



Generating Evidence, Strengthening Research Capacity, and Engaging Policy to Inform Action on Population Health and Wellbeing



Urban Africa Risk Knowledge



FACTSHEET September 2017

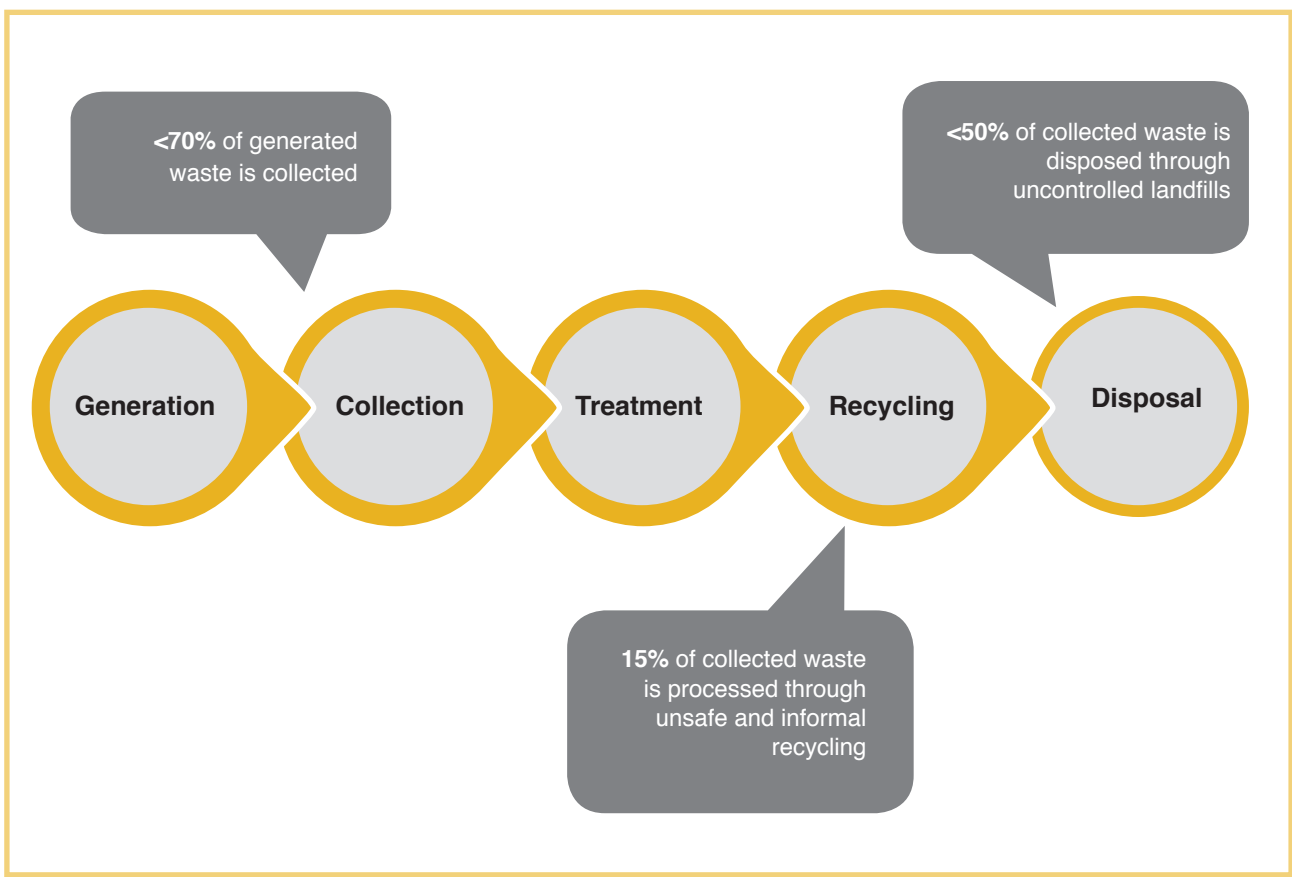
Practices and Perceptions around Solid Waste Management in Nairobi and Mombasa

An estimated 11.2 billion tons of solid waste are collected worldwide every year. This poses a serious risk to ecosystems and human health due to the increasing volume and complexity of waste associated with the modern economy and rapid urbanization.

half of its population will live in urban settings in the next few decades. Rapid urbanization comes with several challenges including high generation of solid waste. Management of this solid waste is a complex and costly process, especially for developing African countries.

Africa is the most rapidly urbanizing continent globally with projections showing that more than

► Solid Waste Management Chain



Numbers used in this figure refer to developing countries

Effective solid waste management (SWM) will:

- (i) protect population health, especially for poor communities
- (ii) promote environmental quality and sustainability
- (iii) support economic productivity and job-creation

This factsheet presents results from a study conducted in the Kenyan cities of Nairobi and Mombasa by the [African Population and Health Research Center \(APHRC\)](#) as part of the [Urban Africa: Risk Knowledge \(Urban ARK\)](#) program.

In Nairobi, the study was conducted in the following three sites: Korogocho/Dandora which is close to the city's main dumpsite; Saika which is located farther from the dumpsite but is exposed to SWM-related hazards; and, Makadara, a non-slum area used for comparison purposes.

There were two study sites in Mombasa: Mwakirunge which is close to the city's dumpsite; and, Bombolulu, a non-slum settlement.

SWM practices and perceptions in Nairobi and Mombasa

1. Waste storage

Most households in Nairobi and Mombasa used plastic bags to store their waste. The proportion of these households in Nairobi was 85%, while in Mombasa, it was 52%.

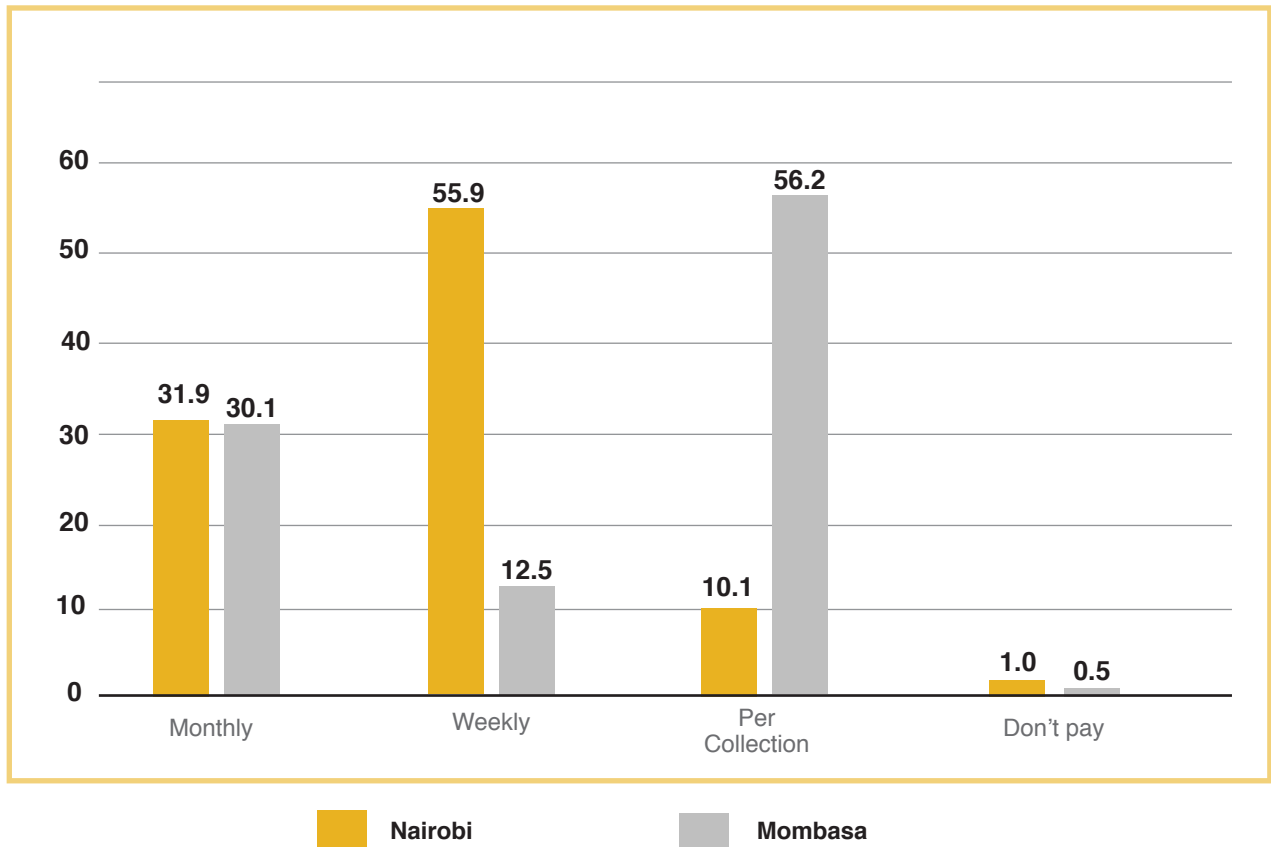
2. Collection

Almost twice as many households in Nairobi (92%) reported that their waste was collected 4-6 times each month than those in Mombasa (49%). Collection services in both cities were overwhelmingly provided by community based organizations which were responsible for 62% and 51% of household collections in Nairobi and Mombasa respectively.

3. Willingness to pay

Households in both cities displayed a measurable willingness to pay for collection services, regardless of their socio-economic

Frequency of payment (%)



background. The average amount households paid per collection was approximately US\$ 0.20 in Nairobi and US\$ 0.25 in Mombasa. Most households in Nairobi paid on a weekly basis (56%), while in Mombasa majority of households paid per collection (56%).

4. Disposal

More households in Mombasa routinely burned their waste (47%) compared to Nairobi (19%), reflecting the lower rates of collection in the former compared to the latter. Alternative disposal practices among households that did not receive regular collection services in Nairobi included dumping in rivers (29%), on rail roads (14%), in drainage trenches (13%) and burning (18%).

5. Recycling and composting

Most respondents had heard about recycling and composting, but uptake of these practices was low in both cities.

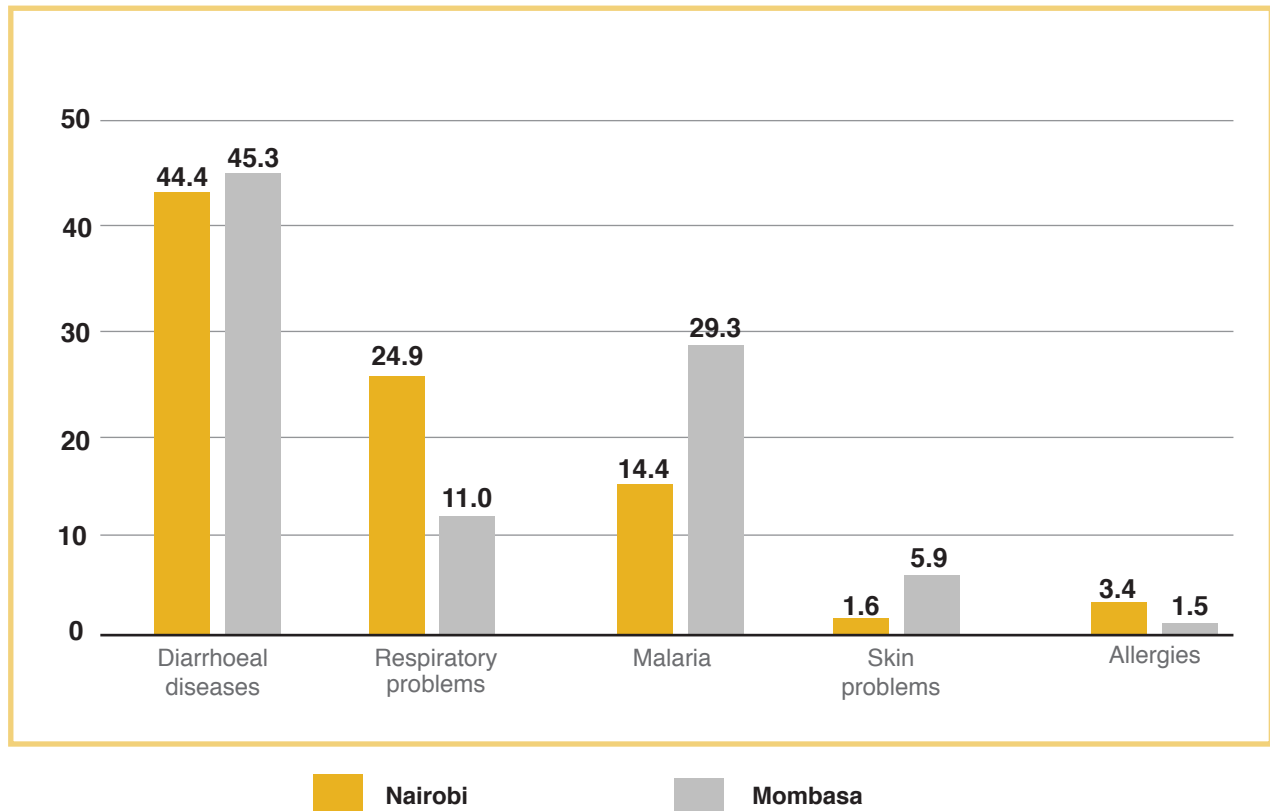
6. Environmental and health risks

Health risks from poor SWM was an issue of significant concern among residents in all sites. Over 50% of all respondents in both Nairobi and Mombasa rated their health risks arising from poor SWM as moderate, high or very high.

7. Health problems associated with exposure to solid waste

In both Nairobi and Mombasa, the most commonly reported health problems were diarrheal diseases, malaria and respiratory conditions. Skin problems and allergies were also reported.

Health problems associated with exposure to solid waste (%)





Towards improved SWM in Nairobi and Mombasa

The deplorable condition of dumpsites in Kenyan cities and accompanying environmental and health impacts have led to increased focus on solid waste management. The following recommendations can help to further improve SWM practices in Kenya:

- County governments should provide collection services especially for households that are likely unable to afford the fees levied by private collectors.
- County authorities should shift from open dumpsites to sustainable alternatives given the dangers and inefficiencies associated with open sites.
- Raise awareness on programs that aim to reduce waste such as recycling, re-use and composting. This should be accompanied by encouraging households to separate the solid wastes they generate.

Information in this fact sheet is based on the report, 'Solid Waste Management and Risks to Health in Urban Africa: A Study of Nairobi and Mombasa Cities in Kenya,' prepared by the African Population and Health Research Center.

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