



Struggle of Slum Dwellers for Maintaining their Health Status and Behavior in a Slum Pocket of Guwahati City

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ABSTRACT

The deficient transition of the health facilities and services from the state to the local level has made the slum areas neglected at the global as well as at the micro level. Slum dwellers live in an unhygienic and un-sanitized environment on a regular basis. Recurrent floods in the state of Assam especially in the slum areas (our locale of study) create disaster where toilets are used on an emergency basis submerge generally in the floodwater and spread various communicable diseases. Moreover, rural-urban migration of the poor increases the urban slum populations, limits as well as the basic civic amenities and services like sanitation, potable water, electricity, education, among others, deteriorating living conditions of public health at large. However, public and private health services exist in most of the urban areas but are not uniform and acceptable. The government of India Census report reflects that the dwellings of the slum are having insufficient air, light, bathing, improperly heated as well as lack of family privacy and are subject to safety hazards. UN-Habitat however, defines slums as a place of contiguous settlement of people having inadequate housing and basic services. Many scholars conducted studies in third world countries and reflected almost similar views including India as mentioned in the text. Our comprehensive micro study is an attempt to explore the health status, health seeking behavior, health awareness, health promotional measures and their impact on the slum dwellers. How the study would help in policy framing for further improvement of the healthcare services in the slum pockets of Guwahati city is the cause of main concern.

Keywords: Slum dwellers, Health status and awareness, Healthcare services, Abject poverty, Malnutrition, Rural-urban migration

INTRODUCTION

The dream to live a healthy life full of new opportunities in urban areas motivates people to migrate from rural to urban areas to make this a reality. World Health Organization has allocated large budgets for improving the health of people of the world irrespective of caste, class, creed, and location. This mission has somewhat been restricted to the global arena due to the inconsistent percolation at the state and local level. The slums are the areas where we can find this marked difference. We observed that slum areas are neglected due to the deficient transition of the facilities and services from the state to the local level, not because of the government or the concerned authorities' lack of resources but because the slums lack proper hygiene and sanitation on a regular basis. That apart, recurrent floods in the state of Assam also create havoc in the slum areas where the makeshift arrangement of some toilets are used on an emergency basis which are submerged in the flood water and spread various communicable diseases. Further, migration of the rural poor class to urban areas normally increases the urban slum populations in and around the vicinity and limits the access to various basic civic amenities and services in terms of sanitation, potable water, electricity, education among others. This situation added deteriorating living conditions in the slums and thereby creating problems in maintaining minimum public health. In the urban areas, there often exist both public and private health services that are not always uniform, accessible and adequate. This has further prompted the urban life measurably.

Slums are residential areas physically and socially disintegrated and the acceptable family life becomes impossible according to the definition of Encyclopedia Britannica. It includes unsustainable housing for a living, which is a major

index of slum conditions, under such conditions, the dwellings are having insufficient air, light, bathing, and toilet facilities, these are not repaired rather dumped and improperly heated, and don't even have family privacy. They are subjected to fire hazard and overcrowded land, no living space for recreational use [1]. As per UN-Habitat in 2013 a slum characterized by a lack of durable housing, insufficient living spaces has no access to clean water, improper sanitation, and unsecured land tenure. UN-Habitat, (ibid) defines slums as a place of contiguous settlement of people having inadequate housing without any basic services [2] (Figure 1).

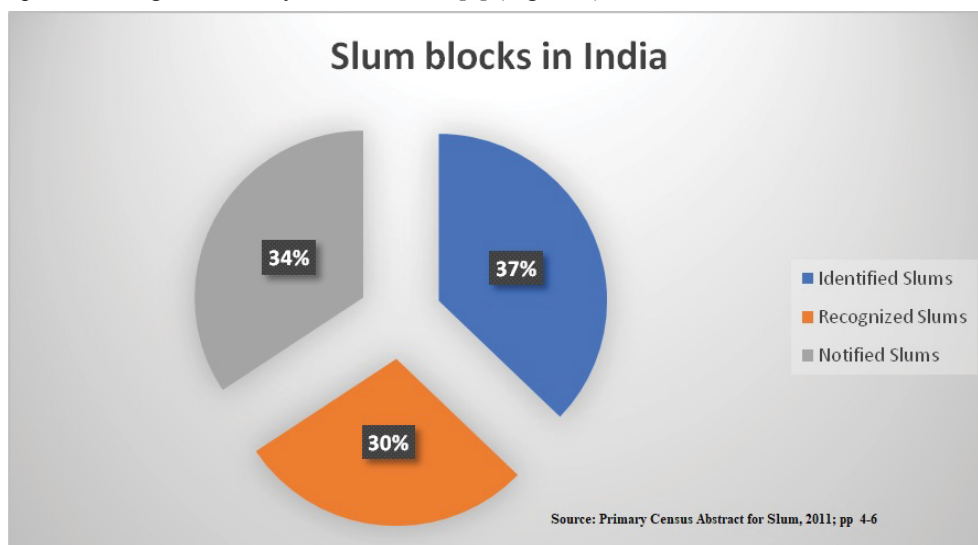


Figure 1 Type of slums in India

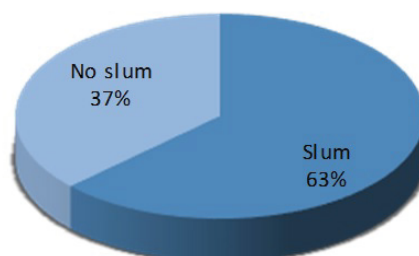
Slum dwellers often lack basic knowledge about common healthcare concerns like boiling water for drinking, use of soap before and after meals, washing hands after defecation etc. Some age-old traditions, superstitions, social norms, and values also act as resilience to the modern healthcare facilities. This often leads to carelessness and avoidance in availing of the healthcare facilities on time. Rapid urbanization is also associated with many health challenges related to the environment, water, violence and injury, non-communicable diseases (NCDs) and their related risk factors such as unhygienic and unhealthy diets; tobacco chewing and smoking; lack of physical activity, alcoholism as well as disease outbreaks risks [3]. This will directly affect their health status and health-seeking behavior. The overcrowding of people living in cities may lead to some global health hazards of the 21st century. On the contrary, the developing world has failed to maintain a balance between the pace of urbanization and the ability of governments to build essential infrastructure [4]. Cities manage over half of the world's population. By 2030, 6 out of every 10 people will be city dwellers, rising to 7 out of every 10 people by 2050 [3]. There exist schemes at the state and national level but at the ground zero level, there is a need to spread awareness among the slum dwellers about their health status regarding mortality, morbidity, maternal and child health, fertility etc. They should know how to avail of the healthcare facilities and services.

This study, therefore, is an attempt to explore the health status, health-seeking behavior and health awareness among the slum dwellers would help in drawing recommendations for further improvement of the healthcare facilities and services in the slum pockets in Guwahati city.

Review of Literature

The economic situation is one of the key determinant factors in resolving the problems with a correct decision where the capacity of the concerned authorities needs to be enhanced, to tackle the environmental problems more efficiently and effectively. Most of the cities of the developing countries have been facing abject poverty, which culminates in the form of slums. Urban development in the countries like India is in the context of providing shelter, basic urban services, housing for the slums, financing various schemes for urban development, governance, and planning [5]. Guwahati is declared as one of the smart cities in India, no doubt, it is a fast developing city having immense job opportunities, pleasant climate, good roads and communication, rail and international air connectivity with other cities in India and abroad. The city is located in Kamrup metropolitan district on the south bank of the river Brahmaputra. The foothills of Shillong plateau lie to its south [6] (Figure 2).

Percentage of Towns with slums



Source: Primary Census Abstract for Slum, 2011; p.14

Figure 2 Percentage of towns with slums in India

The Assam State Housing Board (ASHB) has paved the way for construction of 1,824 housing units on a rental basis at different locations in the city. This involves constructing housing for the Grade III and IV government employees including retired employees. A research study revealed that most of these housing units are not for the poor families [5]. The proliferation of slum in urban areas is a characteristic of India's migration in an urbanization system which is true for Guwahati as well [7].

The Guwahati Municipal Corporation (GMC) with a view to extending government programmes to all the people had identified a portion of these informal settlements as "slums". The total slum population was 1.6 lakh people [8]. Subsequently, the Slum Policy of the Guwahati city in 2009 found 90 slum pockets consisting of 167,769 populations [9]. Guwahati Municipal Corporation Rajiv Awas Yojana conducted a survey in 2012 and identified 217 slum pockets with a population of 1.39 lakh people. We can find that the 2009 definition calls a pocket of 25-30 households which lack basic amenities as slum whereas 2012 survey calls a pocket of 10-15 households which lack basic amenities as a slum. Jawaharlal Nehru National Urban Renewal Mission (JnNURM) has a flagship programme to provide Basic Services to the Urban Poor (BSUP), which proposed three sites for housing allotment to the urban poor. These were Fatasil, Morasoli, and Amingaon of which only the Morasoli is completed. In this site, the GMC has built 128 dwelling units. However, in Fatasil, they constructed 400 dwelling units approximately in contrast to the proposed 1,104 dwelling units. Amingaon is quite unfortunate, as they have not built even a single unit out of the proposed 1,028 dwelling units (Table 1).

Table 1 The slums in Assam as per the Census 2011

Variable	Frequency
Number of statutory towns	88
Number of slum reported towns	31
Total slum population of Assam	1, 97,266
Notified slums population in Assam	9163
Recognized slums population in Assam	70,979
Identified slums population in Assam	1,17,124

The present conditions of the health status of the slum dwellers of Guwahati as revealed by various studies are as follows:

A study conducted in Assam analyzed the inferior socio-economic conditions of the slum dwellers of Assam [10]. Another study did an assessment of the sanitation facilities and the problems related to the sanitation among the notified slum households under GMC [11].

A scholarly work of Saikia highlighted that the poor sanitary conditions in the crowded urban neighborhoods and the inadequate waste disposal was favorable for the spread of infectious diseases like tuberculosis, pneumonia and diarrhea was highlighted. He further observed that due to this fact the death rate among children in poor households in Asia, Africa, and Latin America was several hundred times higher than in the households in Western Europe or in the US [3].

A meritorious study by Deka, et al., among the adolescent girls between 10-19 years belonging to the urban slums of Guwahati city were found out that the implications of malnutrition are far-reaching and frightening. The Body Mass Index of these adolescent girls under study was less than the fifth percentile and they belong to category IV of the socio-economic status. There was a statistical association between the socio-economic status and the BMI at 1% level of significance. Another important finding was the prevalence of stunting and thinness in the age group 10-14 years and 15-19 years respectively found among the adolescent girls of the slum areas [12].

Another study tried to assess the nutritional status of children of 1-5 years old in a Guwahati slum area reflected that there is undernutrition among these children. However, the prevalence of underweight girl children in Guwahati is markedly less than the National Family Health Survey-3 done at the national level in India. The prevalence of stunting and wasting in this study were to some extent less than that of the NFHS-3 National scenario. It highlighted that the boys undernourished more amongst the socio-demographic factors as compared to the girls and it was statistically significant. The study further highlighted that the maternal literacy can be one of the important factors to influence the children's nutritional status. The study observed that there was a high prevalence of undernutrition among illiterate mothers.

Borah, et al., tried to find out the prevalence of diarrhea among fewer than 5 children residing in slums of Dibrugarh town. They tried to assess the health seeking behavior of their mothers for diarrhea of their children [13].

Kalita and Hazarika attempted to analyze the health status of women and children in slums and found that there was less antenatal health checkup as well as the prevalence of anemia during pregnancy and 80% of the children not yet immunized. They stated that the mortality rate among children under five years of age continues to rise surprisingly high with an annual rate of 24% despite the efforts of various vertical programmes. They reported that seven out of every ten children die due to diarrhea, acute respiratory infections, malnutrition and measles [10].

Another study at the national level attempted to comprehend the reasons for underutilization of available public health facilities and to compare the difference with non-slum areas of the five major metropolitan cities of India namely, Delhi, Hyderabad, Mumbai, Kolkata, and Chennai. Census data of India and NFHS-III on slum households is only considered for analysis. In Mumbai, about 90% of the slum households are having water sources from the public tap or piped to yard followed by Hyderabad having better water supply and Chennai slum dwellers having bare minimum access to good water sources. About 11.4% of the households do not know where their toilet drainage is connected [14].

The study by Pradeep tried to analyze the state of health and access to health services among the urban poor in India. His study based on primary survey data collected from 2000 households, covering 10,929 individuals covering four cities of India, results reflected that there was a lack of facilities and services from the Government. Naturally, there was a very high preference for private health facilities with high expenses. Together with the lack of availability of government health facilities in the vicinity, these results indicated the continued vulnerability of the urban poor and the need for urgent government intervention [15].

Saikia in his study in 2014 highlighted the poor sanitary conditions and the inadequate waste disposal in the crowded urban neighborhoods was favorable for the spread of infectious diseases like tuberculosis, pneumonia, and diarrhea. He opined that due to this fact the death rate among the children in poor households in Asia, Africa, and Latin America was several hundred times higher than in the households in Western Europe or in the US. He suggested that it is necessary to include health factor in the policy frame as urbanization can have serious effects on health in India where the urban poor rarely fare better than their rural counterpart's can when it comes to health. According to the Urban Health Centre in India, slum children are even more likely to be malnourished than their urban counterparts. Overcrowding makes outbreaks of respiratory diseases such as tuberculosis much more likely [3].

In Assam, a study reported that there was informal occupation (dakhla) of private and public land, informal settlements were found on railway lands, the Government of Assam's Revenue lands (located on swampy lands, plains, and hills), government Reserve Forest (RF) land (located mostly in the hills), private lands identified for acquisition. Some informal commercial subdivisions of agricultural land of private nature created because of alienation on the outskirts or periphery of the Guwahati city. Most of the above-mentioned private lands are patta lands. The informal owners in these submarkets have become proprietors and they have rented them to tenants [6].

Jogdand, et al., conducted a study to find out the perception of maternal mortality among women in a South Indian

urban slum area. This descriptive cross-sectional study conducted on 378 women above 20 years of age and the study found that 35.98% (majority) of the respondents belong to age group 31-40 years followed by 28.31% respondents which were in the age group between 21-30 yrs. About 34.14 % of the respondents had intermediate education and 22.22 % had a secondary level education. He feels that the participation of men is important in these families as they take most of the decisions [16].

A study found out that the nutritional status of school-age slum children is not satisfactory, and they suffer from malnutrition. They found out the prevalence of underweight, stunting and wasting in the slum children attributed to the lack of proper nutrition in their diet [17].

Banerjee, et al., highlighted the need for healthcare reforms through a national effort to provide the basic amenities to the slum dwellers like food, shelter, sanitation, water, education etc. Longevity coupled with socio-economic factors pointed out that those high-income households had a longer life expectancy when compared to deprived persons. The study indicates a preference for the private sector while seeking health care. To tackle the problem of child malnutrition, in the early 1990s, the United Nations children's fund (UNICEF) and the State and Central governments were committed to promote baby-friendly hospital initiative (BFHI) in the hospitals, continued feeding during illness, exclusive breastfeeding, and timely complementary feeding, care of pregnant woman, and so on. According to the findings of this study, these simple measures have not penetrated down to the slum and rural areas of their field practice area, an appreciable number of mothers stopped feeding the child during episodes of illness such as diarrhea. There were some gaps in the care of pregnant women as well [18].

Hazarika in his study examined a sample of 4,827 women in the age group of 15-49 years to assess the association of the variable slum with selected reproductive health services. The data collection was during the National Family Health Survey-3 to provide a national representation of women's reproductive health in the slum population in India. The study examined the association of the variable slum (dichotomized as slum versus non-slum) with selected reproductive health services. They tried to identify the socio-demographic factors that are responsible for the utilization of these services among women in the slum communities [19].

Gap in the Literature

After going through the definitions of slums given by various organizations at the state, national and global level along with the available literature on slums one can conclude that there is a need to explore the present slum development plans or schemes to know the exact health status of the slum population. There is a need to study the health seeking behavior of the slum dwellers as they lack basic knowledge of health and hygiene habits like boiling drinking water, use of soap before and after meals, washing hands after use of toilets, etc. Age-old traditions, superstitions, social norms, and values also act as barriers to access to the modern healthcare facilities. The next aspect of the study is the health awareness among the slum dwellers with a purpose to change their attitude and health-seeking behavior. A few studies reflected that the slum dwellers lack health-seeking behavior due to eating and drinking habits, lack of recreation, exercise, etc. Therefore, after going through the available literature we arrive at a conclusion that comprehensive study is urgently required on the health status, health-seeking behavior, and health awareness, health promotional measures and their impact on the slum dwellers of Guwahati. The present study is an attempt in this direction.

Objectives of the study

The objectives of this present study are as follows:

- To explore the health status, health-seeking behavior and health awareness of the slums in the select areas of Guwahati city.
- To recommend further ways and means of the improvement of the healthcare facilities and services in the slum pockets of Guwahati city.

METHODOLOGY

Study Area

The present study was conducted in the notified slum localities under the three selected ward numbers namely, 10, 20 and 25 of the GMC.

Data Collection

The data collection was in two stages. In the first stage, a literature review covering around 20-25 articles published from 1993 to 2017 in various journals, computerized databases, hand searches, and assessed these authoritative texts. An all-inclusive exploration for both published articles and a variety of government reports collected from across an extensive selection of information sources for consultation to fulfill the inter-disciplinary nature of the present study [20,21]. We searched preliminary related literature between November 2015 and August 2016 followed with an updated search during the period November 2016 and January 2018.

In the next stage, we conducted focus group discussions with the knowledgeable persons from the citizen group, concerned representatives of the district administration and the representatives of the slum community. We also conducted personal interviews of a few respondents of slum dwellers in the study separately to get an insight into their living conditions, health status, health-seeking behavior and health awareness programmes.

Inclusion Criteria

Items included for this study possessed scientific quality and were associated with the aims of the study, to explore the health status, health-seeking behavior and health awareness of the slum areas in the select wards under GMC.

Exclusion Criteria

We excluded the items, which were unrelated to the slum areas, unnecessary and totally lacked scientific quality. We selected only the better scientific quality literature to avoid chances of personal bias.

RESULTS AND DISCUSSION

Slums in Guwahati pose a challenge to the health of the slum dwellers due to poor sanitary conditions in the overcrowded slum areas coupled with inadequate waste disposal. These can be a platform for the transmission of contagious diseases like pneumonia, tuberculosis, and diarrhea. In support of this, the proposed study found out that the pitiable sanitary conditions in the packed urban agglomeration in addition to the insufficient waste disposal was favorable for the spread of infectious diseases like tuberculosis, pneumonia, and diarrhea [3]. The Government policy framework should bring into consideration the various health factors that influence the health status and health-seeking behavior of the slum dwellers [3]. We can find that there is a disparity between the level of development found in other areas of the city and the slums. This can be a barrier to achieve the goal of WHO to provide good health to all citizens of any country. It is necessary that the growth and development in the cities percolate to the common mass or end user to influence his living conditions and health status. The slum pockets in the study area are a neglected entity, as they do not get appropriate health, hygiene, and sanitation.

Monsoon brings in floods in different parts of the Guwahati city especially in the low land areas, which leads to the arranging of makeshift toilets to meet the emergency needs of the slum dwellers. Nevertheless, the cause of concern is the inexperience of slum dwellers for using the toilets under submerged in the floodwater. Furthermore, it is the breeding ground for communicable diseases in and around the vicinity [13]. Improper garbage disposal and uncovered defecation also add to the environmental pollution in these slum areas.

The discussion with the focus group brought some light on the nutritional status of the children, which is inadequate as the people were poor and struggling to meet two ends in terms of their livelihood. A meritorious study conducted among the adolescent girls between 10-19 years belonging to the urban slums of Guwahati city where they found that the implications of malnutrition are far-reaching and frightening among these girls [12]. The nutritional condition of school going slum children was not satisfactory [22,23]. The slum households do not get a supply of safe drinking water from the Public Health and Engineering Department, Government of Assam. Some of them have to buy drinking water from the supplied auto vans while a few depend on deep-bore wells located in nearby areas [24]. The practice of hand washing after defecation was prevalent but not all slum dwellers used soap. Some washed their hands with ash or soil. We found that hand washing practices before and after taking meals were irregular. Diseases like diarrhea, dysentery, common cold and flu were also prevalent among the children in most areas [11]. Disease incidence was found among the age group of 1 to 4 years and 45-65 years old.

GMC works as the only interface with the slum dwellers given the fact that the Public Health and Engineering Department and the Health Department provide their services following some disease outbreaks like Japanese

encephalitis, malaria or dengue which occur in their areas. Some camps in the form of maternal, child health camps and vaccination camps arranged in the nearby schools or other locations, and the announcement made to the slum dwellers to attend it. Breastfeeding was promoted to tackle deficiency diseases in infants [25]. However, the slum community participation in these areas is comparatively less which, can be attributed to the absence of the society or any third parties to support or motivate them to access the healthcare facilities. Furthermore, to make things more difficult the civil society never raised objections to the government regarding the living conditions of slum dwellers. As a result, the slum dwellers struggle to improve their living and health conditions. They are optimistic and positive that somebody will listen to their problems and grievances because they are also contributors to the nation building and they provide their dedicated services to the society either directly or indirectly.

Finally, the health awareness and health promotion activities in these slums were found to be irregular. The slum dwellers get some benefit from some health and family planning campaigns organized in this area occasionally but not on regular basis throughout the year. Mostly, it is concerned with maternal and child health or vaccination camps for infants and children only. Some ASHA workers visit a few selected slum areas but not all the areas (Figure 2).

Table 2 Socio-economic, demographic and health summary of Assam (State) and compared with India

Indicators	Assam	India
Assam's total population according to Census 2011 (in Crore)	3.12	121.01
Percentage of Decadal Growth	16.93	17.64
Birth Rate	22.4	21.4
Death Rate	7.8	7
Growth Rate	14.5	14.4
Infant Mortality Rate	54	40
Maternal Mortality Rate	328	178
Total Fertility Rate	2.4	2.4
Sex Ratio	954	940

The maternal and infant mortality rate is very alarming which is far ahead of the national average. The health status of women and the children in the slums is not satisfactory as there is less antenatal health check-up as well as the prevalence of anemia during pregnancy and most of the children are non-immunized as well (around 80%). The mortality rate amid children under 5 years continued to rise at a surprisingly annual rate of 24% despite efforts of various vertical programs [26]. They fail to avail the government healthcare facilities offered and most of them approach the private healthcare facilities for health-related conditions. On the contrary, the results reflected a lack of facilities and services from the government; naturally, there was a very high preference for private health facilities with high expenses [15].

CONCLUSION AND RECOMMENDATIONS

We can thus conclude that health status of the slum dwellers in urban areas of Guwahati city is linked to their living conditions. The government should consider the health factors in the policy framework rather than considering the same as an independent health policy. Health awareness and promotional activities will help the slum dwellers to practice health, hygiene, and sanitation largely. Community participation is necessary to reach the grassroots level. Finally, mass education on health and improve economic conditions of slum dwellers will help them to manage their health essentially.

DECLARATIONS

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Conflict of Interest

The authors have disclosed no conflict of interest, financial or otherwise.

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