

# KENYA - Nairobi Cross-sectional Slums Survey (NCSS), 2012, 2nd Survey

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# Overview

## Identification

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### ID NUMBER

APHRC-NCSS2-2014-v1.0

## Version

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### VERSION DESCRIPTION

APHRC-NCSS2-2012-v1.0

### PRODUCTION DATE

2012-11-30

### NOTES

Version 1.0, February 2015, with anonymised datasets and study materials.

## Overview

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### ABSTRACT

The overarching goal of NCSS 2012 was to strengthen the evidence base to guide policies and programs aimed at improving the wellbeing of the urban poor. Specifically, the survey pursued three main objectives:

1. To document current population and health challenges among the residents of Nairobi's informal settlements.
2. To take stock of the changes (or the lack thereof) in health outcomes, livelihood conditions and demographic behavior among slum dwellers in Nairobi, ten years after the NCSS 2000.
3. To compare indicators among slum dwellers in Nairobi to other urban population sub-groups and rural dwellers in Kenya.

### UNITS OF ANALYSIS

Individuals, Households

## Scope

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### NOTES

The scope of the Nairobi Cross-sectional Slums Survey (NCSS), 2012 includes:

- HOUSEHOLD: Household schedule, Household characteristics, Household food security, Household poverty and wellbeing, Household shocks experienced, General questions, Transfers and social assistance, with an additional module on weight and height measurement for children aged 0-5 year.
- WOMEN: Respondent's background, Reproduction, Contraception, Pregnancy and postnatal care, Exposure to indoor air pollutants during pregnancy, Immunization, health and nutrition, Marriage and sexual activity, Fertility preferences, Husband's background and woman's work, HIV/AIDS and other STIs, Other health issues, General matters, Additional modules for young women, Maternal mortality, with a calendar on births, pregnancies and contraceptive use.
- MEN: Respondent's background, Reproduction, Contraception, Marriage and sexual activity, Fertility preferences, Employment and gender roles, HIV/AIDS and other STIs, Other health issues, General matters, with an additional module for young men.

## Coverage

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### GEOGRAPHIC COVERAGE

Informal settlements (slums) in Nairobi county, Kenya.

**UNIVERSE**

The survey covered all de jure household members (usual residents), all women aged 12-49 years resident in the household, and men aged 12-54 years resident in every other household.

## Producers and Sponsors

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**PRIMARY INVESTIGATOR(S)**

| Name  | Affiliation |
|---|-------------|
| African Population & Health Research Center | APHRC       |

**OTHER PRODUCER(S)**

| Name           | Affiliation | Role         |
|----------------|-------------|--------------|
| Blessing Mberu | APHRC       | Investigator |
| Donatien Beguy | APHRC       | Investigator |

**FUNDING**

| Name                              | Abbreviation     | Role   |
|-----------------------------------|------------------|--------|
| Bill and Melinda Gates Foundation | Gates Foundation | Funder |

**OTHER ACKNOWLEDGEMENTS**

| Name  | Affiliation | Role   |
|---|-------------|--|
| Residents of Nairobi Informal Settlements (Slums) |             | Study Subjects   |
| Community leaders - chiefs and village elders     |             | Support to field teams   |
| Kenya National Bureau of Statistics (KNBS)        |             | Providing a sampling frame and for offering their expertise in mapping and other field logistics |

## Metadata Production

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**METADATA PRODUCED BY**

| Name  | Abbreviation | Affiliation | Role              |
|---|--------------|-------------|-------------------|
| African Population & Health Research Center | APHRC        | APHRC       | Metadata Producer |

**DATE OF METADATA PRODUCTION**

2014-07-01

**DDI DOCUMENT VERSION**

Version 1.0

**DDI DOCUMENT ID**

APHRC-NCSS2-2014-v1.0

# Sampling

## Sampling Procedure

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The sample for the NCSS 2012 was designed to allow estimation of key indicators in the slums of Nairobi with a margin of error of 2-5 points (95% level of confidence). The following indicators were considered in the sample size calculation: under-5 mortality rate, percentage of under-5 children who had diarrhea in the 2 weeks preceding the survey, percentage of children aged 12-23 months who have been vaccinated against measles, and percentage of children aged 12-23 months who have been fully immunized.

The number of households required to estimate each indicator was then obtained by adjusting the resulting sample size according to the proportion of the target population to the entire population, non-response rate and average household size. And since the number of households required to estimate the percentage of children 12-23 months who are fully immunized is large enough to allow estimation of the other indicators with the specified precision, we therefore used the proportion of fully immunized children in the poorest wealth quintile (65.9% according to KDHS 2008-09) as an estimate of the proportion of full immunization coverage in Nairobi informal settlements (slums). Using a sampling formula, we estimated that a minimum of 518 children was required to estimate full immunization coverage in the slums. Then by adding to the above formula the proportion of children aged 12-23 months living in the slum (3.52% according NUHDSS, 2006-2010 in Korogocho and Viwandani slums), it was estimated that 14,714 individuals ( $=518/0.0352$ ) would need to be interviewed to be able to reach 518 children aged 12-23 months. Given an estimated average household size of 2.5 in the NUHDSS slums, 5,886 ( $=14,714/2.5$ ) households would need to be visited to reach 14,714 individuals. Assuming a 10 percent household non-response rate, an initial 6,540 households ( $5,886 / (1-0.10)$ ) were sampled.

The distribution of the sample by clusters or Enumeration Areas (EAs) was estimated according to the relative size of each administrative location. The list of administrative locations containing at least one EA categorized as an informal settlement or slum was obtained from the 2009 Kenya Population and Housing Census. A total of 42 administrative locations comprising 3,939 slum EAs were identified. A two-stage sampling methodology was then used to select the 6,540 households.

At the first stage, 30% of the sampled EAs were selected using the probability proportional to population size (PPP) sampling methodology and this yielded 220 EAs ( $6540 / (100/0.3)$ ) distributed across the 42 administrative locations. A household listing carried out within each cluster found that a total of 188 EAs still existed, four years after the 2009 national census and that 32 EAs were no longer in existence due to demolitions and flooding.

At the second stage, to reduce intra-cluster correlation, a random sample of only 35% of the households in each cluster was drawn based on the household listing and this produced 6,583 households. A total of 314 vacant structures were dropped from the initial number of sampled households, which reduced the sample size to 6,269 households. Of these, 5,490 households were successfully interviewed yielding a household response rate of 88 percent.

## Deviations from Sample Design

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None

## Response Rate

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Households: 6583 sampled, 6269 eligible, 5490 completed, 88% response rate

Women (12-49): 4912 sampled, 4912 eligible, 4240 completed, 86% response rate

Men(12-54): 3137 sampled, 3137 eligible, 2377 completed, 76% response rate

Adolescent Girls (12-24): 1964 sampled, 1964 eligible, 1963 completed, 100% response rate

Adolescent Boys (12-24): 937 sampled, 937 eligible, 807 completed, 86% response rate

## Weighting

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The data are weighted as follows:

Household datasets: hhd\_weight

Women datasets: wom\_weight

Men datasets: man\_weight

Women+Men datasets: wom\_man\_weight

# Questionnaires

## Overview

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Data were collected using both netbooks and paper questionnaires, where it was not possible to use the netbooks. Three questionnaires were administered: a household questionnaire and separate questionnaires for women and men.

The Household Questionnaire collected data on the socio-demographic characteristics of household members and visitors who slept in the house the previous night. The questionnaire included modules on household characteristics, household poverty and wellbeing including food security, transfers and remittances, and under-5 children anthropometric measurements. The questionnaire was administered to the head of the household or any other adult/credible household member. A list of household members was used to identify persons eligible for the individual interviews.

The Women's Questionnaire was administered to females aged 12 to 49 years in the sampled households. This questionnaire had several modules including socio-demographic characteristics, migration history, reproduction, contraception, pregnancy, ante-natal and post-natal care, child immunization and child health, marriage, fertility preferences, husband's background and the woman's work/livelihood activities, HIV/AIDS and other sexually transmitted infections, general health issues and maternal mortality. Women aged 12-24 years completed an additional module that addressed issues relevant to young people's health and wellbeing including unintended pregnancy and abortion and drug and alcohol use.

The Men's Questionnaire was administered to eligible males aged 12 to 54 years in the sampled households. The questionnaire had several modules including socio-demographic characteristics, reproduction, contraception, marriage, fertility preferences, work/livelihood activities and gender roles, HIV/AIDS and other sexually transmitted infections and general health issues. Males aged 12-24 years completed an additional module on issues relevant to young people's health and wellbeing.

NB: All questionnaires and modules are provided as external resources.

## Data Collection

### Data Collection Dates

| Start      | End        | Cycle |
|------------|------------|-------|
| 2012-06-01 | 2012-11-30 | N/A   |

### Time Periods

| Start      | End        | Cycle |
|------------|------------|-------|
| 2012-07-01 | 2013-01-31 | N/A   |

### Data Collection Mode

Face-to-face [f2f]

### Questionnaires

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NB: All questionnaires and modules are provided as external resources.

### Supervision

The main survey data collection exercise was carried out by 8 teams comprising a field supervisor and between 5-7 interviewers.

Field supervisors:

1. Were in charge of the general administration of their teams and served as the link between the project management and the field teams.
2. They also ensured that their teams had all the necessary survey materials and organized for community guides and security when required.
3. They supported in the collection of anthropometric data of under 5 children.
4. They were in charge of quality control through back-checks on 10 percent of completed questionnaires, spot-checks, sit-ins during interviews and editing of all completed questionnaires.

Project management staff also carried out field-visits, conducted spot-checks, verified interviews and discussed areas of concern with field teams.

## Data Processing

### Data Editing

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Data editing took place at a number of stages throughout the processing, including:

1. Quality control through back-checks on 10 percent of completed questionnaires, spot-checks, sit-ins during interviews and editing of all completed questionnaires by supervisors and project management staff.
2. A research assistant performed internal consistency checks for all questionnaires and edited all paper questionnaires coming from the field before their submission for data entry with return of incorrectly filled questionnaires to the field for error-resolution.
3. During data entry.
4. Data cleaning and editing was carried out using STATA Version 12.1 software.

### Other Processing

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Data were entered as follows:

1. Using Netbooks.
2. Typed based on paper questionnaires, where it was not possible to use the netbooks.

In both cases, data were captured using in-house software developed with a Visual Basic. Net front-end and a Microsoft Structured Query Language (SQL) Server back-end.

## Data Appraisal

No content available