



African Population and Health Research Center



Urban Africa Risk Knowledge



## Factsheet

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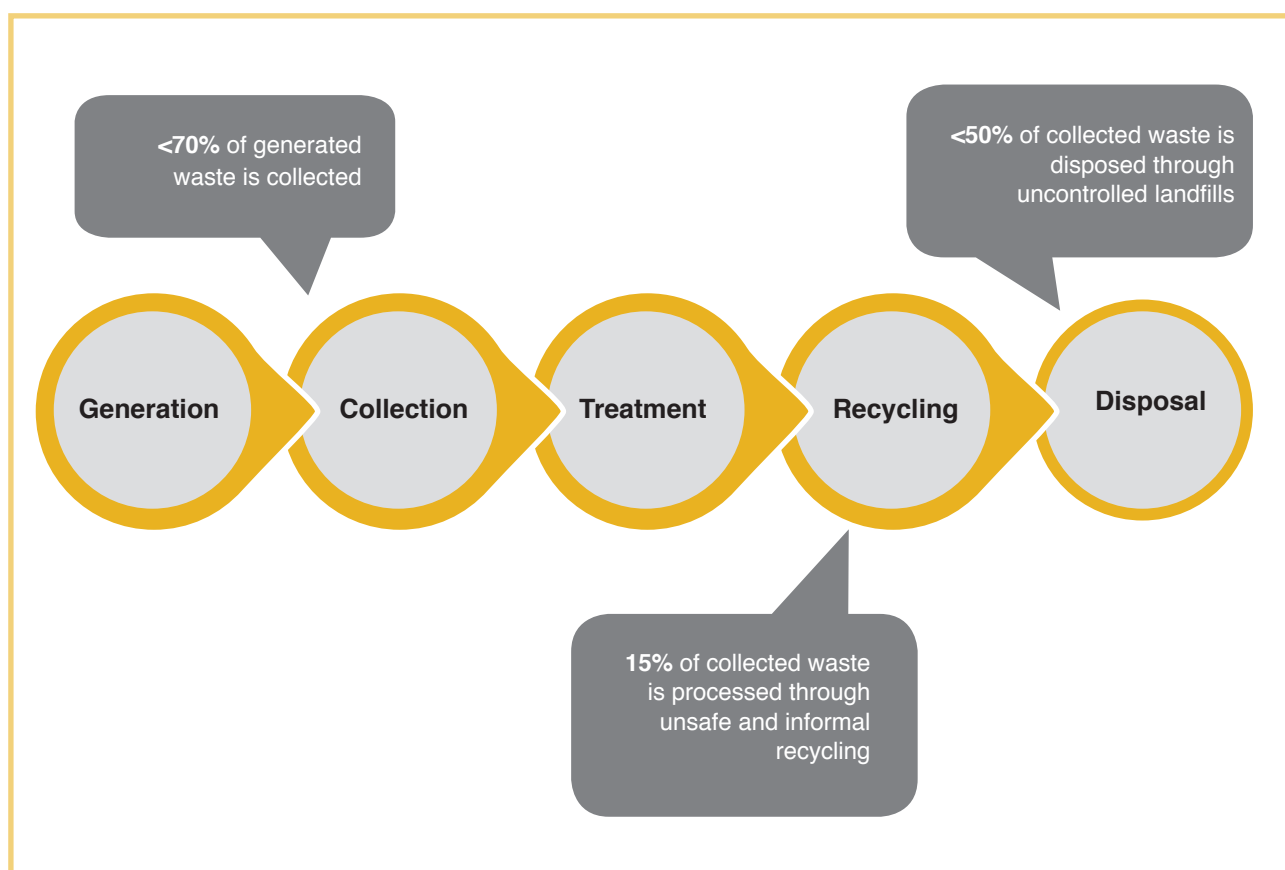
# Practices and Perceptions around Solid Waste Management in Dakar

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.

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

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.

### ► Solid Waste Management Chain



*\*Numbers used in this figure refer to developing countries\**

As the hub of economic and industrial activities in Senegal, Dakar is the main “solid waste producer” in the country with about 2,000 tons of solid waste per day (Diawara, 2009). In the meantime, SWM practices are yet to be aligned with the heavy amount of waste generated. 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 city of Dakar, Senegal by the African Population and Health Research Center as part of the Urban Africa: Risk Knowledge (Urban ARK) program. The study was conducted in three sites within Dakar -- Keur Massar and Malika located near the city’s main dumpsite (Mbeubeuss); Thiaroye Djiddah Kao, an area

affected by frequent flooding; and, Medina and Patte d’Oie, selected to be the non-slum comparison sites.

## Solid Waste Management practices and perceptions in Dakar

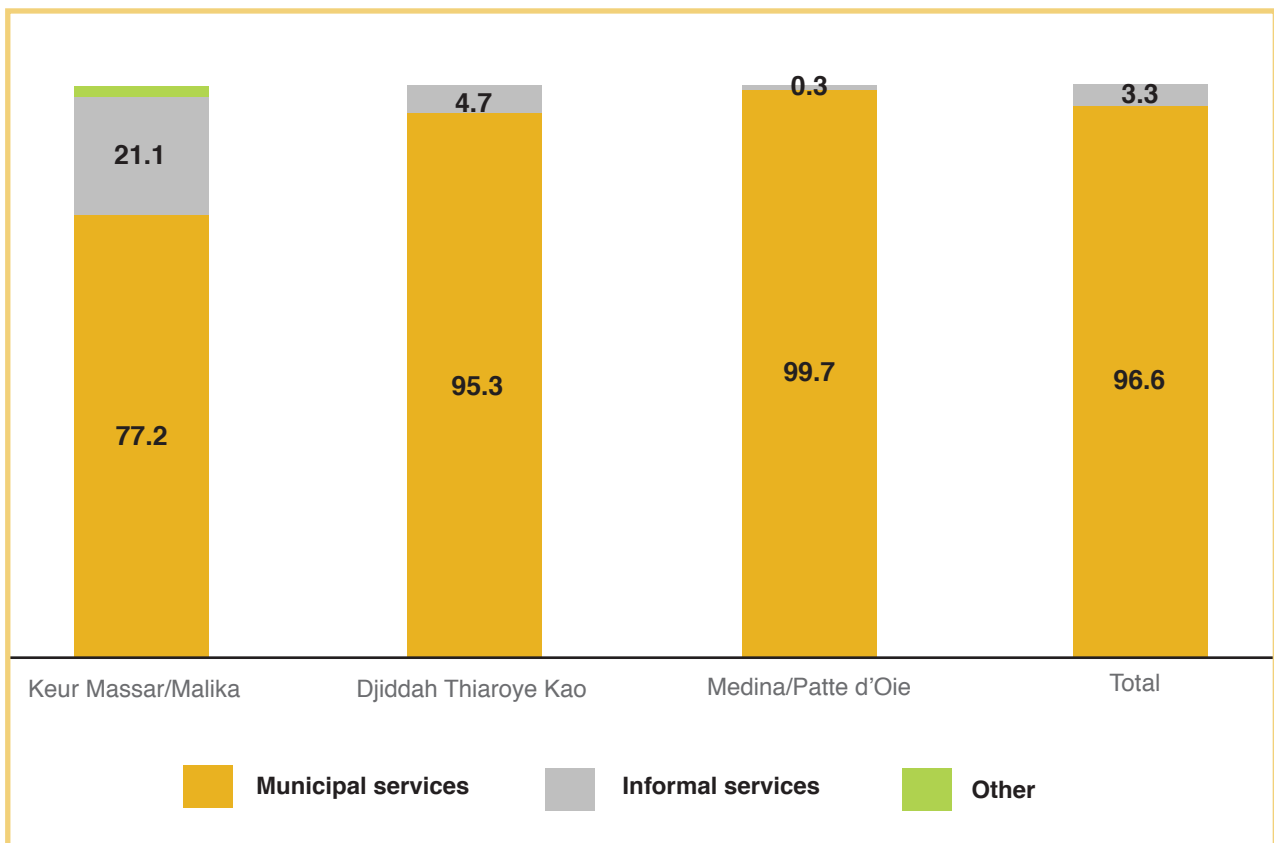
### 1. Waste storage

Only 27% of households in the three sites were using safe storage (closed containers) for their waste. The largest proportion of households using safe storage was in Medina/Patte d’Oie with 43% while the lowest was in Keur Massar/Malika with 12%.

### 2. Collection

Municipal waste collection was lower close to the dumpsite in Keur Massar/Malika where the largest proportion of informal waste collection such as cart handlers was prevalent.

#### Households receiving garbage collection services by site (%)



### 3. Willingness to pay for garbage collection services

The proportion of households willing to pay for collection services was two times higher among those not adequately served by the municipality in Keur Massar/Malika (62%), compared to under Medina/Patte d'Oie (30%) or Djiddah Thiaroye Kao (32%).

### 4. Disposal

Dumping of solid waste in unauthorized sites was more common in Keur Massar/Malika (31%) than in the other two sites ( $\leq 11\%$ ).

### 5. Recycling and composting

These can be used to reduce volumes of solid waste in Dakar. However, just over a third of households (34%) had heard about recycling while only 8% had heard about composting.

### 6. Environmental and health risks

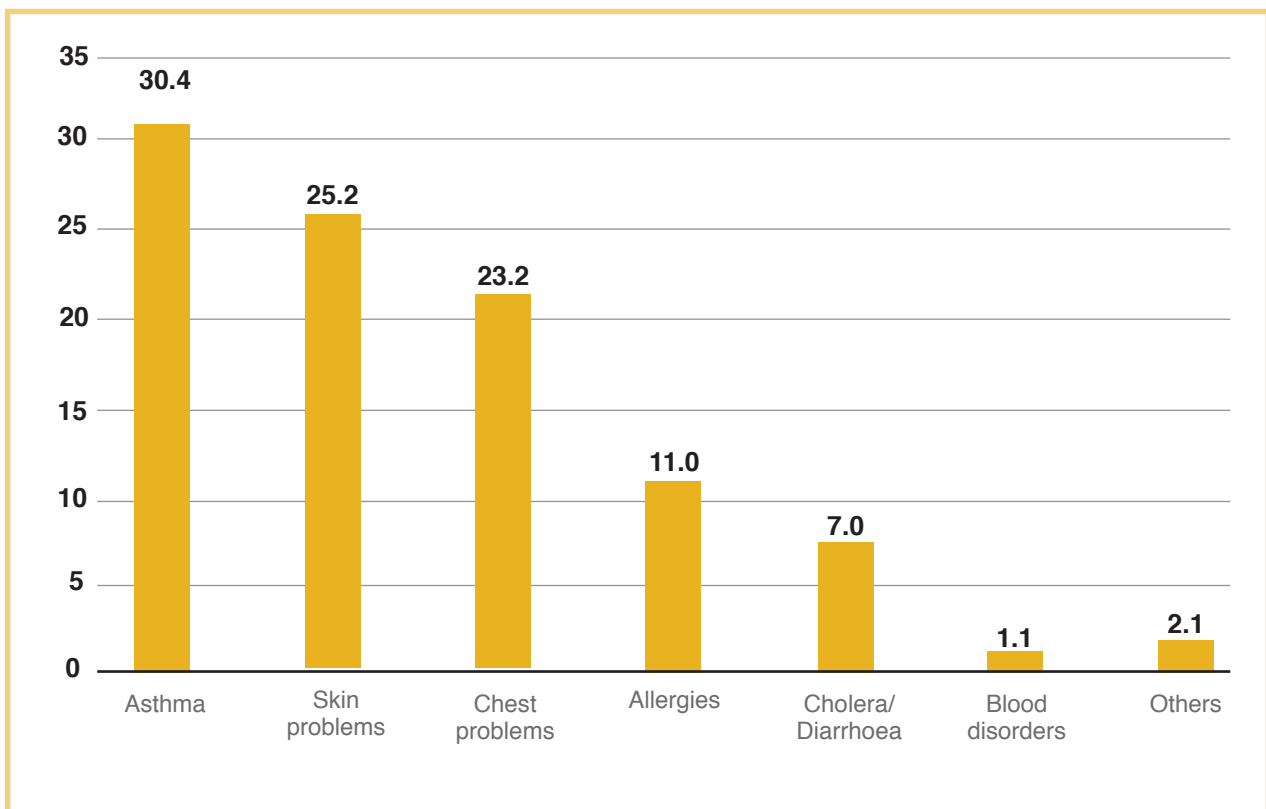
Only 3.3% of households perceived themselves to be at high risk or very high risk

of health and environment related hazards from poor solid waste management. The most commonly cited threats associated with poor SWM were unpleasant smell (27%), children playing with garbage (16%) and smoke from the dumpsite (15%).

### 7. Health problems associated with exposure to solid waste

Residents in the three study sites were asked if they had experienced health problems in the previous 12 months. More residents from Keur Maasa/Malika (5%) said that they had in comparison to those from Djiddah Thiaroye Kao (0.6%) and Medina/Patte d'Oie (0.1%). The most commonly reported health problems across the three sites were asthma (30%), skin problems (25%), chest problems (23%), and allergies (11%).

#### Health problems associated with exposure to solid waste (%)





## Towards improved Solid Waste Management in Dakar

These findings show that there are significant gaps in solid waste management in Dakar, especially in poor marginalized areas. The following measures can help address these gaps:

- Municipalities should take greater responsibility to improve SWM including allocation of greater resources.
- Households should improve waste storage practices and sort materials before disposal and recycling.
- Improve working conditions for people in SWM sector by enforcing safety regulations, conducting regular medical check-ups and paying decent wages
- Increase dialogue and communication among stakeholders to address poor SWM practices.

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

## Contacts

African Population and Health Research Center, Inc.

APHRC Campus, Kitisuru, Nairobi. Kenya.

Tel: +254 20 4001000

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