 will be slum dwellers and squatters. Average annual growth rate of India's major cities far exceeds any explanations and expectations; Bombay had a rate of 4.22%, Delhi had a rate of 3.80%, and Calcutta a rate of 1.67%. Source: http://www.indianngos.com/issue/cities&urban/statistics/

3 NFHS II, undertaken in 1998-99, is designed to facilitate implementation and monitoring of population and health programmes in India. The principal objective of NFHS 2 is to provide national and state level estimates of fertility, practice of family planning, infant and child health nutritional status of women and utilization of health services provided to mother and child. Ever married women and their children below age three had their blood tested for the level of haemoglobine. NFHS II is the Indian version of demographic health survey II (DHS II). The survey covered a representative sample of more then 90,000 eligible women age 15-49 from 26 states that comprise 99 percent India's population. The survey provides separate estimates for three metro cities (Kolkata, Chennai and Mumbai) besides urban and rural estimates.

4 In NFHS-II SLI (standard of living is index) is calculated by adding the following scores : house type: 4 for *pucca*, 2 for semi-*pucca*, 0 for *kachha*; toilet facility: 4 for own flush toilet, 2 for public or shared flush toilet or own pit toilet, 1 for shared or public pit toilet, 0 for no facility; source of lighting: 2 for electricity, 1 for kerosene, gas or oil, 0 for other source of lighting; main fuel for cooking: 2 for electricity, liquified natural gas, or biogas, 1 for coal, charcoal, or kerosene, 0 for other fuel; source of drinking water: 2 for pipe, hand pump, or well in residence/yard/plot, 1 for public tap, hand pump, or well,0 for other water source; separate room for cooking: 1 for yes, 0 for no; ownership of house: 2 for yes, 0 for no; ownership of agricultural land: 4 for 5 acres or more, 3 for 2.0-4.9 acres, 2 for less than 2 acres or acreage not known, 0 for no agricultural land; ownership of irrigated land: 2 if household owns at least some irrigated land, 0 for no irrigated land; ownership of livestock: 2 if own livestock, 0 if do not own livestock; durable goods ownership: 4 for a car or tractor, 3 each for a moped/scooter/motorcycle, telephone, refrigerator, or color television, 2 each for a bicycle, electric fan, radio/transistor, sewing machine, black and white television, water pump, bullock cart, or thresher, 1 each for a mattress, pressure cooker, chair, cot/bed, Table, or clock/watch. Index scores range from 0-14 for low SLI to 15-24 for medium SLI to 25-67 for high SLI.

5 In Indian census, metropolitan area is defined as those settlements with a population exceeding 1000,000. In NFHS II, for Maharashtra, Tamilnadu and West Bengal, the initial target samples were increased to allow separate estimates to be made for the metropolitan cities of Mumbai, Chennai and Kolkata. The target sample size was 5500 in Maharashtra, 4750 in Tamilnadu and 4750 in West Bengal.

6 Every major city of India faces the proliferating problems of grossly inadequate housing, transportation, sewerage, electric power, water supplies, schools, and hospitals. Slums and jumbles of pavement dwellers' lean-tos constantly multiply. Nearly 1/3 of the people in India's largest 27 cities live in shanty settlements on sites that are along riverbanks, which are prone to floods, and other sites, which are vulnerable to industrial pollution. Living conditions are extremely difficult in shanty settlements, and slum dwellers fear the constant threat of having their homes bulldozed in municipal "slum clearance" efforts; The crowded conditions of the shanty settlements are ideal for the spread of communicable diseases. In contrast to the improvements being made in water supply, sanitation tends to be major problem throughout India. Of the 3000 cities in India with more than 100,000 population, only 200 have basic sewage treatment facilities. This problem is believed to be the result of the local governments lack of planning, others blame the urban population explosion, and others blame the stubborn caste system and its assignment of waste removal chores to lower castes as a part of the problem in many urban areas. These critical conditions are ideal for the spread of communicable diseases. *Source: web page: India A Test of Global Sustainability.htm (Parvez, 1997) and Indianchild.com*

7. Private sector investment for provisions of urban infrastructure can not take place unless a proper legal and regulatory framework for such investment is created and developed which ensures a full cost plus recovery of such investment. This calls for innovative reforms in municipal tax structure and user charges, taking into account poor paying capacity of a sizeable section of urban population.
Various modes of Private-Public-Partnership (PPP) are being experimented by different urban local bodies in the country. Municipal Bond, Tradable Development Rights, Urban Shelter and Infrastructure Fund, use of Land as a Resource are some of the new techniques that are being applied by the city authorities. The Constitution (74^{th}) Amendment Act 1992 has unleashed a new era of dynamism and reform in Urban India. The future is full of possibilities and excitement for investors, planners, administrators, economists and above all 300 million urban dwellers of India.
Source: http://urbanindia.nic.in/scene.htm

Appendix I:

a) Predictors of Use of Modern Contraception of the Poor Women in three states of India

Predictors	Maharashtra	West Bengal	Tamilnadu
Place of residence			
Metro city #			
Other urban centers	1.507	.680	.544**
Country side	1.918	.677	.501**
Age			
<30#			
30+	2.306**	1.566**	1.774**
Child loss			
No loss#			
At least one died	.645**	.624**	.541**
Education			
Illiterate #			
Literate	1.137	1.295	1.124
Husband's education			
Illiterate #			
Literate below middle	1.100	.896	1.124
Work status			
Working#			
Not working	1.536*	.948	.761*
CEB			
<3#			
3 and above	6.989**	2.764**	4.338**
constant	.498	1.125	.675
n	1195	1520	1587
R^2	.326	.107	.198

Note: using modern contraception=1, not using modern contraception=0
** significant at 1 % level, * significant at 5 % level.

b) **Predictors of Body Mass Index of the Poor Women in three states in India**

Predictors	Maharashtra	West Bengal	Tamilnadu
Place of residence			
Metro city #			
Other urban centers	.662	.428**	.907
Country side	.613	.475**	.683
Age			
<30#			
30+	1.236	1.252	1.106
Child loss			
No loss#			
At least one died	1.092	1.041	1.135
Education			
Illiterate #			
Literate	.863	1.472*	1.165
Husband's education			
Illiterate #			
Literate	1.227	.771	1.549*
Work status			
Working#			
Not working	.669**	.859	.916
CEB			
<3#			
3 and above	.783	.852	1.018
constant	1.240	1.296	2.349
n	1141	1462	1557
R^2	.029	.023	0.22

BMI >18.5=1 and BMI up to 18.5=0

** significant at 1 % level, * significant at 5 % level.

c) Predictors of Anaemia of the Poor Women in three states in India

Predictors	Maharashtra	West Bengal	Tamilnadu
Place of residence			
Metro city #			
Other urban centers	2.126*	2.335*	.754
Country side	1.859	2.398**	.716
Age			
<30#			
30+	.969	1.189	.976
Child loss			
No loss#			
At least one died	.944	1.029	1.167
Education			
Illiterate #			
Literate below middle	1.385	2.608**	1.200
Husband's education			
Illiterate #			
Literate below middle	.896	.674**	.998
Work status			
Working#			
Not working	.764	.868	.906
CEB			
<3#			
3 and above	1.561**	.713*	.792
constant	1.101	.546*	.598
n	1119	1413	1551
R^2	.028	.034	.010

Not anaemic=1 and anaemic =0

** significant at 1 % level, * significant at 5 % level.

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