

Slum Sensitivities: Summary of Lancet Series on Slum Health



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About the Report

This report is a summary of recent studies published in the Lancet as a Series on Slum Health.

What are Slums?

Slums are unhealthy places with high risk of infections, disease transmission and injuries. Slum residences are loosely fitted together from the available materials allowing easy access for transmission of infectious diseases. According to the United Nations Educational Scientific and Cultural Organization (UNESCO), urban slums are “a contagious settlement where the inhabitants are characterized as having inadequate housing and basic services”. The UN Human Settlements Programme has identified five characteristics that define a slum: inadequate access to safe water, inadequate access to sanitation and infrastructure, poor structural quality of housing, overcrowding and insecure residential status.



Increasing Slum Population

The world is becoming increasingly urban particularly in the low income regions of the world and the slum growth rate is known to be higher than the urban growth rate. The growth of slums has been a subject of global concern and the **number of slum dwellers in LMICs have been estimated to double from 1 to 2 billion within the next 30 years**. Human beings are undergoing a radical transformation and during the past two centuries, the proportion of world's population living in cities and towns has gone up from 5% to 50%.

Moreover, the past 50 years has seen a massive urban growth in LMICs characterized by sprawling slums that are now home to more than half of the population in cities. [UN Habitat report 2016](#) estimates for slum population suggests that 881 million people lived in slums in the developing countries in the world, with an increase from 689 million in 1990. It is estimated that by 2030, about 5 billion of the projected 8.1 billion population of the world, will live in urban areas and of among these 2 billion will live in slums, mainly in Asia and Africa.

Life in Slums

The living conditions in slums are extremely harsh. Under the mid-day sun the plastic/iron settlements can get unbearably hot and during the night, temperatures may drop to freezing points in high altitude cities. In addition to that, many slum dwellings do not have access to piper waters or proper toilets. They instead use pit-latrines

which is known to pollute the environment and the water supply is also prone to get contaminated at multiple points. Cooking and heating with solid fuels in confined spaces pollute the air with toxic fumes and particulate matter in of the slum residence. Furthermore, the waste management in slums is pitiable, they are in huge piles and often contains filth. There is little or no space for children to play or for adults to relax.

Due to shortage of space, people in slums can inhabit dangerous locations such as river banks, where they are subject to landslides, floods and drowning and under power lines increasing the risk of catching fires. Slums are usually formed close to congested areas where work is available. The increasing population pressure can cause the slum dwellings to push upwards (adding storeys to the current dwelling) and outwards (expanding beyond the current territory).

Health Vulnerabilities in the Slums

The combination of high population density and poor living conditions i.e. poor hygiene and restricted health care access in slums present a substantial risk for the general public health. People in slums are known to have much poorer health conditions than those living in non-slum areas. The accumulation and mismanagement of waste materials along with poor housing conditions provides breeding grounds for parasites and pathway for diseases. Leptospirosis is a particular problem in slums, resulting from the spread of rats in rubbish and

existence of the bacteria in surface water and mud. The prevalence of dengue fever is high in slums as its trajectory, the Aedes mosquito is adapted to survive in slums.

Overcrowding also contributes to the high prevalence of communicable disease in slums. The transmission of communicable disease is much quicker and more probable in slums. For example; in the recent Ebola epidemic, slums conditions amplified the spread of disease in West Africa. The prevalence of tuberculosis is very high among slum dwellers. Slum dwellers are usually a group of young and mobile population contributing to higher incidence of HIV as compared to non-slum city areas.

Furthermore, people living in slums are at a nutritional disadvantage compared to other urban residents. People who live in slums rely on street vendors of pre-cooked foods for about 1/5 of their total calorie intake and the children from slums are even more vulnerable to the dual problem of malnutrition and diseases (particularly recurrent diarrhea) leading to stunted growth and long term effects on their cognitive development as well. Breastfeeding rates are also worryingly low in slums. This is because of their economic status and labour market conditions which make it difficult for mothers to either stay at home or take their babies to work with them.

Injuries and pediatric burns are also more frequent in slums than in non-slum areas. This can be attributed largely to the indoor cooking methods adopted

by people living in slums. Indoor cooking and use of solid fuels is also a cause of respiratory disease in slums. Slum residents living in informal settlements have inadequate access to health services are at a particular high risk of being affected by the dual burden of infectious and non-communicable diseases over the course of their lives.

The unsanitary conditions in slums are associated with a high prevalence fatal infectious diseases among the dwellers. Urbanisation can have negative implications for respiratory health and can afflict many respiratory diseases. These diseases include pneumonia in early life, asthma in childhood and tuberculosis, COPD, and restrictive lung disease during adulthood. Threats to respiratory health include infections due to poor housing quality and overcrowding, ambient, traffic-related, and household air pollution, tobacco and second hand smoke, occupational exposures, allergic sensations, micronutrient deficiencies, poor and inadequate diet, and inactive lifestyles. Moreover, the strong social pressures in slums can afflict drug use and teenage sexual behavior on the community level.

Issues and Challenges with Urban Slums

Although slums are easily identifiable physically in many cities in LMICs, they remain largely invisible in many data systems that drive research and policy. Slums are rarely identified in national censuses, which keeps the information gap large and hides the true intensity of the problem. Failure in planning and governance has largely contributed to

the generation and growth of large slums in urban areas.

Governments, development partners, civil society, and other stakeholders recognize the need to develop social programmes that respond effectively to the needs of slum dwellers. However, little evidence exists on how to design and implement programmes in the deprived, unpredictable and dynamic settings. There is absence of actual health improving policies, structures and interventions on the ground level to improve the slum conditions.

Many slums are informal settlements in which residents do not have a secure tenure and are often set up in unclaimed or municipal lands and hence are unlikely to invest and improve on their residence as they don't feel secure on it. Furthermore, slum health has received very little attention compared to rural health, urban health and poverty. Studies on slum health make up only a small proportion of studies of LMICs. Substantial gap exists between rising awareness of the growth and importance of slums. Furthermore, most facilities providing services to slum are private facilities and are usually expensive making the slum residents reluctant and financially incapable of seeking timely help.

It is also difficult for organizations to work in slum areas as most of the slums are unplanned settlements and the infrastructure such as good road networks and water sanitation system in the area is poor and sometimes non-existent, which complicates project

activities during calamities. Furthermore, communication infrastructures is generally absent, leading to very poor connectivity and internet access, which further hinders project activities and interventions. Skilled staff can be difficult to find because of non-availability of the necessary skills and unwillingness to work in slum settings. Because of the nature and origin of slums and social support networks are often fragile because of the heterogeneity of slum population.

Another important challenge is the high mobility of slum residents which makes it difficult to study the slums for a long period of time. The slum residents are also highly mobile during the day as many of the slum dwellers are daily laborers and usually work outside their community. To increase their livelihood opportunities, they usually leave their house early in the morning and arrive late in the evening making it difficult to reach them. Because of this high rate of changing residence and daily wanderings, slum people can be difficult to trace during household visits and reliable follow-up of appointments can be difficult to ensure.

Improving the Health and Welfare of People Living in Slums

The problem of poor quality of water and inadequate sanitation in slums along with high incidence of diarrhea, in children younger than 5 years of age is a serious problem for many LMICs. This problem can be tackled with physical or behavioral interventions. Physical interventions involves improving water provisions, sanitations, preventing

decontamination, home improvements, garbage removal, increasing access to health services etc. While, behavioral interventions involves interventions directed towards improving the attitudes of the slum residents like hand washing awareness campaigns. For example. Behavioral interventions to promote hand washing resulted in a lower prevalence of diarrhea, and this was also shown in trials specifically in slums in Pakistan and Nepal.

Slum children are a subject of high priority as the conditions at the start of life will limit the subsequent life chances in the future. Interventions needs to be oriented towards: improving uptake of vaccination, promotion of breastfeeding, nutrition, clean water and sanitation, indoor protection against burns and inhalation of particles/noxious fumes. As these children grow into adulthood, violent crimes is a big challenge, and interventions needs to be designed to promote supportive neighborhood cultures. Also improvements in water supply and sanitation can yield modest health benefits for people living in the modern slums.

The Way Forward

It is high time to review the Urban Agenda with a greater emphasis on slum health and slum upgrading and on strengthening the capacities of urban government to work with people who live in slums to act on these. Also merely creating polices is of little help and they need to be backed up by a sound financial budget. Concentrated effort is needed to generate political

momentum and to decrease known threats to the health and wellbeing in slums. Because young children are especially vulnerable in slums, and because the effects of chronic illness are far reaching, a rigorous and sustained international movement is needed to provide effective interventions to improve child health such as vaccination, water and sanitation, breastfeeding and nutrition, and safe non-polluting cooking stoves.

Although important challenges exist for implementation of health interventions in slum, these people need to be served without much delay. To implement a health programme in the slums, the complex and multifactorial effects of urban settings on health programmes and outcomes need to be acknowledged. With concerted efforts, poor living conditions and their effect on health of slum dwellers can be improved.

Efforts should be made by governments, academic institutions, industry, and other stakeholders to understand the determinants of ill health in slum residents and quantify their impact. Stakeholders should also rigorously try to develop specific interventions that are context-specific, culturally appropriate, evidence based, and locally relevant to minimize the hazards and the extent of problems faced by slum dwellers.

Urbanisation, comes with opportunities for mobility and economic growth but also has a negative impact on health and the environment. For urbanisation to become sustainable, measures have

to be put in place for disease prevention and health improvement by governments and organizations.

References

[The history, geography, and sociology of slums and the health problems of people who live in slums](#)

[Improving the health and welfare of people who live in slums](#)

[Challenges of health programmes in slums](#)

[Managing threats to respiratory health in urban slums](#)

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<http://www.enca.com/opinion/slum-health-is-not-urban-health-why-we-must-distinguish-between-the-two>

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