



CHALLENGES AND CHANGES IN URBAN SLUMS IN INDIA: A REVIEW APPROACH

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ABSTRACT

Urban slums, defined by overpopulation, poor living conditions, and restricted access to essential services, are the perfect examples of the complex problems associated with modern urbanization. Over 1.1 billion people live in slums worldwide, which is expected to rise as urbanization picks up speed. Focusing on urban slums, this literature review investigates the socioeconomic circumstances, health disparities, and gender vulnerabilities that slum residents face. Slum dwellers have inequalities, such as low access to healthcare, unsanitary conditions, and environmental hazards, even though they make substantial contributions to urban economies.

In India, 17.4% of the urban population lives in slums, 32% of children are stunted, and 57% of these areas lack piped drinking water. These disparities are mirrored in Karnataka, where Bengaluru is home to 25% of the state's slum population, and 10.2% of urban dwellers live in slums. Increased maternal and child health vulnerabilities are revealed by health outcome analysis, which is fueled by sociocultural barriers and institutional gaps in care delivery. In addition, environmental elements like poor WASH infrastructure increase health risks and prolong cycles of marginalization and poverty. The resilience of slum communities, reveals and promotes integrated, inclusive urban policy by combining evidence from both global and regional sources. To improve slum dwellers' well-being, especially for vulnerable groups like women and children, these programs must address inequalities in housing, healthcare, and sanitation. The results highlight how urgently sustainable initiatives are needed to reduce disparities associated with slums and promote just urban growth.

KEYWORDS: *Urban Poverty, Urban Slums, Health, Water and Sanitation,* -----

INTRODUCTION

One of the major problems with contemporary urbanization is urban slums. Slums are frequently the result of rapid, unplanned urban growth and economic inequities and are characterized by substandard housing, overcrowding, and a lack of essential services. Over a billion people live in slums worldwide, and as urban populations continue to increase, this figure is expected to rise. Due to their socioeconomic struggles, lack of access to healthcare, education, and sanitation, as well as their increased vulnerability to health hazards, slum residents are often the focus of both scholarly research and policy initiatives. Studies have repeatedly demonstrated that living in a slum exacerbates already-existing disparities, especially for women and children who are disproportionately affected. There are many problems, including restricted access to reproductive health treatments, gender-based violence, and disparities in maternal and child health. Furthermore, the high incidence of chronic illnesses and communicable diseases is a result of inadequate WASH infrastructure, which further solidifies poverty and marginalization. Slums are places of resilience, adaptation, and community-based solutions despite the magnitude of these problems.

The number of people living in slums has significantly increased globally in the twenty-first century. About 1.1 billion people lived in urban slums as of 2020, and by 2050, an additional 2 billion people are predicted to dwell in urban areas (UN SDG Report, 2024). Even while cities are home to more than 55% of the world's population and play a major role in economic development, slum dwellers continue to confront obstacles like subpar housing, unsanitary



conditions, and restricted access to essential services. Slum dwellers are disproportionately affected by the fact that just 51.6% of urban people worldwide have access to public transportation (WHO, 2022).

About 65 million people, which accounts for 17.4% of India's urban population, live in slums (Census of India, 2011). NFHS-5 (2019–21) reports that just 57% of slum households have access to piped drinking water, compared to 70% in non-slum regions, highlighting the health and nutrition inequities. Furthermore, 19% of children living in slums are wasted, and 32% are stunted. These nationwide trends are mirrored in Karnataka, where 10.2% of urban dwellers reside in slums, with Bengaluru housing 25% of the state's slum dwellers. In these regions, only 51% of children under five have access to improved drinking water, and 29.5% of them are stunted and 14.8% are wasted.

The World Health Organization emphasizes serious health disparities on a global scale, with slum dwellers having a reduced life expectancy as a result of inadequate healthcare, poor sanitation, and environmental risks. With the nation lagging behind on 19 of 33 indicators, including those related to gender equality, poverty, hunger, and health, India's commitment to the 2030 Sustainable Development Goals (SDGs) is still difficult, where 37% of the global population lacks proper sanitation, 23.4% lack suitable housing, and more than 40% lack proper nutrition (Alliance for Science, 2024).

A thorough data synthesis is still missing, even though prior research has examined several facets of slum life, such as gender disparities, environmental hazards, and health inequities. This systematic review tries to capture the bird view of by critically examining various research publications on urban slums in various contexts, with an emphasis on socioeconomic circumstances, health issues, and gender-based vulnerabilities. The paper provides a comprehensive overview of slum dynamics by combining insights from various studies.

METHODOLOGY

This study synthesizes the research on the socioeconomic, health, environmental, and gender-related aspects of urban slums using a systematic review methodology. The research articles from various sources like Google Scholar, Jstor, Science direct, Elsevier, Sage, Willey online, peer-reviewed articles were collected, total 147 articles were retrieved from data base. Through screening 56 articles were reviewed which are on Indian context. Various exclusion and inclusion methods were adopted to select papers, like a structured keywords such as Urban slums, Urban Poverty, Health, Water, sanitation, Slum women’s Health, Urnab poor were used for searching articles. Articles published during the period of 2000 to 2025 were included. A thematic review analysis used to categorize the major findings.

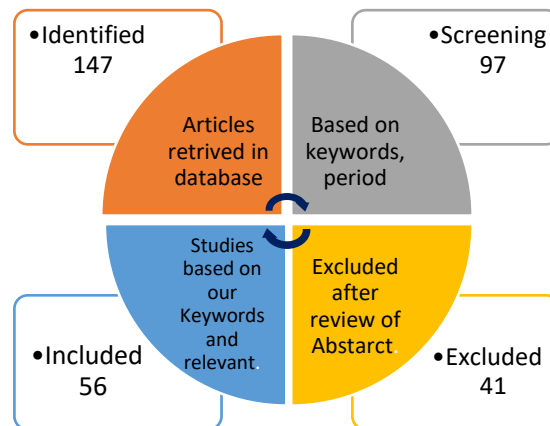


Figure 1: Process of Literature Search and Review



Urbanization and Rise of Slums

With the rapid increase in urbanization in India, the slum population has also shown a rapid increase, facing several challenges in the fields of infrastructure, housing, and health. According to the Census of India (2011), 65 million people reside in urban slums, and this figure will continue to grow every day because of rural-to-urban migration (Nitin et al., 2021). The rise of slums is uneven across states and cities, determined by economic opportunities, regional authorities, and land availability (Kumar, 2010). The key aspect of rising slums is migration, where people relocate to cities in search of better employment opportunities and housing (Goswami and Manna, 2013). Affordable education and healthcare remain exclusive in slum settlements, which establish the cycle of impoverishment (Kapadia-Kundu and Kanitkar, 2002), study showed that not having access to affordable healthcare and education only worsens the cycle of poverty that is often uncontrolled in slum communities. Furthermore, (Nolan, 2015) stated that as government policies define slums differently, there is a lack of agreement on methods to measure health inequalities, which ultimately affects the implementation of policies. The rise of slums directly affects the health and welfare of people living there. A study conducted by (Goswami and Manna, 2013) in Raipur reported that around 70% of slum dwellers suffer from diseases due to poor sanitation. (Pal, 2012) found that many slum households are subject to out-of-pocket health expenditures as healthcare is unaffordable in these households. Additionally (Srivastava, 2017) and (Nitin et al., 2021) pointed out that the high density caused by slum growth results in overcrowded conditions with negative consequences, including poor water quality and exposure to environmental risk factors that cause health problems.

In addition, the Government of India has launched some highlighted measures aimed at controlling the growth of slum areas. These include the Prime Minister's Awas Yojana (PMAY) and the Jawaharlal Nehru National Urban Renewal Mission (JNNURM). However, (Kumar, 2010) declared that the falling number of recognized slums may not necessarily mean that the situation has truly improved, but might instead reflect changes in classification standards. More importantly, according to (Patel and Goyal, 2018), if future inequality is to be prevented, slum dwellers must be included in the formal housing policy as part of sustainable urban planning. While the government seeks to improve their standard of living, there are still difficulties in carrying out these policies and faults related to data collection. (Srivastava, 2017) argues that because general information on the urban poor within cities is lacking, inclusive urban planning becomes difficult.

Urban Housing, and Slum Development

The explosive growth of urban slums in developing nations has raised numerous concerns. According to (Chimankar, 2016), more than 65 million people in India live in slums, where the inhabitants' vulnerabilities are worsened by poor housing, sanitation, and restricted access to basic services. Their analysis stresses that even though slums frequently offer affordable housing options near economic centers, a lack of formal infrastructure as well as legal tenure hampers long-term socioeconomic mobility. (Harshwardhan and Tripathy, 2015), Jharkhand's slum population increased by 32% between 2001 and 2011 because the growth mostly occurred in semi-urban areas where urban planning and governance systems were inadequate. In their study of Bangalore's slums, (Roy et al., 2018) found disparities in access to important services because less than 15% of households had waste disposal systems, and only 28% of houses had piped water. Such deprivation, (Taneja et al., 2021) highlighted, impacts health outcomes further. They pointed out that less than 10% of urban slum women from Delhi and West Bengal had cervical cancer screenings, mainly because of low awareness and accessibility. These studies stress the urgent demand for holistic urban growth plans which favor slum residents via ensuring equal accessibility to core amenities as they bridge deficits within housing, infrastructure, and healthcare.

Migration and Living Conditions in Urban Slums

Women's living conditions in urban slums are greatly influenced by migration, which affects their access to health care, food security, and general well-being. According to Awasthi and Agarwal, (2003), pollution, inadequate waste management, and overcrowding contribute to the high incidence of respiratory and waterborne illnesses, worsening environmental health problems. 45% of women living in slums suffer from long-term respiratory problems as a result of indoor air pollution from burning biomass fuels.



The socio-economic difficulties of migrant women were highlighted in the study by Basu and Basu, 2000), which found that 70 percent of migrant women in Delhi work in informal sectors such as household work, street-vending, or waste collection, often earning less than the minimum wage. Financial instability and lack of social security prevent them from accessing medical care and lead to untreated disease. (Goswami and Manna, 2013) further highlighted the poor conditions in the slums of Raipur, where 80 percent of households do not have adequate sanitation, which increases the risk of infection. Women in these areas are further facing hygiene challenges and safety risks when accessing shared toilets.

Socio-Economic Conditions in Urban Slums

The complex relationship between poverty, migration, and poor urban planning is reflected in the socioeconomic circumstances of urban slum dwellers (Intesar and Parvez, 2024), who found that 68% of the women they interviewed encountered social and health vulnerabilities in addition to economic challenges. In addition, 74% of women in Indian slums lacked access to financial resources or decision-making authority, which trapped in cycles of reliance and poverty. These studies highlight the critical need for initiatives aimed at reducing socioeconomic disparities in urban slums, focusing on the gender aspects of deprivation and improving access to basic utilities, work opportunities, and education.

Health and Healthcare Issues

Due to differences in access and results, health and healthcare issues in urban slums continue to be a major concern. Research indicates that living in a slum is strongly associated with worse health outcomes for children, as evidenced by greater rates of respiratory infections, diarrhea, and malnutrition when compared to non-slum populations (Fink et al., 2014) and (Firdaus, 2012) emphasized the costs of urbanization and growing health issues by pointing out that 70% of slum dwellers in Uttar Pradesh suffer from waterborne infections as a result of poor sanitation and drinkable water. According to (Karn et al., 2003), more than 80% of Mumbai's slum families lack basic sanitation facilities, directly contributing to the spread of infectious diseases. This highlights the clear relationship between environmental variables and health outcomes.

Initiatives associated with maternal and child health might highlight these institutional inefficiencies. (Kumar Gupta and Nandeshwar, 2012) found that just 55% of pregnant women in Bhopal's slums received antenatal care, while nearly 75% of pregnant women in metropolitan non-slum areas. This finding serves as an example of service delivery disparities. In their review, (Shrivastava et al., 2023) found that 43% of women living in slums listed the cost of services and accessibility to medical facilities as important factors when deciding whether to seek prenatal care. Although programs such as Raipur's universal health insurance program have shown, uneven implementation is evident because only 27% of slum households reported being enrolled (Nandi et al., 2016). Furthermore, the high maternal mortality rate in the slums of Vellore is mostly caused by the lack of emergency obstetric treatment, according to Mony et al. (2006). These findings demonstrate that immediate targeted interventions are needed to overcome health inequities in slums. Policies must address social determinants of health and provide access to necessary services if they are to produce long-term outcomes.

Women's Health and Empowerment

The correlation between women's empowerment and health in urban slums highlights the interconnected issues of socioeconomic disadvantages and gender-specific health disparities, indicating the necessity of immediate solutions. More than 72% of women in slum areas demonstrated improved decision-making skills after having access to financial services, indicating the potential of financial empowerment to empower women (Bhatia and Singh, 2019). This empowerment is crucial for them since it immediately affects their ability to manage health difficulties. Environmental hazards, however, continue to be a major obstacle. (Kamal and Rashid, 2004) discovered that, as a result of poor sanitation and hazardous living conditions, almost 62% of women in urban slums reported experiencing symptoms of reproductive tract infections (RTIs). Menstrual health requires immediate attention because it is often ignored.



According to (Chakravarthy et al., 2019), cultural restrictions makes caring for menstrual hygiene even more difficult, and over 68% of women and girls living in urban slums lack access to affordable sanitary products.

According to (Prabhu et al., 2024), cultural views on menstruation often fail to address health issues. Their study in Karnataka revealed that 56% of women did not seek medical attention for menstrual problems because of sociocultural restrictions. Another significant problem is malnutrition among women in slums. (Swaminathan and Mukherji, 2012) show that 43% of Indian women living in urban slums experience chronic energy deficit, which is caused by poverty and limited access to wholesome food. The significance of inclusive urban policies is emphasized by (Harish, 2018), who states that integrated housing and sanitation developments could mitigate health risks by 30%, especially for women, who are disproportionately affected by unsafe living circumstances. Together, these studies argue that improving women's health in urban slums necessitates a comprehensive strategy that addresses the structural and sociocultural barriers that sustain inequality while combining financial empowerment, health education, better sanitation, and access to affordable healthcare.

Birth Preparedness and Maternal Health in Urban Slums

Maternal health in urban slums faces significant challenges due to low awareness, lack of access, and lack of medical services. (Agarwal et al., 2010) found that only 47 percent of women in the Indian slums recognized at least one warning sign of pregnancy, while only 35 percent had saved for birth expenses, highlighting a lack of preparedness. (Jogdand et al., 2013) and others also wrote: According to a survey, 62 per cent of women in southern India's slums were unable to obtain appropriate maternal care. As (Das et al., 2013) pointed out, intimate partner violence further aggravates maternal health showed that 28 per cent of women in Mumbai's slums were abused during or after pregnancy. In addition, (Gupta et al., 2008) found that only 40% of women in the Chandigarh area had access to hospitals, which increased the complications of neonatal care.

There is also a lack of awareness of reproductive health. According to (Das et al., 2013), more than half of the women living in urban slums are unaware of the availability of prenatal care services. According to (Bhargava, 2022), the two biggest obstacles to accessing sexual and reproductive health care are cultural restriction 30% and financial limitations 45%. Knowledge about cervical cancer remains low; according to (Bathija et al., 2016), only 23.5% of women in Karnataka slums were aware of screening programs, and according to (Donta et al., 2012), only 19% of women living in Mumbai slums underwent a screening test. These results demonstrate the urgent need for improved maternal health initiatives, funding, and focused awareness campaigns to enhance healthcare outcomes in urban slum areas.

Non-Communicable Diseases and Nutrition Among Women

Non-communicable diseases (NCDs), such as high blood pressure, heart disease, and malnutrition, are major health concerns for urban women living in slums, worsen by poor diet, limited access to healthcare, and socio-economic disparities. Studies have revealed that NCDs are widespread. According to (Rakesh et al., 2023), 38.4% of women living in slums had hypertension, but only 25% knew about their condition, and less than 20% sought medical intervention due to financial and awareness obstacles. (Krupp et al., 2021) found that women with three or more children were 1.8 times more likely to develop heart disease due to inadequate maternal health and nutritional support. Malnutrition remains a major problem, as (Sadana et al., 2019) have stated, the findings show that 42 percent of women in Amritsar's slums are underweight, and 28 percent are overweight, reflecting a double burden of malnutrition caused by poor diet diversity and dependence on carbohydrate-rich foods. Iodine deficiency is also common, and (Tyagi, 2022) reports that 36 percent of pregnant women in the urban slums of Delhi suffer from iodine deficiency syndrome (IDD), leading to complications such as anemia and birth defects. Despite these alarming statistics, (Nandi et al., 2016) found that only 11% of Chhattisgarh's women obtained public health benefits, while more than 60% of households in the poor depended on free healthcare and were further in financial difficulties. To address these problems, community-based awareness programs, affordable health initiatives, and government-supported nutritional programs are needed to reduce imbalances and improve the health outcomes of women living in slums.



Mental Health and Domestic Violence

Mental health problems and domestic violence are the major issues in urban slums, highly impacting women and children. Research indicates that 27% of pregnant women in Mumbai slums suffer from intimate partner violence (IPV) (Das et al., 2013), while 42% of adolescent girls in Kampala slums encounter physical or sexual violence, resulting in anxiety and depression, (Swahn et al., 2015). Children are not safe either, as 60% showed evidence of emotional distress due to violence in the home and failure of support (Martin et al., 2024). Saraf et al. (2018) revealed that only 20% of adolescent girls living in slums received mental health services, showing critical gaps in awareness and treatment. (Rao, 2023) revealed that fewer than 15% of women experiencing mental distress received professional care, underlining the imperative for intervention. Despite the prevalence of mental health disorders and lack of resources hinder women from accessing services. These challenges can be addressed by improving mental health policies, IPV prevention initiatives, and community-based counselling to enhance the health of slum-residing women and children.

Child, Adolescent and Youth Health

Children and adolescents in urban slums face serious health challenges due to malnutrition, poor hygiene, mental illness, and violence. Malnutrition is a serious problem, and 48.5% of the teenagers in Kolkata's slums are obese, while more than 40% of the girls in Amritsar are anemic (Sadana, 2019). The National Science Foundation reported that 35 percent of children in India's slums suffer from malnutrition, which shows chronic malnutrition. Mental health problems are common but are often overlooked, as percent suffer from depression, often linked to poverty and violence. Furthermore, menstrual hygiene is still a problem, with only 37% of girls in the Jaipur and Delhi slums having access to sanitary pads for hygiene, and more than 60% facing dishonor (Chakravarthy et al., 2019). Due to a lack of sanitation, 50% of girls use clothes, which increases the risk of infection (Bhattacharyya et al., 2015) Violence is another major concern, as 43 percent of girls in the slums of Kampala and Mumbai suffer physical or sexual abuse (Swahn et al., 2015) and (Das et al., 2013). Furthermore, access to healthcare is inadequate, with only 47 percent of pregnant women receiving prenatal care in Southern India and only 54 percent of children in Chandigarh being fully immunized (Jogdand et al., 2013) and (Gupta et al., 2008).

Adolescent females' low mental health literacy was highlighted by Saraf et al., 2018), who also found a critical lack of knowledge and access to mental health resources in urban slums. Additionally, (Swahn et al., 2015) reported concerning rates of sexual and physical violence victimization among young women and girls in Kampala's slums, underscoring the widespread vulnerability faced by socioeconomic hardship. Taken together, these highlights the critical need for focused interventions that address the deeply ingrained cultural and systemic problems that sustain young people's marginalization in slums, in addition to structural disadvantages.

Water, Sanitation, and Environmental Issues

The absence of sanitation and environmental health in urban slums emerge as core concerns that directly influence the well-being of the dwellers, predominantly women and children. Poor sanitation leads to a lack of hygiene, infectious diseases, and deadly drinking water, and consequently, a wider spread of diseases. According to (Satapathy, 2014), only 32% of slum families in India exceed the quality standards for safe drinking water, despite 91% of urban dwellers reported not having access to upgraded water sources. This has resulted in waterborne diseases, such as cholera and diarrhea. The report emphasizes that even with greater water coverage, contamination at storage and usage locations compromises its safety, showing that infrastructure development is insufficient on its own without further steps to guarantee water quality. where researcher stressed community-based water quality monitoring programs and decentralized sanitation systems.

According to (Vogel et al., 2022), the lack of proper sanitation is a challenge for more than 60% of female dwellers in the slums, which in the long run would cause many problems, such as urinary tract infections and reproductive health issues. When women from the slums use shared latrines in the dark, they are at risk of violence, as most toilet infrastructure is in deplorable condition. (Phukan, 2014) showed that the waste of water bodies and poor waste removal



also cause the breeding of mosquitoes and the spreading of malaria and dengue in a place where sanitation is not well managed. The authors also stated that only 35% of slum households never throw their trash on the road. According to the information given in the report “Truth about Hunger and Disease in (Hatekar and Rode., 2003) confirmed that 50-60% of children under five suffer from malnutrition among the many common problems of diseases and their symptoms, which have left more than half of slum children in Mumbai undernourished and made their infections more severe. All these studies insist on the immediate measures that should be taken in the development of sanitation infrastructure, the more efficient management of water, sanitation and the various educational programs that should be put in place for the community to rise up at the core of ongoing health disasters and alleviate poverty in urban slums.

Economic and Health Expenditure

Expenditure on health continues to be a key issue for slum residents, especially women, because of limited finances and the inability to access quality health at reasonable costs. (Pal, 2012) pointed out that more than 10% of family income is spent on health, which often leads to reductions in essential items such as food and education. (Nandi et al., 2016) conducted research on the Universal Health Insurance Scheme (UHS) in Chhattisgarh and discovered that merely 30% of women in the slums were able to receive the scheme. (Srivastava, 2017) underscored that inadequate data collection results in exclusion from welfare programs, denying slum dwellers access to affordable healthcare. (Raj and Sheikh, 2024) established that financial constraints tend to cause families to prioritize boys' education and healthcare over girls, that results in gender inequalities. Collectively, these studies indicate that high out-of-pocket expenses, low insurance coverage, poor policy implementation, and gender discrimination heavily influence the health of women in urban slums. Policy reforms, enhanced insurance coverage, and improved data-driven planning are key to resolving these issues and enhancing healthcare access and outcomes.

Education and Awareness

Education is vital for enhancing the health outcomes of women in urban slums, but poverty, gender discrimination, early marriage, and social norms restrict access. The literature reveals that low literacy rates are directly related to maternal health, contraceptive use, and menstrual hygiene. (Raj and Sheikh, 2024) reported that only 43% of slum girls completed secondary education, with a dropout rate of 57% resulting from family responsibilities and early marriage. (Sarode, 2010) indicated that 68% of illiterate pregnant women experienced severe anemia and delivery complications in Mumbai slums. Health literacy is also critically low; (Saraf et al., 2018) discovered that only 22% of adolescent girls had a fundamental level of mental health literacy, and (Mishra and Irshad, 2022) reported that 70% of slum women did not have appropriate menstrual hygiene education. (Chakravarthy et al., 2019) found that only 36% of the girls had sanitary products available to them, with many resorting to unsafe substitutes.

However, education programs have been found to make a difference. (Vogel et al., 2022) discovered women who visited awareness workshops were twice as probable to use improved sanitation practices, and (Nandi et al., 2016) noted that educated women in Chhattisgarh slums were 40% more likely to get enrolled in health insurance. These studies support that education is a significant factor influencing women's health, but financial limitations and social norms are still significant barriers. Improving community-based education, incorporating health literacy into schools, and encouraging awareness campaigns are necessary to empower women living in slums and enhance their health.

CONCLUSION

The complex and interconnected problems of urban slums, such as gender inequality, socioeconomic difficulties health inequalities, and environmental problems, are highlighted in the paper. Residents of slums, especially women and children, are more vulnerable in terms of sanitation, health care, and nutrition, which feeds the cycles of marginalization and poverty.

Integrated urban planning and policy solutions that prioritize woman empowerment, infrastructural development, and health equity are needed to address these problems. Meaningful change can be generated by community-based



solutions combined with focused programs for water, sanitation, and maternal and child health. This assessment offers practical solutions to enhance slum dwellers' standard of living and promote inclusive urban growth by coordinating interventions with the Sustainable Development Goals.

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