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CHALLENGES IN AFRICAN CITIES: ADDRESSING THE HEALTH IMPACTS OF RAPID URBANISATION

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Abstract

Urbanization is the process of an increasing number of people living in a concentrated area with a constant supply of homes and sharing the advantages of some public facilities. Nigeria, one of the most populated nations in Africa, has seen a dramatic rise in its urban population as a result of high birth rates and the expanding rural-urban migration trend. People move to cities in pursuit of better living conditions, healthcare, education, and employment prospects. Nigeria's urban population has grown significantly over the last few decades, and this trend is predicted to continue as more people from rural areas move to urban areas for work-related reasons. The fast urbanisation of the continent puts more strain on the environment, sanitation, and healthcare systems in metropolitan areas, increasing the risk of infectious diseases, air pollution, and mental health problems. To guarantee that the advantages of urban living are experienced without endangering public health, it is imperative to address the health effects of overcrowding, pollution, and substandard living conditions. This requires a variety of strategies, including health education and promotion, investments in health infrastructure, efficient waste management systems, mitigation of climate change, cooperation and partnerships among national and international

organisations, and housing and urban planning. Failing to address these issues may result in a higher burden of disease, fatalities, and a lower standard of living for city dwellers. By prioritizing health in urban planning and policy-making, African cities can create environments that foster well-being and reduce health disparities.

Keywords: Challenges; Health Impact; Rapid Urbanization, African

Introduction

The process of an increasing number of people living in a concentrated area with a constant supply of homes and sharing the advantages of some public facilities is known as urbanisation. Urbanisation can be defined as a significant population shift from rural to urban areas (Murtaza, 2012). As a result, urbanisation is a dynamic socioeconomic process that explains the spatial dispersion of people from rural to urban areas as well as differences in people's attitudes, livelihoods, and standards of life.

By 1800, 1900, and 1950, the world's urban population was 3%, 14%, and 30%, respectively. In addition, there were 12 cities with a population of one million or more in 1900; fifteen years later, in 1950, there were 83 cities with a population of one million or more, and it was predicted that there would be more than 400 cities in 2030. By 2045, half of the world's population would reside in cities, with that number expected to rise to 6 billion people (World Bank Group, 2023).

One major factor is the desire for greater economic prospects, as cities typically provide more jobs, especially in the unorganised sector, which draws people from rural areas looking to raise their standard of life (Tacoli, 2017). Furthermore, cities are now more accessible due to infrastructure and technological improvements, which has increased migration rates. Since urban centres usually offer better access to high-quality services than rural areas, the prospect of better healthcare and educational opportunities also contributes to this urban migration (Mberengwa, 2019). Additionally, the rapid expansion of urban areas is mostly due to population increase, which is fuelled by rising birth rates and falling death rates (Akinmoladun & Olatunji, 2020). Rural-to-urban migration has been made worse by climate change, particularly the increased frequency of droughts and floods in rural areas, as people migrate from these places to urban areas in pursuit of safer living circumstances (Moseley, 2018). As a result, these elements work together to cause the fast urbanisation trends that currently define much of Africa.

Overview of Rapid Urbanization in Africa

Nigeria's growth trajectory is marked by rapid urbanisation, which is driven by a confluence of social, economic, and demographic reasons. Nigeria, one of the most populated nations in Africa, has seen a dramatic rise in its urban population as a result of high birth rates and the expanding rural-urban migration trend. People move to cities in pursuit of better living conditions, healthcare, education, and employment prospects. Nigeria's urban population has grown significantly over the

last few decades, and this trend is predicted to continue as more people from rural areas move to urban areas for work-related reasons (Olanrewaju et al., 2019). Cities like Lagos, Abuja, and Port Harcourt have developed into important centres of social and economic activity, drawing migrants from both inside and beyond the nation.

But there are serious drawbacks to the quick speed of urbanisation as well. As a result of urban regions' inability to handle the growing population, informal settlements, subpar housing, and stressed public infrastructure are all on the rise. Nigeria's urban planning and governance structures, according to Olanrewaju et al. (2019), have not been able to keep up with the country's rapid expansion, leading to crowded neighbourhoods, subpar sanitation, insufficient transportation, and restricted access to essential services like electricity and clean water. Additionally, as cities grow into ecologically vulnerable areas, rapid urbanisation has exacerbated environmental issues like deforestation, inadequate waste management, and frequent flooding. These problems are made worse by the high rates of poverty and shortage of affordable housing in metropolitan areas, which fuel the expansion of slums and unofficial businesses.

Rapid urbanisation has the ability to foster social and economic advancement despite these obstacles. The United Nations (2014) asserts that well controlled urbanisation may boost productivity, spur innovation, and facilitate access to services like healthcare and education. If properly run, Nigeria's cities might serve as the basis for economic diversification, supporting sectors like manufacturing, services, and technology that can propel the country's growth. If green building techniques, better infrastructure, and better governance are prioritised, urban areas can also serve as accelerators for sustainable growth. Therefore, in order to manage Nigeria's fast urbanisation rate, extensive planning, infrastructure investment, and policies that prioritise sustainable growth while addressing the issues presented by the urbanisation process are all necessary.

Africa's urban population is predicted to grow from 472 million in 2015 to 1.5 billion by 2050, accounting for more than half of the continent's overall population, according to the United Nations (2018). High birth rates and rural-to-urban migration in pursuit of improved healthcare, education, and economic prospects are the main drivers of this growth. But there are serious drawbacks to this fast urbanisation as well. African cities frequently struggle with inadequate infrastructure, such as limited housing, subpar transportation, and restricted access to essential services like water and sanitation (Satterthwaite, 2014). In addition, the burden on resources makes social conflicts, inequality, and unemployment worse. In order to guarantee sustainability and better living circumstances for the expanding urban population, urbanisation necessitates thorough urban planning and infrastructure investment, even while it presents chances for economic growth and

development (UN-Habitat, 2016). Africa's complicated urbanisation calls for a diversified strategy to tackle these issues and capitalise on the advantages of city living.

Public Health Challenges in African Cities

Environmental Pollution

Many African cities suffer from poor waste management systems, industrial emissions, and vehicle pollution, which results in poor air and water quality as populations rise and more people move from rural to urban areas. In Africa, urbanisation frequently outpaces infrastructure development, leading to the growth of informal settlements devoid of adequate waste disposal and sanitation systems (UN-Habitat, 2021). As a result, the buildup of solid waste in drainage systems and open dumps contaminates the air and water, which promotes the spread of illnesses including cholera, typhoid, and respiratory ailments.

According to the Clean Air Funds (2022), air pollution killed 1.1 million people in Africa in 2019. According to WHO (2018), high levels of air pollution in places like Lagos, Nairobi, and Johannesburg are associated with a higher incidence of cardiovascular diseases, respiratory disorders, and early mortality. WHO (2023) reports that ambient air pollution was responsible for 338,000 deaths, with lower respiratory illnesses accounting for over 47% of these deaths. Due to a lack of proper sewage treatment facilities in many urban areas, untreated wastewater is released into rivers and streams, damaging sources of drinking water. According to Adebayo (2020), waterborne illnesses such as hepatitis, diarrhoea, and dysentery are more common in areas with contaminated water sources. Furthermore, water bodies are contaminated by industrial effluents that include hazardous chemicals and heavy metals, posing a threat to aquatic life and human health. The WHO estimates that diarrhoea kills 842,000 people in Africa annually (2024).

Overcrowding and Housing

Slums and informal settlements proliferate in places like Lagos, Nairobi, and Accra as a result of an increase in rural-to-urban migration that causes population expansion to exceed housing development. More than half of Africa's urban population resides in informal settlements, which have subpar housing conditions, poor sanitation, and little access to potable water, according to UN-Habitat (2021). Because of inadequate ventilation and close human contact, overcrowding in these settlements makes it easier for infectious diseases like pneumonia, TB, and respiratory infections to spread. The rise of vector-borne illnesses like dengue fever and malaria is one of the health hazards associated with rapidly urbanising cities' inadequate housing infrastructure.

According to Adebayo (2020), standing water in poorly designed residential areas gives mosquitoes a place to grow, which raises the risk of malaria among city people.

Furthermore, poor quality housing materials expose occupants to extreme weather events like flooding and heat stress, which have been connected to an increase in incidence of heatstroke, dehydration, and waterborne illnesses like cholera and dysentery. Additionally, overcrowding has serious effects on mental health. According to Okonkwo and Adejumo (2019), a high population density in urban slums causes a lack of leisure opportunities, noise pollution, and personal space, which raises stress, anxiety, and depression levels. Public health issues are exacerbated by the psychological toll of living in cramped, filthy quarters, which leads to increased rates of substance misuse, spousal violence, and social instability. Furthermore, a higher danger of structural collapses and fire outbreaks is linked to substandard housing conditions in congested locations.

Infrastructure Deficiencies

Inadequate infrastructure, such as transportation, sanitary facilities, clean water supplies, and medical facilities, raises the danger of environmental health hazards, promotes the spread of infectious diseases, and increases accident-related injuries. Waterborne illnesses including cholera, typhoid, and dysentery are more common where there are inadequate clean water and sanitation systems, especially in informal settlements where people depend on tainted water sources. Another significant issue impacting public health is transportation infrastructure. Major African cities have higher incidence of respiratory, cardiovascular, and asthmatic illnesses due to insufficient public transport, traffic congestion, and poorly maintained roadways (WHO, 2018).

Many African cities that are urbanising quickly lack the healthcare infrastructure necessary to fulfil the rising demand for medical treatment. According to Adebayo (2020), access to high-quality healthcare is hampered by congested public hospitals, a shortage of necessary medical supplies, and insufficient medical staff. Treatment delays, the spread of infectious diseases, and higher death rates are the results of this circumstance, especially for vulnerable groups including children, expectant mothers, and the elderly. Additionally, many cities' inadequate waste disposal infrastructure leads to the uncontrolled dumping of dangerous industrial and medical waste, exposing locals to harmful compounds and disease-carrying vectors and creating further health hazards.

Infectious Disease

Urban areas are overcrowded due to the historically high incidence of rural-to-urban migration, which has left people without access to clean water, poor housing, and poor sanitation. As a result of these circumstances, infectious diseases like cholera, TB, malaria, and respiratory infections can spread easily. Inadequate drainage systems and poor waste management in many African cities encourage the reproduction of disease-carrying mosquitoes, which raises the incidence of vector-

borne illnesses including dengue fever and malaria, according to WHO (2021). Furthermore, the transmission of airborne illnesses like influenza and tuberculosis is facilitated by cramped living quarters and inadequate ventilation. The lack of adequate healthcare services in many urban slums causes infectious diseases to be diagnosed and treated later than they should, which increases their persistence and frequency of outbreaks. According to Okafor et al. (2020), urban poverty makes these health issues worse since many citizens cannot afford appropriate healthcare, immunisations, or personal hygiene items. The prevalence of watery illnesses like cholera and typhoid fever is further increased by the growth of informal settlements with poor access to sanitary services.

Non-Communicable Diseases

Increases in rural-to-urban migration lead to a rise in sedentary lifestyles, processed food consumption, and environmental pollution exposure, all of which raise the risk of developing diseases like cancer, diabetes, cardiovascular disease, and chronic respiratory conditions. In sub-Saharan Africa, NCDs now account for more than 37% of all fatalities, with urbanisation playing a major role in this rising burden, according to WHO (2021). The incidence of obesity, hypertension, and diabetes has dramatically increased in urban areas due to the shift from traditional diets heavy in fruits and vegetables to processed foods that are high in calories, fat, and sugar. Furthermore, the risk factors for NCDs are made worse by the lack of physical activity brought on by sedentary jobs and modern transportation.

The rising incidence of NCDs is partly influenced by environmental variables linked to urbanisation. Anxiety and depression are among the growing mental health conditions that are frequently disregarded in public health programs due to urban pressures such overcrowding, unstable finances, and excessive work hours. Urbanisation has also increased the use of alcohol and tobacco, two major risk factors for noncommunicable diseases. Higher rates of substance use have been caused by the accessibility and active marketing of alcohol and cigarettes in metropolitan areas, which raises the risk of heart-related disorders, lung cancer, and liver disease. According to Okafor (2020), the NCD epidemic in urban Africa has been exacerbated by lax regulatory measures and a lack of health education initiatives about the risks of alcohol and tobacco.

Accessing preventative and curative healthcare treatments has become challenging for urban residents due to the substantial burden that the fast urban expansion has placed on healthcare infrastructures. Insufficient healthcare infrastructure, ill-equipped hospitals, and a lack of qualified medical staff are common in African cities, which hinders early detection and efficient NCD management. WHO (2022) emphasises that the absence of reasonably priced healthcare services in urban slums leads to late-stage detection of illnesses including renal disease and cancer, which makes treatment more difficult and costly. Additionally, many low-income urban people are unable

to receive effective care due to the high cost of critical medications for NCDs, which worsens health outcomes.

Mental Health Issue

Due to factors like population increase, infrastructure development, and rural-to-urban migration, urban areas have rapidly expanded, exacerbating psychological diseases such as depression, anxiety, and stress in city dwellers (World Health Organisation, 2021). A significant contributing factor to these mental health issues is the high degree of social and economic stress that people adjusting to urban living endure. Many migrants relocate to urban areas in pursuit of greater economic prospects, but they frequently face job insecurity, unemployment, and subpar housing conditions, all of which can exacerbate long-term stress and anxiety (Ndetei et al., 2020).

The disintegration of traditional family structures and community support networks, which have traditionally been essential for ensuring emotional and psychological stability in African communities, has also been connected to urbanization (Ogunniyi et al., 2022). The hectic pace of city living frequently results in a lack of close community relationships, social isolation, and increased exposure to crime and violence, all of which worsen mental health. These socio-environmental stressors have been linked to increased rates of depression, substance addiction, and suicide thoughts according to studies (Amoateng & Heaton, 2021). Furthermore, mental health services have not increased proportionately to the fast urbanisation of African cities. There is a lack of qualified mental health practitioners to satisfy the growing need for psychological help, and mental healthcare facilities are still insufficient (Gureje & Lasebikan, 2019).

Nutrition and Food Security

Urban populations are becoming more dependent on food systems, which may not always put nutritional value first. Convenient, processed foods have become increasingly popular, which has led to unhealthy diets that are low in vital nutrients and high in fats, sugars, and salt. Increased rates of obesity, heart disease, and diabetes are associated with these eating habits, especially in metropolitan areas with low incomes where access to fresh, healthful foods is restricted. Urbanisation frequently results in the disruption of traditional food systems in addition to bad dietary choices. Large-scale commercial agriculture, which may put cash crops ahead of regional food production, is replacing smallholder farming, which once contributed significantly to the availability of varied and reasonably priced food options. As a result, migration from rural to urban areas puts stress on food delivery networks, leading to fluctuations in the supply and cost of wholesome food. A significant section of the urban population is consequently unable to obtain or afford nutritious food, which exacerbates food insecurity (Lartey and Kumar, 2020).

Climate Change

One of the most important public health concerns is climate change. The need for housing, energy, transportation, and infrastructure increases as populations rise and more people move to cities in pursuit of greater opportunities. Natural ecosystems are frequently destroyed, pollution levels rise, and resources are overused as a result of this expansion, all of which worsen climate change. Because of increased energy use, vehicle emissions, and industrial activity, urban areas account for a significant amount of greenhouse gas emissions. In addition to causing global warming, these changes make urban populations more susceptible to health hazards associated with climate change. In African cities, where poor urban design and insufficient infrastructure exacerbate the effects, the health repercussions of climate change are especially noticeable. For instance, heat-related illnesses may become more common as temperatures rise, particularly in crowded informal settlements without adequate cooling and ventilation systems. The likelihood of waterborne illnesses, food insecurity, and vector-borne illnesses like malaria increases when extreme weather events like floods, droughts, and storms get worse. In many African cities, a lack of public health awareness, inadequate healthcare services, and inadequate climate adaptation techniques exacerbate these health issues (Cohen, 2019).

Furthermore, inadequate waste management techniques brought on by fast urbanisation exacerbate health issues and environmental deterioration. Waste disposal in many cities is frequently unregulated, which causes dangerous pollutants to proliferate and contaminate water sources. Vulnerable groups, especially children, the elderly, and those residing in slum regions with no access to sanitary facilities and clean water, are at considerable risk for health problems as a result (Nkosi et al., 2021).

Deforestation and Decrease in Agricultural Land

Ecosystems are upset by this deforestation, which results in less biodiversity, worse air and water quality, more frequent floods, and soil erosion. Urban air pollution, which puts urban people's respiratory health at considerable risk, is a result of forest destruction, which also reduces the natural filtration of carbon dioxide and other pollutants. Additionally, agricultural land is turned into residential and industrial sectors as a result of urban sprawl. Food security is negatively impacted by this loss of arable land since it lowers the ability to produce food locally. Reliance on imported food rises as agricultural activities are disrupted, which raises food costs and degrades the nutritious value of food in urban areas. Malnutrition becomes a serious health concern, particularly for urban populations, because inadequate diets cause chronic conditions including obesity, diabetes, and hypertension. In addition to contributing to rural communities' displacement, the loss of agricultural land exacerbates the health issues that vulnerable populations experience (Eze et al., 2019). In addition to making poverty and inequality worse, the invasion of agricultural land puts

further pressure on healthcare systems, which are already under stress from the growing prevalence of urban-related disorders like food insecurity, cardiovascular disease, and respiratory ailments.

Addressing Health Impacts of Urbanization

Health Education and Promotion

Rapid urbanisation can lead to more air and water pollution, congested living conditions, and the rise of non-communicable diseases including diabetes and hypertension, claims Okechukwu (2020). By increasing awareness and giving people the information and skills they need to prevent or manage the health risks connected with urban expansion, health education and promotion play a critical role in reducing these effects. According to Adebisi (2021), stress, a poor diet, and a lack of physical activity cause lifestyle-related diseases to be more common in urban areas. These diseases can be prevented by implementing health promotion strategies that highlight the value of mental health, physical exercise, and a healthy diet. Ojo (2020) also emphasises how urbanisation frequently puts a strain on healthcare services, which leaves underprivileged populations with insufficient access to healthcare.

Strengthening Health, Information and Public Transportation Systems

Inadequate access to healthcare, crowded hospitals, and poor sanitation can all be problems for urban populations and contribute to the spread of infectious diseases. To guarantee prompt and effective healthcare delivery, particularly in underprivileged metropolitan areas, health systems must be strengthened. Rapid urbanisation also frequently leads to increased pollution, traffic jams, and environmental deterioration, all of which can have a detrimental impact on public health. When properly designed, public transport networks can lessen these issues by lowering the use of private vehicles, expanding access to health facilities. In addition, an effective public transit system can encourage physical exercise, enhance general quality of life, and enable the prompt distribution of health-related information. Improving information systems can improve health outcomes in rapidly urbanising areas by raising public awareness of health hazards, prevention techniques, and available services (UN-Habitat, 2016; WHO, 2017).

Housing and Urban Planning

The need for housing rises as cities grow quickly, frequently surpassing the supply of suitable and reasonably priced homes. Because of this, slums and informal settlements proliferate, where health hazards are increased by overcrowding, inadequate infrastructure, and poor sanitation. Without adequate planning, urbanisation can result in serious public health problems, such as the spread of infectious diseases, mental health problems brought on by substandard living conditions, and an increase in non-communicable diseases brought on by stress and lifestyle modifications, claim

authors like Olawale (2020). In order to reduce the health risks connected to fast urbanisation, proper urban planning is essential. This involves making investments in affordable housing, enhancing infrastructure, and guaranteeing access to healthcare and natural resources.

Advocacy, Policy Restructuring and Strict Implementation

To address the health issues brought on by growing urbanisation, advocacy, policy reform, and rigorous execution are crucial. Ajayi (2021) asserts that advocacy work is essential for energising communities, promoting public involvement in sustainable practices, and increasing knowledge of the negative health effects of rapid urban growth. According to Adewale (2019), policy restructuring entails updating urban planning techniques to incorporate health considerations, such as making sure there is enough housing, access to clean water, and appropriate waste management. According to Adebayo (2021), strict adherence to these principles guarantees that laws pertaining to healthcare access, sanitation, and air quality are upheld, which lessens the burden of avoidable illnesses. The detrimental health effects of urbanisation can be lessened and healthier urban environments can result from a comprehensive strategy that includes lobbying, policy reform, and rigorous enforcement.

Climate Change Mitigation

To address the health issues brought on by growing urbanisation, advocacy, policy reform, and rigorous execution are crucial. Ajayi (2021) asserts that advocacy work is essential for energising communities, promoting public involvement in sustainable practices, and increasing knowledge of the negative health effects of rapid urban growth. According to Adewale (2019), policy restructuring entails updating urban planning techniques to incorporate health considerations, such as making sure there is enough housing, access to clean water, and appropriate waste management. According to Adebayo (2021), strict adherence to these principles guarantees that laws pertaining to healthcare access, sanitation, and air quality are upheld, which lessens the burden of avoidable illnesses. The detrimental health effects of urbanisation can be lessened and healthier urban environments can result from a comprehensive strategy that includes lobbying, policy reform, and rigorous enforcement.

Collaboration and Partnership Across National and International Organizations

The increase in population density brought about by urbanisation, especially in emerging nations, has put a strain on healthcare systems and accelerated the spread of infectious illnesses and pollutants. Governments, non-governmental organisations (NGOs), international organisations such as the World Health Organisation (WHO), and local stakeholders must work together to address these issues. The creation of policies and initiatives that address urban health concerns including air

pollution, sanitation, and healthcare access is made possible by these collaborations, which make it easier to share knowledge, resources, and data. Additionally, international collaboration fosters urban health research, assisting in the evaluation of the long-term effects of rapidly increasing urbanisation on public health and opening doors for creative solutions. For all urban dwellers to have fair access to healthcare and to lessen the negative health effects of urbanisation, a robust, cooperative strategy is essential.

Conclusion

In African cities, urbanisation offers both important potential and major problems for enhancing public health. The fast urbanisation of the continent puts more strain on the environment, sanitation, and healthcare systems in metropolitan areas, increasing the risk of infectious diseases, air pollution, and mental health problems. To guarantee that the advantages of urban living are experienced without endangering public health, it is imperative to address the health effects of urbanisation. Reducing the negative health effects of overcrowding, pollution, and substandard living conditions requires a variety of strategies, including health education and promotion, investments in health infrastructure, efficient waste management systems, access to clean water, transportation systems, mitigation of climate change, cooperation and partnerships among national and international organisations, housing and urban planning, etc. It is impossible to overestimate the significance of addressing these health effects. Failing to do so may result in a higher burden of disease, fatalities, and a lower standard of living for city dwellers. By prioritizing health in urban planning and policy-making, African cities can create environments that foster well-being and reduce health disparities.

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