

**Health and livelihood implications of the marginalization of
slum dwellers in the provision of water and sanitation services
in Nairobi city**

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HEALTH AND LIVELIHOOD IMPLICATIONS OF THE MARGINALIZATION OF SLUM DWELLERS IN THE PROVISION OF WATER AND SANITATION SERVICES IN NAIROBI CITY

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Introduction

Water and sanitation planning issues in Nairobi have an almost century-long history of being politicized. As a result, slum dwellers have continually lived on the margins of the Kenyan economy, in contrast to non-slum Nairobi residents, as well as rural populations in the country. A legacy bequeathed by colonialism, government policy around the planning of Nairobi City was historically shaped by racial segregation along commercial and residential lines (Nangulu-Ayuku, 2000). While this structure held obvious benefits for colonialists, who thereby maintained economic and political control, it compelled Kenyan migrants from the rural areas to set up informal settlements in Nairobi, with the attendant poor living conditions and lack of basic public services.

Nearly a century later, rapid urbanization amidst economic decline and poor governance has led the majority of Nairobi's residents to live in slum/informal settlements, characterized by abject poverty. Informal settlements are estimated to be home to at least 60% of Nairobi's residents (MDC, 1993). Nevertheless, because such settlements are not recognized as legal residential areas in Kenya, the provision of basic public services (such as water, sanitation, and health care) to these neighborhoods is fraught with complexities, and yet to be considered a government obligation. Independent vendors have, thus, capitalized on this opportunity to provide slum dwellers with basic

amenities that are often exorbitantly priced, and of sub-standard quality. Consequently, informal settlements in Nairobi continue to be characterized by poor living conditions, including the lack of affordable, clean water, inadequate toilet facilities, poor garbage disposal and drainage mechanisms, and inferior health care services.

Objective

The objective of this paper is to examine how inequality in the provision of basic public services affects the present-day health and livelihood circumstances of Nairobi City's slum residents. To this end, we assess community members' ranking of their general concerns in two slum neighborhoods in Nairobi, describe the foremost health concerns/needs identified by the communities (namely, sanitation services and water), and discuss the health and livelihood implications of these concerns/needs.

Data and Methods

This paper draws on quantitative data from the Nairobi Cross-sectional Slum Survey (NCSS) carried out by the African Population and Health Research Center (APHRC) in 2000, and on the APHRC's ongoing Nairobi Urban Health and Demographic Surveillance Survey (NUHDSS) conducted in two informal settlements in Nairobi since 2000. Data from the 2003 Kenya Demographic and Health Survey (KDHS) are examined as well for comparison purposes. As a further triangulation measure, qualitative data from an APHRC study carried out in the same slum communities are also examined. The paper shares the results of the descriptive analyses of the quantitative data, as well as emerging themes from the qualitative data.

Results

Apart from employment and housing (which are typical needs of low-income populations in general), sanitation and water services were the most commonly-reported general needs among the study's slum-dwellers. In regard to health needs, sanitation and water-related challenges were the leading concerns, accounting for a combined total of over 50% of the respondents' most pressing needs.

Water and sanitation services are mainly provided by independent vendors/providers who operate without any regulatory mechanisms and charge inflated prices for substandard services. 94% of slum residents buy domestic water from these vendors and pay about 8 times more for it than their non-slum peers in Nairobi. Water supply is irregular, providing further opportunity for vendors to increase prices indiscriminately. Hygiene is also compromised during periods of water shortage.

These water-related challenges are intrinsically linked to sanitation services. Most slum households do not have toilet facilities; thus, residents are obligated to use commercial toilets or to adopt unorthodox toileting means and strategies, such as using plastic bags that are disposed of haphazardly.

As a consequence of the poor provision of water and sanitation services (and, by extension, poor environmental conditions), slum residents are more vulnerable to morbidities and mortality than non-slum residents of Nairobi. For instance, the prevalence of diarrhea among children in the slums was found to be 32%, compared to 13% in Nairobi as a whole, and 17% in rural areas. Furthermore, under-five mortality

rates were 151/1000, 62/1000, and 113/1000, respectively for the slums, Nairobi as a whole, and rural areas.

Conclusions

The stark increase in urbanization and urban poverty in Kenya warrants the revision of government policies and focused attention on the provision of basic amenities for slum residents. Moreover, there is an urgent need for regulatory mechanisms to protect slum residents from exploitation (e.g.: the pricing and quality of water, requirements for landlords to provide proper toilets). Further research is also needed to determine best practices for improving amenities among slum dwellers.

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