

**BIRLA INSTITUTE OF TECHNOLOGY MESRA,
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**Department of Architecture and Planning
Master of Urban Planning
Semester II
SP 2023**

AR 652: Housing and Community Planning

Health problem related to housing in slum, rural and urban communities.

The implications for research and programs.

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Abstract

It is generally believed that urban slum dwellers have better health than their rural counterparts, but worse health than other urban populations. This presumption or belief is frequently based on their proximity to one another and the perception that urban areas provide easier access to healthcare services. The validity of this assumption has been questioned by a few recent studies. It is still unclear how slum dwellers compare to rural and other urban populations in terms of their quality of life, whether they are better off, in a similar situation, or worse off than urban averages typically conceal them.

In four countries where efforts have been made specifically to produce health indicators specific to slum populations are typically hidden in urban averages, the goal of this study was to compare health and health-related indicators among slum, rural, and other urban populations.

Keywords- Slum, Rural, Urban Health, Housing, Health.

Introduction

According to estimates, 881 million people lived in slums in the developing world in 2014, up from 792 million in 2000 and 689 million in 1990. Since 2000, the number has been increasing by about 9 million annually. Different regions have experienced different rates of growth. Sub-Saharan Africa (SSA), for example, is distinct in that it is the only region where most of its urban population lives in slums. This percentage is currently estimated by UN-Habitat to be 56%. In SSA, 201 million people lived in slums as of 2014. Even though the percentages are decreasing, the overall population of slum dwellers is increasing. In SSA, the number of slum dwellers increased by 72 million between 2000 and 2014.

For a variety of reasons, the health of the slum population is very important. First, it is very important because nearly Slums are home to 1 billion people worldwide (and rising). Slums will not disappear anytime soon. The state of the world's slums will increasingly influence both urban and global health indicators. The gradient of the transition is also very variable. Slums no longer serve as a halfway point between rural poverty and urban middle class. Most people live in slums. Third, there are unfair health disparities. The health of slum dwellers is consistently much worse than that of other urban areas, according to all available data. Fourth, the visibility of this inequality has implications for political stability and increased radicalization, particularly as developing country economies continue to grow. High population densities, educated, and youthful populations in slums can increase the effectiveness of public health initiatives. Finally, the effects of health issues in slum areas on the general public are significant. Urban environments have porous natural and social barriers that support the management of outbreaks, making it harder to control outbreaks once they have spread there.

In India, we compared health indicators across slums, non-slum areas, all urban and rural populations, and national averages. To evaluate variations in health indicators across residential domains, we combined data from demographic and health surveys, urban health surveys, and special cross-sectional slum surveys in the countries. We concentrated the comparisons on indicators for HIV/AIDS, access to health services, maternal health, and reproductive health. We contrasted slum and non-slum indicators, city/urban averages, rural, and national indicators within each nation. Differences between countries were also emphasised.

Children in slums had significantly worse health outcomes than children in all other residential domains, including those in rural areas, in every country except India. Compared to children living elsewhere, those living in slum communities had higher rates of childhood illnesses and malnutrition. Even though slum children sought out treatment more often than children in rural areas, this did not result in better mortality outcomes. They are disproportionately more burdened by mortality than people who live elsewhere. Although maternal mortality rates in these residential domains could not be compared, slum communities had higher coverage of maternal health services than rural communities. Slum communities had lower fertility and higher contraceptive use rates than rural areas, but these differences were reversed when slums were compared to rural areas.

Methods

Research question

In terms of risk, morbidity, access to care, and mortality, do populations living in slums in low- and middle-income countries have better/worse/similar health and health-related indicators than corresponding populations in other residential domains?

Study countries

This decision was influenced by the availability of representative and comparable slum data from household surveys and/or demographic and health surveys for a particular city or for all urban areas in a country that can be compared to other available data for rural, city, or urban areas in the country over the same time period.

Data sources

Indicator information for all residential domains in India was taken from the DHS reports for 2003 and 2005 to 2006.

Identification of slums in the country

Slums were located using data from the 2001 Census. The following factors were taken into account when classifying an area as a slum or not in the 2001 Census: "1) all designated areas in a town or city notified as "Slum" by the State/ Local Government and UT Administration under any Act, including a "Slum Act"; "2) all areas recognised as "Slum" by the State/ Local Government and UT Administration, Housing and Slum Boards, which may not have been formally notified as slum under any act; and "3) a compact area of at least 300 inhabitants or approximately 6070 households of superbly. The main reason for designating a place as a slum is to enable funding for expanding or improving civic services. All notified slums are regarded as legal slums, and they typically have a permanent character. All civic services are expected to be offered to these areas by the municipal body. This analysis concentrated on the census slums of Mumbai.

Health status indicators.

Child Health indicators.

Infant mortality, child mortality, under-five mortality, child nutrition, immunisation, breastfeeding, as well as the prevalence and treatment of acute respiratory infections (ARI), fever, and diarrhoea. Neonatal mortality, post-neonatal mortality, infant mortality, child mortality, and under-five mortality.

Maternal Health indicators

Coverage of prenatal care (ANC), the location of delivery, skilled birth attendance, and postpartum care for the mother and child.

Reproductive health indicators

Age at first marriage, age at first sexual encounter, age at first birth, prevalence of contraception, unmet family planning need, total fertility rate, and rates of teenage pregnancy and motherhood are all factors to consider.

HIV/AIDS indicators

Understanding of the illness, its spread and prevention, attitudes towards those who have the illness, and HIV testing results.

Data extraction

From the respective survey reports for the four chosen countries, indicator data for the various population groups was extracted and entered a matrix along with pertinent information about how these indicators were measured and calculated. By choosing standard indicators from the DHS, it was possible to compare indicator values directly and compute differences directly.

Other disease and conditions

Women's prevalence of obesity and underweight did not significantly differ between slums and non-slum areas. However, compared to rural India, Mumbai's slums had an approximately six-fold higher prevalence of obesity among women. In contrast, rural India had a nearly two-fold higher prevalence of underweight women than the slums of Mumbai. The prevalence of chronic diseases like TB, diabetes, and asthma was significantly higher in slums despite diseases linked to micronutrient deficiency, anaemia, and thyroid disorders being more common in rural areas than in slums. Slums had higher rates of alcohol and tobacco use than any other group.

	IDHS 2005–06					
	Slum	Non-slum	Mumbai	Urban	Rural	National
Childhood mortality						
Infant mortality rate	24.9	40.1	30.3	41.5	62.2	57
Under-five mortality rate	32.7	43.6	36.6	51.7	82.0	74.3
Child health						
Stunting (< -2SD)	47.4	41.5	45.4	39.6	50.7	48.0
Wasting (< -2SD)	16.1	16.4	16.2	16.9	20.7	19.8
Underweight (< -2SD)	36.1	25.8	32.6	32.7	45.6	42.5
Vaccinated by 12 months (fully)	68.7	72.5	69.8	57.6	38.6	36.3
Prevalence of ARI/cough	1.6	1.7	1.7	5.1	6.0	5.8
Prevalence of diarrhea (all diarrhea)	6.8	4.7	6.1	8.9	9.0	9.0
Prevalence of fever	9.8	6.0	8.5	14.0	15.1	14.9
Children age 0–71 months covered by AWC service	48.6	19.2	25.2	NA	NA	81.1
Children 0–71 months received any AWC service	15.7	6.3	14.0	23.4	34.8	32.9
Prevalence of anemia in children (any)	50.2	46.9	49.1	63.0	71.5	69.5
Maternal health						
Antenatal care (3 +)	90.3	93.0	91.3	89.1	67.5	74.2
Tetanus vaccination (TT2 +)	89.7	91.5	90.3	86.4	72.6	76.3
Received all recommended ANC care	18.3	22.1	19.7	NA	NA	15.0
Skilled birth attendance	92.5	82.2	85.7	73.5	37.5	46.6
Health facility delivery	83.3	91.2	86.0	67.5	28.9	38.7
Postnatal care (within 2 days)	62.3	76.9	67.5	61.0	28.6	37.3
Reproductive health						
Total fertility rate	1.9	1.4	1.68	2.06	3.0	2.7
Contraceptive prevalence rate (%)	51.4	61.1	55.5	55.8	45.3	56.3
Teenage pregnancy (first)	2.7	0.0	1.5	2.4	4.6	3.9
Teenage motherhood	7.1	2.9	5.2	6.3	14.5	12.1
Physical or sexual violence ever (women)	22.9	14.7	19.3	28.3	36.1	33.5
HIV, TB, health care						
Knowledge of HIV/AIDS (awareness)	92.5	95.6	93.9	83.2	50.0	57
Knowledge of HIV/AIDS (comprehensive)	40.0	54.8	46.5	30.3	11.0	17.3
Heard of TB (women)	94.9	96.5	95.6	92.2	81.9	85.3
Source of health care – public medical sector	25.4	20.9	23.4	29.6	36.8	34.4
Other diseases and conditions						
Obesity (women) (BMI > 30)	7.7	8.7	8.1	6.1	1.3	2.8
Underweight (women) (BMI < 18.5)	23.1	21.4	22.4	25	40.6	35.6
Anemia in women (any)	46.0	47.9	46.8	50.9	57.4	56.2
No. of females per 100,000 with medically treated TB	810	482	667	246	337	309
No. of women per 100,000 who have diabetes	1,174	1,236	1,201	1,374	641	881
No. of women per 100,000 who have asthma	1,897	1,331	1,648	1,648	1,719	1,696
No. of women per 100,000 who have thyroid disorders	542	856	680	1,339	758	949
Percentage of men who use any kind of tobacco	45.9	34.6	41.3	28.7	35	32.7
Percentage of men who drink alcohol	36.2	28.7	33.1	30.9	32.5	32.0

Health indicators in India for Mumbai slums, non-slums, all urban areas, rural and national populations.

Discussion

In order to compare health and health-related indicators in slums to other population groups, this study compared large-scale multicounty data. In this analysis, we discovered that slums had higher rates of childhood mortality than non-slum areas and even rural areas. The only exception to this rule were the slums of Mumbai, where infant and under-five mortality rates were lower. This exception might exist as a result of the fact that most neonatal deaths in young children are documented by another study conducted in an Indian slum. Slums are defined differently in India than they are in other nations.

Slums were found to have higher rates of childhood morbidity than all other groups of populations, as demonstrated by the prevalence of ARI, diarrhoea, fever, and anaemia in the various countries. In the populations of slums, other studies have also discovered a high prevalence of childhood illnesses and malnutrition. The shocking disparities in the provision of and access to necessities and healthcare services among slum, non-slum, and rural populations may be the cause of these illnesses. Slums had limited access to treatment services and low rates of treatment seeking behaviour. The effects of these would be severe for the health status of kids in slums when combined with higher rates of childhood morbidity.

The fact that rural populations may have access to land and be able to grow food for consumption as well as generate income is one of the many explanations for the differences in health and health-related indicators between rural and slum populations. Residents of slums may or may not have access to land through networks of extended family and the community. Therefore, slum dwellers might experience health issues that could have been avoided if they had access to land. However, more research is required to determine how access to land affects health in the study settings.

This comparative analysis was subject to some restrictions. First, the analysis did not consider the fact that the contexts of slums and non-slums in the four countries varied. Second, there were variations in the length of studies conducted in nations using various data sources. These could be a factor in some of the variations in indicator values. Third, there were some discrepancies in how the indicators were measured, which may make it difficult to compare some indicators across countries. Finally, some of the indicators had incomplete data. Despite these drawbacks, this is the first study to try to compare health indicators at the national level across the three residential domains in multiple countries at various points in time.

Conclusion and recommendations

Child malnutrition was also more prevalent in slums, where early childhood mortality was worse than in rural areas. Although treatment seeking for these illnesses was better in slums than in rural areas, the prevalence of childhood illnesses was also higher there. Compared to rural areas, slums had a higher coverage of maternal health services. Slums also had lower fertility rates and higher rates of contraceptive use than rural areas. If the current patterns continue, it is possible that in 1015 years, rural communities will have better health than slums. Slums had worse mortality and morbidity statistics overall than rural areas. Slums, as opposed to rural areas, had better health service coverage and access indicators.

Therefore, more research is required to determine why, despite having better access to healthcare, slums have higher rates of morbidity and mortality. Studies are also required to determine other health factors in rural populations that account for the relatively lower rates of morbidity and mortality despite lower levels of access to healthcare. Finally, future research should consider gathering and utilising longitudinal data to compare health indicators among these residential domains.

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