

# Kenya - Kenya Demographic and Health Survey 2003

**Kenya National Bureau of Statistics (KNBS)**

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# Overview

## Identification

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### ID NUMBER

KEN-KDHS-2003v01

## Version

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### VERSION DESCRIPTION

Version 1.0

## Overview

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### ABSTRACT

This detailed report presents the major findings of the 2003 Kenya Demographic and Health Survey (2003 KDHS). The 2003 KDHS is the fourth survey of its kind to be undertaken in Kenya, others being in 1989, 1993, and 1998. The 2003 KDHS differed in two aspects from the previous KDHS surveys: it included a module on HIV prevalence from blood samples, and it covered all parts of the country, including the arid and semi-arid districts that had previously been omitted from the KDHS. The 2003 KDHS was implemented by the Central Bureau of Statistics. Fieldwork was carried out between April and September 2003.

The primary objective of the 2003 KDHS was to provide up-to-date information for policymakers, planners, researchers, and programme managers, which would allow guidance in the planning, implementation, monitoring and evaluation of population and health programmes in Kenya. Specifically, the 2003 KDHS collected information on fertility levels, marriage, sexual activity, fertility preferences, awareness and use of family planning methods, breastfeeding practices, nutritional status of women and young children, childhood and maternal mortality, maternal and child health, and awareness and behavior regarding HIV/AIDS and other sexually transmitted infections (STIs). In addition, it collected information on malaria and use of mosquito nets, domestic violence among women, and HIV prevalence of adults.

The 2003 KDHS results present evidence of lower than expected HIV prevalence in the country, stagnation in fertility levels, only a very modest increase in use of family planning methods since 1998, continued increase in infant and under-five mortality rates, and overall decline in indicators of maternal and child health in the country. There is a disparity between knowledge and use of family planning methods. There is also a large disparity between knowledge and behaviour regarding HIV/AIDS and other STIs. Some of the critical findings from this survey, like the stagnation in fertility rates and the declining trend in maternal and child health, need to be addressed without delay.

I would like to acknowledge the efforts of a number of organisations that contributed immensely to the success of the survey. First, I would like to acknowledge financial assistance from the Government of Kenya, the United States Agency for International Development (USAID), the United Kingdom Department for International Development (DFID), the United Nations Population Fund (UNFPA), the Japan International Co-operation Agency (JICA), the United Nations Development Programme (UNDP), the United Nations Children's Fund (UNICEF), and the Centers for Disease Control and Prevention (CDC). Second, in the area of technical backstopping, I would like to acknowledge ORC Macro, CDC, the National AIDS and STIs Control programme (NASCOP), the Kenya Medical Research Institute (KEMRI), and the National Council of Population and Development (NCPD). Special thanks go to the staff of the Central Bureau of Statistics and the Ministry of Health who coordinated all aspects of the survey.

Finally, I am grateful to the survey data collection personnel and, more importantly, to the survey respondents, who generously gave their time to provide the information and blood spots that form the basis of this report.

### UNITS OF ANALYSIS

Clusters, Districts, National, Male and Female, Urban, Rural

## Producers and Sponsors

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## PRIMARY INVESTIGATOR(S)

Name	Affiliation
Kenya National Bureau of Statistics (KNBS)	

## OTHER PRODUCER(S)

Name	Affiliation	Role
Kenya National Bureau of Statistics (KNBS) National AIDS Control Council (NACC) National AIDS/STD Control Programme (NASCOP) Ministry of Public Health and Sanitation Kenya Medical Research Institute (KEMRI) National Coordinating Agency for Population and Development (NCAPD) MEASURE DHS, ICF Macro, Calverton, Maryland, U.S.A. U.S. Agency for International Development (USAID) United Nations Population Fund (UNFPA) United Nations Children's Fund (UNICEF)		

## FUNDING

Name	Abbreviation	Role
Kenya National Bureau of Statistics	KNBS	
National AIDS Control Council	NACC	
National AIDS/STD Control Programme	NASCOP	
Ministry of Public Health and Sanitation		
Kenya Medical Research Institute	KEMRI	
National Coordinating Agency for Population and Development	NCAPD	
MEASURE DHS, ICF Macro, Calverton, Maryland, U.S.A.		
U.S. Agency for International Development	USAID	
United Nations Population Fund	UNFPA	
United Nations Children's Fund	UNICEF	

## Metadata Production

## METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Kenya National Bureau of Statistics	KNBS		
Ministry of Health	MOH		
Kenya Medical Research Institute	KEMRI		
National Coordinating Agency for Population and Development	NCAPD		
MEASURE DHS, ICF Macro, Calverton, Maryland, U.S.A.			
Centers for Disease Control and Prevention	CDC		

DDI DOCUMENT ID

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## Sampling

### Sampling Procedure

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The sample for the 2003 KDHS covered the population residing in households in the country. A representative probability sample of almost 10,000 households was selected for the KDHS sample. This sample was constructed to allow for separate estimates for key indicators for each of the eight provinces in Kenya, as well as for urban and rural areas separately. Given the difficulties in traveling and interviewing in the sparsely populated and largely nomadic areas in the North Eastern Province, a smaller number of households was selected in this province. Urban areas were oversampled. As a result of these differing sample proportions, the KDHS sample is not self-weighting at the national level; consequently, all tables except those concerning response rates are based on weighted data.

The survey utilised a two-stage sample design. The first stage involved selecting sample points ("clusters") from a national master sample maintained by CBS (the fourth National Sample Survey and Evaluation Programme [NASSEP IV]). The list of enumeration areas covered in the 1999 population census constituted the frame for the NASSEP IV sample selection and thus for the KDHS sample as well. A total of 400 clusters, 129 urban and 271 rural, were selected from the master frame. The second stage of selection involved the systematic sampling of households from a list of all households that had been prepared for NASSEP IV in 2002. The household listing was updated in May and June 2003 in 50 selected clusters in the largest cities because of the high rate of change in structures and household occupancy in the urban areas.

All women age 15-49 years who were either usual residents of the households in the sample or visitors present in the household on the night before the survey were eligible to be interviewed in the survey. In addition, in every second household selected for the survey, all men age 15-54 years were eligible to be interviewed if they were either permanent residents or visitors present in the household on the night before the survey. All women and men living in the households selected for the Men's Questionnaire and eligible for the individual interview were asked to voluntarily give a few drops of blood for HIV testing.

### Response Rate

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Table 1.2 shows response rates for the survey. A total of 9,865 households were selected in the sample, of which 8,889 were occupied and therefore eligible for interviews. The shortfall was largely due to structures that were found to be vacant or destroyed. Of the 8,889 existing households, 8,561 were successfully interviewed, yielding a household response rate of 96 percent.

In the households interviewed in the survey, 8,717 eligible women were identified; interviews were completed with 8,195 of these women, yielding a response rate of 94 percent. With regard to the male survey results, 4,183 eligible men were identified in the subsample of households selected for the male survey, of whom 3,578 were successfully interviewed, yielding a response rate of 86 percent. The response rates are higher in rural areas, as compared with urban areas both for males and females.

The principal reason for nonresponse among both eligible men and women was the failure to find individuals despite repeated visits to the household and even sometimes the work place. The substantially lower response rate for men reflects the more frequent and longer absences of men from the household.

# Questionnaires

## Overview

Three questionnaires were used in the survey: the Household Questionnaire, the Women's Questionnaire and the Men's Questionnaire. The contents of these questionnaires were based on model questionnaires developed by the MEASURE DHS+ programme.

In consultation with a broad spectrum of technical institutions, government agencies, and local and international organisations, CBS modified the DHS model questionnaires to reflect relevant issues in population, family planning, HIV/AIDS, and other health issues in Kenya. A number of thematic questionnaire design committees were organised by CBS. Periodic meetings of each of the thematic committees, as well as the final meeting, were also arranged by CBS. The inputs generated in these meetings were used to finalise survey questionnaires. These questionnaires were then translated from English into Kiswahili and 11 other local languages (Embu, Kalenjin, Kamba, Kikuyu, Kisii, Luhya, Luo, Maasai, Meru, Mijikenda, and Somali). The questionnaires were further refined after the pretest and training of the field staff.

The Household Questionnaire was used to list all of the usual members and visitors in the selected households. Some basic information was collected on the characteristics of each person listed, including age, sex, education, and relationship to the head of the household. The main purpose of the Household Questionnaire was to identify women and men who were eligible for the individual interview. The Household Questionnaire also collected information on characteristics of the household's dwelling unit, such as the source of water, type of toilet facilities, materials used for the floor and roof of the house, ownership of various durable goods, and ownership and use of mosquito nets. In addition, this questionnaire was used to record height and weight measurements of women age 15-49 years and children under the age of 5 years, households eligible for collection of blood samples, and the respondents' consent to voluntarily give blood samples. The HIV testing procedures are described in detail in the next section.

The Women's Questionnaire was used to collect information from all women age 15-49 years and covered the following topics:

- Background characteristics (e.g., education, residential history, media exposure)
- Reproductive history
- Knowledge and use of family planning methods
- Fertility preferences
- Antenatal and delivery care
- Breastfeeding
- Vaccinations and childhood illnesses
- Marriage and sexual activity
- Woman's work and husband's background characteristics
- Infant and child feeding practices
- Childhood mortality
- Awareness and behaviour about AIDS and other sexually transmitted diseases
- Adult mortality including maternal mortality.

The Women's Questionnaire also included a series of questions to obtain information on women's experience of domestic violence. These questions were administered to one woman per household. In households with two or more eligible women, special procedures were followed, which ensured that there was random selection of the woman to be interviewed. The Men's Questionnaire was administered to all men age 15-54 years living in every second household in the sample. The Men's Questionnaire collected similar information contained in the Women's Questionnaire, but was shorter because it did not contain questions on reproductive history, maternal and child health, nutrition, maternal mortality, and domestic violence. All aspects of the KDHS data collection were pretested in November and December 2002. Thirteen teams (one for each language) were formed, each with one female interviewer, one male interviewer, and one health worker. The 39 team members were trained for two weeks in the various districts in which their language was spoken. In total, 260 households were covered in the pretest. The lessons learnt from the pretest were used to finalise the survey instruments and logistical arrangements for the survey. The pretest underscored the desirability of including voluntary counselling and testing (VCT) for HIV/AIDS as an integral part of the survey, since many respondents during the pretest wanted to know their HIV status.

# Data Collection

## Data Collection Dates

Start	End	Cycle
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## Data Collection Mode

Face-to-face [f2f]

## Questionnaires

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The Household Questionnaire was used to list all of the usual members and visitors in the selected households. Some basic information was collected on the characteristics of each person listed, including age, sex, education, and relationship to the head of the household. The main purpose of the Household Questionnaire was to identify women and men who were eligible for the individual interview. The Household Questionnaire also collected information on characteristics of the household's dwelling unit, such as the source of water, type of toilet facilities, materials used for the floor and roof of the house, ownership of various durable goods, and ownership and use of mosquito nets. In addition, this questionnaire was used to record height and weight measurements of women age 15-49 years and children under the age of 5 years, households eligible for collection of blood samples, and the respondents' consent to voluntarily give blood samples. The HIV testing procedures are described in detail in the next section.

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## Data Processing

### Other Processing

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The processing of the 2003 KDHS results began shortly after the fieldwork commenced. Completed questionnaires were returned periodically from the field to CBS offices in Nairobi, where they were edited and entered by data processing personnel specially trained for this task. Data were entered using CPro. All data were entered twice (100 percent verification). The concurrent processing of the data was a distinct advantage for data quality, since CBS was able to advise field teams of errors detected during data entry. The data entry and editing phase of the survey was completed in October 2003.



## Data Appraisal

No content available