

# Kenya - Kenya Demographic and Health Survey 2014

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

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# Overview

## Identification

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### ID NUMBER

KEN-KNBS-KDHS-2014-v1.0

## Version

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### VERSION DESCRIPTION

Version 1.0 (July 2014)

### PRODUCTION DATE

2014-07-24

## Overview

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### ABSTRACT

The 2014 Kenya Demographic and Health Survey (KDHS) provides information to help monitor and evaluate population and health status in Kenya. The survey, which follows up KDHS surveys conducted in 1989, 1993, 1998, 2003, and 2008-09, is of special importance for several reasons. New indicators not collected in previous KDHS surveys, such as noncommunicable diseases, fistula, and men's experience of domestic violence, are included. Also, it is the first national survey to provide estimates for demographic and health indicators at the county level. Following adoption of a constitution in Kenya in 2010 and devolution of administrative powers to the counties, the new 2014 KDHS data should be valuable to managers and planners.

The 2014 KDHS has specifically collected data to estimate fertility, to assess childhood, maternal, and adult mortality, to measure changes in fertility and contraceptive prevalence, to examine basic indicators of maternal and child health, to estimate nutritional status of women and children, to describe patterns of knowledge and behaviour related to the transmission of HIV and other sexually transmitted infections, and to ascertain the extent and pattern of domestic violence and female genital cutting. Unlike the 2003 and 2008-09 KDHS surveys, this survey did not include HIV and AIDS testing. HIV prevalence estimates are available from the 2012 Kenya AIDS Indicator Survey (KAIS), completed prior to the 2014 KDHS.

Results from the 2014 KDHS show a continued decline in the total fertility rate (TFR). Fertility decreased from 4.9 births per woman in 2003 to 4.6 in 2008-09 and further to 3.9 in 2014, a one-child decline over the past 10 years and the lowest TFR ever recorded in Kenya. This is corroborated by the marked increase in the contraceptive prevalence rate (CPR) from 46 percent in 2008-09 to 58 percent in the current survey. The decline in fertility accompanies a marked decline in infant and child mortality. All early childhood mortality rates have declined between the 2003 and 2014 KDHS surveys. Total under-5 mortality declined from 115 deaths per 1,000 live births in the 2003 KDHS to 52 deaths per 1,000 live births in the 2014 KDHS. The maternal mortality ratio is 362 maternal deaths per 100,000 live births for the seven-year period preceding the survey; however, this is not statistically different from the ratios reported in the 2003 and 2008-09 KDHS surveys and does not indicate any decline over time.

The proportion of mothers who reported receiving antenatal care from a skilled health provider increased from 88 percent to 96 percent between 2003 and 2014. The percentage of births attended by a skilled provider and the percentage of births occurring in health facilities each increased by about 20 percentage points between 2003 and 2014. The percentage of children age 12-23 months who have received all basic vaccines increased slightly from the 77 percent observed in the 2008-09 KDHS to 79 percent in 2014. Six in ten households (59 percent) own at least one insecticide-treated net, and 48 percent of Kenyans have access to one. In malaria endemic areas, 39 percent of women received the recommended dosage of intermittent preventive treatment for malaria during pregnancy. Awareness of AIDS is universal in Kenya; however, only 56 percent of women and 66 percent of men have comprehensive knowledge about HIV and AIDS prevention and transmission.

The 2014 KDHS was conducted as a joint effort by many organisations. The Kenya National Bureau of Statistics (KNBS) served as the implementing agency by providing guidance in the overall survey planning, development of survey tools, training of personnel, data collection, processing, analysis, and dissemination of the results. The Bureau would like to acknowledge and appreciate the institutions and agencies for roles they played that resulted in the success of this exercise:

Ministry of Health (MOH), National AIDS Control Council (NACC), National Council for Population and Development (NCPD), Kenya Medical Research Institute (KEMRI), Ministry of Labour, Social Security and Services, United States Agency for International Development (USAID/Kenya), ICF International, United Nations Fund for Population Activities (UNFPA), the United Kingdom Department for International Development (DfID), World Bank, Danish International Development Agency (DANIDA), United Nations Children's Fund (UNICEF), German Development Bank (KfW), World Food Programme (WFP), Clinton Health Access Initiative (CHAI), Micronutrient Initiative (MI), US Centers for Disease Control and Prevention (CDC), Japan International Cooperation Agency (JICA), Joint United Nations Programme on HIV/AIDS (UNAIDS), and the World Health Organization (WHO). The management of such a huge undertaking was made possible through the help of a signed memorandum of understanding (MoU) by all the partners and the creation of active Steering and Technical Committees.

## KIND OF DATA

Sample survey data [ssd]

## UNITS OF ANALYSIS

Households

## Scope

## NOTES

County, Urban, Rural and National

## Coverage

## GEOGRAPHIC COVERAGE

County, Urban, Rural and National

## Producers and Sponsors

## PRIMARY INVESTIGATOR(S)

Name	Affiliation
Kenya National Bureau of Statistics (KNBS)	Ministry of Devolution and Planning

## FUNDING

Name	Abbreviation	Role
Kenya National Bureau of Statistics	KNBS	Financing
Ministry of Health	MOH	Financing
National AIDS Control Council	NACC	Financing
National Council for Population and Development	NCPD	Financing
Kenya Medical Research Institute	KEMRI	Financing
United States Agency for International Development	USAID/Kenya	Financing
ICF International	ICFI	Financing
United Nations Fund for Population Activities	UNFPA	Financing
Department for International Development	DfID	Financing
World Bank	WB	Financing
Danish International Development Agency	DANIDA	Financing
United Nations Children's Fund	UNICEF	Financing

German Development Bank	KfW	Financing
World Food Programme	WFP	Financing
Clinton Health Access Initiative	CHAI	Financing
Micronutrient Initiative	MI	Financing
US Center for Disease Control and Prevention	CDC	Financing
Japan International Cooperation Agency	JICA	Financing

## Metadata Production

### METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Kenya National Bureau of Statistics	KNBS	Ministry of Devolution and Planning	Documentation of the census

### DATE OF METADATA PRODUCTION

2014-07-24

### DDI DOCUMENT VERSION

Version 1.0 July 2014)

### DDI DOCUMENT ID

DDI-KEN-KNBS-KDHS-2014-v1.0

## Sampling

### Sampling Procedure

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The sample for the 2014 KDHS was drawn from a master sampling frame, the Fifth National Sample Survey and Evaluation Programme (NASSEP V). This is a frame that the KNBS currently operates to conduct household-based surveys throughout Kenya. Development of the frame began in 2012, and it contains a total of 5,360 clusters split into four equal subsamples. These clusters were drawn with a stratified probability proportional to size sampling methodology from 96,251 enumeration areas (EAs) in the 2009 Kenya Population and Housing Census. The 2014 KDHS used two subsamples of the NASSEP V frame that were developed in 2013. Approximately half of the clusters in these two subsamples were updated between November 2013 and September 2014. Kenya is divided into 47 counties that serve as devolved units of administration, created in the new constitution of 2010. During the development of the NASSEP V, each of the 47 counties was stratified into urban and rural strata; since Nairobi county and Mombasa county have only urban areas, the resulting total was 92 sampling strata. The 2014 KDHS was designed to produce representative estimates for most of the survey indicators at the national level, for urban and rural areas separately, at the regional (former provincial<sup>1</sup>) level, and for selected indicators at the county level. In order to meet these objectives, the sample was designed to have 40,300 households from 1,612 clusters spread across the country, with 995 clusters in rural areas and 617 in urban areas. Samples were selected independently in each sampling stratum, using a two-stage sample design. In the first stage, the 1,612 EAs were selected with equal probability from the NASSEP V frame. The households from listing operations served as the sampling frame for the second stage of selection, in which 25 households were selected from each cluster.

The interviewers visited only the preselected households, and no replacement of the preselected households was allowed during data collection. The Household Questionnaire and the Woman's Questionnaire were administered in all households, while the Man's Questionnaire was administered in every second household. Because of the non-proportional allocation to the sampling strata and the fixed sample size per cluster, the survey was not self-weighting. The resulting data have, therefore, been weighted to be representative at the national, regional, and county levels.

### Deviations from Sample Design

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Not available

### Response Rate

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A total of 39,679 households were selected for the sample, of which 36,812 were found occupied at the time of the fieldwork. Of these households, 36,430 were successfully interviewed, yielding an overall household response rate of 99 percent. The shortfall of households occupied was primarily due to structures that were found to be vacant or destroyed and households that were absent for an extended period of time.

# Questionnaires

## Overview

The 2014 KDHS used a household questionnaire, a questionnaire for women age 15-49, and a questionnaire for men age 15-54. These instruments were based on the model questionnaires developed for The DHS Program, the questionnaires used in the previous KDHS surveys, and the current information needs of Kenya. During the development of the questionnaires, input was sought from a variety of organisations that are expected to use the resulting data. A two-day workshop involving key stakeholders was held to discuss the questionnaire design.

Producing county-level estimates requires collecting data from a large number of households within each county, resulting in a considerable increase in the sample size from 9,936 households in the 2008-09 KDHS to 40,300 households in 2014. A survey of this magnitude introduces concerns related to data quality and overall management. To address these concerns, reduce the length of fieldwork, and limit interviewer and respondent fatigue, a decision was made to not implement the full questionnaire in every household and, in so doing, to collect only priority indicators at the county level. Stakeholders generated a list of these priority indicators. Short household and woman's questionnaires were then designed based on the full questionnaires; the short questionnaires contain the subset of questions from the full questionnaires required to measure the priority indicators at the county level.

Thus, a total of five questionnaires were used in the 2014 KDHS: (1) a full Household Questionnaire, (2) a short Household Questionnaire, (3) a full Woman's Questionnaire, (4) a short Woman's Questionnaire, and (5) a Man's Questionnaire. The 2014 KDHS sample was divided into halves. In one half, households were administered the full Household Questionnaire, the full Woman's Questionnaire, and the Man's Questionnaire. In the other half, households were administered the short Household Questionnaire and the short Woman's Questionnaire. Selection of these subsamples was done at the household level—within a cluster, one in every two households was selected for the full questionnaires, and the remaining households were selected for the short questionnaires.

It is important to note that the priority data collected in the short questionnaires were collected from all households and from all women since the short questionnaires were subsets of the full questionnaires. Therefore, data collected in both the full and the short questionnaires can produce estimates of indicators at the national, rural/urban, regional, and county levels. Data collected only in the full questionnaires (i.e., in one-half of households) can produce estimates at the national, rural/urban, and regional levels only. Data collected only in the full questionnaires are not recommended for estimation at the county level.

In this report, county-level data are tabulated for nearly all of the indicators for which they are available; county-level tables are not presented for indicators with insufficient cases for evaluation (less than 50 unweighted cases) within each county. In the case of indicators not collected at the county level, the tables include data at the regional level only.

The Household Questionnaire was used to list all of the usual members of the household and visitors who stayed in the household the night before the survey. One of the main purposes of the Household Questionnaire was to identify women and men who were eligible for the individual interview.

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 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 and children under age 5.

The Woman's Questionnaires were used to collect information from women age 15-49. The full questionnaire covered the following topics (see Appendix E for a side-by-side comparison of topics included in the full and short questionnaires):

- Background characteristics (education, marital status, media exposure, etc.)
- Reproductive history
- Knowledge and use of family planning methods
- Fertility preferences
- Antenatal and delivery care
- Breastfeeding and infant feeding practices
- Vaccinations and childhood illnesses
- Marriage and sexual activity
- Women's work and husbands' background characteristics
- Childhood mortality
- Awareness and behaviour regarding HIV and other sexually transmitted infections
- Adult mortality, including maternal mortality
- Domestic violence
- Female circumcision
- Fistula

The Man's Questionnaire was administered to men age 15-54 living in every second household in the sample. The Man's

Questionnaire collected information similar to that contained in the Woman's Questionnaire but was shorter because it did not contain questions on maternal and child health, nutrition, adult and maternal mortality, or experience of female circumcision or fistula. Both the Woman's and the Man's Questionnaires also included a series of questions to obtain information on respondents' experience of domestic violence. The domestic violence questions were administered in the subsample of households that received the full Household Questionnaire, the full Woman's Questionnaire, and the Man's Questionnaire. Additionally, the violence questions were administered to only one eligible individual, a woman or a man, per household. In households with more than one eligible individual, special procedures were followed in order to ensure that there was random selection of the respondent to be interviewed for the domestic violence module.

After finalisation of the questionnaires in English, they were translated into 16 other languages, namely Borana, Embu, Kalenjin, Kamba, Kikuyu, Kisii, Luhya, Luo, Maasai, Maragoli, Meru, Mijikenda, Pokot, Somali, Swahili, and Turkana. The translated questionnaires were pretested to detect any possible problems in questionnaire translation or flow, as well as to gauge the length of time required for interviews.

# Data Collection

## Data Collection Dates

Start	End	Cycle
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## Data Collection Mode

Face-to-face [f2f]

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## Data Collectors

Name	Abbreviation	Affiliation
Kenya National Bureau of Statistics	KNBS	Ministry of Devolution and Planning

## Data Processing

### Other Processing

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Completed questionnaires were sent to the KNBS Data Processing Centre in Nairobi. Office editors who received the questionnaires verified cluster and household numbers to ensure that they were consistent with the sampled list. They also ensured that each cluster had 25 households and that all questionnaires for a particular household were packaged together. Data entry began on May 28, 2014, with a four-day training session and continued until November 21, 2014. All data were double entered (100 percent verification) using CSPro software. The data processing team included 42 keyers, three office editors, two secondary editors, four supervisors, and one data manager. Secondary editing, which included further data cleaning and validation, ran simultaneously with data entry and was completed on January 28, 2015, in collaboration with ICF International. The KDHS Key Indicators Report was prepared and launched in April 2015.

## Data Appraisal

No content available