Kenya

Demographic and Health Survey

Key Indicators Report

2022

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Kenya National Bureau of Statistics
Nairobi, Kenya

Ministry of Health
Nairobi, Kenya

The DHS Program
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TABLES, FIGURES, AND MAPS

ACRONYMS AND ABBREVIATIONS

ACT   artemisinin-based combination therapy
AIDS   acquired immunodeficiency syndrome
ANC   antenatal care
ARI   acute respiratory infection
ASFR   age-specific fertility rate

BCG   bacillus Calmette-Guérin

CAPI   computer-assisted personal interviewing
CBR   crude birth rate
COVID-19   coronavirus disease 2019
CSPro   Census and Survey Processing

DHS   Demographic and Health Survey
DPT   diphtheria, pertussis, and tetanus vaccine

EA   enumeration area
ECDI   Early Childhood Development Index

FBO   faith-based organization
FGM/C   female genital mutilation/cutting

GFR   general fertility rate

HepB   hepatitis B
Hib   *Haemophilus influenzae* type B
HIV   human immunodeficiency virus

IPTp   intermittent preventive treatment during pregnancy
IPV   inactivated poliomyelitis vaccine
ITN   insecticide-treated net
IUD   intrauterine contraceptive device
IYCF   infant and young child feeding

KDHS   Kenya Demographic and Health Survey
K-HMSF   Kenya Household Master Sample Frame
KIR   Key Indicators Report
KMIS   Kenya Malaria Indicator Survey
KNBS   Kenya National Bureau of Statistics

LAM   lactational amenorrhea method
LLIN   long-lasting insecticidal net

MoH   Ministry of Health
MR   measles-rubella

NGO   nongovernmental organization

OPV   oral polio vaccine
ORS   oral rehydration salts

PCV	pneumococcal conjugate vaccine
PNC	postnatal care
SD	standard deviation
SDG	Sustainable Development Goal
SDM	standard days method
SP	sulfadoxine-pyrimethamine
STIs	sexually transmitted infections
TB	tuberculosis
TFR	total fertility rate
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UN Women	United Nations Entity for Gender Equality and the Empowerment of Women
USAID	United States Agency for International Development
WFP	World Food Programme
WG	Washington Group on Disability Statistics
WHO	World Health Organization

1   INTRODUCTION

The 2022 Kenya Demographic and Health Survey (2022 KDHS) is the seventh DHS survey implemented in Kenya. The Kenya National Bureau of Statistics (KNBS) in collaboration with the Ministry of Health (MoH) and other stakeholders implemented the survey. Survey planning began in late 2020 with data collection taking place from February 17 to July 19, 2022. ICF provided technical assistance through The DHS Program, which is funded by the United States Agency for International Development (USAID) and offers financial support and technical assistance for population and health surveys in countries worldwide. Other agencies and organizations that facilitated the successful implementation of the survey through technical or financial support were the Bill & Melinda Gates Foundation, the World Bank, the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA), Nutrition International, the World Food Programme (WFP), the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women), the World Health Organization (WHO), the Clinton Health Access Initiative, and the Joint United Nations Programme on HIV/AIDS (UNAIDS).

The Key Indicators Report (KIR) presents highlights of selected indicators from the 2022 KDHS. A detailed report of the survey findings will be presented within the year 2023.

SURVEY OBJECTIVES

The primary objective of the 2022 KDHS is to provide up-to-date estimates of demographic, health, and nutrition indicators to guide the planning, implementation, monitoring, and evaluation of population and health-related programs at the national and county levels.

The specific objectives of the 2022 KDHS are to:

- Estimate fertility levels and contraceptive prevalence
- Estimate childhood mortality
- Provide basic indicators of maternal and child health
- Estimate the Early Childhood Development Index (ECDI)
- Collect anthropometric measures for children, women, and men
- Collect information on children's nutrition
- Collect information on women's dietary diversity
- Obtain information on knowledge and behavior related to transmission of HIV and other sexually transmitted infections (STIs)
- Obtain information on noncommunicable diseases and other health issues
- Ascertain the extent and patterns of domestic violence and female genital mutilation/cutting

2 SURVEY IMPLEMENTATION

2.1 SAMPLE DESIGN

The sample for the 2022 KDHS was drawn from the Kenya Household Master Sample Frame (K-HMSF). This is the frame that KNBS currently operates to conduct household-based sample surveys in Kenya. In 2019, Kenya conducted a Population and Housing Census, and a total of 129,067 enumeration areas (EAs) were developed. Of these EAs, 10,000 were selected with probability proportional to size to create the K-HMSF. The 10,000 EAs were randomized into four equal subsamples. The survey sample was drawn from one of the four subsamples. The EAs were developed into clusters through a process of household listing and geo-referencing. To design the frame, each of the 47 counties in Kenya was stratified into rural and urban strata, resulting in 92 strata since Nairobi City and Mombasa counties are purely urban.

The 2022 KDHS was designed to provide estimates at the national level, for rural and urban areas, and, for some indicators, at the county level. Given this, the sample was designed to have 42,300 households, with 25 households selected per cluster, resulting into 1,692 clusters spread across the country with 1,026 clusters in rural areas and 666 in urban areas.

The sample for the 2022 KDHS was a stratified sample selected in two stages from the K-HMSF. In the first stage, 1,692 clusters were selected from the K-HMSF using equal probability with independent selection in each sampling stratum. Household listing was carried out in all of the selected clusters, and the resultant list of households served as a sampling frame for the second stage of selection, where 25 households were selected from each cluster. However, after the household listing procedure, it was found that some clusters had less than 25 households; hence, all of the households from these clusters were selected into the sample. This resulted in 42,022 households being sampled for the 2022 KDHS.

All women age 15–49 who were usual members of the selected households or who had slept in the households the night before the survey were eligible for interviews. The men's interview was conducted in half of the sampled households, and all men age 15–54 who were usual members of the selected households or who had slept in those households the night before the survey were eligible to be interviewed. In a half of the men's subsample, one man per household was randomly selected for the domestic violence module. In the other half of the men's subsample and in the sample of households not selected for the men's interview, one woman per household was randomly selected for the module. Thus, in three quarters of the sample, the domestic violence module was administered to women, and in one quarter of the sample the module was administered to men.

The Biomarker Questionnaire, which included height and weight measurements, was administered in all households for children age 0–59 months and in the men's subsample for men age 15–54 and women age 15–49. Modules on disability, COVID-19, health insurance, health expenditures, road traffic accidents, household food expenditure, early childhood development index 2030, chronic diseases, and female genital mutilation/cutting (FGM/C) were administered in half of the households sampled for the 2022 KDHS.

The 2022 KDHS was successfully implemented in 1,691 clusters; one cluster in Mandera could not be visited due to insecurity. As a result of the nonproportional allocation to the sampling strata and due to nonresponse, the survey was not self-weighting. The resulting data have, therefore, been weighted to be representative of the various survey domains.

2.2 SURVEY QUESTIONNAIRES

Eight questionnaires were used for the 2022 KDHS: a full Household Questionnaire, a short Household Questionnaire, a full Woman's Questionnaire, a short Woman's Questionnaire, a Man's Questionnaire, a full Biomarker Questionnaire, a short Biomarker Questionnaire, and a Fieldworker Questionnaire. To reduce the length of fieldwork and limit interviewer and respondent fatigue, the Household, Woman's, and Biomarker questionnaires were divided into two sets: the full and short questionnaires. Short Household

and Woman's questionnaires were designed on the basis of the full questionnaires, and each contained a subset of questions from the respective full questionnaires. The 2022 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 centrally at the head office—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 information collected in the short questionnaires were collected from all households and from all women since these questionnaires were subsets of the full questionnaires. The sections below describe the purpose of and the information collected in the full questionnaires.

The main purpose of the Household Questionnaire was to identify women and men who were eligible for individual interviews and women age 15–49, men age 15–54, and children age 0–59 months who were eligible for anthropometry. The Household Questionnaire collected information on:

- Background characteristics of each person in the household (for example, name, sex, age, education, relationship to the household head, survival of parents among children under age 18)
- Disability
- Assets, land ownership, and housing characteristics
- Sanitation, water, and other environmental health issues
- Health expenditures
- Accident and injury
- COVID-19 (prevalence, vaccination, and related deaths)
- Household food consumption

The Woman's Questionnaire was used to collect information from women age 15–49 on the following topics:

- Socioeconomic and demographic characteristics
- Reproduction
- Family planning
- Maternal health care and breastfeeding
- Vaccination and health of children
- Children's nutrition
- Woman's dietary diversity
- Early childhood development
- Marriage and sexual activity
- Fertility preferences
- Husbands' background characteristics and women's employment activity
- HIV/AIDS, other sexually transmitted infections (STIs), and tuberculosis (TB)
- Other health issues
- Early Childhood Development Index 2030
- Chronic diseases
- Female genital mutilation/cutting
- Domestic violence

The Man's Questionnaire was administered to men age 15–54 living in the households selected for long Household Questionnaires. The questionnaire collected information on:

- Socioeconomic and demographic characteristics
- Reproduction
- Family planning
- Marriage and sexual activity

- Fertility preferences
- Employment and gender roles
- HIV/AIDS, other STIs, and TB
- Other health issues
- Chronic diseases
- Female genital mutilation/cutting
- Domestic violence

The Biomarker Questionnaire collected information on anthropometry (weight and height). The long Biomarker Questionnaire collected anthropometry measurements for children age 0–59 months, women age 15–49, and men age 15–54, while the short questionnaire collected weight and height measurements only for children age 0–59 months.

The Fieldworker Questionnaire was used to collect basic background information on the people who collected data in the field. This included team supervisors, interviewers, and biomarker technicians.

All questionnaires except the Fieldworker Questionnaire were translated into the Swahili language to make it easier for interviewers to ask questions in a language that respondents could understand. All questionnaires were programmed into tablet computers to allow for computer-assisted personal interviewing (CAPI) for data collection purposes, with the capability to choose Swahili or English.

The protocol for the 2022 KDHS was reviewed by the ICF Institutional Review Board.

2.3   ANTHROPOMETRIC MEASUREMENTS

Children under age 5, women age 15–49, and men age 15–54 had their weight and height measured in order to provide information on their nutritional status.

Weight measurements were taken using Seca scales with a digital display (model SECA 874). Children younger than age 24 months were measured lying down (recumbent length), while children older than 24 months and adults were measured standing (height). Height and length were measured with a Shorr Board® measuring board.

To assess the precision of measurements, two children were randomly selected in each cluster for remeasurement. The 2022 KDHS adopted the guidelines of The DHS Program, which define a difference of less than one centimeter between the two height measurements as an acceptable level of precision. The data collection application was programmed to calculate anthropometric z scores automatically. Children found to have a z score of less than negative three (-3) or more than three for height-for-age, weight-for-height, or weight-for-age were flagged as having unusual measurements and measured a second time. Remeasurement of flagged cases was performed to ensure accurate reporting of height and weight measurements. Children whose second measurement indicated severe wasting (weight-for-height z score less than -3) were referred for treatment to the nearest health facility, and the field team supervisor or another survey team member informed the caretaker of the affected child about the referral for treatment before the team left the cluster.

2.4 TRAINING

To achieve the objectives of the survey and ensure collection of quality data, various cadres were trained and the survey data collection tools and protocol were pretested.

2.4.1 Training of trainers

A total of 45 trainers drawn from KNBS, MoH, other government departments and agencies, universities, and development partners participated in the training of trainers. The training was supported by ICF and was held from November 29 to December 3, 2021. The objectives of the training were to:

- Equip trainers with adult learning principles and effective facilitation methods
- Review and finalize the 2022 KDHS questionnaires
- Familiarize trainers with the 2022 KDHS CAPI system
- Prepare and finalize materials for training of survey personnel (interviewers, supervisors and biomarker technicians).

2.4.2 Pretest

The pretest consisted of classroom training and field practice for interviewers and biomarker technicians. The training took place from December 11, 2021, to January 18, 2022. The objectives of the pretest were to:

- Test the adequacy of training agenda for the main survey
- Test the data collection instruments (questionnaires, manuals, forms)
- Test the suitability of the CAPI data collection approach
- Evaluate the competence of personnel
- Assess the workload of field interviewers and biomarker technicians
- Test the adequacy of training procedures for the field personnel
- Test the adequacy of the planned duration of data collection
- Evaluate the overall administrative and financial structure and other general logistics issues
- Test the reliability of the central server data transmission mechanisms and the robustness of the system put in place to monitor the quality of data from the field
- Test the effectiveness of the publicity and advocacy strategy and data processing strategies.

The training for the pretest covered all aspects of the questionnaire content and interviewing procedures and anthropometry practice with children. Two days were set aside for field practice, and thereafter, field teams were sent to eight counties to pilot the survey tools and procedures. The pretest clusters were selected to cover different geographical areas, and hence the necessity of using different languages. These clusters were not part of the 2022 KDHS sample. After the fieldwork, a debriefing was held to assess issues emanating from the pretest. The resolutions from the debriefing were used to finalize the questionnaires, the CAPI program, and field logistics before implementation of the main training and data collection.

2.4.3 Training of field staff for the main survey

A total of 314 personnel (48 supervisors, 48 biomarker technicians, 144 female interviewers, 48 male interviewers, and 26 reserves) were trained at a central venue from January 17 to February 13, 2022. The training consisted of a detailed, question-by-question explanation of the questionnaires, accompanied by explanations from the interviewer's manual, role-play demonstrations, group discussions, in-class practice interviewing in pairs and assessment tests.

Anthropometry training provided all trainees with instruction, demonstrations, and practice in length/height and weight measurements for children and adults. Trainees completed a standardization

exercise involving measurements of children that was intended to gauge and improve accuracy and precision. Restandardization exercises were conducted for those who did not pass the standardization exercises.

2.5   FIELDWORK LOGISTICS

Data collection for the 2022 KDHS was carried out by 48 teams from February 17 to July 13, 2022. Each team consisted of one supervisor, one biomarker technician, three female interviewers, one male interviewer, and a driver. At the county level, the KDHS field teams were assisted by KNBS county statistical officers who provided links to national government administration officers (NGAOs). Prior to the data collection, a county mobilization team conducted targeted publicity within the clusters to prepare for the fieldwork. KNBS field staff and village elders assisted in identifying the sampled clusters and households. Monitoring of data collection was undertaken by Technical Working Committee and Steering Committee members throughout the data collection period. The aim of monitoring was to ensure that the survey was conducted according to the protocol and to provide real-time solutions to any challenges encountered.

2.6   DATA PROCESSING

Computer-assisted personal interviewing (CAPI) was used during the 2022 KDHS data collection. The devices used for CAPI were Android-based computer tablets programmed using a mobile version of CSPro. The CSPro software was developed jointly by the U.S. Census Bureau, Serpro S.A., and The DHS Program. Programming of questionnaires into the Android application was done by ICF, while configuration of tablets was completed by KNBS in collaboration with ICF. All fieldwork personnel were assigned usernames, and devices were password protected to ensure the integrity of the data collected.

Work was assigned by supervisors and shared via Bluetooth® to interviewers' tablets. Once completed, assigned work was shared with supervisors, who did initial data consistency checks and edits and then submitted data to the central servers hosted at KNBS via SyncCloud. Data were downloaded from the central servers and checked against the inventory of expected returns to account for all data collected in the field. SyncCloud was also used to generate field check tables to monitor progress and flag any errors, which were communicated back to the field teams for correction.

Secondary editing was done by members of the central office team, who resolved any errors that were not corrected by field teams during data collection. A CSPro batch editing tool was used for cleaning and tabulation during data analysis.

3   KEY FINDINGS

3.1   RESPONSE RATES

Table 1 presents the response rates for the 2022 KDHS. A total of 42,022 households were selected for the sample, of which 38,731 (92%) were found to be occupied. Among the occupied households, 37,911 were successfully interviewed, yielding a response rate of 98%. The response rates for urban and rural households were 96% and 99%, respectively. In the interviewed households, 33,879 women age 15–49 were identified as eligible for individual interviews. Interviews were completed with 32,156 women, yielding a response rate of 95%. The response rates among women selected for the full and short questionnaires were the similar (95%). In the households selected for the male survey, 16,552 men age 15–54 were identified as eligible for individual interviews and 14,453 were successfully interviewed, yielding a response rate of 87%.

Table 1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Kenya DHS 2022

	Residence		
Result	Urban	Rural	Total
ALL HOUSEHOLDS			
Household interviews			
Households selected	16,611	25,411	42,022
Households occupied	14,870	23,861	38,731
Households interviewed	14,330	23,581	37,911
Household response rate[1]	96.4	98.8	97.9
Interviews with women age 15–49			
Number of eligible women	13,129	20,750	33,879
Number of eligible women interviewed	12,386	19,770	32,156
Eligible women response rate[2]	94.3	95.3	94.9
HOUSEHOLDS SELECTED FOR FULL QUESTIONNAIRES			
Household interviews			
Households selected	8,657	13,312	21,969
Households occupied	7,725	12,469	20,194
Households interviewed	7,429	12,318	19,747
Household response rate[1]	96.2	98.8	97.8
Interviews with women age 15–49			
Number of eligible women	6,911	10,914	17,825
Number of eligible women interviewed	6,517	10,384	16,901
Eligible women response rate[2]	94.3	95.1	94.8
Interviews with men age 15–54			
Number of eligible men	6,134	10,418	16,552
Number of eligible men interviewed	5,232	9,221	14,453
Eligible men response rate[2]	85.3	88.5	87.3
HOUSEHOLDS SELECTED FOR SHORT QUESTIONNAIRES			
Household interviews			
Households selected	7,954	12,099	20,053
Households occupied	7,145	11,392	18,537
Households interviewed	6,901	11,263	18,164
Household response rate[1]	96.6	98.9	98.0
Interviews with women age 15–49			
Number of eligible women	6,218	9,836	16,054
Number of eligible women interviewed	5,869	9,386	15,255
Eligible women response rate[2]	94.4	95.4	95.0

[1] Households interviewed/households occupied
[2] Respondents interviewed/eligible respondents

3.2 CHARACTERISTICS OF RESPONDENTS

Table 2 presents the weighted and unweighted numbers and percent distributions of women and men interviewed in the 2022 KDHS according to background characteristics. The results presented in this report are based on weighted data that are representative at the national, rural-urban, and county levels. The distribution of respondents by county, both weighted and unweighted, is shown in **Table 2C**.

- The proportion of both women and men respondents in the sample declines with increasing age, from 19% of women and 23% of men in 15–19 age group to 8% of women and men in the 45–49 age group.

- Seventy-nine percent of women reported their health status as good or very good, as compared with 85% of men.

- About one-third of women (33%) and nearly half (48%) of men have never been married. Fifty-five percent of women are either married or living together with a man as if married, while 46% of men are married or living together with a woman as if married.

- Six percent of women and 3% of men have never been to school. About 2 in 10 women (19%) and men (21%) have more than secondary education.

- Almost half of respondents (48% of women and 46% of men) are in the two highest wealth quintiles.

Table 2 Background characteristics of respondents

Percent distribution of women and men age 15–49 by selected background characteristics, Kenya DHS 2022

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15–19	18.7	6,025	6,404	23.3	3,175	3,349
20–24	18.7	6,001	5,762	17.6	2,404	2,332
25–29	17.7	5,687	5,443	16.6	2,268	2,109
30–34	14.1	4,530	4,561	13.1	1,787	1,748
35–39	13.4	4,311	4,354	11.6	1,577	1,628
40–44	9.6	3,084	3,100	9.8	1,332	1,386
45–49	7.8	2,518	2,532	8.1	1,109	1,117
Self-reported health status						
Very good	23.8	7,638	7,867	35.8	4,883	5,098
Good	55.4	17,823	17,988	48.9	6,677	6,607
Moderate	18.4	5,933	5,541	14.1	1,926	1,799
Bad	2.2	696	710	1.0	141	145
Very bad	0.2	67	50	0.2	26	20
Religion						
Catholic	18.6	5,978	5,665	21.6	2,946	2,709
Protestant/other Christian	72.9	23,442	21,154	66.0	9,006	8,137
Muslim	7.1	2,275	4,852	7.2	987	2,148
No religion	1.1	344	357	4.4	607	557
Other	0.4	117	128	0.8	107	118
Marital status						
Never married	32.5	10,438	10,048	48.2	6,576	6,486
Married	48.1	15,483	16,454	43.3	5,907	5,994
Living together	7.3	2,339	1,858	2.6	351	393
Divorced/separated	9.3	2,989	2,776	5.6	771	748
Widowed	2.8	908	1,020	0.4	49	48
Residence						
Urban	40.9	13,143	12,386	39.4	5,382	5,003
Rural	59.1	19,013	19,770	60.6	8,270	8,666
Education						
No education	5.5	1,770	3,836	2.7	369	774
Primary	36.3	11,687	11,807	35.9	4,894	5,150
Secondary	38.0	12,204	11,311	39.5	5,386	5,195
Vocational	1.1	345	323	1.5	206	204
More than secondary	19.1	6,150	4,879	20.5	2,797	2,346

Continued…

Table 2—*Continued*

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Wealth quintile						
Lowest	15.6	5,019	7,073	15.1	2,062	2,881
Second	17.7	5,698	5,742	18.9	2,584	2,660
Middle	18.9	6,069	6,345	20.2	2,754	2,873
Fourth	22.2	7,139	7,160	24.4	3,325	3,138
Highest	25.6	8,231	5,836	21.4	2,927	2,117
Total 15–49	100.0	32,156	32,156	100.0	13,652	13,669
50–54	na	na	na	na	801	784
Total 15–54	na	na	na	na	14,453	14,453

Note: Education categories refer to the highest level of education attended, whether or not that level was completed. No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities, and vocational includes training after completion of primary, secondary, or higher education.
na = not applicable

Table 2C Background characteristics of respondents by county

Percent distribution of women and men age 15–49 by county, Kenya DHS 2022

County	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Mombasa	2.9	947	749	3.2	442	372
Kwale	1.5	498	711	1.5	209	320
Kilifi	2.9	928	742	3.0	405	319
Tana River	0.5	149	641	0.5	64	293
Lamu	0.3	101	675	0.3	41	253
Taita/Taveta	0.7	234	483	0.8	103	192
Garissa	0.9	290	641	0.9	117	282
Wajir	0.5	160	745	0.5	63	314
Mandera	0.6	206	723	0.6	81	293
Marsabit	0.4	129	535	0.3	45	192
Isiolo	0.4	137	623	0.4	55	253
Meru	3.0	979	602	3.6	489	305
Tharaka-Nithi	0.8	271	535	1.0	137	279
Embu	1.1	358	584	1.3	176	280
Kitui	2.3	735	671	2.3	312	296
Machakos	3.1	992	699	3.5	480	354
Makueni	2.1	683	720	2.0	279	308
Nyandarua	1.3	409	590	1.2	168	255
Nyeri	1.6	501	529	1.7	235	267
Kirinyaga	1.5	481	605	1.4	191	254
Murang'a	2.2	692	557	2.2	297	253
Kiambu	6.5	2,094	668	6.7	911	267
Turkana	1.0	331	644	0.8	111	225
West Pokot	1.2	384	756	1.1	150	288
Samburu	0.5	156	615	0.4	51	182
Trans Nzoia	2.1	675	713	2.0	272	308
Uasin Gishu	3.1	983	731	3.3	451	342
Elgeyo/Marakwet	0.7	228	591	0.8	110	296
Nandi	1.9	622	721	1.9	265	334
Baringo	1.2	378	687	1.2	165	300
Laikipia	1.0	332	576	1.1	145	243
Nakuru	5.2	1,658	782	4.9	670	327
Narok	2.2	718	744	2.3	313	320
Kajiado	2.8	887	660	2.5	339	228
Kericho	2.3	729	779	2.4	330	368
Bomet	2.0	650	778	2.0	268	353
Kakamega	4.0	1,283	810	3.9	532	341
Vihiga	1.2	371	721	1.1	156	290
Bungoma	3.5	1,138	841	3.3	448	328
Busia	1.9	622	768	1.9	262	296
Siaya	1.7	537	674	1.7	227	282
Kisumu	2.4	771	761	2.5	345	356
Homa Bay	2.1	662	712	1.9	258	263
Migori	2.1	674	777	1.8	246	296
Kisii	2.6	831	708	2.4	326	300
Nyamira	1.0	327	635	1.0	133	246
Nairobi City	13.2	4,235	944	13.0	1,777	356
Total	100.0	32,156	32,156	100.0	13,652	13,669

3.3 HEALTH INSURANCE COVERAGE

Health insurance is crucial in terms of access to quality health care. It aids in reducing the costs associated with illness, treatment, and care substantially. The 2022 KDHS asked whether each household member was covered by any health insurance and, if so, the type. **Table 3** shows the percentage of de jure household members with specific types of health insurance.

- One in four persons in Kenya (26% of females and 27% of males) have some form of health insurance.

- The National Hospital Insurance Fund is the most common type of health insurance (24% each of females and males).

- The proportion of persons covered with any health insurance is higher in urban areas (39% among females and 41% among males) than in rural areas (20% among females and 19% among males).

- Health insurance coverage increases with increasing wealth, from 5% among females and males in the lowest wealth quintile to 56% among females and 60% among males in the highest wealth quintile.

Table 3 Health insurance coverage

Percentage of de jure household population with specific types of health insurance coverage, and percentage with any health insurance, according to background characteristics, Kenya DHS 2022

Background characteristic	Females							Males						
	National Hospital Insurance Fund	Private/ commercial	Community based	Other	None/ don't know	Any health insurance	Number of persons	National Hospital Insurance Fund	Private/ commercial	Community based	Other	None/ don't know	Any health insurance	Number of persons
Age														
0–14	18.9	3.0	0.6	0.1	79.1	20.9	14,467	18.8	3.3	0.5	0.0	79.2	20.8	14,514
15–49	26.0	4.4	0.5	0.1	71.3	28.7	18,142	26.2	4.6	0.4	0.0	71.2	28.8	16,878
50+	27.8	4.0	1.2	0.0	69.1	30.9	5,087	33.8	5.6	1.0	0.1	62.9	37.1	4,323
Residence														
Urban	35.3	6.8	0.2	0.0	61.1	38.9	12,695	37.5	7.9	0.2	0.0	58.8	41.2	11,778
Rural	17.5	2.3	0.9	0.1	80.5	19.5	25,025	17.5	2.4	0.7	0.0	80.6	19.4	23,967
Wealth quintile														
Lowest	3.6	0.4	1.0	0.0	95.0	5.0	7,446	3.6	0.3	0.9	0.0	95.3	4.7	7,172
Second	10.7	0.7	0.7	0.1	88.0	12.0	7,616	11.2	0.6	0.5	0.0	87.9	12.1	7,134
Middle	20.0	1.4	0.9	0.1	78.3	21.7	7,334	19.9	1.8	0.6	0.1	78.4	21.6	7,190
Fourth	31.4	4.2	0.5	0.0	66.2	33.8	7,463	33.2	4.3	0.4	0.0	64.0	36.0	7,521
Highest	50.4	11.9	0.1	0.0	43.8	56.2	7,861	54.0	14.5	0.2	0.0	40.1	59.9	6,728
Total	23.5	3.8	0.6	0.1	74.0	26.0	37,720	24.1	4.2	0.5	0.0	73.5	26.5	35,745

Note: The data for this table were collected in the full household questionnaire but not in the short questionnaire. Total includes 27 women and 35 men for whom information on age is missing.

3.4 DISABILITY AMONG THE HOUSEHOLD POPULATION

The 2022 KDHS included The DHS Program's disability module, a series of questions based on the Washington Group on Disability Statistics (WG) questions, which in turn are based on the framework of the World Health Organization's International Classification of Functioning, Disability, and Health. The questions address six core functional domains (seeing, hearing, communication, cognition, walking, and self-care) which provide basic necessary information on disability. This information is comparable to that collected worldwide via the WG disability tools.

> **Functional domains**
> Seeing, hearing, communicating, remembering or concentrating, walking or climbing steps, and washing all over or dressing.
> *Sample:* De facto household population age 5 or above

The respondent to the Household Questionnaire provided information for all household members and visitors on whether they had no difficulty, some difficulty, a lot of difficulty, or did not have ability at all in the specified domain. The results, based on 32,074 females and 29,428 males, are presented in **Tables 4.1** and **4.2.** Individuals who had a lot of difficulty or could not function at all in any of the six domains were considered to have a disability.

- Overall, 6% of females and 5% males age 5 and above have a lot of difficulty or cannot function at all in at least one of the six domains.

- The most common disabilities reported were difficulty seeing (12% of females and 10% of males) and difficulty walking or climbing steps (9% of females and 6% of males).

- The percentage of persons with a disability is highest among women and men age 50 or above (22% and 14%, respectively).

- Thirteen percent of females who have no education have a disability, as compared with 2% of females who have more than secondary education.

- The percentage of persons with disabilities declines with increasing household wealth, from 8% among females and 7% among males in the lowest wealth quintile to 3% among females and 2% among males in the highest wealth quintile.

Table 4.1 Disability among household members according to background characteristics: Females

Percentage of the de facto household population age 5 and over who have difficulty in functioning according to domain, and by highest degree of difficulty in at least one domain, and percentage who have a lot of difficulty or cannot function at all in more than one domain, according to background characteristics, Kenya DHS 2022

| Background characteristic | No difficulty in any domain | Some difficulty, a lot of difficulty, or cannot do at all | | | | | | Difficulty in at least one domain[1] | | | | A lot of difficulty or cannot do at all in more than one domain | Number of women |
		Seeing	Hearing	Com-muni-cating	Remem-bering or concen-trating	Walking or climbing steps	Wash-ing all over or dressing	Some difficulty	A lot of difficulty	Cannot do at all	A lot of difficulty or cannot do at all		
Age													
5–14	90.5	3.4	2.5	1.1	2.0	1.1	1.5	7.3	1.7	0.4	2.1	0.4	9,598
15–49	83.3	9.7	2.5	1.0	3.5	4.5	1.1	13.6	2.7	0.2	2.9	0.6	17,439
50+	37.0	38.8	15.5	3.5	23.0	41.2	13.7	40.7	20.5	1.6	22.2	8.7	5,016
Marital status													
Never married	84.6	9.2	2.8	1.8	2.8	3.7	1.5	11.7	2.9	0.6	3.5	1.0	6,226
Married/living together	75.8	14.3	3.9	0.8	6.3	10.6	2.5	19.2	4.8	0.1	4.9	1.3	12,082
Widowed	32.1	42.8	19.8	4.9	27.6	45.9	17.9	39.4	25.3	3.0	28.3	12.1	2,398
Divorced/separated	68.0	17.6	5.0	1.2	9.8	14.4	3.3	24.2	7.6	0.1	7.7	1.6	1,748
Not asked/missing	90.4	3.5	2.5	1.1	2.1	1.2	1.5	7.3	1.7	0.4	2.2	0.4	9,619
Residence													
Urban	83.9	10.2	2.6	1.0	2.9	5.6	1.7	12.5	3.2	0.3	3.5	0.9	10,734
Rural	75.3	13.5	5.5	1.6	7.8	11.1	4.0	17.7	6.2	0.6	6.8	2.2	21,340
Education[2]													
No education	67.3	17.3	10.6	4.0	12.7	19.0	10.3	19.4	11.3	2.0	13.3	6.3	4,903
Primary	77.9	11.8	4.4	1.1	6.5	9.2	2.6	16.5	5.2	0.3	5.5	1.3	15,691
Secondary	82.6	11.2	2.2	0.7	3.1	5.7	1.0	14.1	2.9	0.2	3.1	0.4	7,635
More than secondary	84.8	11.1	1.7	0.6	2.1	3.9	0.8	13.5	1.7	0.0	1.7	0.3	3,595
Wealth quintile													
Lowest	75.4	12.8	7.2	2.2	8.5	10.9	4.8	16.4	7.2	0.9	8.1	3.0	6,188
Second	74.6	13.8	5.9	1.5	8.5	11.1	3.4	18.2	6.4	0.6	7.0	2.0	6,532
Middle	75.8	13.4	4.3	1.4	7.1	11.7	3.9	17.6	6.0	0.4	6.4	2.0	6,317
Fourth	79.8	11.8	3.1	1.2	4.3	8.5	2.8	15.8	3.8	0.5	4.3	1.4	6,318
Highest	85.1	10.3	2.1	0.9	2.4	4.4	1.2	12.0	2.7	0.2	2.9	0.6	6,718
Total	78.2	12.4	4.5	1.4	6.2	9.3	3.2	16.0	5.2	0.5	5.7	1.8	32,074

Note: The data for this table were collected in the full household questionnaire but not in the short questionnaire. Total includes 26 women for whom information on age is missing and 36 women with missing information on education.
[1] If a person was reported to have difficulty in more than one domain, only the highest level of difficulty is shown.
[2] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

Table 4.2 Disability among household members according to background characteristics: Males

Percentage of the de facto household population age 5 and over who have difficulty in functioning according to domain, and by highest degree of difficulty in at least one domain, and percentage who have a lot of difficulty or cannot function at all in more than one domain, according to background characteristics, Kenya DHS 2022

Background characteristic	No difficulty in any domain	Some difficulty, a lot of difficulty, or cannot do at all						Difficulty in at least one domain[1]			A lot of difficulty or cannot do at all	A lot of difficulty or cannot do at all in more than one domain	Number of men
		Seeing	Hearing	Com-muni-cating	Remem-bering or concen-trating	Walking or climbing steps	Washing all over or dressing	Some difficulty	A lot of difficulty	Cannot do at all	A lot of difficulty or cannot do at all		
Age													
5–14	89.1	3.4	2.5	1.7	2.5	1.5	2.6	7.8	2.1	0.8	3.0	0.6	9,491
15–49	86.1	6.9	2.1	1.4	3.3	3.4	1.2	10.8	2.6	0.4	3.0	0.7	15,806
50+	48.8	34.0	11.5	3.3	14.6	23.6	8.8	36.8	12.6	1.6	14.2	4.6	4,111
Marital status													
Never married	88.0	5.2	2.3	1.9	3.5	2.8	1.6	8.5	2.7	0.8	3.4	1.1	7,765
Married/living together	73.6	16.7	4.8	1.5	6.2	9.7	3.0	20.3	5.5	0.4	5.9	1.5	10,830
Widowed	39.2	39.0	16.0	4.3	20.4	35.7	18.8	39.7	16.1	5.0	21.1	9.7	354
Divorced/separated	68.4	15.0	6.2	2.5	10.3	12.1	4.3	23.0	7.4	0.8	8.1	1.3	969
Not asked/missing	89.1	3.4	2.5	1.7	2.5	1.5	2.6	7.8	2.2	0.8	3.0	0.6	9,510
Residence													
Urban	86.1	8.2	1.9	1.0	2.5	3.4	1.4	11.6	1.8	0.4	2.2	0.4	9,670
Rural	79.8	10.3	4.4	2.1	5.6	6.7	3.4	14.4	4.9	0.9	5.7	1.6	19,758
Education[2]													
No education	77.2	10.0	5.6	4.1	6.3	8.9	8.0	13.7	6.1	2.9	9.0	3.7	3,563
Primary	81.4	9.1	4.0	1.9	5.4	5.9	2.6	13.6	4.3	0.6	4.9	1.2	14,450
Secondary	83.7	9.8	2.4	1.0	3.3	4.4	1.3	13.1	2.8	0.2	3.0	0.5	7,405
More than secondary	84.6	10.6	2.0	0.4	2.3	3.8	0.8	13.3	1.9	0.2	2.1	0.2	3,645
Wealth quintile													
Lowest	79.9	9.9	5.4	2.7	6.0	7.4	4.3	13.3	5.5	1.1	6.7	2.0	5,685
Second	78.3	10.2	4.7	2.2	6.6	6.8	3.4	15.2	5.5	0.8	6.4	1.6	5,988
Middle	81.0	10.4	3.4	1.8	4.8	6.2	2.8	14.0	4.3	0.6	4.9	1.4	6,034
Fourth	83.5	9.1	2.5	1.3	3.5	4.8	2.0	13.1	2.4	0.7	3.1	0.7	6,280
Highest	86.8	8.2	1.7	0.7	2.1	2.7	1.0	11.4	1.4	0.3	1.7	0.3	5,440
Total	81.8	9.6	3.6	1.8	4.6	5.6	2.7	13.5	3.9	0.7	4.6	1.2	29,428

Note: The data for this table were collected in the full household questionnaire but not in the short questionnaire. Total includes 26 men for whom information on age is missing and 84 men with missing information on education.
[1] If a person was reported to have difficulty in more than one domain, only the highest level of difficulty is shown.
[2] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

3.5 FERTILITY

Table 5 shows the total fertility rate (TFR) and age-specific fertility rates (ASFRs) among women by 5-year age groups for the 3-year period preceding the survey.
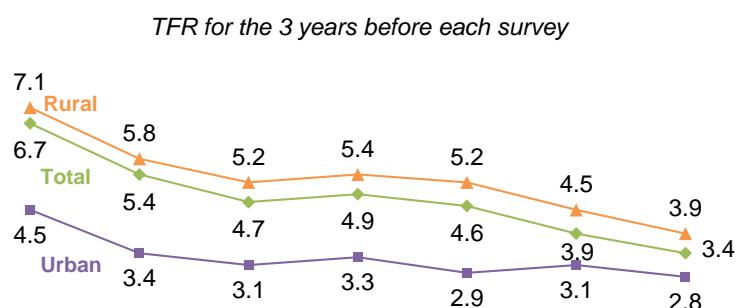
> **Total fertility rate**
> The average number of children a woman would have by the end of her childbearing years if she bore children at the current age-specific fertility rates. Age-specific fertility rates are calculated for the 3 years before the survey, based on detailed pregnancy histories provided by women.
> *Sample:* Women age 15–49

- If fertility were to remain constant at current levels, a woman in Kenya would bear an average of 3.4 children in her lifetime.

- Fertility is low among adolescents (73 births per 1,000 women age 15–19), peaks at 179 births per 1,000 among women age 20–24, and then decreases thereafter.

- The TFR is higher among women in rural areas than among those in urban areas (3.9 versus 2.8).

Trends: The TFR has declined markedly in Kenya over time. Between 1989 and 2022, the TFR declined by 3.3 children (from 6.7 to 3.4). Over the same period, the TFR among women in rural areas declined from 7.1 children to 3.9 children. Among urban women, the TFR declined from 4.5 children to 2.8 children (**Figure 1**).

Figure 1 Trends in fertility by residence

TFR for the 3 years before each survey

	1989 KDHS	1993 KDHS	1998 KDHS	2003 KDHS	2008–09 KDHS	2014 KDHS	2022 KDHS
Rural	7.1	5.8	5.2	5.4	5.2	4.5	3.9
Total	6.7	5.4	4.7	4.9	4.6	3.9	3.4
Urban	4.5	3.4	3.1	3.3	2.9	3.1	2.8

Note: Data from 2003 and later are nationally representative, while data collected before 2003 exclude the North Eastern region and several northern districts in the Eastern and Rift Valley regions.

Table 5 Current fertility

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the 3 years preceding the survey, according to residence, Kenya DHS 2022

	Residence		
Age group	Urban	Rural	Total
10–14	[0]	[3]	[2]
15–19	56	83	73
20–24	138	219	179
25–29	143	200	172
30–34	121	150	137
35–39	76	94	87
40–44	32	36	35
45–49	[2]	[7]	[5]
TFR (15–49)	2.8	3.9	3.4
GFR	105	134	122
CBR	30.1	26.6	27.7

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates are for the period 1–36 months preceding the interview. Rates for the 10–14 age group are based on retrospective data from women age 15–17.
TFR: Total fertility rate, expressed per woman
GFR: General fertility rate, expressed per 1,000 women age 15–44
CBR: Crude birth rate, expressed per 1,000 population

3.6 TEENAGE FERTILITY

Teenage pregnancy
Percentage of women age 15–19 who have ever been pregnant.
Sample: Women age 15–19

Table 6 presents the percentage of women age 15–19 who have ever had a live birth or a pregnancy loss, the percentage who are pregnant with their first child, and the percentage who have ever been pregnant by background characteristics.

▪ Fifteen percent of women age 15–19 have ever been pregnant; 12% have had a live birth, 1% have had a pregnancy loss, and 3% are currently pregnant.

- The percentage of women age 15–19 who have ever been pregnant increases with age, from 3% among those age 15 to 31% among those age 19.

- About 4 in 10 women age 15–19 who have no education have ever been pregnant, as compared with only 5% of women who have more than secondary education.

- Teenage women in the lowest wealth quintile are more likely to have ever been pregnant than women in the highest wealth quintile. The percentage of women who have ever been pregnant decreases from 21% among those in the lowest wealth quintile to 8% among those in the highest wealth quintile.

- The percentage of women age 15–19 who have ever been pregnant are highest in Samburu (50%), West Pokot (36%), Marsabit (29%), Narok (28%), Meru (24%), Homa Bay (23%), Migori (23%), Kajiado (22%), Siaya (21%), and Baringo (20%) and lowest in Nyeri and Nyandarua (5% each) (**Table 6C**).

Table 6 Teenage pregnancy

Percentage of women age 15–19 who have ever had a live birth, percentage who have ever had a pregnancy loss, percentage who are currently pregnant, and percentage who have ever been pregnant, according to background characteristics, Kenya DHS 2022

Background characteristic	Percentage of women age 15–19 who:				Number of women
	Have ever had a live birth	Have ever had a pregnancy loss[1]	Are currently pregnant	Have ever been pregnant	
Age					
15	2.1	0.0	0.8	2.8	1,163
16	4.2	0.3	1.2	5.9	1,197
17	10.0	1.2	2.4	12.8	1,203
18	16.4	1.1	5.3	20.9	1,195
19	27.4	1.6	5.0	31.1	1,266
Residence					
Urban	9.7	0.7	2.9	12.3	1,783
Rural	13.3	0.9	3.0	16.0	4,242
Education[2]					
No education	30.8	3.9	9.6	37.9	134
Primary	16.3	1.4	4.4	19.9	1,907
Secondary	9.9	0.5	2.0	12.0	3,760
More than secondary	4.0	0.0	0.8	4.8	194
Wealth quintile					
Lowest	17.8	1.6	4.0	21.1	1,235
Second	14.9	0.6	3.4	17.5	1,443
Middle	10.6	1.1	2.6	13.6	1,279
Fourth	10.0	0.4	3.0	12.9	1,064
Highest	6.0	0.4	1.6	7.5	1,004
Total	12.2	0.9	3.0	14.9	6,025

[1] Stillbirth, miscarriage, or abortion
[2] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

Table 6C Teenage pregnancy by county

Percentage of women age 15–19 who have ever had a live birth, percentage who have ever had a pregnancy loss, percentage who are currently pregnant, and percentage who have ever been pregnant, according to county, Kenya DHS 2022

| | Percentage of women age 15–19 who: | | | | |
County	Have ever had a live birth	Have ever had a pregnancy loss[1]	Are currently pregnant	Have ever been pregnant	Number of women
Mombasa	5.4	1.0	2.9	10.8	143
Kwale	11.5	2.9	3.7	14.8	118
Kilifi	10.3	1.3	3.8	12.5	224
Tana River	12.4	1.4	5.2	17.6	27
Lamu	11.5	0.8	1.9	13.7	24
Taita/Taveta	18.4	1.8	1.8	18.4	30
Garissa	11.6	0.2	4.2	14.8	85
Wajir	7.5	0.5	5.9	10.8	45
Mandera	11.4	0.4	3.0	14.6	49
Marsabit	20.6	5.2	9.0	29.4	20
Isiolo	13.6	0.4	3.1	16.7	27
Meru	16.9	1.0	7.6	23.6	206
Tharaka-Nithi	9.1	0.0	0.8	9.9	39
Embu	9.1	0.4	4.9	14.4	49
Kitui	9.2	0.0	0.0	9.2	142
Machakos	9.5	0.0	1.7	11.3	178
Makueni	8.2	0.0	2.9	11.1	151
Nyandarua	4.3	0.2	1.5	5.2	93
Nyeri	4.5	0.0	0.0	4.5	74
Kirinyaga	7.3	0.0	0.0	7.3	64
Murang'a	3.8	0.0	3.6	7.4	139
Kiambu	8.3	0.0	3.6	11.9	267
Turkana	15.0	0.0	4.4	18.5	56
West Pokot	32.2	2.7	6.1	36.3	82
Samburu	41.5	5.2	8.7	50.1	28
Trans Nzoia	14.8	1.9	2.6	17.8	146
Uasin Gishu	7.9	1.9	5.3	10.7	158
Elgeyo/Marakwet	9.6	1.4	2.5	12.1	32
Nandi	9.7	0.8	0.0	10.5	118
Baringo	14.0	1.5	6.3	20.3	86
Laikipia	8.6	0.6	1.3	9.1	69
Nakuru	13.6	0.8	3.7	17.3	283
Narok	25.9	2.5	3.0	28.1	176
Kajiado	20.3	0.0	3.0	21.8	97
Kericho	14.5	0.0	0.0	14.5	135
Bomet	7.2	1.2	1.2	9.0	152
Kakamega	12.3	0.5	2.8	15.1	328
Vihiga	3.9	0.0	4.6	7.7	113
Bungoma	14.8	1.8	4.2	18.6	294
Busia	13.1	2.9	3.0	18.3	149
Siaya	18.4	0.5	3.3	20.9	130
Kisumu	9.2	0.0	3.8	11.1	157
Homa Bay	18.7	2.6	2.9	23.2	159
Migori	20.4	0.6	4.0	23.0	159
Kisii	13.7	0.4	1.5	14.2	192
Nyamira	14.7	0.0	1.5	15.5	81
Nairobi City	8.0	0.0	0.4	8.4	452
Total	12.2	0.9	3.0	14.9	6,025

[1] Stillbirth, miscarriage, or abortion

3.7   FERTILITY PREFERENCES

Desire for another child

Women were asked whether they wanted more children and, if so, how long they would prefer to wait before the birth of the next child. Women who are sterilized are assumed not to want any more children.

Sample: Currently married women age 15–49

Table 7 shows the fertility preferences according to number of living children of current married women age 15–49. The results show that:

▪ About half (47%) of currently married women age 15–49 want to have another child soon or later; 17% want to have another child soon, and 30% want to wait at least 2 years (**Table 7**).

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- More than 4 in 10 currently married women want to limit childbearing; 43% want no more children and 3% are sterilized.

- The desire to have another child decreases sharply with the number of children a woman has; 88% of currently married women with no children want to have a child (66% soon and 22% within the next 2 years). The percentage decreases to 33% among women with three children and to 16% among those with six or more children.

Table 7 Fertility preferences according to number of living children

Percent distribution of currently married women age 15–49 by desire for children, according to number of living children, Kenya DHS 2022

Desire for children	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Have another soon[2]	66.0	30.2	18.1	10.4	7.7	6.4	7.8	16.7
Have another later[3]	22.1	58.2	43.3	22.7	14.3	11.9	8.5	30.1
Have another, undecided when	0.9	1.1	0.7	0.6	0.2	0.1	0.6	0.6
Undecided	3.4	3.7	6.4	6.4	4.6	4.7	6.0	5.4
Want no more	2.5	5.6	29.5	56.2	66.2	69.6	68.6	43.0
Sterilized[4]	0.7	0.1	0.6	2.4	4.7	5.5	6.0	2.5
Declared infecund	4.3	1.1	1.4	1.3	2.1	1.9	2.6	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	349	1,555	2,320	1,947	1,377	764	1,007	9,319

Note: The data for this table were collected in the full woman's questionnaire but not in the short questionnaire.
[1] The number of living children includes a woman's current pregnancy.
[2] Wants next birth within 2 years
[3] Wants to delay next birth for 2 or more years
[4] Includes both female and male sterilization

3.8 FAMILY PLANNING

3.8.1 Contraceptive use

> **Contraceptive prevalence**
> Percentage of women who use any contraceptive method.
> *Sample:* Currently married women age 15–49 and sexually active unmarried women age 15–49

> **Modern methods**
> Include male and female sterilization, injectables, intrauterine devices (IUDs), contraceptive pills, implants, female and male condoms, emergency contraception, the standard days method, and the lactational amenorrhea method.

- Sixty-three percent of currently married women are using a contraceptive method, with 57% using a modern method (**Table 8**).

- Among sexually active unmarried women age 15–49, 70% use a contraceptive method, and 59% of these women use a modern method.

- The use of traditional methods is more common among sexually active unmarried women than among currently married women (11% and 6%, respectively).

- Among currently married women, the most commonly used methods are injectables (20%), implants (19%), and contraceptive pills (8%). Among sexually active unmarried women, male condoms are the most commonly used contraceptive method (20%), followed by injectables (16%) and implants (11%).

- The percentage of currently married women using a modern method is lowest in Mandera (2%), followed by Wajir (3%), Marsabit (6%), and Garissa (11%) with Embu (82%) recording the highest (**Table 8C**).

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Table 8 Current use of contraception according to background characteristics

Percent distribution of currently married women and sexually active unmarried women age 15–49 by contraceptive method currently used, according to background characteristics, Kenya DHS 2022

Background characteristic	Any method	Any modern method	Female sterili-zation	Male sterili-zation	IUD	Injec-tables	Im-plants	Pill	Male con-dom	Female con-dom	Emer-gency contra-ception	SDM	LAM	Other	Any tradi-tional method	Rhythm	With-drawal	Other	Not currently using	Total	Number of women
							CURRENTLY MARRIED WOMEN														
Number of living children																					
0	26.4	15.9	0.2	0.0	0.1	2.4	1.6	4.6	4.5	0.0	2.1	0.3	0.0	0.0	10.5	6.8	3.6	0.1	73.6	100.0	1,020
1–2	64.5	59.0	0.4	0.0	4.9	20.5	20.4	9.6	1.6	0.0	0.4	0.4	0.8	0.0	5.5	3.7	1.3	0.5	35.5	100.0	7,386
3–4	70.2	65.0	3.3	0.0	5.7	23.4	19.6	9.3	1.8	0.0	0.2	0.6	1.0	0.1	5.1	3.9	0.8	0.4	29.8	100.0	6,094
5+	55.3	50.1	5.4	0.0	2.5	17.5	17.6	3.9	1.3	0.1	0.1	0.5	1.2	0.1	5.2	4.0	1.1	0.2	44.7	100.0	3,321
Age																					
15–19	40.7	36.9	0.0	0.0	1.3	12.8	17.1	1.3	3.7	0.0	0.0	0.0	0.7	0.0	3.8	2.9	0.9	0.0	59.3	100.0	456
20–24	59.2	53.4	0.1	0.0	1.3	20.1	20.6	6.9	2.0	0.0	0.9	0.6	0.9	0.0	5.8	3.4	2.3	0.1	40.8	100.0	2,635
25–29	64.8	60.6	0.2	0.0	3.2	23.1	22.2	8.4	1.4	0.0	0.4	0.2	1.6	0.0	4.2	2.7	1.0	0.5	35.2	100.0	4,055
30–34	66.2	60.6	1.3	0.0	5.3	20.4	21.2	9.3	1.7	0.0	0.4	0.3	0.8	0.1	5.6	4.0	1.3	0.2	33.8	100.0	3,460
35–39	66.0	60.1	2.4	0.0	6.4	21.2	17.5	9.5	1.4	0.0	0.1	0.5	0.8	0.2	5.9	4.7	0.9	0.3	34.0	100.0	3,234
40–44	64.6	57.1	6.0	0.1	5.8	18.4	14.6	7.8	2.3	0.1	0.4	1.0	0.5	0.1	7.5	5.5	1.2	0.9	35.4	100.0	2,246
45–49	51.7	45.6	8.5	0.1	5.9	12.3	8.9	7.0	2.0	0.0	0.1	0.8	0.1	0.0	6.2	5.1	0.7	0.3	48.3	100.0	1,735
Residence																					
Urban	63.1	56.2	1.4	0.0	6.8	16.2	16.3	11.6	2.3	0.0	0.5	0.4	0.7	0.0	6.9	4.8	1.5	0.6	36.9	100.0	6,953
Rural	62.2	57.4	2.9	0.0	2.9	22.2	20.0	6.0	1.4	0.0	0.3	0.5	1.0	0.1	4.8	3.5	1.0	0.3	37.8	100.0	10,869
Education[1]																					
No education	25.0	20.5	1.3	0.0	0.5	8.5	6.1	1.2	0.3	0.0	0.0	0.0	2.5	0.0	4.5	3.2	1.2	0.1	75.0	100.0	1,373
Primary	64.4	60.2	3.1	0.0	2.7	23.8	21.7	6.0	1.4	0.0	0.2	0.4	0.7	0.1	4.2	3.1	0.8	0.3	35.6	100.0	7,376
Secondary	65.5	60.3	1.7	0.0	3.9	20.8	19.5	11.0	1.9	0.0	0.3	0.5	0.8	0.1	5.2	3.8	1.0	0.4	34.5	100.0	5,523
More than secondary	68.0	58.0	2.0	0.0	10.9	13.2	15.1	11.1	2.9	0.0	1.0	1.0	0.9	0.0	10.0	6.9	2.5	0.6	32.0	100.0	3,339
Wealth quintile																					
Lowest	46.7	43.0	1.5	0.0	0.9	18.6	16.9	2.2	1.1	0.0	0.1	0.1	1.6	0.0	3.6	2.7	0.7	0.2	53.3	100.0	2,994
Second	65.7	61.3	3.1	0.0	1.5	25.5	23.3	4.7	1.6	0.0	0.1	0.6	0.9	0.1	4.4	3.4	0.7	0.3	34.3	100.0	3,125
Middle	65.1	60.4	3.2	0.1	2.8	23.6	20.5	7.4	1.5	0.0	0.2	0.4	0.6	0.1	4.8	3.4	1.1	0.3	34.9	100.0	3,330
Fourth	66.3	60.1	1.9	0.0	4.5	21.8	18.5	9.3	1.7	0.1	0.6	0.7	0.9	0.1	6.2	4.9	1.2	0.2	33.7	100.0	3,945
Highest	65.7	57.8	2.0	0.0	10.1	12.2	14.8	14.2	2.5	0.0	0.7	0.6	0.6	0.0	8.0	5.1	2.0	0.8	34.3	100.0	4,427
Total	62.5	56.9	2.3	0.0	4.4	19.9	18.5	8.1	1.8	0.0	0.4	0.5	0.9	0.1	5.6	4.0	1.2	0.4	37.5	100.0	17,822
							SEXUALLY ACTIVE UNMARRIED WOMEN[2]														
Age																					
15–19	58.4	43.8	0.0	0.0	0.0	6.0	3.0	3.2	27.3	1.1	3.2	0.0	0.0	0.0	14.6	9.9	4.7	0.0	41.6	100.0	120
20–24	73.1	60.9	0.0	0.0	0.0	14.1	8.5	3.4	30.6	0.0	4.1	0.1	0.0	0.0	12.2	5.9	6.4	0.0	26.9	100.0	283
25–29	73.2	62.8	0.0	0.0	4.2	18.6	18.2	3.2	13.3	0.0	2.7	2.4	0.0	0.2	10.4	5.1	5.3	0.0	26.8	100.0	146
30–34	68.5	66.1	0.0	0.0	5.8	21.5	16.1	13.6	7.8	0.0	1.2	0.0	0.0	0.0	2.4	2.4	0.0	0.0	31.5	100.0	120
35–39	82.1	65.7	3.2	0.0	6.0	23.6	13.3	10.4	8.2	0.0	1.0	0.0	0.0	0.0	16.5	5.5	4.2	6.8	17.9	100.0	97
40–44	73.0	64.1	2.0	0.0	6.8	21.9	12.0	5.4	14.9	0.0	1.2	0.0	0.0	0.0	8.8	8.0	0.8	0.0	27.0	100.0	66
45–49	(46.3)	(40.0)	(0.4)	(0.0)	(3.1)	(7.5)	(10.0)	(0.0)	(19.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(6.3)	(6.3)	(0.0)	(0.0)	(53.7)	100.0	48
Residence																					
Urban	73.1	58.3	0.1	0.0	4.6	11.4	6.9	6.5	24.1	0.0	4.2	0.4	0.0	0.1	14.9	6.8	6.7	1.3	26.9	100.0	434
Rural	67.0	60.2	0.9	0.0	1.1	20.6	15.5	4.5	15.8	0.3	1.0	0.5	0.0	0.0	6.9	5.1	1.5	0.2	33.0	100.0	446
Total	70.0	59.2	0.5	0.0	2.8	16.1	11.3	5.5	19.9	0.1	2.6	0.4	0.0	0.0	10.8	6.0	4.1	0.8	30.0	100.0	880

Note: If more than one method is used, only the most effective method is considered in this tabulation. Figures in parentheses are based on 25–49 unweighted cases.
SDM = Standard days method
LAM = Lactational amenorrhea method
[1] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.
[2] Women who have had sexual intercourse within 30 days preceding the survey

Table 8C Current use of contraception according to county

Percent distribution of currently married women age 15–49 by contraceptive method currently used, according to county, Kenya DHS 2022

County	Any method	Any modern method	Modern method												Traditional method				Not currently using	Total	Number of women
			Female sterilization	Male sterilization	IUD	Injectables	Implants	Pill	Male condom	Female condom	Emergency contraception	SDM	LAM	Other	Any traditional method	Rhythm	Withdrawal	Other			
Mombasa	46.7	42.1	0.8	0.0	3.7	16.6	14.3	3.8	1.7	0.0	0.2	0.6	0.3	0.0	4.6	2.5	1.8	0.2	53.3	100.0	546
Kwale	34.6	34.6	0.8	0.0	2.8	18.2	9.6	2.3	0.3	0.0	0.0	0.1	0.5	0.0	0.0	0.0	0.0	0.0	65.4	100.0	302
Kilifi	48.6	44.7	1.6	0.0	2.1	17.4	17.8	3.7	0.1	0.0	0.0	1.6	0.4	0.0	3.9	2.6	1.3	0.0	51.4	100.0	483
Tana River	24.8	23.2	0.5	0.0	1.0	13.1	5.1	1.1	0.5	0.0	0.8	0.0	1.2	0.0	1.6	0.7	0.9	0.0	75.2	100.0	107
Lamu	42.4	39.2	0.5	0.4	1.1	13.7	10.5	5.6	1.1	0.0	0.0	2.8	3.4	0.0	3.2	1.5	1.3	0.5	57.6	100.0	59
Taita/Taveta	67.5	64.5	2.8	0.0	4.2	29.3	15.4	7.3	1.8	0.0	0.2	2.5	0.8	0.0	3.0	2.6	0.5	0.5	32.5	100.0	130
Garissa	12.7	11.1	1.4	0.0	0.2	4.3	3.5	1.1	0.1	0.0	0.0	0.0	0.5	0.0	1.6	1.4	0.2	0.0	87.3	100.0	170
Wajir	3.0	2.8	0.1	0.0	0.2	0.9	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	97.0	100.0	92
Mandera	2.1	1.8	0.0	0.0	0.0	0.6	0.2	0.3	0.0	0.0	0.0	0.0	0.8	0.0	0.3	0.3	0.0	0.0	97.9	100.0	138
Marsabit	5.9	5.6	0.4	0.0	0.0	2.5	2.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0	94.1	100.0	94
Isiolo	30.7	28.7	0.8	0.0	1.4	15.8	4.4	5.1	0.7	0.0	0.0	0.0	0.6	0.0	1.9	0.2	1.2	0.5	69.3	100.0	76
Meru	76.0	69.7	0.7	0.0	3.3	31.3	22.9	9.7	0.1	0.0	0.3	0.0	0.0	1.3	6.3	4.1	1.6	0.6	24.0	100.0	569
Tharaka-Nithi	74.7	67.9	3.0	0.0	4.5	31.3	19.5	7.3	1.7	0.0	0.0	0.3	0.3	0.0	6.7	4.9	1.8	0.0	25.3	100.0	171
Embu	81.7	75.2	1.8	0.0	7.5	21.1	19.6	22.9	0.5	0.0	0.0	1.7	0.1	0.0	6.6	5.6	0.6	0.4	18.3	100.0	214
Kitui	68.3	62.4	1.2	0.0	1.0	35.2	16.3	4.8	0.7	0.0	2.4	0.7	0.0	0.0	6.0	2.7	3.2	0.1	31.7	100.0	449
Machakos	76.3	66.4	3.4	0.0	4.9	26.5	13.4	16.0	1.9	0.0	0.2	0.3	0.0	0.0	9.8	7.5	0.6	1.8	23.7	100.0	553
Makueni	73.3	64.4	4.4	0.0	2.9	24.8	19.6	10.2	1.5	0.0	0.0	0.1	0.7	0.0	8.9	7.6	0.8	0.5	26.7	100.0	366
Nyandarua	71.4	66.7	2.3	0.0	12.2	22.9	13.1	12.0	2.5	0.0	0.0	0.1	1.1	0.5	4.7	4.4	0.4	0.0	28.6	100.0	225
Nyeri	81.0	70.5	3.7	0.0	18.8	16.9	12.6	15.7	1.5	0.0	0.0	0.0	1.3	0.3	10.5	8.2	2.3	0.0	19.0	100.0	254
Kirinyaga	76.6	70.8	0.8	0.0	15.4	17.5	16.2	19.0	1.4	0.0	0.3	0.0	0.2	0.0	5.8	4.6	0.6	0.7	23.4	100.0	253
Murang'a	72.7	67.3	1.4	0.0	7.0	17.4	14.9	20.4	1.9	0.0	1.3	0.7	2.2	0.0	5.4	5.4	0.0	0.0	27.3	100.0	344
Kiambu	77.4	68.2	2.5	0.0	9.7	14.7	22.5	16.8	0.6	0.0	0.0	0.6	0.7	0.0	9.2	7.0	1.0	1.2	22.6	100.0	1,116
Turkana	43.8	30.7	1.3	0.0	0.0	9.3	5.7	0.3	0.2	0.0	0.2	0.5	13.2	0.0	13.1	11.9	0.8	0.4	56.2	100.0	204
West Pokot	23.5	23.2	0.9	0.0	0.2	8.3	11.7	1.6	0.1	0.0	0.0	0.0	0.4	0.0	0.3	0.3	0.0	0.0	76.5	100.0	264
Samburu	33.7	25.4	0.3	0.0	2.8	8.3	10.6	2.3	0.2	0.0	0.0	0.0	0.9	0.0	8.3	6.1	2.2	0.0	66.3	100.0	106
Trans Nzoia	69.8	65.4	3.0	0.0	2.2	24.4	27.0	4.9	1.5	0.0	0.1	1.0	1.2	0.0	4.4	2.6	0.6	1.2	30.2	100.0	361
Uasin Gishu	71.1	62.7	1.5	0.0	5.8	22.9	23.2	5.7	1.8	0.0	0.5	0.0	1.2	0.0	8.4	6.6	1.8	0.0	28.9	100.0	525
Elgeyo/Marakwet	74.3	59.0	3.4	0.0	2.8	24.4	20.4	3.0	2.2	0.2	0.8	0.1	1.7	0.0	15.3	10.9	4.1	0.3	25.7	100.0	143
Nandi	65.6	60.0	1.6	0.0	0.2	29.8	21.0	3.4	3.0	0.0	0.3	0.2	0.5	0.0	5.6	4.6	1.0	0.0	34.4	100.0	327
Baringo	57.8	47.7	0.5	0.0	3.3	16.6	17.8	3.8	1.4	0.0	0.3	0.6	3.5	0.0	10.1	9.1	1.0	0.0	42.2	100.0	200
Laikipia	72.3	64.5	4.5	0.0	6.9	24.0	15.0	12.1	1.2	0.0	0.5	0.0	0.4	0.0	7.8	7.3	0.5	0.0	27.7	100.0	161
Nakuru	72.5	66.6	3.2	0.0	7.4	23.5	18.5	8.6	2.0	0.0	0.5	1.2	1.7	0.0	5.9	3.8	1.6	0.5	27.5	100.0	906
Narok	65.2	52.2	1.6	0.0	1.0	16.5	24.5	1.8	0.8	0.0	0.0	1.5	4.5	0.0	13.0	6.4	6.2	0.5	34.8	100.0	444
Kajiado	63.9	57.3	1.1	0.0	7.6	21.9	12.9	10.5	2.1	0.0	0.4	0.0	0.5	0.0	6.6	3.7	2.9	0.0	36.1	100.0	520
Kericho	60.2	60.0	2.8	0.0	1.6	20.8	29.6	3.5	1.1	0.0	0.0	0.0	0.6	0.0	0.3	0.0	0.3	0.0	39.8	100.0	395
Bomet	63.9	57.8	8.3	0.0	1.2	22.6	21.3	2.2	0.7	0.0	0.6	0.0	0.8	0.0	6.1	5.9	0.3	0.0	36.1	100.0	351
Kakamega	66.7	63.4	4.1	0.0	2.9	25.0	26.4	2.8	1.6	0.0	0.0	0.3	0.0	0.2	3.4	2.9	0.5	0.0	33.3	100.0	715
Vihiga	62.4	60.1	3.3	0.0	2.1	15.1	34.6	4.1	0.8	0.0	0.0	0.0	0.0	0.0	2.3	2.0	0.3	0.0	37.6	100.0	171
Bungoma	66.0	63.7	3.4	0.3	1.7	23.4	26.8	4.3	1.4	0.3	0.3	1.6	0.3	0.0	2.3	1.2	1.1	0.0	34.0	100.0	614
Busia	56.4	55.4	5.1	0.3	3.2	14.1	27.6	1.4	2.4	0.0	0.3	0.4	0.6	0.0	1.0	0.8	0.0	0.3	43.6	100.0	360
Siaya	43.5	42.9	2.2	0.0	0.5	15.6	17.0	3.7	3.6	0.0	0.3	0.0	0.0	0.0	0.6	0.4	0.1	0.0	56.5	100.0	299
Kisumu	60.0	56.6	0.7	0.0	1.7	19.1	25.0	4.3	4.0	0.0	0.3	0.8	0.6	0.0	3.4	3.1	0.3	0.0	40.0	100.0	413
Homa Bay	56.8	54.3	3.6	0.0	0.7	20.7	20.9	1.8	6.6	0.0	0.0	0.0	0.0	0.0	2.5	1.9	0.7	0.0	43.2	100.0	391
Migori	60.2	54.7	2.5	0.0	2.1	15.9	28.0	1.2	4.1	0.4	0.0	0.0	0.3	0.0	5.5	4.8	0.2	0.4	39.8	100.0	397
Kisii	68.1	63.5	3.2	0.0	3.5	26.4	19.9	5.8	1.4	0.0	0.2	2.1	1.1	0.0	4.5	2.7	0.5	1.3	31.9	100.0	470
Nyamira	67.9	64.8	5.3	0.0	1.8	33.7	18.3	2.7	1.3	0.0	0.3	0.6	0.7	0.0	3.1	2.6	0.5	0.0	32.1	100.0	178
Nairobi City	62.5	56.2	1.3	0.0	6.3	14.4	12.9	16.4	3.1	0.0	1.0	0.0	0.8	0.0	6.3	4.0	1.7	0.6	37.5	100.0	2,195
Total	62.5	56.9	2.3	0.0	4.4	19.9	18.5	8.1	1.8	0.0	0.4	0.5	0.9	0.1	5.6	4.0	1.2	0.4	37.5	100.0	17,822
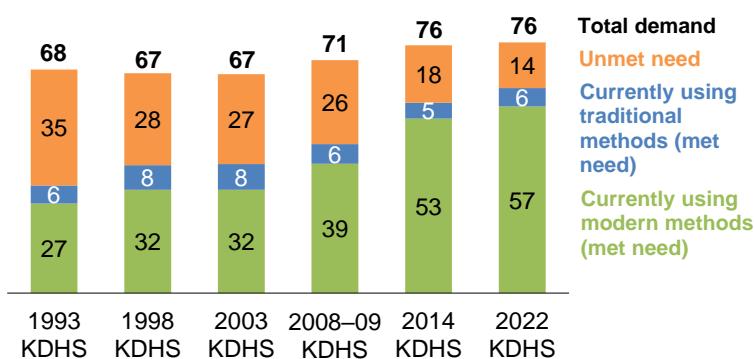
Note: If more than one method is used, only the most effective method is considered in this tabulation.
SDM = Standard days method
LAM = Lactational amenorrhea method

Trends: There was little difference in the percentage of currently married women using modern contraceptive methods between 1993 and 2003. However, the percentage has since increased steadily over time, from 32% in 2003 to 39% in 2008–09, 53% in 2014, and 57% in 2022 (**Figure 2**).

Figure 2 **Trends in use of, need for, and demand for family planning**

Percentage of currently married women age 15–49

Note: Data from 2003 and later are nationally representative, while data collected before 2003 exclude the North Eastern region and several northern districts in the Eastern and Rift Valley regions.

3.8.2 Need and demand for family planning

Table 9 presents data on unmet need, met need, and total demand for family planning among currently married and sexually active unmarried women. These indicators help evaluate the extent to which family planning programs in Kenya are meeting the demand for services.

> **Unmet need for family planning**
> Proportion of women who (1) are not pregnant and not postpartum amenorrheic and are considered fecund and want to postpone their next birth for 2 or more years or stop childbearing altogether but are not using a contraceptive method, (2) have a mistimed or unwanted current pregnancy, or (3) are postpartum amenorrheic and their last birth in the last 2 years was mistimed or unwanted.
> **Met need for family planning**
> Current contraceptive use (any method).
> *Sample:* Currently married women age 15–49 and sexually active unmarried women age 15–49

Demand for family planning:	Unmet need for family planning + met need (current contraceptive use [any method])

Proportion of demand satisfied:	Current contraceptive use (any method)
	Unmet need + current contraceptive use (any method)

Proportion of demand satisfied by modern methods:	Current contraceptive use (any modern method)
	Unmet need + current contraceptive use (any method)

- Seventy-six percent of currently married women and 89% of sexually active unmarried women have a demand for family planning.

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- Fourteen percent of currently married women and 19% of sexually active unmarried women have an unmet need for family planning.

- If all women who said they want to space or limit their children were to use family planning methods, the contraceptive prevalence rate would increase from 62% to 76% among currently married women and from 70% to 89% among sexually active unmarried women.

Trends: The total demand for family planning has generally increased from 1993 to 2022. Over the same period, unmet need has declined from 35% to 14% (**Figure 2**).

- The higher the education level, the lower the unmet need for family planning; the percentage of currently married women with an unmet need for family planning declines from 23% among those with no education to 10% among those with more than a secondary education.

- Unmet need for family planning also declines with increasing wealth, from 22% among currently married women in the lowest wealth quintile to 10% among those in the highest wealth quintile.

- The counties with the highest unmet need for family planning are Marsabit (38%), Tana River (34%), West Pokot (30%), Samburu (29%), Siaya (27%), and Isiolo (27%) (**Table 9C**).

Table 9 Need and demand for family planning among currently married women and sexually active unmarried women

Percentage of currently married women and sexually active unmarried women age 15–49 with unmet need for family planning, percentage with met need for family planning, percentage with met need for family planning who are using modern methods, percentage with demand for family planning, percentage of the demand for family planning that is satisfied, and percentage of the demand for family planning that is satisfied with modern methods, according to background characteristics, Kenya DHS 2022

Background characteristic	Unmet need for family planning	Met need for family planning (currently using)		Total demand for family planning[3]	Number of women	Percentage of demand satisfied[1]	
		All methods	Modern methods[2]			All methods	Modern methods[2]
CURRENTLY MARRIED WOMEN							
Age							
15–19	21.6	43.9	38.9	65.5	244	67.0	59.4
20–24	16.9	57.7	51.8	74.6	1,358	77.4	69.5
25–29	11.8	65.0	61.1	76.9	2,085	84.6	79.5
30–34	13.0	65.6	59.8	78.6	1,824	83.4	76.1
35–39	14.2	67.0	61.6	81.2	1,707	82.5	75.8
40–44	14.0	63.6	57.1	77.6	1,147	82.0	73.5
45–49	13.4	49.8	44.7	63.2	954	78.8	70.7
Residence							
Urban	11.7	62.4	55.7	74.1	3,616	84.2	75.2
Rural	15.4	62.0	57.6	77.3	5,703	80.1	74.4
Education[4]							
No education	22.8	22.5	19.0	45.3	724	49.7	42.0
Primary	15.2	64.3	60.5	79.5	3,842	80.9	76.1
Secondary	12.7	65.7	60.6	78.4	2,908	83.8	77.3
More than secondary	9.7	67.4	57.6	77.1	1,751	87.4	74.7
Wealth quintile							
Lowest	21.6	45.9	43.1	67.5	1,559	68.0	63.8
Second	14.7	66.6	62.8	81.3	1,631	82.0	77.3
Middle	13.7	64.8	60.5	78.6	1,711	82.5	77.0
Fourth	12.0	65.1	59.0	77.1	2,096	84.5	76.6
Highest	10.1	65.2	57.2	75.3	2,322	86.5	76.0
Total	13.9	62.1	56.8	76.1	9,319	81.7	74.7
SEXUALLY ACTIVE UNMARRIED WOMEN[5]							
Age							
15–19	34.5	58.4	43.8	92.8	120	62.9	47.2
20–24	21.1	73.1	60.9	94.2	283	77.6	64.6
25–29	16.5	73.2	62.8	89.8	146	81.6	70.0
30–34	15.7	68.5	66.1	84.2	120	81.4	78.5
35–39	2.7	82.1	65.7	84.9	97	96.8	77.4
40–44	18.6	73.0	64.1	91.6	66	79.7	70.0
45–49	(21.8)	(46.3)	(40.0)	(68.1)	48	(68.0)	(58.8)
Residence							
Urban	16.6	73.1	58.3	89.7	434	81.5	64.9
Rural	21.8	67.0	60.2	88.8	446	75.5	67.7
Total	19.2	70.0	59.2	89.3	880	78.5	66.4

Note: Data for this table were collected in the full woman's questionnaire but not in the short questionnaire. Numbers in the table correspond to the revised definition of unmet need described in Bradley et al. 2012. Figures in parentheses are based on 25–49 unweighted cases.
[1] Percentage of demand satisfied is met need divided by total demand.
[2] Modern methods include female sterilization, male sterilization, IUD, injectables, implants, pill, male condom, female condom, emergency contraception, standard days method (SDM), lactational amenorrhea method (LAM), and other modern methods.
[3] Total demand is the sum of unmet need and met need.
[4] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.
[5] Women who have had sexual intercourse within 30 days preceding the survey

Table 9C Need and demand for family planning among currently married women by county

Percentage of currently married women age 15–49 with unmet need for family planning, percentage with met need for family planning, percentage with met need for family planning who are using modern methods, percentage with demand for family planning, percentage of the demand for family planning that is satisfied, and percentage of the demand for family planning that is satisfied with modern methods, according to county, Kenya DHS 2022

County	Unmet need for family planning	Met need for family planning (currently using)		Total demand for family planning[3]	Number of women	Percentage of demand satisfied[1]	
		All methods	Modern methods[2]			All methods	Modern methods[2]
Mombasa	19.1	46.8	40.9	65.9	281	71.0	62.0
Kwale	24.4	32.5	32.5	56.9	159	57.1	57.1
Kilifi	17.9	51.0	46.9	68.9	255	74.0	68.1
Tana River	33.6	24.5	22.9	58.1	56	42.2	39.4
Lamu	16.8	46.5	41.0	63.3	33	73.4	64.8
Taita/Taveta	12.8	67.1	63.9	80.0	67	84.0	80.0
Garissa	10.8	15.2	12.6	26.1	94	58.5	48.4
Wajir	12.7	4.2	4.2	16.9	52	24.9	24.9
Mandera	17.3	0.7	0.7	18.0	75	4.1	4.1
Marsabit	37.6	4.8	4.8	42.4	50	11.4	11.4
Isiolo	27.3	33.0	31.0	60.2	43	54.8	51.5
Meru	7.8	77.7	71.0	85.5	291	90.9	83.1
Tharaka-Nithi	9.7	72.9	67.4	82.6	86	88.2	81.6
Embu	2.2	81.7	74.9	83.9	109	97.4	89.3
Kitui	17.7	67.4	62.5	85.1	218	79.2	73.4
Machakos	6.7	77.2	66.0	84.0	297	92.0	78.6
Makueni	10.8	69.3	60.6	80.1	199	86.5	75.7
Nyandarua	8.6	75.9	72.6	84.4	119	89.9	85.9
Nyeri	4.9	79.7	72.9	84.6	132	94.2	86.2
Kirinyaga	6.7	73.7	68.0	80.4	135	91.7	84.5
Murang'a	5.3	73.0	69.0	78.4	164	93.2	88.1
Kiambu	8.0	74.5	66.1	82.4	574	90.3	80.2
Turkana	15.6	39.4	30.2	55.1	105	71.6	54.9
West Pokot	30.3	23.2	22.6	53.5	138	43.3	42.3
Samburu	29.4	33.1	26.5	62.5	52	52.9	42.5
Trans Nzoia	13.6	69.2	65.8	82.8	180	83.6	79.4
Uasin Gishu	13.3	67.4	60.3	80.6	284	83.6	74.7
Elgeyo/Marakwet	13.5	71.1	57.3	84.6	72	84.0	67.7
Nandi	17.7	63.8	58.6	81.6	173	78.3	71.9
Baringo	16.6	55.4	44.8	72.0	103	77.0	62.2
Laikipia	4.7	75.7	66.8	80.4	84	94.1	83.0
Nakuru	8.3	72.1	64.6	80.4	501	89.7	80.3
Narok	14.8	65.9	55.2	80.7	242	81.7	68.4
Kajiado	12.5	59.9	54.8	72.4	262	82.7	75.7
Kericho	17.1	60.0	60.0	77.1	197	77.8	77.8
Bomet	16.7	63.3	56.9	80.0	187	79.1	71.1
Kakamega	13.4	68.7	64.9	82.2	381	83.6	79.0
Vihiga	18.3	60.0	57.6	78.3	98	76.6	73.6
Bungoma	14.6	65.0	62.9	79.7	311	81.6	79.0
Busia	18.6	57.7	56.0	76.3	195	75.6	73.4
Siaya	27.3	42.2	41.6	69.5	155	60.8	59.9
Kisumu	16.4	60.5	57.1	76.9	207	78.7	74.2
Homa Bay	17.0	64.9	63.3	81.9	200	79.2	77.3
Migori	20.1	60.3	54.9	80.4	205	74.9	68.3
Kisii	14.9	68.7	63.2	83.6	277	82.1	75.6
Nyamira	15.9	62.1	58.9	78.0	92	79.6	75.5
Nairobi City	12.5	62.5	57.5	75.1	1,129	83.3	76.6
Total	13.9	62.1	56.8	76.1	9,319	81.7	74.7

Note: Data for this table were collected in the full woman's questionnaire but not in the short questionnaire. Numbers in the table correspond to the revised definition of unmet need described in Bradley et al. 2012.
[1] Percentage of demand satisfied is met need divided by total demand.
[2] Modern methods include female sterilization, male sterilization, IUD, injectables, implants, pill, male condom, female condom, emergency contraception, standard days method (SDM), lactational amenorrhea method (LAM), and other modern methods.
[3] Total demand is the sum of unmet need and met need.

3.9   MATERNAL CARE

Proper care during pregnancy and delivery is important for the health of both the mother and the baby. **Table 10** and **Table 10C** present key indicators related to maternal care for the most recent live birth or stillbirth in the .

3.9.1 Antenatal care

> **Antenatal care from a skilled provider**
> Pregnancy care received from skilled providers, such as doctors, nurses, midwives, or clinical officers.
> *Sample:* Women age 15–49 who had a live birth or stillbirth in the 2 years before the survey

Antenatal care (ANC) from a skilled provider is important to monitor pregnancy and reduce morbidity and mortality risks for the mother and child during pregnancy, delivery, and the postnatal period.

- Nearly all women (98%) reported receiving antenatal care from a skilled provider for their most recent live birth or stillbirth in the 2-year period before the survey.

- Overall, 66% of women had four or more ANC visits for their most recent live birth or stillbirth.

- Nine in 10 women took iron-containing supplements during their most recent pregnancy.

- The percentage of women who had four or more ANC visits for their last live birth increases with mother's education from 49% among those with no education to 83% among those with more than a secondary education.

- The percentage of women with four or more ANC visits for their last live birth is higher in urban areas (74%) than in rural areas (62%).

- At the county level, the proportion of women who had four or more ANC visits for their last live birth is lowest in Garissa (31%) and highest in Nyeri (82%).

3.9.2 Tetanus toxoid

> **Protection against neonatal tetanus**
> The number of tetanus toxoid injections needed to protect a baby from neonatal tetanus depends on the mother's vaccinations. A birth is protected against neonatal tetanus if the mother has received any of the following:
> - Two tetanus toxoid injections during the pregnancy
> - Two or more injections, the last one within 3 years of the birth
> - Three or more injections, the last one within 5 years of the birth
> - Four or more injections, the last one within 10 years of the birth
> - Five or more injections at any time prior to the birth
> *Sample:* Women age 15–49 with a live birth in the 2 years before the survey

Tetanus toxoid injections are given during pregnancy to prevent neonatal tetanus, a major cause of early infant death in many countries. Neonatal tetanus is often caused by failure to observe hygienic procedures during delivery.

- Overall, 75% of women with a live birth in the 2 years preceding the survey received sufficient tetanus toxoid injections to protect their baby against neonatal tetanus.

- The percentage of women whose most recent live birth was protected from tetanus increases with mother's education and wealth, from 66% among women with no education to 81% among those with more than a secondary education and from 68% among women in the lowest wealth quintile to 81% among those in the highest quintile.

- By county, the percentage of women whose most recent live birth was protected from tetanus ranges from 54% in Mandera to 92% in Busia.

Table 10 Maternal care indicators

Among women age 15–49 who had a live birth and/or a stillbirth in the 2 years preceding the survey, percentage who received antenatal care (ANC) from a skilled provider for the most recent live birth or stillbirth, percentage with four or more ANC visits for the most recent live birth or stillbirth, percentage who took any iron-containing supplements during the pregnancy for the most recent live birth or stillbirth, and percentage whose most recent live birth was protected against neonatal tetanus; among all live births and stillbirths in the 2 years preceding the survey, percentage delivered by a skilled provider and percentage delivered in a health facility; and among women age 15–49 with a live birth or stillbirth in the 2 years preceding the survey, percentage who received a postnatal check during the first 2 days after giving birth, according to background characteristics, Kenya DHS 2022

Background characteristic	Women who had a live birth and/or a stillbirth in the 2 years preceding the survey					Live births and stillbirths in the 2 years preceding the survey			Women who had a live birth and/or a stillbirth in the 2 years preceding the survey	
	Percentage receiving antenatal care from a skilled provider[1]	Percentage with 4+ ANC visits	Percentage who took any iron-containing supple-ments during pregnancy[2]	Percentage whose most recent live birth was protected against neonatal tetanus[3]	Number of women	Percentage delivered by a skilled provider[1]	Percentage delivered in a health facility	Number of births	Percentage with a postnatal check during the first 2 days after birth[4]	Number of women
LIVE BIRTHS										
Mother's age at birth										
<20	97.0	57.1	86.3	67.9	891	88.1	83.8	920	71.9	891
20–34	98.4	68.7	91.4	77.2	5,074	90.2	83.1	5,274	73.5	5,074
35–49	95.8	59.9	86.8	69.7	882	85.2	76.0	907	67.4	882
Residence										
Urban	98.9	74.1	91.1	77.0	2,470	97.3	91.7	2,562	79.0	2,470
Rural	97.3	61.5	89.7	73.9	4,377	84.8	77.0	4,539	68.8	4,377
Mother's education[5]										
No education	90.2	49.1	79.0	66.1	639	54.6	47.9	666	50.2	639
Primary	97.7	59.6	88.7	71.8	2,417	87.2	81.0	2,501	70.7	2,417
Secondary	99.1	67.8	92.5	77.0	2,473	95.2	89.5	2,570	77.0	2,473
More than secondary	99.6	83.2	93.6	81.4	1,239	99.1	88.1	1,281	78.5	1,239
Wealth quintile										
Lowest	95.1	53.9	86.2	68.4	1,538	69.3	62.6	1,593	58.9	1,538
Second	97.8	59.5	89.1	73.3	1,244	89.0	81.9	1,296	72.2	1,244
Middle	98.3	65.3	89.8	74.8	1,234	94.0	87.0	1,284	73.8	1,234
Fourth	98.8	69.6	92.0	77.8	1,414	97.8	91.0	1,466	76.0	1,414
Highest	99.7	82.0	93.8	81.2	1,417	98.8	91.3	1,462	82.8	1,417
Total	97.9	66.0	90.2	75.0	6,847	89.3	82.3	7,101	72.5	6,847
STILLBIRTHS										
Total	89.9	47.0	79.3	na	110	89.7	81.5	118	58.6	110
LIVE BIRTHS AND STILLBIRTHS[6]										
Total	97.7	65.7	90.0	na	6,957	89.3	82.3	7,219	72.3	6,957

Note: If more than one source of assistance was mentioned, only the provider with the highest qualifications is considered in this tabulation.
na = not applicable
[1] Skilled provider includes a doctor, a nurse, a midwife, or a clinical officer.
[2] Iron tablets, iron syrup, or iron and folic acid supplements
[3] Includes mothers with two injections during the pregnancy of their most recent live birth, or two or more injections (the last within 3 years of the most recent live birth), or three or more injections (the last within 5 years of the most recent live birth), or four or more injections (the last within 10 years of the most recent live birth), or five or more injections at any time prior to the last live birth
[4] Includes women who received a check from a doctor, a nurse, a midwife, a clinical officer, a community health worker, a fieldworker, or a traditional birth attendant
[5] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.
[6] For women who had both a live birth and a stillbirth in the 2 years preceding the survey, data on antenatal care and postnatal checks are tabulated for the most recent birth only.

Table 10C Maternal care indicators by county

Among women age 15–49 who had a live birth in the 2 years preceding the survey, percentage who received antenatal care (ANC) from a skilled provider for the most recent live birth, percentage with four or more ANC visits for the most recent live birth, percentage who took any iron-containing supplements during pregnancy, and percentage whose most recent live birth was protected against neonatal tetanus; among all live births in the 2 years before the survey, percentage delivered by a skilled provider and percentage delivered in a health facility; and among women age 15–49 with a live birth in the 2 years preceding the survey, percentage who received a postnatal check during the first 2 days after giving birth, according to county, Kenya DHS 2022

County	Women who had a live birth in the 2 years preceding the survey					Live births in the 2 years preceding the survey			Women who had a live birth in the 2 years preceding the survey	
	Percentage receiving antenatal care from a skilled provider[1]	Percentage with 4+ ANC visits	Percentage who took any iron-containing supple-ments during pregnancy[2]	Percentage whose most recent live birth was protected against neonatal tetanus[3]	Number of women	Percentage delivered by a skilled provider[1]	Percentage delivered in a health facility	Number of births	Percentage with a postnatal check during the first 2 days after birth[4]	Number of women
Mombasa	99.4	65.3	94.1	62.3	170	95.5	94.1	187	75.0	170
Kwale	99.3	71.9	96.2	75.2	113	89.3	84.1	119	89.7	113
Kilifi	99.3	77.3	95.1	71.0	188	84.5	83.8	191	82.5	188
Tana River	95.3	61.2	86.6	62.2	55	59.2	51.1	56	59.4	55
Lamu	97.9	70.5	87.1	81.8	27	92.5	90.3	29	87.5	27
Taita/Taveta	100.0	64.9	92.8	91.3	52	95.7	93.3	54	86.7	52
Garissa	77.5	31.2	48.0	57.2	85	68.1	61.4	94	45.4	85
Wajir	84.0	44.9	72.0	60.7	52	56.6	53.6	56	37.0	52
Mandera	76.4	40.4	61.4	53.6	89	54.7	50.4	95	45.7	89
Marsabit	93.8	67.1	87.0	67.0	53	68.7	59.3	54	40.6	53
Isiolo	99.3	52.9	84.7	77.8	36	85.0	83.7	37	75.1	36
Meru	99.2	45.0	83.7	69.4	206	90.9	71.6	207	41.3	206
Tharaka-Nithi	98.0	63.2	93.3	79.9	49	95.1	74.9	50	66.0	49
Embu	100.0	62.0	88.2	89.6	64	96.3	86.3	69	85.9	64
Kitui	94.1	68.2	88.6	65.7	142	86.0	76.2	145	75.4	142
Machakos	98.0	76.9	92.5	64.2	154	95.3	93.1	166	90.1	154
Makueni	99.1	75.7	93.1	83.5	121	92.1	88.1	126	83.8	121
Nyandarua	98.3	60.6	92.2	75.8	82	98.0	95.3	84	80.1	82
Nyeri	97.3	82.2	90.6	73.7	85	99.1	99.1	88	80.4	85
Kirinyaga	100.0	67.6	92.7	64.6	81	97.3	91.6	84	88.3	81
Murang'a	100.0	58.3	90.9	86.0	134	96.2	83.9	142	77.6	134
Kiambu	98.4	66.8	93.2	86.1	412	98.2	89.2	420	83.1	412
Turkana	99.5	57.7	96.9	86.4	126	52.6	43.2	130	52.1	126
West Pokot	97.9	35.0	87.2	70.6	174	65.3	55.5	177	65.9	174
Samburu	92.9	56.3	84.5	62.1	59	56.6	49.1	62	54.1	59
Trans Nzoia	98.8	68.1	92.9	62.3	135	93.3	85.2	137	74.4	135
Uasin Gishu	98.9	71.9	93.5	67.4	210	95.3	91.0	219	71.2	210
Elgeyo/Marakwet	99.3	51.5	86.0	69.3	67	97.5	85.4	69	78.2	67
Nandi	97.6	62.1	80.7	75.7	116	87.1	80.9	118	63.0	116
Baringo	99.3	49.4	84.2	76.0	99	83.0	58.1	103	61.7	99
Laikipia	99.0	65.5	91.7	84.2	64	92.6	87.1	65	66.8	64
Nakuru	97.7	73.4	93.5	90.7	334	93.4	93.5	342	82.0	334
Narok	96.5	55.3	83.8	75.1	235	70.1	64.2	242	65.6	235
Kajiado	100.0	81.2	94.8	78.3	204	85.3	82.7	205	80.8	204
Kericho	95.7	58.6	90.4	87.7	141	92.3	89.7	147	65.3	141
Bomet	96.6	53.3	90.8	82.8	128	88.2	56.5	137	52.3	128
Kakamega	100.0	73.3	92.7	79.4	287	95.7	90.0	298	60.5	287
Vihiga	99.1	79.4	98.2	84.8	63	97.2	90.9	67	86.8	63
Bungoma	98.6	72.5	90.3	74.2	228	87.2	79.3	243	51.6	228
Busia	99.4	70.7	94.5	91.5	139	87.6	83.7	145	90.5	139
Siaya	99.1	65.1	89.3	64.9	119	94.9	84.4	125	80.1	119
Kisumu	98.0	63.3	94.8	73.5	172	97.9	94.4	177	87.9	172
Homa Bay	95.1	68.8	89.1	57.3	152	91.2	86.4	156	72.2	152
Migori	100.0	58.5	92.2	59.2	182	92.6	89.2	190	70.5	182
Kisii	98.5	62.7	94.7	84.4	164	93.5	76.0	168	71.5	164
Nyamira	100.0	65.8	93.6	76.9	55	92.6	91.5	57	85.2	55
Nairobi City	100.0	80.5	91.2	74.5	746	99.4	93.4	773	80.1	746
Total	97.9	66.0	90.2	75.0	6,847	89.3	82.3	7,101	72.5	6,847

Note: If more than one source of assistance was mentioned, only the provider with the highest qualifications is considered in this tabulation.
[1] Skilled provider includes a doctor, a nurse, a midwife, or a clinical officer.
[2] Iron tablets, iron syrup, or iron and folic acid supplements.
[3] Includes mothers with two injections during the pregnancy of their most recent live birth, or two or more injections (the last within 3 years of the most recent live birth), or three or more injections (the last within 5 years of the most recent live birth), or four or more injections (the last within 10 years of the most recent live birth), or five or more injections at any time prior to the last live birth
[4] Includes women who received a check from a doctor, a nurse, a midwife, a clinical officer, a community health worker, a fieldworker, or a traditional birth attendant

3.9.3 Delivery care

Institutional deliveries
Deliveries that occur in a health facility.
Sample: All live births and/or stillbirths in the 2 years before the survey

Skilled assistance during delivery
Births delivered with the assistance of doctors, nurses, midwives, or clinical officers.
Sample: All live births and/or stillbirths in the 2 years before the survey
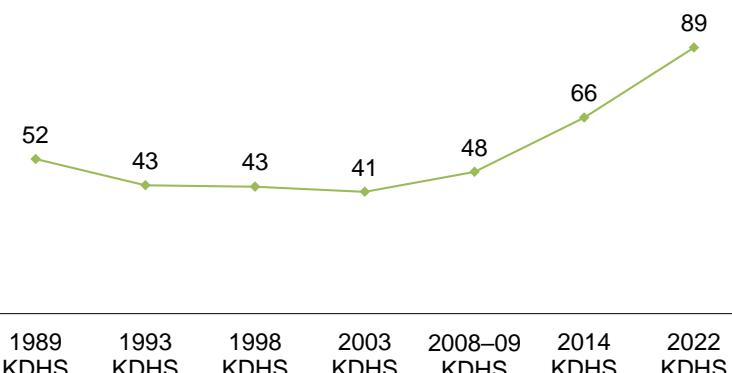
Access to proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that could lead to death or serious illness for the mother and the baby (Van Lerberghe and De Brouwere 2001; WHO 2006a). Overall, 89% of live births and stillbirths were assisted by a skilled provider, and 82% of live births and stillbirths occurred at a health facility.

Trends: The percentage of live births that are assisted by a skilled provider has increased markedly over the past two decades, from 41% in 2003 to 89% in 2022 (**Figure 3**).

Figure 3 **Trends in delivery assistance**
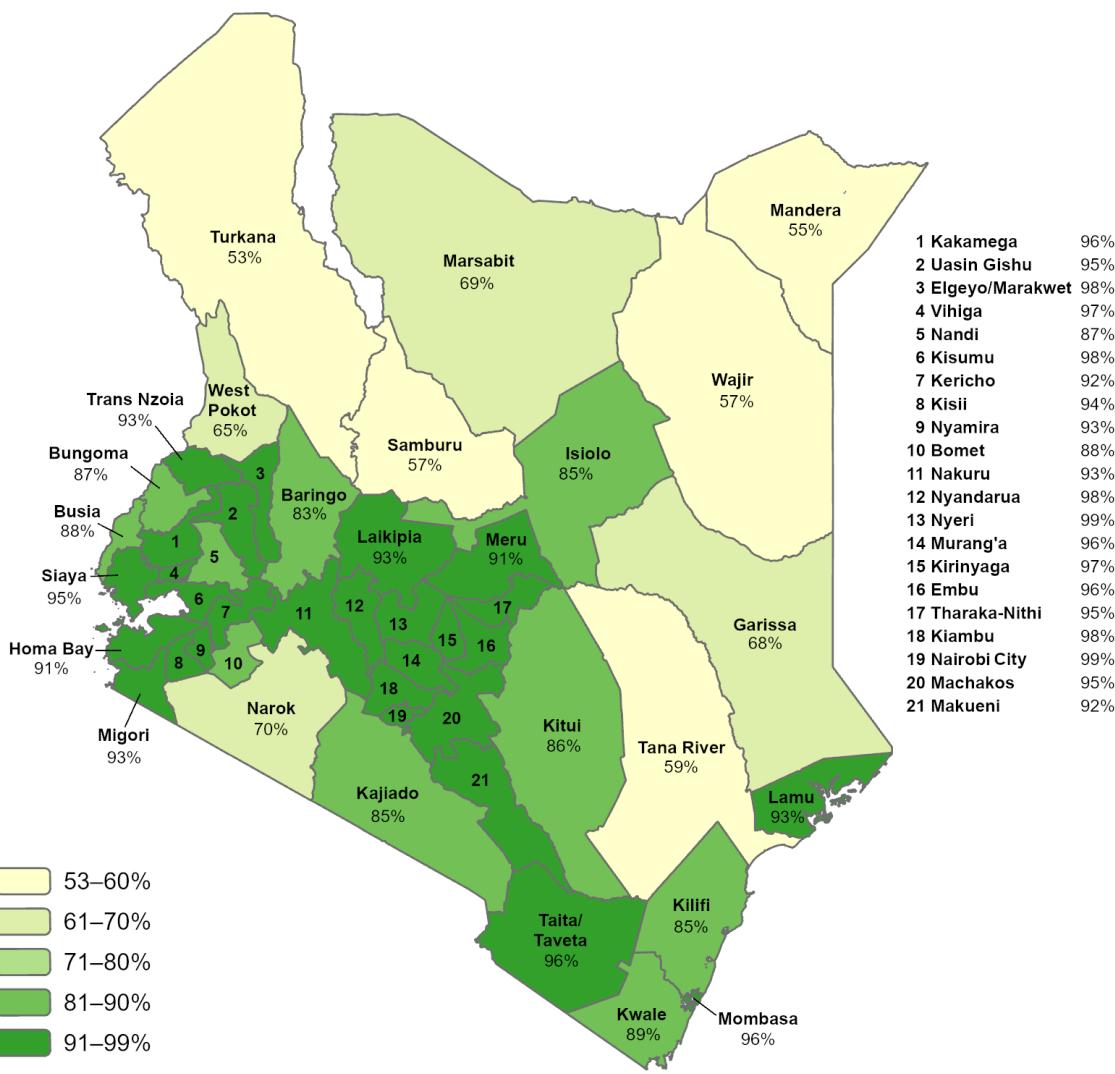
Percentage of live births in the 2 years preceding the survey delivered by a skilled provider

1989 KDHS	1993 KDHS	1998 KDHS	2003 KDHS	2008–09 KDHS	2014 KDHS	2022 KDHS
52	43	43	41	48	66	89

Note: Data from 2003 and later are nationally representative, while data collected before 2003 exclude the North Eastern region and several northern districts in the Eastern and Rift Valley regions.

- Almost all live births to mothers with more than a secondary education were delivered by a skilled attendant (99%), as compared with 55% of births to mothers with no education.

- The percentage of live births delivered by a skilled provider increases with increasing household wealth, from 69% among births in the lowest wealth quintile to 99% in the highest quintile.

- Live births to women in urban areas (97%) are more likely to be delivered by a skilled provider than births to women in rural areas (85%).

- At the county level, the proportion of live births delivered by a skilled provider is lowest in Turkana (53%), Mandera (55%), Wajir (57%), Samburu (57%), and Tana River (59%) (**Map 1**).

Map 1 Delivery by skilled provider by county

Percentage of live births in the 2 years before the survey that were delivered by a skilled provider

#	County	%
1	Kakamega	96%
2	Uasin Gishu	95%
3	Elgeyo/Marakwet	98%
4	Vihiga	97%
5	Nandi	87%
6	Kisumu	98%
7	Kericho	92%
8	Kisii	94%
9	Nyamira	93%
10	Bomet	88%
11	Nakuru	93%
12	Nyandarua	98%
13	Nyeri	99%
14	Murang'a	96%
15	Kirinyaga	97%
16	Embu	96%
17	Tharaka-Nithi	95%
18	Kiambu	98%
19	Nairobi City	99%
20	Machakos	95%
21	Makueni	92%

Legend:
- 53–60%
- 61–70%
- 71–80%
- 81–90%
- 91–99%

Map counties and values: Turkana 53%, Mandera 55%, Marsabit 69%, Wajir 57%, Trans Nzoia 93%, West Pokot 65%, Samburu 57%, Isiolo 85%, Bungoma 87%, Baringo 83%, Busia 88%, Laikipia 93%, Meru 91%, Siaya 95%, Garissa 68%, Homa Bay 91%, Migori 93%, Narok 70%, Kitui 86%, Tana River 59%, Kajiado 85%, Lamu 93%, Taita/Taveta 96%, Kilifi 85%, Kwale 89%, Mombasa 96%

The boundaries used in this map are not an authority on administrative units

3.9.4   Postnatal care for the mother

A large proportion of maternal and neonatal deaths occur during the first 48 hours after delivery. Thus, prompt postnatal care (PNC) for both the mother and the child is important to treat any complications arising from the delivery, as well as to provide the mother with important information on how to care for herself and her child. Safe motherhood programs recommend that all women receive a check of their health during the first 2 days after birth.

- Overall, 73% of women with a live birth in the 2 years preceding the survey received a postnatal check within 2 days after delivery; only 59% of women with a stillbirth received a postnatal check.

- The proportion of women with a live birth who received a postnatal check during the first 2 days after birth increases with increasing wealth, from 59% among those in the lowest quintile to 83% among those in the highest quintile.

- Seventy-nine percent of women in urban areas received a postnatal check in the first 2 days after delivery, as compared with 69% of their counterparts in rural areas.

▪ The proportions of women who received a postnatal check during the first 2 days after a live birth are lowest in Wajir (37%), Marsabit (41%), Meru (41%), Garissa (45%), and Mandera (46%).

3.10 VACCINATION COVERAGE

Vaccination is one of the most cost-effective interventions implemented to prevent diseases, especially among children. Universal immunization of children against common vaccine-preventable diseases is crucial to reducing infant and child morbidity and mortality. In Kenya, routine childhood vaccines are guided by the Expanded Immunization Program, which outlines the childhood vaccination schedule as follows:

▪ BCG (bacillus Calmette-Guérin) for tuberculosis at birth
▪ Rotarix (rotavirus vaccine) at weeks 6 and 10
▪ DPT (diphtheria, pertussis [whooping cough], and tetanus), hepatitis B, and *Haemophilus influenzae* type B (Hib), all given together as the pentavalent vaccine;
▪ Pneumococcal vaccine (PCV 10) and oral polio vaccine at weeks 6, 10, and 14
▪ Inactivated polio vaccine (IPV), which was introduced as part of routine childhood vaccines in 2015 and is co-administered with OPV 3 at 14 weeks
▪ Measles and rubella vaccine (MR 1 and 2) at 9 and 18 months

In the 2022 KDHS, information on vaccination coverage was obtained in two ways: from written vaccination records, including the mother and child health handbook or other home-based record, and from mothers' verbal reports. In this survey, a vaccination record was seen for 76% of children age 12–23 months and 61% of children age 24–35 months (data not shown in the table).

3.10.1 Basic antigen coverage

Fully vaccinated: basic antigens
Percentage of children who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report). To have received all basic antigens, a child must receive at least:
▪ One dose of BCG vaccine, which protects against tuberculosis
▪ Three doses of polio vaccine given as oral polio vaccine (OPV), inactivated polio vaccine (IPV), or a combination of OPV and IPV
▪ Three doses of DPT-containing vaccine, which protects against diphtheria, pertussis (whooping cough), and tetanus
▪ One dose of measles-containing vaccine given as measles-rubella (MR)
Sample: Children age 12–23 months

Historically, an important measure of vaccination coverage has been the proportion of children receiving all "basic" antigens. Children are considered fully vaccinated against all basic antigens if they have received the BCG vaccine, three doses each of polio vaccine (excluding OPV given at birth) and DPT-containing vaccine, and a single dose of measles-containing vaccine. In Kenya, the BCG vaccine is usually given at birth or at first clinic contact, while the polio and DPT-containing vaccines are given at approximately age 6, 10, and 14 weeks. A first measles-containing vaccination should be given at or soon after age 9 months. **Table 11** and **Table 11C** present vaccination information that includes children fully vaccinated for basic antigens as per the national schedule.

▪ Eight in 10 children age 12–23 months are fully vaccinated with the basic antigens. With respect to individual vaccine antigens, 97% of the children have received BCG, the first dose of pentavalent, and the first dose of OPV, and 89% have received the first dose of MR vaccine.

▪ The coverage rate for the OPV birth dose, co-administered with BCG as per the national schedule, is 86%. This is 11 percentage points lower than BCG. BCG coverage is slightly lower among children
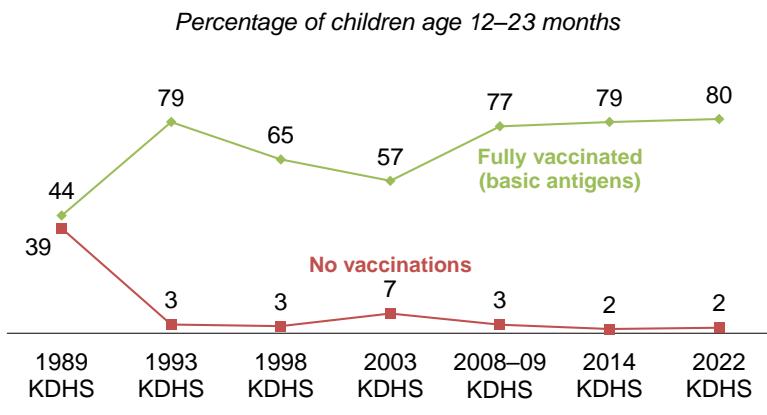
whose mothers have no education (89%) than among those whose mothers have more than a secondary education (99%).

- The dropout rate between the second dose (94%) and third dose (78%) of OPV is 16 percentage points. This dropout rate is observable across demographic and social disaggregation subgroups.

- Eighty-seven percent of children have received IPV; this is 9 percentage points higher than the percentage of children who have received the third dose of OPV.

- Two percent of children age 12–23 months have received no vaccinations.

Trends: The vaccination coverage rate for basic antigens increased dramatically between 1989 and 1993 and dipped to a low of 57% in 2003. There has been a sustained upward trend since 2008–09, with coverage in 2022 at 80% (**Figure 4**). The percentage of children receiving no vaccinations dropped dramatically between 1989 and 1993 and has since stabilized.

- At the county level, Vihiga has the highest percentage of children age 12-23 months who are fully vaccinated for basic antigens (96%), while Garissa has the lowest (23%) (**Map 2** and **Table 11C**).
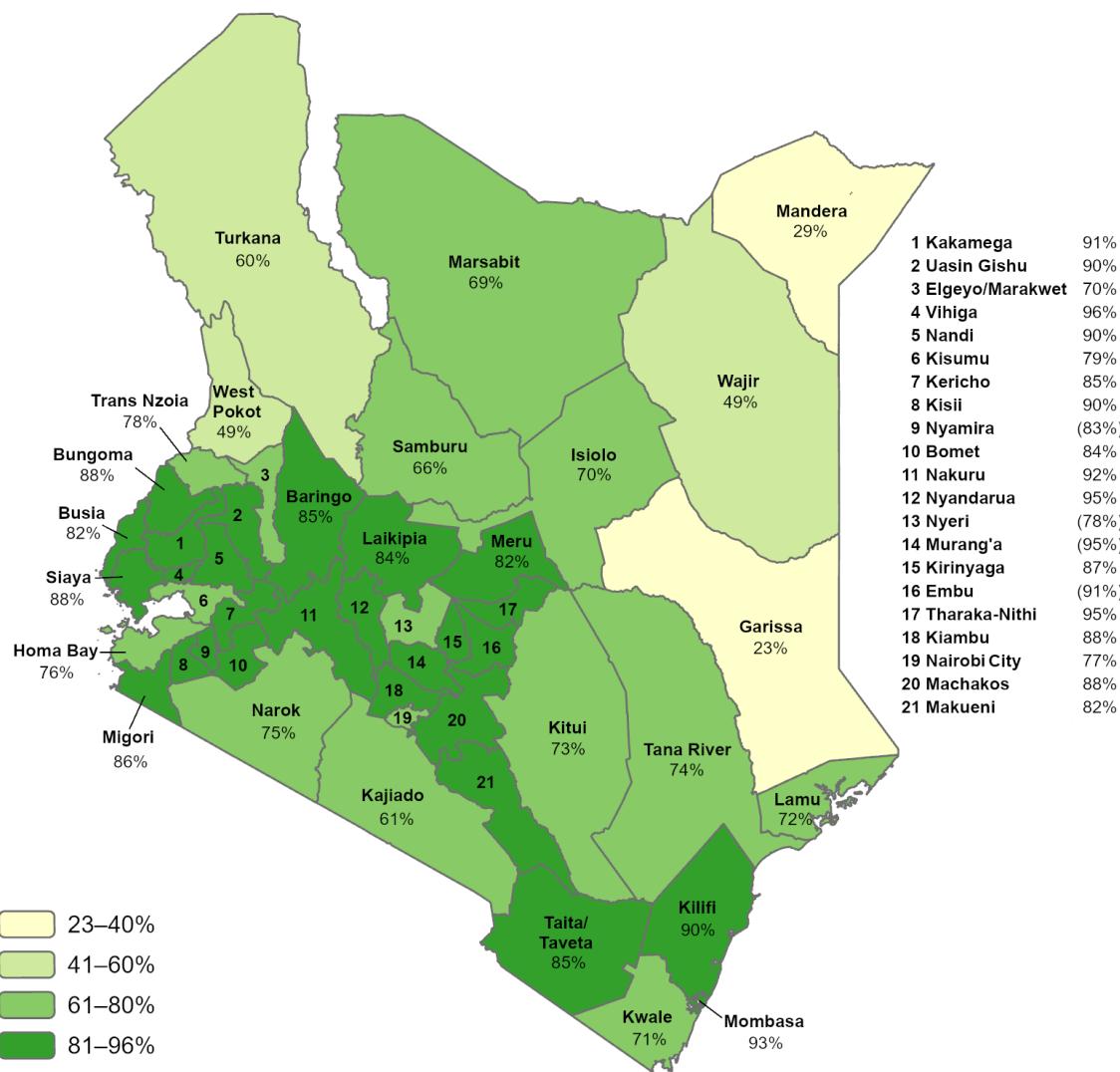
Figure 4 **Trends in childhood vaccinations**

Percentage of children age 12–23 months

Note: Data from 2003 and later are nationally representative, while data collected before 2003 exclude the North Eastern region and several northern districts in the Eastern and Rift Valley regions.

Map 2 *Vaccination coverage by county*

Percentage of children age 12–23 months who were fully vaccinated (basic antigens) at any time before the survey

1 Kakamega	91%	
2 Uasin Gishu	90%	
3 Elgeyo/Marakwet	70%	
4 Vihiga	96%	
5 Nandi	90%	
6 Kisumu	79%	
7 Kericho	85%	
8 Kisii	90%	
9 Nyamira	(83%)	
10 Bomet	84%	
11 Nakuru	92%	
12 Nyandarua	95%	
13 Nyeri	(78%)	
14 Murang'a	(95%)	
15 Kirinyaga	87%	
16 Embu	(91%)	
17 Tharaka-Nithi	95%	
18 Kiambu	88%	
19 Nairobi City	77%	
20 Machakos	88%	
21 Makueni	82%	

Map regions:
Mandera 29%, Turkana 60%, Marsabit 69%, Wajir 49%, Trans Nzoia 78%, West Pokot 49%, Samburu 66%, Isiolo 70%, Baringo 85%, Bungoma 88%, Busia 82%, Laikipia 84%, Meru 82%, Siaya 88%, Garissa 23%, Homa Bay 76%, Narok 75%, Kitui 73%, Migori 86%, Tana River 74%, Kajiado 61%, Lamu 72%, Taita/Taveta 85%, Kilifi 90%, Kwale 71%, Mombasa 93%

Legend:
- 23–40%
- 41–60%
- 61–80%
- 81–96%

The boundaries used in this map are not an authority on administrative units

3.10.2 Vaccination coverage according to the national schedule

A second measure of vaccination coverage is the percentage of children age 12–23 months and 24–35 months who are fully vaccinated according to the national schedule. In this report, a child age 12–23 months is considered to be fully vaccinated according to the national schedule if the child has received all basic antigens as well as a birth dose of OPV, a dose of IPV, three doses of the pneumococcal vaccine, and two doses of the rotavirus vaccine. Children age 24–35 months are considered fully vaccinated according to the national schedule if they receive a second dose of the MR vaccine in addition to all of the vaccinations relevant for a child age 12–23 months.

The results displayed in **Table 11** indicate that 55% of children age 12–23 months and 38% of children age 24–35 months are fully vaccinated according to the national schedule.

Table 11 Vaccinations by background characteristics

Percentage of children age 12–23 months and children age 24–35 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), percentage fully vaccinated (basic antigens), percentage fully vaccinated according to the national schedule, and percentage who received no vaccinations, according to background characteristics, Kenya DHS 2022

Background characteristic		Children age 12–23 months																				Children age 24–35 months		
	BCG	DPT-HepB-Hib			OPV[1]				IPV	Pneumococcal			Rotavirus		MR 1	Fully vaccinated (basic antigens)[2]	Fully vaccinated (according to national schedule)[3]	No vaccinations	Number of children			MR 2	Fully vaccinated (according to national schedule)[4]	Number of children
		1	2	3	0	1	2	3		1	2	3	1	2										
Sex																								
Male	96.4	96.9	93.8	88.8	86.0	95.9	93.6	77.5	88.2	96.2	95.2	91.2	95.8	92.1	89.5	80.2	56.0	2.5	1,672			69.7	38.1	1,677
Female	97.4	97.3	94.1	89.5	86.2	97.0	94.8	78.9	86.5	96.8	95.6	91.1	96.2	92.5	88.6	80.0	54.4	1.8	1,652			63.8	36.9	1,553
Birth order																								
1	97.1	98.0	95.8	92.0	89.9	96.5	94.7	79.8	89.5	97.2	96.2	93.4	96.6	94.7	94.1	85.1	61.2	1.6	1,000			72.2	39.9	1,028
2–3	97.6	97.4	94.3	89.0	88.9	97.2	94.6	79.1	88.2	96.7	95.8	91.2	96.7	92.3	91.2	81.9	56.8	1.9	1,320			70.4	39.5	1,320
4–5	97.0	96.9	92.8	88.9	82.9	96.9	95.1	77.9	86.4	96.4	95.3	91.2	95.1	90.2	83.9	75.8	51.0	2.0	642			60.8	36.2	553
6+	93.5	93.9	89.4	82.5	71.1	93.0	89.5	70.8	80.3	93.9	92.2	84.8	93.1	89.1	76.2	67.0	40.3	4.9	361			46.0	24.4	329
Vaccination card[5]																								
Seen	99.2	99.4	98.6	96.0	88.3	99.5	98.8	95.6	86.9	98.7	97.9	95.0	98.8	95.5	90.9	87.4	69.1	0.0	2,512			68.8	51.5	1,984
Not seen or no longer has card	94.6	94.3	83.6	72.0	84.2	90.8	83.8	25.9	93.7	94.2	92.3	83.7	91.5	86.6	88.1	60.9	13.4	4.3	749			66.3	16.2	1,177
Never had card	33.9	37.6	29.5	23.3	19.0	40.4	33.4	5.5	31.0	36.4	32.4	28.7	35.8	30.8	26.3	17.4	0.2	59.6	63			18.4	0.0	69
Residence																								
Urban	97.1	97.3	93.2	87.9	92.0	95.9	93.5	74.5	89.0	96.4	95.9	92.0	96.2	93.7	90.9	79.6	55.7	2.2	1,223			71.1	37.6	1,254
Rural	96.8	97.0	94.4	89.9	82.7	96.8	94.6	80.4	86.4	96.5	95.2	90.7	95.9	91.5	87.9	80.3	55.0	2.1	2,101			64.1	37.5	1,976
Mother's education[6]																								
No education	88.5	88.3	80.7	73.0	54.4	87.4	81.8	57.8	75.3	88.5	84.7	77.9	87.1	78.9	64.0	53.6	22.7	9.6	331			33.4	14.7	340
Primary	98.3	98.2	95.1	90.6	87.5	98.2	96.0	80.6	88.9	97.2	96.5	92.2	97.1	94.0	89.4	80.8	55.9	0.8	1,235			63.0	34.1	1,188
Secondary	97.0	97.8	95.2	90.6	89.9	96.4	94.7	79.6	88.8	97.5	96.5	91.6	96.8	93.2	94.1	83.8	60.6	1.8	1,148			72.6	42.6	1,014
More than secondary	98.6	98.5	96.4	92.6	93.6	98.1	96.4	81.0	88.4	97.6	97.4	95.8	97.0	94.7	93.0	86.8	61.7	1.4	565			81.7	47.1	652
Wealth quintile																								
Lowest	94.9	95.4	90.9	85.1	69.3	94.8	91.1	76.5	82.6	95.0	92.2	86.8	93.7	87.7	79.6	71.1	42.3	3.5	767			50.1	25.3	713
Second	97.3	97.6	96.2	92.3	90.1	97.5	96.2	81.3	86.8	97.2	96.7	93.1	96.9	94.0	90.5	82.6	59.6	1.2	620			66.5	40.1	556
Middle	96.8	96.9	94.2	88.8	87.9	96.3	93.4	79.9	89.6	95.7	95.1	90.1	95.3	91.3	91.5	82.5	58.4	2.6	572			68.4	40.5	547
Fourth	97.7	97.6	93.9	90.0	92.4	96.9	94.9	77.0	88.2	97.1	96.1	92.1	97.5	93.8	92.4	82.7	59.3	1.8	646			71.1	40.5	653
Highest	98.0	98.2	95.0	90.4	93.4	97.0	95.8	77.1	90.4	97.5	97.4	94.3	96.7	95.0	92.7	83.1	59.1	1.4	719			78.0	42.5	760
Total	96.9	97.1	93.9	89.2	86.1	96.5	94.2	78.2	87.4	96.5	95.4	91.2	96.0	92.3	89.0	80.1	55.2	2.1	3,324			66.8	37.5	3,230

Note: Children are considered to have received the vaccine if it was either written on the child's vaccination card or reported by the mother. For children whose vaccination information is based on the mother's report, date of vaccination is not collected. The proportions of vaccinations given during the first and second years of life are assumed to be the same as for children with a written record of vaccination.
BCG = bacillus Calmette-Guérin
DPT = Diphtheria-pertussis-tetanus
HepB = Hepatitis B
Hib = *Haemophilus influenzae* type b
OPV = Oral polio vaccine
IPV = Inactivated polio vaccine
MR = Measles-rubella
[1] OPV 0 is the polio vaccination given at birth.
[2] BCG, three doses of DPT-HepB-Hib, three doses of polio vaccine (excluding polio vaccine given at birth), and one dose of MR
[3] BCG, three doses of DPT-HepB-Hib, four doses of OPV, one dose of IPV, three doses of pneumococcal vaccine, two doses of rotavirus vaccine, and one dose of MR
[4] BCG, three doses of DPT-HepB-Hib, four doses of OPV, one dose of IPV, three doses of pneumococcal vaccine, two doses of rotavirus vaccine, and two doses of MR
[5] Mother and child health handbook or other home-based record
[6] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

Table 11C Vaccinations by county

Percentage of children age 12–23 months and children age 24–35 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), percentage fully vaccinated (basic antigens), percentage fully vaccinated according to the national schedule, and percentage who received no vaccinations, according to county, Kenya DHS 2022

																				Children age 24–35 months		
		DPT-HepB-Hib			OPV[1]					Pneumococcal			Rotavirus			Fully vaccinated (basic antigens)[2]	Fully vaccinated (according to national schedule)[3]	No vaccinations	Number of children		Fully vaccinated (according to national schedule)[4]	Number of children
County	BCG	1	2	3	0	1	2	3	IPV	1	2	3	1	2	MR 1					MR 2		
Mombasa	98.6	100.0	99.1	97.4	94.5	100.0	99.1	85.9	93.9	99.1	97.4	95.6	97.3	97.3	96.6	93.4	70.4	0.0	75	66.1	24.8	90
Kwale	96.1	96.7	94.0	82.5	85.9	96.7	96.7	77.4	92.8	95.0	95.0	92.1	92.4	87.1	83.7	70.6	50.1	2.0	62	73.3	39.3	63
Kilifi	100.0	100.0	98.2	93.7	92.9	99.3	97.5	78.6	92.2	97.9	92.7	90.6	96.4	94.6	95.1	89.8	62.5	0.0	89	66.8	47.6	92
Tana River	94.6	93.5	88.7	80.8	80.1	93.4	85.8	68.5	82.2	94.6	90.6	80.6	92.8	81.5	83.1	73.5	39.2	4.4	26	53.7	28.1	25
Lamu	98.6	100.0	97.2	85.1	93.7	99.0	98.2	76.5	87.7	97.3	97.3	84.3	100.0	92.9	86.4	72.3	54.2	0.0	13	49.6	36.6	11
Taita/Taveta	98.4	98.4	95.5	85.8	94.9	97.4	95.4	81.3	89.0	98.4	94.1	85.9	98.4	94.7	96.5	84.7	65.4	1.6	28	(59.2)	(44.3)	21
Garissa	63.2	63.3	40.8	36.4	51.5	63.0	56.0	35.2	53.8	64.0	61.7	53.4	59.9	54.7	42.7	22.9	16.9	35.1	37	9.7	3.6	44
Wajir	94.7	94.6	83.3	66.5	47.9	93.7	81.1	58.0	81.4	94.6	89.6	77.3	92.5	82.4	74.8	48.6	19.2	2.3	28	21.6	5.5	27
Mandera	63.2	63.8	52.2	43.8	35.1	62.0	59.2	38.9	47.9	63.3	62.7	52.9	61.6	56.2	42.4	29.1	5.6	33.8	47	23.2	3.5	49
Marsabit	94.8	93.2	89.7	84.7	75.9	92.1	86.3	52.9	75.8	92.7	90.9	86.9	89.1	88.6	79.2	68.8	19.3	4.4	24	46.7	8.4	26
Isiolo	97.1	96.8	94.2	88.7	84.3	86.7	81.4	59.4	85.0	96.8	93.2	85.2	96.8	93.1	78.6	69.7	37.1	1.5	19	42.2	25.3	19
Meru	100.0	98.3	96.3	92.3	90.8	96.9	89.5	79.1	94.0	92.9	89.2	86.1	95.4	85.3	97.4	81.9	57.9	0.0	92	78.5	49.1	79
Tharaka-Nithi	100.0	100.0	98.0	96.3	95.6	100.0	98.0	91.9	98.7	100.0	98.7	94.7	100.0	93.3	96.3	94.9	82.1	0.0	24	73.5	48.5	26
Embu	(100.0)	(100.0)	(100.0)	(97.2)	(100.0)	(100.0)	(98.1)	(88.9)	(96.4)	(100.0)	(100.0)	(97.2)	(96.8)	(93.7)	(93.5)	(90.7)	(75.6)	(0.0)	30	82.0	52.6	31
Kitui	86.6	91.0	86.7	83.9	73.5	90.8	90.8	78.7	80.1	91.0	91.0	82.3	90.4	88.5	83.1	72.5	49.4	7.0	80	60.0	24.7	57
Machakos	(95.2)	(97.6)	(93.8)	(92.3)	(90.9)	(97.6)	(97.6)	(91.3)	(91.3)	(95.7)	(95.7)	(95.7)	(97.6)	(97.6)	(98.0)	(87.8)	(70.8)	(0.0)	68	85.8	60.9	75
Makueni	97.8	97.8	89.6	85.5	95.5	97.8	96.2	84.9	87.0	97.8	97.8	95.3	97.8	95.2	93.3	82.0	65.5	2.2	63	93.9	48.4	59
Nyandarua	100.0	100.0	100.0	98.0	98.4	99.2	95.7	83.1	88.3	100.0	100.0	96.5	100.0	98.0	99.2	94.9	70.6	0.0	43	(80.8)	(63.5)	27
Nyeri	(91.5)	(94.7)	(92.9)	(85.9)	(88.4)	(92.9)	(92.9)	(82.0)	(81.0)	(94.7)	(94.7)	(84.5)	(91.5)	(91.5)	(85.6)	(78.2)	(56.6)	(5.3)	37	75.3	45.1	51
Kirinyaga	98.1	100.0	98.2	92.1	95.1	100.0	98.0	81.8	97.9	100.0	100.0	93.1	97.9	90.2	97.1	87.3	70.9	0.0	44	(89.0)	(43.8)	30
Murang'a	(96.7)	(96.7)	(96.7)	(96.7)	(96.7)	(96.7)	(96.7)	(74.7)	(88.2)	(96.7)	(96.7)	(96.7)	(96.7)	(96.7)	(95.3)	(95.3)	(66.2)	(3.3)	51	(90.8)	(62.5)	58
Kiambu	100.0	100.0	100.0	91.8	95.4	98.2	95.3	80.4	93.7	100.0	100.0	95.9	96.7	91.3	94.0	87.8	65.5	0.0	196	68.9	39.6	208
Turkana	96.7	96.6	91.7	84.1	56.7	95.7	90.3	73.3	77.0	96.6	90.9	84.3	95.2	84.3	68.8	60.1	29.3	1.7	66	48.5	25.3	49
West Pokot	97.3	98.1	85.5	73.9	45.2	96.7	89.7	51.6	79.2	96.3	88.4	83.3	95.7	85.1	62.2	48.6	10.7	1.2	82	23.3	5.2	81
Samburu	93.1	90.8	89.0	87.2	59.3	91.2	85.0	69.5	77.3	90.3	88.5	87.1	90.8	86.6	73.1	65.8	27.8	6.4	27	39.5	14.9	28
Trans Nzoia	98.0	100.0	98.0	87.4	87.5	98.2	96.5	91.1	92.8	100.0	100.0	89.4	97.4	91.3	93.9	77.6	70.6	0.0	60	81.2	64.8	76
Uasin Gishu	98.6	98.6	95.4	94.6	90.2	98.6	94.6	78.0	89.9	95.3	95.3	94.3	98.6	89.4	97.6	89.5	49.3	1.4	101	68.8	37.5	99
Elgeyo/Marakwet	97.6	94.9	88.8	83.4	79.0	98.2	91.9	74.3	86.0	97.3	94.8	85.6	95.6	84.4	88.3	69.8	43.2	0.0	37	56.5	30.2	27
Nandi	100.0	100.0	96.4	95.8	100.0	100.0	99.5	87.9	85.5	96.1	96.1	94.2	100.0	100.0	93.9	89.8	65.0	0.0	52	78.7	51.6	56
Baringo	98.3	98.0	98.0	96.2	76.6	98.0	98.0	82.8	80.4	100.0	100.0	95.1	98.5	97.0	88.5	84.8	43.3	0.0	45	62.4	32.4	44
Laikipia	93.9	97.1	97.1	91.9	88.2	97.1	95.3	76.9	86.7	97.1	96.1	94.3	97.1	97.1	90.5	83.7	55.5	2.9	36	77.5	33.2	29
Nakuru	99.1	99.1	99.1	99.1	92.9	99.1	99.1	91.1	86.5	99.1	99.1	95.6	99.1	96.7	92.4	91.5	69.2	0.9	176	80.2	57.6	168
Narok	98.7	97.5	97.5	90.8	53.9	97.0	94.2	75.9	89.6	97.5	97.5	94.1	94.6	92.2	82.9	74.9	30.8	1.3	95	45.5	16.2	115
Kajiado	96.9	91.9	85.6	73.6	81.4	96.9	88.9	71.0	84.1	91.9	89.2	77.3	94.5	90.2	81.6	61.3	43.5	0.9	87	49.9	27.9	102
Kericho	94.1	95.4	95.4	93.0	82.4	95.4	94.3	71.6	83.4	95.4	95.4	93.8	93.9	92.7	89.5	84.7	47.6	4.6	75	74.7	45.6	69
Bomet	98.5	98.5	95.7	89.8	87.7	98.5	98.5	91.2	85.0	98.2	98.2	95.4	98.5	98.5	92.7	83.9	63.9	1.5	66	79.8	45.1	60
Kakamega	100.0	100.0	100.0	97.1	93.2	99.6	98.2	91.8	90.6	99.4	99.4	96.5	98.7	94.5	96.0	90.7	72.8	0.0	147	81.6	53.2	119
Vihiga	100.0	100.0	100.0	95.9	93.6	100.0	100.0	88.6	87.5	100.0	100.0	92.1	100.0	100.0	100.0	95.9	70.1	0.0	30	74.8	58.1	29
Bungoma	100.0	98.7	97.3	97.3	82.9	97.7	97.7	89.3	94.0	100.0	100.0	100.0	100.0	100.0	91.3	88.2	65.9	0.0	118	66.9	29.0	106
Busia	98.2	100.0	100.0	96.5	89.5	100.0	97.3	73.4	95.0	100.0	98.0	92.5	100.0	92.6	90.5	81.9	55.8	0.0	52	84.3	60.2	56
Siaya	99.3	99.3	97.5	93.9	95.1	99.3	95.6	84.4	93.6	99.3	98.5	91.4	99.3	96.0	94.1	88.1	69.9	0.7	58	54.1	26.6	66
Kisumu	97.7	100.0	87.6	87.6	91.4	98.7	98.7	85.2	95.9	100.0	100.0	100.0	100.0	96.1	93.5	78.9	62.6	0.0	85	64.7	30.1	81
Homa Bay	98.3	97.5	94.7	86.2	94.1	97.6	91.4	74.8	81.0	97.5	95.6	82.1	96.4	88.3	89.0	75.8	52.6	0.0	63	46.6	28.5	66
Migori	99.6	99.6	98.3	91.3	91.8	98.0	95.7	84.9	97.7	99.6	98.4	94.1	99.1	93.2	93.1	85.6	71.4	0.4	89	62.3	37.9	78

Continued…

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County		Children age 12–23 months																			Children age 24–35 months		
		DPT-HepB-Hib			OPV[1]					Pneumococcal			Rotavirus			Fully vac-cinated (basic antigens)[2]	Fully vac-cinated (according to national schedule)[3]	No vac-cinations	Number of children		Fully vac-cinated (according to national schedule)[4]	Number of children
County	BCG	1	2	3	0	1	2	3	IPV	1	2	3	1	2	MR 1					MR 2		
Kisii	99.1	99.1	95.7	95.7	98.5	99.1	95.6	88.5	93.6	97.6	95.5	95.5	97.6	95.5	94.6	89.7	81.6	0.9	71	79.9	50.9	62
Nyamira	(100.0)	(100.0)	(96.0)	(95.5)	(94.8)	(97.4)	(94.8)	(88.8)	(79.0)	(97.0)	(97.0)	(93.9)	(96.6)	(96.6)	(92.5)	(82.7)	(55.8)	(0.0)	24	(75.3)	(48.5)	21
Nairobi City	96.8	97.4	93.4	87.7	93.4	95.3	95.3	67.8	84.4	96.4	96.4	93.2	96.4	95.8	89.4	77.2	45.8	2.6	409	73.6	30.5	372
Total	96.9	97.1	93.9	89.2	86.1	96.5	94.2	78.2	87.4	96.5	95.4	91.2	96.0	92.3	89.0	80.1	55.2	2.1	3,324	66.8	37.5	3,230

Note: Children are considered to have received the vaccine if it was either written on the child's vaccination card or reported by the mother. For children whose vaccination information is based on the mother's report, date of vaccination is not collected. The proportions of vaccinations given during the first and second years of life are assumed to be the same as for children with a written record of vaccination. Figures in parentheses are based on 25–49 unweighted cases.

BCG = bacillus Calmette-Guérin
DPT = Diphtheria-pertussis-tetanus
HepB = Hepatitis B
Hib = *Haemophilus influenzae* type b
OPV = Oral polio vaccine
IPV = Inactivated polio vaccine
MR = Measles-rubella

[1] OPV 0 is the polio vaccination given at birth.
[2] BCG, three doses of DPT-HepB-Hib, three doses of polio vaccine (excluding polio vaccine given at birth), and one dose of MR
[3] BCG, three doses of DPT-HepB-Hib, four doses of OPV, one dose of IPV, three doses of pneumococcal vaccine, two doses of rotavirus vaccine, and one dose of MR
[4] BCG, three doses of DPT-HepB-Hib, four doses of OPV, one dose of IPV, three doses of pneumococcal vaccine, two doses of rotavirus vaccine, and two doses of MR
[5] Mother and child health handbook or other home-based record

3.11 CARE SEEKING AND TREATMENT OF CHILD ILLNESS

Acute respiratory infection (ARI), fever, and dehydration from diarrhea are contributing causes of childhood morbidity and mortality in developing countries (WHO 2003). Prompt medical attention when a child has the symptoms of these illnesses is, therefore, crucial in reducing child deaths.

During the 2 weeks before the survey, 2% of children under age 5 showed symptoms of an ARI, 17% exhibited fever, and 14% experienced diarrhea. Children with ARI symptoms were most often taken to a health facility or provider for advice or treatment (82%). Advice or treatment was sought less often for children with fever (70%) or diarrhea (57%) (**Figure 5**).

Figure 5 **Symptoms of childhood illness and care seeking**

- Forty-eight percent of children with diarrhea received oral rehydration salts (ORS), 40% received zinc supplements, 32% received ORS and zinc supplements, and 26% were given ORS, zinc supplements, and continued feeding (**Table 12** and **Table 12C**).

- The percentage of children with ARI symptoms for whom advice or treatment was sought is higher in urban (90%) than rural (78%) areas. In contrast, differences by residence in care seeking for children with fever or diarrhea are minor (1–2 percentage points).

Table 12 Treatment for acute respiratory infection symptoms, fever, and diarrhea

Among children under age 5 who had symptoms of acute respiratory infection (ARI) or had a fever during the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, and among children under age 5 who had diarrhea during the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, percentage given a fluid made from oral rehydration salt (ORS) packets or given prepackaged ORS fluid, percentage given zinc, percentage given ORS and zinc, and percentage given ORS, zinc, and continued feeding, according to background characteristics, Kenya DHS 2022

Background characteristic	Children with symptoms of ARI[1]		Children with fever		Children with diarrhea					
	Percent-age for whom advice or treatment was sought[2]	Number of children	Percent-age for whom advice or treatment was sought[2]	Number of children	Percent-age for whom advice or treatment was sought[2]	Percent-age given fluid from ORS packet or pre-packaged ORS fluid	Percent-age given zinc	Percent-age given ORS and zinc	Percent-age given ORS, zinc, and continued feeding[3]	Number of children
Age in months										
<6	(75.1)	24	53.4	228	36.8	25.2	21.1	12.9	8.7	245
6–11	(84.0)	39	73.5	434	53.9	46.8	38.0	31.0	22.6	422
12–23	87.0	65	69.9	705	61.4	56.0	48.4	39.8	32.1	776
24–35	88.2	56	67.5	513	59.7	52.9	38.4	30.8	26.9	429
36–47	81.8	61	71.6	582	60.0	46.4	37.6	30.7	25.2	341
48–59	72.5	49	72.6	427	57.6	43.1	36.6	27.4	24.3	204
Sex										
Male	84.7	161	70.2	1,478	56.2	48.8	38.7	31.1	24.6	1,272
Female	79.4	132	68.7	1,412	57.5	47.7	40.4	32.2	26.5	1,145
Residence										
Urban	89.5	109	68.9	1,071	57.9	46.6	42.5	31.0	26.3	934
Rural	78.1	184	69.8	1,818	56.1	49.4	37.7	32.0	25.0	1,482
Mother's education[4]										
No education	69.3	34	56.8	255	59.2	52.5	44.0	37.8	29.4	233
Primary	80.7	135	67.5	1,147	54.8	49.6	35.2	31.1	23.8	969
Secondary	83.1	80	73.2	990	54.3	44.8	39.8	30.1	25.1	848
More than secondary	(95.2)	40	71.9	464	67.2	51.2	48.4	33.3	29.4	339
Wealth quintile										
Lowest	78.5	96	64.2	643	59.7	54.1	45.2	40.5	25.1	577
Second	73.0	63	69.5	535	53.1	44.7	30.6	24.5	12.6	427
Middle	82.6	40	74.2	509	53.6	47.7	34.9	29.5	18.3	425
Fourth	88.6	48	70.2	636	55.1	49.1	41.6	32.5	19.9	510
Highest	(96.3)	46	70.4	566	61.1	44.1	42.6	28.2	22.4	478
Total	82.3	293	69.5	2,890	56.8	48.3	39.5	31.6	25.5	2,416

Note: Data for this table were collected in the full woman's questionnaire but not in the short questionnaire. Figures in parentheses are based on 25–49 unweighted cases.
[1] Symptoms of ARI include short, rapid breathing that is chest-related and/or difficult breathing that is chest-related.
[2] Includes advice or treatment from the following sources: public sector, private medical sector, nongovernmental organization (NGO) medical sector, faith-based sector/organization (FBO) medical sector, shop, market, and itinerant drug seller. Excludes advice or treatment from a traditional practitioner.
[3] Continued feeding includes children who were given more, the same as usual, or somewhat less food during the diarrhea episode.
[4] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

Among children under age 5 who had symptoms of acute respiratory infection (ARI) or had a fever during the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, and among children under age 5 who had diarrhea during the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, percentage given a fluid made from oral rehydration salt (ORS) packets or given prepackaged ORS fluid, percentage given zinc, percentage given ORS and zinc, and percentage given ORS, zinc, and continued feeding, according to county, Kenya DHS 2022

| | Children with symptoms of ARI[1] | | Children with fever | | Children with diarrhea | | | | | | |
County	Percent-age for whom advice or treatment was sought[2]	Number of children	Percent-age for whom advice or treatment was sought[2]	Number of children	Percent-age for whom advice or treatment was sought[2]	Percent-age given fluid from ORS packet or pre-packaged ORS fluid	Percent-age given zinc	Percent-age given ORS and zinc	Percent-age given ORS, zinc, and continued feeding[3]	Number of children
Mombasa	*	4	41.7	88	53.5	47.1	40.2	31.2	23.7	76
Kwale	*	0	*	17	*	*	*	*	*	10
Kilifi	*	28	61.0	81	60.4	59.9	51.2	49.8	29.5	100
Tana River	*	5	54.0	24	60.2	54.1	53.8	48.4	24.2	22
Lamu	(65.0)	3	78.6	18	75.7	61.2	51.9	43.0	24.3	16
Taita/Taveta	*	2	(57.6)	13	*	*	*	*	*	11
Garissa	*	3	(55.0)	15	(72.5)	(63.3)	(69.9)	(61.3)	(21.3)	15
Wajir	*	4	56.9	34	57.7	46.1	30.7	26.6	10.6	39
Mandera	*	5	37.5	32	(66.2)	(58.5)	(42.2)	(38.4)	(26.9)	13
Marsabit	*	1	(46.1)	9	(71.2)	(63.5)	(60.2)	(57.6)	(32.7)	9
Isiolo	*	2	59.9	16	81.2	76.7	69.9	68.7	35.7	18
Meru	*	20	66.5	98	(47.5)	(36.7)	(32.3)	(23.8)	(6.3)	74
Tharaka-Nithi	*	5	74.4	39	(52.1)	(39.4)	(36.4)	(28.4)	(10.3)	21
Embu	*	1	(79.5)	19	(90.6)	(85.2)	(74.2)	(74.2)	(61.8)	14
Kitui	*	8	(54.4)	33	(62.1)	(63.1)	(47.1)	(42.8)	(20.5)	29
Machakos	*	2	(78.0)	63	(40.8)	(45.3)	(30.7)	(25.5)	(18.3)	58
Makueni	*	0	*	12	*	*	*	*	*	11
Nyandarua	*	3	(73.3)	18	*	*	*	*	*	12
Nyeri	*	2	(97.6)	34	(88.6)	(73.1)	(58.2)	(52.8)	(25.3)	27
Kirinyaga	*	1	*	11	(52.5)	(53.3)	(38.9)	(33.1)	(18.2)	24
Murang'a	*	5	(71.3)	51	(53.2)	(39.3)	(24.0)	(20.8)	(16.3)	34
Kiambu	*	27	68.0	181	30.5	34.6	25.9	18.0	15.0	182
Turkana	*	9	76.2	69	68.2	64.6	70.6	61.3	50.6	53
West Pokot	*	5	72.0	34	77.7	47.1	45.3	30.9	4.5	32
Samburu	*	1	51.0	20	45.8	32.3	34.6	26.9	12.1	23
Trans Nzoia	*	4	74.0	62	63.1	43.7	49.6	38.3	27.4	59
Uasin Gishu	*	7	77.9	121	69.7	61.0	49.3	45.6	31.1	85
Elgeyo/Marakwet	*	0	(64.6)	14	(69.5)	(71.5)	(58.3)	(51.4)	(2.4)	16
Nandi	*	6	72.5	38	(61.6)	(53.0)	(30.0)	(23.4)	(15.9)	28
Baringo	*	3	85.3	42	77.2	61.3	52.3	44.1	26.5	31
Laikipia	*	1	(77.9)	14	(50.3)	(45.2)	(44.0)	(31.1)	(19.4)	19
Nakuru	*	13	66.2	167	51.6	42.5	39.4	32.1	17.1	122
Narok	*	9	58.0	60	59.1	56.3	28.0	25.0	16.1	89
Kajiado	*	9	60.1	108	44.0	41.9	31.5	23.8	16.6	76
Kericho	*	3	*	17	54.5	58.5	22.9	21.2	5.4	52
Bomet	*	1	67.0	68	58.5	47.0	42.6	40.5	30.4	46
Kakamega	*	5	72.2	144	55.0	54.6	37.5	33.6	24.9	111
Vihiga	*	3	64.2	26	24.9	32.4	16.4	13.6	9.5	24
Bungoma	*	11	71.4	110	54.3	45.2	34.9	29.6	24.7	102
Busia	*	9	85.0	93	66.6	65.1	39.4	35.7	21.9	51
Siaya	*	2	84.1	41	*	*	*	*	*	16
Kisumu	*	2	66.3	80	(56.6)	(49.3)	(24.1)	(15.6)	(0.0)	44
Homa Bay	*	22	78.2	131	54.5	40.7	36.9	30.7	23.8	77
Migori	*	10	73.7	166	62.7	46.2	39.9	32.9	17.3	96
Kisii	*	3	(69.2)	42	(58.9)	(29.0)	(31.5)	(12.1)	(3.2)	36
Nyamira	*	2	(67.2)	20	(50.0)	(53.2)	(34.9)	(29.2)	(0.0)	13
Nairobi City	*	24	72.3	296	64.9	43.6	45.1	25.5	22.4	298
Total	82.3	293	69.5	2,890	56.8	48.3	39.5	31.6	25.5	2,416

Note: Data for this table were collected in the full woman's questionnaire but not in the short questionnaire. Figures in parentheses are based on 25–49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Symptoms of ARI include short, rapid breathing that is chest-related and/or difficult breathing that is chest-related.
[2] Includes advice or treatment from the following sources: public sector, private medical sector, nongovernmental organization (NGO) medical sector, faith-based sector/organization (FBO) medical sector, shop, market, and itinerant drug seller. Excludes advice or treatment from a traditional practitioner.
[3] Continued feeding includes children who were given more, the same as usual, or somewhat less food during the diarrhea episode.

3.12   EARLY CHILDHOOD DEVELOPMENT

> **Early Childhood Development Index**
>
> Children are considered to be developmentally on track if they have achieved the minimum number of milestones expected for their age group. Each of the three general domains is composed of a set of core subdomains:
>
> *Health subdomains:* gross motor development, fine motor development, and self-care.
>
> *Learning subdomains:* expressive language, literacy, numeracy, pre-writing, and executive functioning.
>
> *Psychosocial well-being subdomains:* emotional skills, social skills, internalizing behavior, and externalizing behavior.

Early childhood development is a multidimensional process that involves an ordered progression of motor, cognitive, language, socioemotional, and regulatory skills and capacities across the first few years of life (UNICEF 2016). While these are distinct domains of early childhood development, they are interconnected. Nurturing and supporting all of these dimensions in a holistic manner is key to ensuring that children have the best chance to reach their full potential. Physical growth, literacy and numeracy skills, socioemotional development, and learning readiness set the trajectory for lifelong health, learning, and well-being (Shonkoff and Phillips 2000).

The Early Childhood Development Index 2030 (ECDI2030) module, which captures the achievement of key developmental milestones by children between age 24 months and age 59 months, was included in the 2022 KDHS. Mothers were asked 20 questions about their children age 24–59 months. These questions focused on the way children behave in certain everyday situations and the skills and knowledge they have acquired, reflecting the increasing difficulty of the skills children acquire as they grow. The 20 items are organized according to the three general domains of health, learning, and psychosocial well-being.

The ECDI2030 module is not designed to report on individual domains separately. Rather, it is meant to produce a single summary score that captures the interlinked developmental concepts embedded in the three domains mentioned in SDG 4.2.1.

In 2022, Kenya launched the Early Childhood Development Policy, which addresses the development, planning, implementation, and monitoring of integrated programs targeting children age 0–8. The policy addresses sectors critical to the survival and thriving of young children such as health, nutrition, child protection, and early learning. Within the domain of health, the

Table 13 Early Childhood Development Index 2030

Percentage of children age 24–59 months who are developmentally on track in health, learning, and psychosocial well-being, Kenya DHS 2022

Background characteristic	Percentage of children age 24–59 months who are develop-mentally on track in health, learning, and psychosocial well-being[1]	Number of children age 24–59 months
Age in months		
24–35	82.8	1,537
36–47	77.4	1,693
48–59	73.8	1,566
Sex		
Male	76.3	2,484
Female	79.7	2,313
Residence		
Urban	87.4	1,717
Rural	72.7	3,080
Early childhood education attendance		
Attending	85.1	1,259
Not attending	71.0	2,061
Information not available	81.6	1,477
Mother's education[2]		
No education	51.4	568
Primary	75.7	1,899
Secondary	84.7	1,468
More than secondary	91.0	813
Wealth quintile		
Lowest	61.0	1,136
Second	74.2	898
Middle	79.8	801
Fourth	84.0	917
Highest	92.8	1,045
Total	77.9	4,797

Note: Data for this table were collected in the full woman's questionnaire but not in the short questionnaire.
[1] SDG Indicator 4.2.1
[2] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

policy stipulates that every child should be monitored for developmental milestones and that, where delays are detected, immediate appropriate interventions are implemented.

- **Table 13** presents information on developmental growth among children age 24–59 months. Seventy-eight percent of children are developmentally on track in health, learning, and psychosocial well-being.

- The percentage of children who are developmentally on track decreases with age; 83% of children age 24–35 months are developmentally on track, as compared with 74% of children age 48–59 months.

- A higher percentage of children in urban (87%) than rural (73%) areas are developmentally on track.

- The percentage of children developmentally on track increases with increasing mother's education, from 51% among children whose mothers have no education to 91% among those whose mothers have more than a secondary education.

- The percentage of children developmentally on track also increases with increasing household wealth, from 61% among those in the lowest wealth quintile to 93% among those in the highest quintile.

3.13 CHILD NUTRITIONAL STATUS

Anthropometry is commonly used to measure child nutritional status. Anthropometric measurements are used to report on child growth indicators. The distribution of height and weight among children under age 5 was compared with the WHO Child Growth Standards reference population (WHO 2006b). The distribution of a well-nourished population will be similar to the reference population, while the distribution of a poorly nourished population will not. Three indices—height-for-age, weight-for-height, and weight-for-age—can be expressed in standard deviation units (z scores) from the median of the reference population. Values that are greater than two standard deviations below the median of the WHO Child Growth Standards are used to define malnutrition.

> **Stunting (assessed via height-for-age)**
> Height-for-age is a measure of growth faltering. Children whose height-for-age z score is below minus two standard deviations (−2 SD) from the median of the reference population are considered short for their age (stunted). Children whose z score is below minus three standard deviations (−3 SD) from the median are considered severely stunted.
> *Sample:* Children under age 5

> **Wasting (assessed via weight-for-height)**
> The weight-for-height index measures body mass in relation to body height or length and describes acute undernutrition. Children whose z score is below minus two standard deviations (−2 SD) from the median of the reference population are considered thin (wasted). Children whose z score is below minus three standard deviations (−3 SD) from the median are considered severely wasted.
> *Sample:* Children under age 5

Height and weight measurements were obtained for 20,319 children under age 5 (unweighted). The percentages of children with valid data for height-for-age, weight-for-height, and weight-for-age were 96%, 97%, and 97% respectively (data not shown in the table).
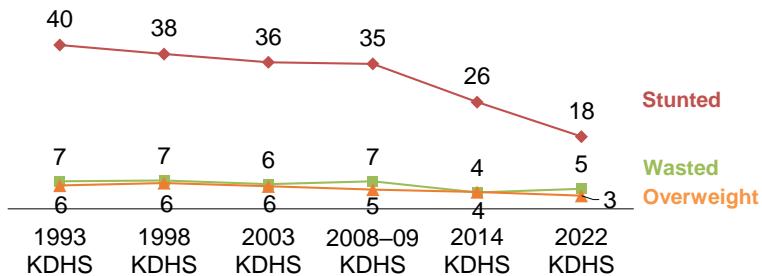
The results displayed in **Table 14** show that 18% of children under age 5 are stunted, or too short for their age. This is a sign of chronic undernutrition. Five percent of children under age 5 are wasted (too thin for their height), which is a sign of acute undernutrition, while 3% of children under age 5 are overweight, which is a sign of overnutrition. Ten percent of children are underweight, or too thin for their age.

Trends: The prevalence of stunting has decreased markedly since 1993, with the greatest decrease between 2008–09 (35%) and 2022 (18%). Over this same time period, changes in the prevalence of wasting and overweight have been small, although the prevalence of each is at its lowest point since 1993 (**Figure 6**).

- Stunting is higher among children in rural areas (20%) than children in urban areas (12%).

- Stunting decreases with increasing wealth, from 28% in the lowest quintile to 9% in the highest quintile.

Figure 6 **Percentage of children under 5 who are malnourished**

Note: Data from 2003 and later are nationally representative, while data collected before 2003 exclude the North Eastern region and several northern districts in the Eastern and Rift Valley regions.

- Twenty-two percent of children born to mothers with no education are stunted, as compared with 9% of children born to mothers with more than a secondary education.

- There are wide variations in stunting across counties. The highest percentages are in Kilifi, West Pokot, and Samburu (37%, 34%, and 31%, respectively) and the lowest in Kisumu and Garissa (9% each) (**Map 3** and **Table 14C**).

Map 3 Stunting in children by county

Percentage of children under age 5 who are stunted

1	Kakamega	12%
2	Uasin Gishu	14%
3	Elgeyo/Marakwet	22%
4	Vihiga	17%
5	Nandi	15%
6	Kisumu	9%
7	Kericho	19%
8	Kisii	16%
9	Nyamira	14%
10	Bomet	22%
11	Nakuru	19%
12	Nyandarua	18%
13	Nyeri	13%
14	Murang'a	10%
15	Kirinyaga	11%
16	Embu	20%
17	Tharaka-Nithi	21%
18	Kiambu	15%
19	Nairobi City	11%
20	Machakos	16%
21	Makueni	20%

Turkana 23%
Mandera 21%
Marsabit 19%
Wajir 12%
West Pokot 34%
Samburu 31%
Isiolo 14%
Trans Nzoia 21%
Bungoma 19%
Baringo 21%
Busia 15%
Laikipia 13%
Meru 25%
Siaya 19%
Garissa 9%
Homa Bay 13%
Narok 22%
Migori 15%
Kajiado 14%
Kitui 25%
Tana River 21%
Lamu 16%
Taita/Taveta 19%
Kilifi 37%
Kwale 23%
Mombasa 14%

Low (9–10%)
Medium (11–20%)
High (21–30%)
Very high (>30%)

The boundaries used in this map are not an authority on administrative units

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Table 14 Nutritional status of children

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of child growth: height-for-age, weight-for-height, and weight-for-age, according to background characteristics, Kenya DHS 2022

Background characteristic	Height-for-age[1]				Weight-for-height					Weight-for-age			
	Percentage below −3 SD	Percentage below −2 SD[2]	Mean z score (SD)	Number of children	Percentage below −3 SD	Percentage below −2 SD[2]	Percentage above +2 SD	Mean z score (SD)	Number of children	Percentage below −3 SD	Percentage below −2 SD[2]	Mean z score (SD)	Number of children
Age in months													
<6	3.3	12.0	−0.5	1,649	0.8	3.6	11.9	0.5	1,652	1.5	5.5	−0.1	1,662
6–11	3.2	12.7	−0.6	1,842	0.6	4.7	5.1	0.1	1,841	1.6	9.0	−0.3	1,842
12–23	5.4	22.5	−1.1	3,396	0.7	4.4	3.0	−0.1	3,399	2.0	9.9	−0.6	3,402
24–35	5.3	22.8	−1.1	3,288	0.4	4.2	1.9	−0.2	3,315	1.6	11.0	−0.7	3,307
36–47	4.4	18.7	−0.9	3,581	0.6	5.2	1.4	−0.3	3,622	1.9	11.9	−0.8	3,584
48–59	2.8	11.9	−0.7	3,376	0.7	6.4	1.3	−0.5	3,409	1.8	10.7	−0.8	3,382
0–23	4.3	17.4	−0.8	6,887	0.7	4.3	5.7	0.1	6,892	1.8	8.6	−0.4	6,907
24–59	4.2	17.8	−0.9	10,245	0.6	5.2	1.6	−0.3	10,346	1.8	11.2	−0.7	10,273
Sex													
Male	5.1	19.6	−1.0	8,679	0.6	5.4	2.9	−0.2	8,742	2.0	11.1	−0.7	8,692
Female	3.3	15.6	−0.8	8,453	0.6	4.3	3.6	−0.1	8,496	1.6	9.2	−0.5	8,488
Mother's interview status													
Interviewed	4.0	17.4	−0.9	15,028	0.6	4.9	3.4	−0.1	15,028	1.7	10.1	−0.6	15,060
Not interviewed but in household	7.1	19.4	−0.8	521	1.0	4.7	2.3	−0.3	541	2.3	11.4	−0.6	522
Not interviewed, not in household[3]	5.5	18.9	−0.9	1,583	0.7	4.3	1.5	−0.2	1,669	1.9	10.2	−0.6	1,598
Residence													
Urban	2.7	12.1	−0.6	5,679	0.7	4.0	4.0	−0.0	5,714	1.2	6.7	−0.3	5,701
Rural	4.9	20.3	−1.0	11,453	0.6	5.3	2.8	−0.2	11,524	2.1	11.9	−0.7	11,478
Mother's education[4]													
No education	6.9	22.2	−1.0	1,695	2.0	15.4	0.7	−0.9	1,710	5.3	22.1	−1.2	1,703
Primary	5.2	22.1	−1.1	5,898	0.6	4.3	3.5	−0.2	5,909	2.0	11.9	−0.7	5,912
Secondary	3.1	14.8	−0.8	5,037	0.3	3.1	4.0	−0.0	5,037	0.9	6.8	−0.4	5,048
More than secondary	1.6	8.6	−0.4	2,716	0.4	3.2	3.7	0.0	2,712	0.8	5.0	−0.2	2,716
Wealth quintile													
Lowest	7.6	27.6	−1.3	4,039	1.3	9.5	1.9	−0.5	4,064	4.4	19.3	−1.1	4,052
Second	5.2	21.5	−1.1	3,343	0.2	3.0	2.6	−0.1	3,377	1.1	10.0	−0.7	3,353
Middle	3.7	16.2	−0.9	3,143	0.5	4.2	3.9	−0.1	3,159	1.2	8.9	−0.6	3,149
Fourth	2.0	11.6	−0.7	3,315	0.4	3.8	3.3	−0.1	3,326	0.8	6.3	−0.4	3,325
Highest	1.7	8.7	−0.4	3,292	0.6	2.7	4.7	0.1	3,311	0.6	4.2	−0.2	3,301
Total	4.2	17.6	−0.9	17,132	0.6	4.9	3.2	−0.2	17,238	1.8	10.1	−0.6	17,180

Note: Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards. The total includes seven children for whom information on mother's education is missing.
[1] Recumbent length is measured for children under age 2; standing height is measured for all other children.
[2] Includes children who are below −3 SD from the WHO Child Growth Standards population median
[3] Includes children whose mothers are deceased
[4] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended. For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Table 14C Nutritional status of children by county

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of child growth: height-for-age, weight-for-height, and weight-for-age, according to county, Kenya DHS 2022

County	Height-for-age[1]				Weight-for-height					Weight-for-age			
	Percent-age below −3 SD	Percent-age below −2 SD[2]	Mean z score (SD)	Number of children	Percent-age below −3 SD	Percent-age below −2 SD[2]	Percent-age above +2 SD	Mean z score (SD)	Number of children	Percent-age below −3 SD	Percent-age below −2 SD[2]	Mean z score (SD)	Number of children
Mombasa	3.5	13.5	−0.7	419	0.2	4.6	3.1	−0.3	418	1.5	9.8	−0.6	423
Kwale	6.9	22.7	−1.2	315	1.1	6.2	2.3	−0.4	321	2.8	13.7	−0.9	316
Kilifi	13.4	37.0	−1.5	521	0.9	7.2	4.8	−0.3	519	3.1	19.5	−1.1	526
Tana River	5.6	21.1	−1.0	144	1.3	11.3	2.6	−0.6	144	2.6	16.8	−1.0	144
Lamu	2.5	16.1	−1.0	62	0.4	3.5	1.2	−0.3	63	1.0	12.5	−0.8	62
Taita/Taveta	4.9	19.2	−0.9	124	0.0	4.1	3.2	−0.2	123	2.1	12.6	−0.7	124
Garissa	0.6	9.0	−0.4	222	2.6	15.3	0.4	−0.9	224	1.2	14.1	−0.8	222
Wajir	3.2	12.4	−0.3	135	3.6	22.8	0.0	−1.2	136	4.3	16.2	−1.0	135
Mandera	6.3	20.5	−0.9	240	2.9	17.3	0.4	−1.1	238	5.4	23.2	−1.2	241
Marsabit	4.9	18.9	−0.8	133	3.8	20.4	0.3	−1.1	134	6.2	25.9	−1.2	134
Isiolo	4.3	14.1	−0.6	95	1.1	7.2	1.0	−0.7	95	2.4	11.5	−0.8	96
Meru	4.6	25.2	−1.1	499	0.0	6.0	4.2	−0.1	505	1.0	10.8	−0.7	499
Tharaka-Nithi	3.4	20.5	−1.0	136	0.0	3.1	3.2	−0.1	136	2.2	7.7	−0.6	136
Embu	5.3	19.9	−0.9	170	1.6	5.3	3.4	−0.2	169	2.6	11.3	−0.6	171
Kitui	8.8	25.1	−1.2	382	1.1	4.9	4.0	−0.4	383	2.6	13.9	−0.9	383
Machakos	3.8	16.2	−0.9	404	0.0	3.5	2.6	−0.1	409	1.0	8.1	−0.6	407
Makueni	4.2	19.8	−1.1	306	0.0	4.0	3.2	−0.2	312	1.2	8.7	−0.7	306
Nyandarua	3.2	17.8	−0.9	198	0.6	1.9	3.1	0.2	198	1.4	4.0	−0.4	199
Nyeri	2.2	12.5	−0.7	231	0.0	2.7	5.5	0.2	231	0.5	4.0	−0.2	232
Kirinyaga	1.9	11.2	−0.8	200	0.0	2.2	2.8	−0.0	200	0.0	5.7	−0.4	200
Murang'a	1.1	10.1	−0.7	326	0.0	1.7	2.5	−0.1	326	0.4	5.9	−0.5	326
Kiambu	3.8	15.3	−0.8	916	1.0	3.2	3.9	0.1	929	2.1	6.0	−0.3	920
Turkana	7.3	23.0	−1.1	305	3.5	22.6	1.0	−1.2	306	8.8	31.7	−1.5	306
West Pokot	10.4	33.5	−1.5	420	0.9	11.0	0.8	−0.8	423	6.0	27.1	−1.4	420
Samburu	8.9	31.4	−1.4	144	1.4	15.4	0.4	−0.9	147	7.4	30.2	−1.4	146
Trans Nzoia	4.8	21.3	−1.0	366	0.0	3.2	1.5	−0.2	368	0.5	11.1	−0.6	366
Uasin Gishu	2.7	14.2	−0.8	486	0.9	4.0	2.1	−0.1	486	1.0	6.4	−0.5	486
Elgeyo/Marakwet	3.1	21.8	−1.2	165	1.0	4.8	3.5	−0.4	168	2.5	13.9	−0.9	165
Nandi	2.6	15.1	−0.8	313	0.3	4.0	2.6	−0.2	314	0.9	9.0	−0.6	313
Baringo	4.7	21.2	−1.1	257	2.3	13.6	0.7	−0.8	260	5.8	19.9	−1.1	258
Laikipia	2.5	12.6	−0.8	158	0.0	2.6	3.3	−0.1	160	0.5	6.6	−0.5	158
Nakuru	5.3	18.5	−0.9	913	0.9	3.0	3.9	−0.1	915	2.1	9.2	−0.6	913
Narok	3.5	21.5	−1.2	553	0.2	2.1	3.1	−0.1	556	1.0	10.7	−0.7	554
Kajiado	4.5	14.0	−0.5	506	1.3	7.6	2.7	−0.2	514	1.3	9.6	−0.4	509
Kericho	3.7	19.3	−1.0	338	0.3	2.5	1.6	−0.1	338	1.4	9.2	−0.7	339
Bomet	4.5	22.1	−1.1	341	0.2	3.3	4.5	−0.0	343	1.3	9.8	−0.6	341
Kakamega	2.1	11.5	−0.7	698	0.0	1.5	4.5	0.1	707	0.8	6.4	−0.3	702
Vihiga	4.2	16.6	−1.0	176	0.0	2.4	3.5	0.1	178	0.8	9.2	−0.4	176
Bungoma	4.0	19.0	−1.0	665	0.0	2.3	1.6	−0.0	663	1.2	9.6	−0.5	665
Busia	3.1	15.0	−0.7	385	0.0	2.8	3.1	−0.0	386	0.7	6.3	−0.4	387
Siaya	5.3	19.2	−1.0	325	1.1	1.7	2.6	0.1	327	2.1	7.0	−0.5	326
Kisumu	1.3	9.1	−0.5	419	0.5	3.0	2.1	−0.0	418	0.8	3.5	−0.3	419
Homa Bay	2.3	12.5	−0.7	408	0.0	1.8	5.2	0.1	407	1.0	6.1	−0.3	408
Migori	2.5	14.8	−0.9	450	0.0	2.4	2.2	0.0	449	0.3	5.0	−0.4	450
Kisii	4.3	16.3	−0.8	411	0.3	2.9	5.7	0.1	412	1.5	7.8	−0.4	411
Nyamira	3.0	13.5	−0.9	153	0.1	1.2	6.0	0.2	156	0.2	3.4	−0.4	153
Nairobi City	2.0	11.1	−0.6	1,600	0.0	2.5	5.6	0.1	1,623	0.4	5.3	−0.2	1,606
Total	4.2	17.6	−0.9	17,132	0.6	4.9	3.2	−0.2	17,238	1.8	10.1	−0.6	17,180

Note: Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards.
[1] Recumbent length is measured for children under age 2; standing height is measured for all other children.
[2] Includes children who are below −3 SD from the WHO Child Growth Standards population median

3.14 INFANT AND YOUNG CHILD FEEDING

Optimal infant and young child feeding (IYCF) practices are critical to the health and survival of young children. Recommended IYCF practices include early initiation of breastfeeding (within the first hour of life), exclusively breastfeeding for the first 6 months of life, and feeding children a diet that meets a minimum diversity standard (WHO and UNICEF 2021).

3.14.1 Early initiation of breastfeeding and exclusive breastfeeding

Breastfeeding supports children's growth and development and also benefits the mother's health. Initiation of breastfeeding within the first hour of birth is important for both the mother and the child. The first breast milk contains colostrum, which is highly nutritious and has antibodies that protect the newborn from

infections. Early initiation of breastfeeding also encourages bonding between the mother and her newborn, especially through skin-to-skin contact, which facilitates the production of breast milk.

In the first 6 months, children should be exclusively breastfed, meaning that they should be given nothing but breast milk. Exclusive breastfeeding for 6 months lowers the risk of infections that can lead to diarrhea and respiratory illnesses and provides all of the nutrients and liquid an infant requires for optimal growth and development (WHO and UNICEF 2021).

> **Early initiation of breastfeeding**
> Percentage of children age 0–23 months who were put to the breast within 1 hour of birth.
> *Sample:* Children age 0–23 months
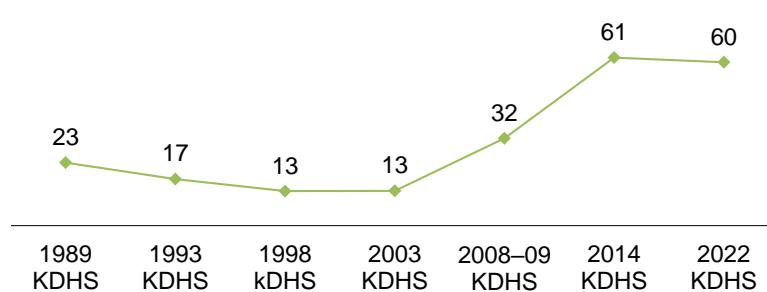
> **Exclusive breastfeeding under 6 months**
> Percentage of children age 0–5 months who were fed exclusively with breast milk during the previous day.
> *Sample:* Youngest children age 0–5 months living with their mother

- Sixty percent of children born in the last 2 years were put to the breast within 1 hour of birth.

- Sixty percent of children under age 6 months are exclusively breastfed.

Trends: **Figure 7** shows that there has been a substantial increase in exclusive breastfeeding since 2003 (from 13% to 60%) following a decline between 1989 and 2003. Exclusive breastfeeding is essentially unchanged between 2014 and 2022.

Figure 7 **Trends in exclusive breastfeeding**

Percentage of children age 0–5 months

1989 KDHS	1993 KDHS	1998 kDHS	2003 KDHS	2008–09 KDHS	2014 KDHS	2022 KDHS
23	17	13	13	32	61	60

Note: Data from 2003 and later are nationally representative, while data collected before 2003 exclude the North Eastern region and several northern districts in the Eastern and Rift Valley regions.

3.14.2 Bottle feeding

Bottle feeding is not recommended for children under age 2. The nipple on a feeding bottle is susceptible to contamination and increases the risk of disease among children (WHO and UNICEF 2021).

> **Bottle feeding**
> Percentage of children age 0–23 months who were fed from a bottle with a nipple during the previous day.
> *Sample:* Children age 0–23 months

- Thirty-four percent of children below age 24 months were fed from a bottle with a nipple.

3.14.3 Minimum dietary diversity, minimum meal frequency, minimum milk feeding frequency, and minimum acceptable diet

Infants and young children should be fed a minimum acceptable diet, which means that they should be fed meals with appropriate frequency and a variety of foods to meet their energy and nutrient needs. The minimum acceptable diet indicator is a combination of minimum dietary diversity and minimum meal frequency for breastfeeding children and the same combination in addition to minimum milk feeding frequency for nonbreastfed children.

Minimum dietary diversity is a proxy for adequate micronutrient density of foods. Consumption of food from at least five food groups out of eight food groups, means that the child has a higher likelihood of consuming at least one animal source of food and at least one fruit or vegetable in addition to a staple food such as grains, roots, or tubers. The five groups come from a list of eight food groups: breast milk; grains, roots, and tubers; legumes and nuts; dairy products (milk, yogurt, and cheese); flesh foods (meat, fish, poultry, and organ meat); eggs; vitamin A–rich fruits and vegetables; and other fruits and vegetables.

Minimum meal frequency is a proxy for meeting energy requirements. Breastfed children age 6–8 months are considered to be consuming the minimum meal frequency if they receive solid, semisolid, or soft foods at least twice a day. Breastfed children age 9–23 months are considered to be consuming the minimum meal frequency if they receive solid, semisolid, or soft foods at least three times a day. Nonbreastfed children age 6–23 months are considered to be fed with a minimum meal frequency if they receive solid, semisolid, or soft foods or milk feeds at least four times a day and if at least one of the feeds is a solid, semisolid, or soft food.

Minimum milk feeding frequency is a proxy for meeting the nutrient needs of nonbreastfed children. Milk and milk products are important sources of nutrients. Nonbreastfed children age 6–23 months are considered to be fed with a minimum milk feeding frequency if they receive at least two feeds of milk and/or milk products.

> **Minimum dietary diversity**
>
> Percentage of children age 6–23 months who were fed a minimum of five out of eight defined food groups during the previous day. The eight food groups are as follows: breast milk; grains, roots, and tubers; legumes and nuts; dairy products (milk, yogurt, and cheese); flesh foods (meat, fish, poultry, and organ meat); eggs; vitamin A–rich fruits and vegetables; and other fruits and vegetables.
>
> **Minimum meal frequency**
>
> Percentage of children age 6–23 months who were fed solid, semisolid, or soft foods (including milk feeds for nonbreastfed children) the minimum number of times or more during the previous day.
>
> **Minimum milk feeding frequency**
>
> Percentage of nonbreastfed children age 6–23 months who were given at least two milk feeds during the previous day.
>
> **Minimum acceptable diet**
>
> Percentage of children age 6–23 months who were fed a minimum acceptable diet during the previous day. This indicator is a composite of children fed with a minimum dietary diversity and a minimum meal frequency, with the additional requirement that nonbreastfed children be fed with a minimum milk feeding frequency.
>
> ***Sample:*** Youngest children age 6–23 months living with their mother

- Thirty-seven percent of children age 6–23 months had an adequately diverse diet and had been given foods from the appropriate number of food groups, while 71% had been fed the minimum number of

times appropriate for their age. Additionally, 52% of nonbreastfed children age 6–23 months were given at least two milk feeds.

- Only 31% of children age 6–23 months were fed a minimum acceptable diet.

3.14.4 Sweet beverage consumption and unhealthy food consumption

Unhealthy infant and young child feeding practices should be avoided because they can promote unhealthy weight gain and replace nutritious foods that provide important nutrients for children. For infants and young children, the consumption of sweet foods and beverages increases the risk of dental caries and childhood obesity. The indicator definition below for unhealthy food consumption describes sentinel unhealthy foods—foods that are high in sugar, salt, or unhealthy fats—that are commonly consumed by infants and young children (WHO and UNICEF 2021).

> **Sweet beverage consumption**
> Percentage of children age 6–23 months who were given a sweet beverage during the previous day.
> **Unhealthy food consumption**
> Percentage of children age 6–23 months who were fed sentinel unhealthy foods during the previous day.
> *Sample:* Youngest children age 6–23 months living with their mother

- Forty-nine percent of children age 6–23 months were fed a sweet beverage the day preceding the survey (**Table 15**).

- Twenty-six percent of children were given unhealthy foods during the previous day.

Table 15 Infant and young child feeding (IYCF) indicators

Percentage of children fed according to various IYCF practices, Kenya DHS 2022

Indicator	Indicator numerator and denominator	Value
Early initiation of breastfeeding[1]	Percentage of children born in the last 2 years who were put to the breast within 1 hour of birth Number of children born in the last 2 years	60.1 3,658
Exclusive breastfeeding under 6 months	Percentage of children age 0–5 months who were fed exclusively with breast milk during the previous day Number of youngest children age 0–5 months living with their mother	59.7 888
Minimum dietary diversity	Percentage of children age 6–23 months who were given foods and beverages from at least five out of eight defined food groups during the previous day Number of youngest children age 6–23 months living with their mother	36.9 2,501
Minimum meal frequency	Percentage of children age 6–23 months who were given solid, semisolid, or soft foods (also including milk feeds for non-breastfed children) the minimum number of times or more during the previous day Number of youngest children age 6–23 months living with their mother	71.2 2,501
Minimum milk feeding frequency for non-breastfed children	Percentage of non-breastfed children age 6–23 months who were given at least two milk feeds during the previous day Number of youngest children age 6–23 months living with their mother who were not breastfed	52.0 517
Minimum acceptable diet	Percentage of children age 6–23 months who were fed a minimum acceptable diet during the previous day Number of youngest children age 6–23 months living with their mother	30.8 2,501
Sweet beverage consumption	Percentage of children age 6–23 months who were given a sweet beverage during the previous day Number of youngest children age 6–23 months living with their mother	49.1 2,501
Unhealthy food consumption	Percentage of children age 6–23 months who were given unhealthy foods during the previous day Number of youngest children age 6–23 months living with their mother	26.4 2,501
Bottle feeding	Percentage of children age 0–23 months who were fed from a bottle with a nipple during the previous day Number of children age 0–23 months	33.6 3,545

Note: Data for this table were collected in the full woman's questionnaire but not in the short questionnaire.
[1] Includes children born in the 2 years preceding the survey regardless of whether they were living or dead at the time of the interview

3.15 EARLY CHILDHOOD MORTALITY

Neonatal mortality: The probability of dying within the first month of life.

Postneonatal mortality: The probability of dying between the first month of life and the first birthday (computed as the difference between infant and neonatal mortality).

Infant mortality: The probability of dying between birth and the first birthday.

Child mortality: The probability of dying between the first and the fifth birthday.

Under-5 mortality: The probability of dying between birth and the fifth birthday.

Table 16 presents childhood mortality estimates for three successive 5-year periods prior to the 2022 KDHS. Rates were estimated directly from information collected as part of a retrospective pregnancy history in which female respondents listed all of the children to whom they have given birth along with each child's date of birth, survivorship status, and current age or age at death.

In the 5-year period prior to the survey, the under-5 mortality rate was 41 deaths per 1,000 live births, the infant mortality rate was 32 deaths per 1,000 live births, and the neonatal mortality rate was 21 deaths per 1,000 live births. Neonatal deaths account for 66% of infant deaths and 51% of under-5 deaths.

Table 16 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-5 mortality rates for 5-year periods preceding the survey, Kenya DHS 2022
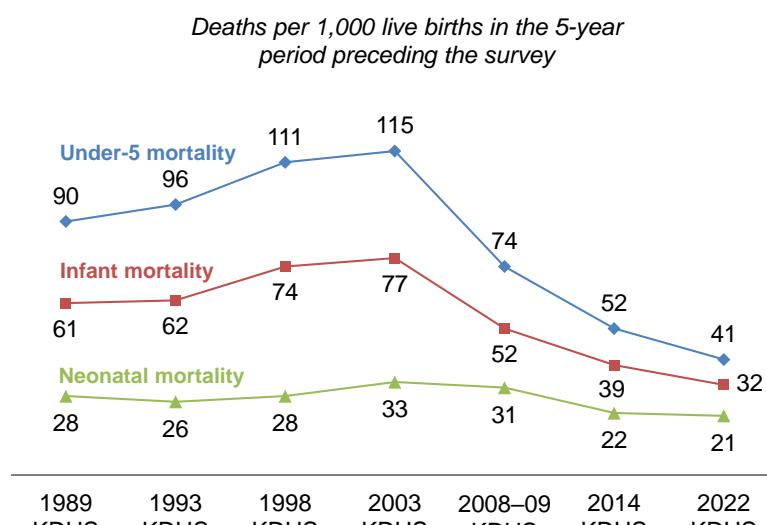
Years preceding the survey	Approximate calendar years	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
0–4	2018–2022	21	11	32	9	41
5–9	2013–2017	25	13	38	8	46
10–14	2008–2012	21	14	34	13	47

[1] Computed as the difference between the infant and neonatal mortality rates

Trends: Childhood mortality peaked in 2003 and has since declined steadily (**Figure 8**). For example, under-5 mortality declined from 115 deaths per 1,000 live births in 2003 to 41 deaths per 1,000 live births in the 5 years preceding the 2022 survey. During this same period, neonatal mortality declined from 33 deaths per 1,000 live births to 21 deaths per 1,000 births.

- Under-5 mortality does not differ by urban-rural residence (**Table 17**).

- Under-5 mortality rates are higher for males than females (45 deaths versus 38 deaths per 1,000 live births).

Figure 8 **Trends in early childhood mortality rates**

Deaths per 1,000 live births in the 5-year period preceding the survey

Note: Data from 2003 and later are nationally representative, while data collected before 2003 exclude the North Eastern region and several northern districts in the Eastern and Rift Valley regions.

Table 17 Five-year early childhood mortality rates according to background characteristics

Neonatal, postneonatal, infant, child, and under-5 mortality rates for the 5-year period preceding the survey, according to background characteristics, Kenya DHS 2022

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Child's sex					
Male	24	12	35	9	45
Female	19	11	29	9	38
Residence					
Urban	21	12	33	8	41
Rural	22	11	32	9	41
Total	21	11	32	9	41

[1] Computed as the difference between the infant and neonatal mortality rates

3.16 MALARIA

Malaria risk in Kenya is heterogeneous, and its epidemiology is influenced by altitude, rainfall patterns, and temperature. Therefore, malaria prevalence varies considerably by season and across geographic regions.

3.16.1 Ownership and use of insecticide-treated nets

Ownership of Insecticide-treated Nets

Insecticide-treated nets (ITNs) repel and kill mosquitoes, thus providing protection against mosquito bites and reducing the transmission of malaria parasites. High coverage of ITNs helps to decrease malaria risk at the individual level as well as the community level by reducing the vector population. The distribution and use of ITNs is one of the core interventions for preventing malaria infection in Kenya.

> **Ownership of insecticide-treated nets**
> Households that have at least one insecticide-treated net (ITN). An ITN is a factory-treated net that does not require any further treatment.
> *Sample:* Households

> **Full household ITN coverage**
> Percentage of households with at least one ITN for every two people.
> *Sample:* Households (with at least one person who stayed in the household the night before the survey)

Table 18 and **Table 18C** present information on household ownership of ITNs.
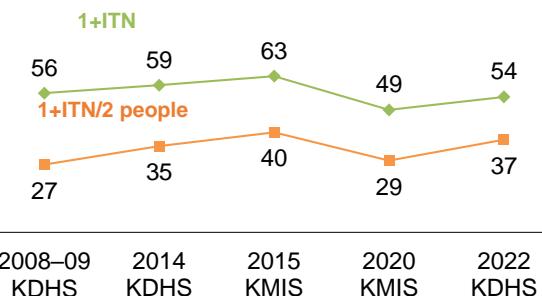
- Fifty-four percent of households own at least one ITN.

- Thirty-seven percent of households had at least one ITN for every two people who stayed in the household the night preceding the survey.

Trends: ITN ownership has been fairly steady since 2008–09, with at least half of households owning one net (with the exception of 2020, when 49% of households owned an ITN). The pattern of full ITN coverage has followed that of ITN ownership, peaking at 40% in 2015 (**Figure 9**).

- Household ownership of ITNs is higher in rural areas than urban areas (64% versus 41%).

- The percentage of households with at least one ITN generally decreases with increasing wealth, from 68% in the second wealth quintile to 40% in the highest wealth quintile.

- By endemicity, the percentage of households with full ITN coverage is highest in the lake endemic and highland epidemic prone zones (63%) and lowest in the seasonal (18%) and low risk (19%) zones (**Map 4**).

Figure 9 **Trends in household ownership of ITNs**
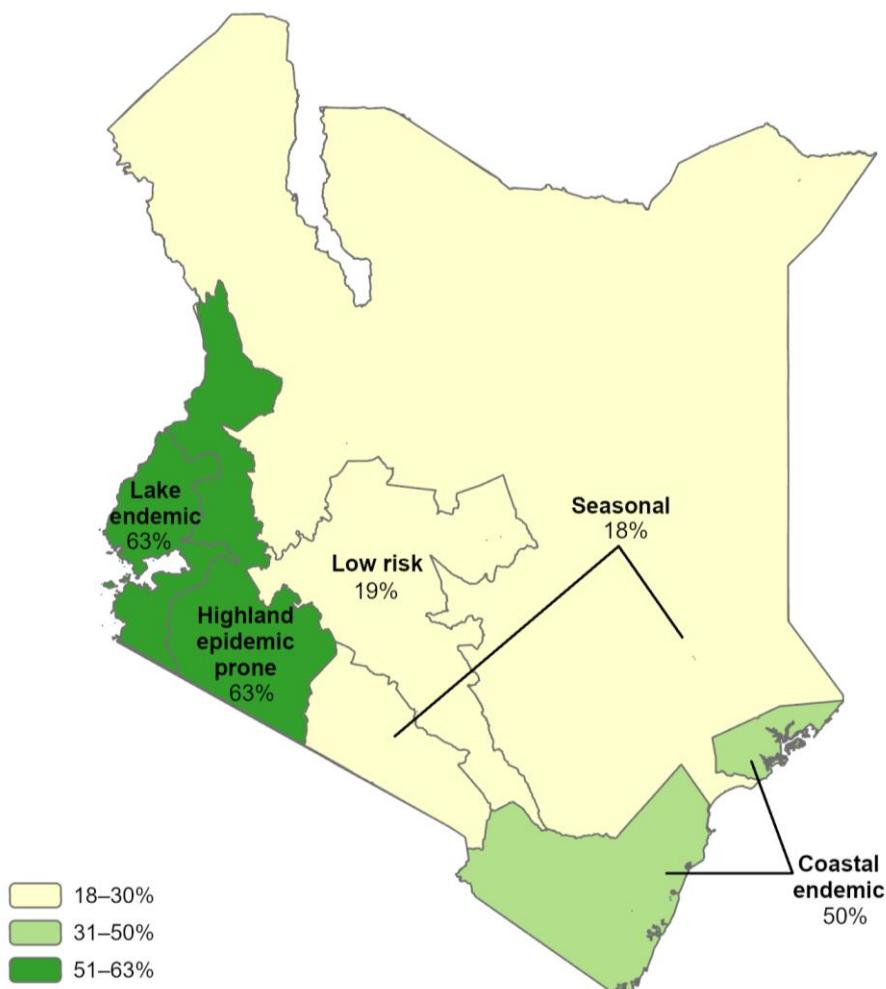
Percentage of households owning at least one insecticide-treated net (ITN) and percentage of households with at least one net for every two persons

Note: Data from 2003 and later are nationally representative, while data collected before 2003 exclude the North Eastern region and several northern districts in the Eastern and Rift Valley regions.

Map 4 **ITN ownership by malaria endemicity zone**

Percentage of households with at least one ITN for every two persons who stayed in the household last night

The boundaries used in this map are not an authority on administrative units

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Table 18 Household possession of insecticide-treated nets

Percentage of households with at least one insecticide-treated net (ITN), average number of ITNs per household, and percentage of households with at least one ITN per two persons who stayed in the household last night, according to background characteristics, Kenya DHS 2022

Background characteristic	Percentage of households with at least one ITN[1]	Average number of ITNs[1] per household	Number of households	Percentage of households with at least one ITN[1] for every two persons who stayed in the household last night[2]	Number of households with at least one person who stayed in the household last night
Residence					
Urban	40.5	0.8	15,277	27.7	15,062
Rural	63.5	1.6	22,634	43.4	22,509
Endemicity zone					
Highland epidemic prone	80.7	2.2	7,116	63.3	7,038
Lake endemic	87.7	2.2	6,358	62.5	6,328
Coastal endemic	71.5	1.6	3,012	49.8	2,980
Seasonal	39.4	0.7	5,046	18.4	5,012
Low risk	31.1	0.5	16,379	19.2	16,213
Wealth quintile					
Lowest	58.4	1.2	6,235	31.6	6,209
Second	67.5	1.7	6,628	45.9	6,603
Middle	61.6	1.5	7,328	44.9	7,266
Fourth	49.2	1.0	9,043	36.4	8,910
Highest	40.0	0.8	8,678	28.3	8,582
Total	54.2	1.2	37,911	37.1	37,571

[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment. In KDHS and KMIS surveys conducted prior to 2020, this was known as a long-lasting insecticidal net (LLIN).
[2] De facto household members

Table 18C Household possession of insecticide-treated nets by county

Percentage of households with at least one insecticide-treated net (ITN), average number of ITNs per household, and percentage of households with at least one ITN per two persons who stayed in the household last night, according to county, Kenya DHS 2022

County	Percentage of households with at least one ITN[1]	Average number of ITNs[1] per household	Number of households	Percentage of households with at least one ITN[1] for every two persons who stayed in the household last night[2]	Number of households with at least one person who stayed in the household last night
Mombasa	63.3	1.2	1,071	45.5	1,051
Kwale	74.0	1.8	504	47.5	502
Kilifi	74.4	1.8	996	48.2	989
Tana River	71.3	1.4	182	34.3	180
Lamu	65.9	1.5	109	43.3	107
Taita/Taveta	87.3	2.0	332	74.3	331
Garissa	19.7	0.3	269	6.8	269
Wajir	43.6	1.0	137	15.5	137
Mandera	15.7	0.3	204	4.8	203
Marsabit	27.1	0.4	171	7.4	170
Isiolo	51.7	0.9	150	23.4	149
Meru	36.2	0.5	1,373	16.8	1,359
Tharaka-Nithi	52.8	1.0	378	34.7	373
Embu	40.1	0.7	523	24.1	522
Kitui	33.0	0.5	898	15.1	895
Machakos	55.9	1.1	1,230	38.8	1,227
Makueni	48.1	0.8	775	25.8	769
Nyandarua	9.9	0.2	578	5.8	573
Nyeri	18.1	0.3	802	12.1	790
Kirinyaga	57.3	1.3	642	47.4	635
Murang'a	35.9	0.6	1,004	22.0	1,000
Kiambu	27.8	0.4	2,699	16.0	2,662
Turkana	49.4	0.8	391	18.8	383
West Pokot	78.8	1.9	416	41.5	416
Samburu	19.9	0.3	175	7.4	174
Trans Nzoia	86.0	2.5	753	69.3	747
Uasin Gishu	69.3	1.9	1,145	56.8	1,112
Elgeyo/Marakwet	25.3	0.4	290	10.1	290
Nandi	84.0	2.1	732	69.0	728
Baringo	63.8	1.4	432	37.6	429
Laikipia	24.9	0.4	452	15.9	445
Nakuru	27.5	0.5	2,018	15.3	2,006
Narok	76.0	2.1	790	54.0	776
Kajiado	38.8	0.6	1,083	20.9	1,072
Kericho	84.1	2.3	748	65.9	745
Bomet	92.3	2.8	665	77.3	659
Kakamega	89.1	2.4	1,382	66.9	1,381
Vihiga	92.5	2.6	412	75.8	412
Bungoma	89.4	2.7	1,169	70.6	1,157
Busia	93.5	2.6	653	67.4	653
Siaya	86.7	1.9	703	58.6	703
Kisumu	76.0	1.5	897	47.0	888
Homa Bay	89.2	2.1	770	60.2	766
Migori	87.7	2.1	710	54.2	706
Kisii	85.0	2.3	925	67.4	917
Nyamira	93.6	2.6	424	80.0	422
Nairobi City	23.4	0.4	4,749	14.3	4,691
Total	54.2	1.2	37,911	37.1	37,571

[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment. In KDHS and KMIS surveys conducted prior to 2020, this was known as a long-lasting insecticidal net (LLIN).
[2] De facto household members

Use of Insecticide-treated Nets

ITNs act as both a physical and a chemical barrier against mosquitoes. By reducing the vector population, ITNs can help reduce malaria risk at the community level as well as reduce risk to the individuals who use them. **Table 19** and **Table 19C** present information on use of ITNs by children under age 5 and pregnant women.

- Fifty-one percent of children under age 5 and 45% of pregnant women slept under an ITN the night before the survey.

- As expected, ITN use is higher in households with at least one ITN. For example, 77% of children under age 5 and 75% of pregnant women in households with at least one ITN slept under an ITN the night before the survey.

- Utilization of ITN is higher in rural areas than in urban areas. More than half (57%) of children in rural areas slept under an ITN, as compared with 40% of children in urban areas. Similarly, 57% of pregnant women in rural areas slept under an ITN, compared with 29% of pregnant women in urban areas.

- Use of ITNs among children under age 5 is highest (75%) in the lake endemic region, which has the highest burden of malaria nationally. An identical percentage of pregnant women (75%) in the lake endemic region slept under an ITN the night before the survey.

Table 19 Use of insecticide-treated nets by children and pregnant women

Percentage of children under age 5 who slept under an insecticide-treated net (ITN) the night before the survey; among children under age 5 in households with at least one ITN, percentage who slept under an ITN the night before the survey; percentage of pregnant women age 15–49 who slept under an ITN the night before the survey; and among pregnant women age 15–49 in households with at least one ITN, percentage who slept under an ITN the night before the survey, according to background characteristics, Kenya DHS 2022

Background characteristic	Children under age 5 in all households		Children under age 5 in households with at least one ITN[1]		Pregnant women age 15–49 in all households		Pregnant women age 15–49 in households with at least one ITN[1]	
	Percentage who slept under an ITN[1] last night	Number of children	Percentage who slept under an ITN[1] last night	Number of children	Percentage who slept under an ITN[1] last night	Number of pregnant women	Percentage who slept under an ITN[1] last night	Number of pregnant women
Residence								
Urban	39.7	5,989	75.5	3,148	29.0	733	70.3	302
Rural	56.9	11,824	77.2	8,720	56.7	995	77.0	733
Endemicity zone								
Highland epidemic prone	67.2	3,699	76.4	3,254	64.3	329	78.2	270
Lake endemic	74.6	3,399	80.1	3,165	75.3	317	82.2	290
Coastal endemic	66.4	1,500	81.8	1,218	61.1	158	82.3	118
Seasonal	35.3	3,200	71.4	1,583	35.2	288	69.8	145
Low risk	32.6	6,016	74.1	2,649	20.2	637	60.7	212
Wealth quintile								
Lowest	48.4	4,189	72.8	2,786	50.9	355	74.8	241
Second	60.9	3,459	78.6	2,680	59.3	279	73.3	226
Middle	62.2	3,235	81.0	2,486	56.5	303	82.0	209
Fourth	48.7	3,457	78.8	2,136	41.0	374	75.7	203
Highest	36.9	3,474	71.9	1,781	25.4	417	67.8	156
Total	51.1	17,814	76.8	11,869	44.9	1,728	75.0	1,035

Note: Table is based on children and pregnant women who stayed in the household the night before the interview.
[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment. In KDHS and KMIS surveys conducted prior to 2020, this was known as a long-lasting insecticidal net (LLIN).

Table 19C Use of insecticide-treated nets by children and pregnant women by county

Percentage of children under age 5 who slept under an insecticide-treated net (ITN) the night before the survey; among children under age 5 in households with at least one ITN, percentage who slept under an ITN the night before the survey; percentage of pregnant women age 15–49 who slept under an ITN the night before the survey; and among pregnant women age 15–49 in households with at least one ITN, percentage who slept under an ITN the night before the survey, according to county, Kenya DHS 2022

County	Children under age 5 in all households		Children under age 5 in households with at least one ITN[1]		Pregnant women age 15–49 in all households		Pregnant women age 15–49 in households with at least one ITN[1]	
	Percentage who slept under an ITN[1] last night	Number of children	Percentage who slept under an ITN[1] last night	Number of children	Percentage who slept under an ITN[1] last night	Number of pregnant women	Percentage who slept under an ITN[1] last night	Number of pregnant women
Mombasa	54.7	434	76.4	311	(48.3)	45	*	26
Kwale	66.4	329	82.7	265	60.1	35	(82.8)	25
Kilifi	72.4	541	82.5	475	(70.0)	61	(81.2)	53
Tana River	65.5	146	84.3	114	68.5	13	(88.9)	10
Lamu	60.9	65	83.0	48	46.9	9	(79.5)	5
Taita/Taveta	83.3	130	90.2	120	*	8	*	8
Garissa	12.8	241	58.5	53	21.4	19	*	5
Wajir	20.9	146	49.6	62	16.6	17	(47.9)	6
Mandera	9.0	257	53.3	43	15.2	21	*	5
Marsabit	8.9	138	31.2	40	(12.1)	11	*	4
Isiolo	48.9	99	78.8	62	(43.9)	7	(72.2)	5
Meru	45.7	520	75.0	317	*	46	*	20
Tharaka-Nithi	56.6	139	81.7	96	*	11	*	7
Embu	58.2	173	85.4	118	*	14	*	9
Kitui	42.3	387	77.3	212	*	18	*	8
Machakos	64.7	423	85.5	320	(54.8)	40	*	32
Makueni	46.9	316	74.9	198	(55.3)	33	(72.2)	26
Nyandarua	8.6	207	(69.3)	26	*	15	*	3
Nyeri	19.0	240	66.6	68	*	17	*	6
Kirinyaga	66.4	207	85.1	161	*	19	*	16
Murang'a	45.1	333	68.7	218	*	24	*	18
Kiambu	28.9	998	70.2	410	(8.1)	92	*	33
Turkana	33.3	320	65.1	164	(25.7)	25	*	13
West Pokot	57.6	431	70.9	350	59.2	50	76.2	39
Samburu	9.9	153	51.5	29	(1.7)	10	*	1
Trans Nzoia	75.7	379	84.0	341	(71.0)	29	(76.4)	27
Uasin Gishu	65.8	503	74.5	444	(54.2)	65	(75.5)	47
Elgeyo/Marakwet	16.6	170	41.3	69	*	10	*	4
Nandi	71.4	323	78.2	295	(77.8)	24	(94.0)	20
Baringo	53.5	265	76.3	186	(63.1)	29	(90.0)	20
Laikipia	23.7	162	71.6	54	(6.5)	20	*	3
Nakuru	22.9	930	67.7	315	(7.6)	87	*	15
Narok	56.6	579	67.1	489	50.6	52	(57.9)	45
Kajiado	39.9	538	73.5	292	34.5	64	(59.8)	37
Kericho	72.2	353	79.7	319	(69.5)	33	(93.8)	24
Bomet	75.8	349	79.5	333	(94.3)	26	(98.9)	24
Kakamega	71.8	717	77.5	665	(77.5)	70	(80.5)	68
Vihiga	79.0	179	81.8	173	(91.7)	16	(93.3)	15
Bungoma	74.2	671	77.8	641	73.3	69	(76.9)	66
Busia	83.8	393	85.6	385	81.3	39	(85.0)	37
Siaya	77.0	333	82.3	312	(72.4)	26	(79.5)	23
Kisumu	68.9	426	81.1	362	(72.4)	43	(92.3)	34
Homa Bay	69.6	415	74.8	386	(64.2)	36	(67.3)	34
Migori	75.5	457	81.4	424	(78.0)	34	(96.6)	27
Kisii	75.4	424	82.7	386	(69.8)	33	(74.5)	31
Nyamira	81.1	162	83.3	157	*	9	*	8
Nairobi City	23.9	1,712	72.9	562	10.3	252	*	40
Total	51.1	17,814	76.8	11,869	44.9	1,728	75.0	1,035

Note: Table is based on children and pregnant women who stayed in the household the night before the interview. Figures in parentheses are based on 25–49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] An insecticide-treated net (ITN) is a factory-treated net that does not require any further treatment. In KDHS and KMIS surveys conducted prior to 2020, this was known as a long-lasting insecticidal net (LLIN).

3.16.2 Malaria in pregnancy

> **Intermittent preventive treatment (IPTp) during pregnancy**
> Percentage of women who took at least three doses of SP/Fansidar during their last pregnancy.
> ***Sample:*** Women age 15–49 with a live birth or a stillbirth in the 2 years before the survey

Malaria infection during pregnancy poses substantial risk for the mother and her unborn child. Notable complications include spontaneous abortions, maternal and fetal anemia, and low birth weight babies. According to the Kenya Malaria Strategy 2019–2023, pregnant women living in malaria-endemic counties should receive intermittent preventive treatment of malaria in pregnancy (IPTp). This is a full therapeutic course of antimalarial medicine (sulfadoxine-pyrimethamine) given to pregnant women at routine antenatal care visits to prevent malaria. Pregnant women should receive at least three doses of IPTp for maximum protection. Notably, IPTp is provided only in the lake and coastal endemic regions in Kenya.

▪ Twenty-eight percent of women with a live birth and/or a stillbirth in the 2 years before the survey reported receiving one or more doses of SP/Fansidar during the pregnancy that resulted in the last live birth or stillbirth, while 20% received two or more doses. Nationally, 13% of women received three or more doses of SP/Fansidar (**Table 20** and **Table 20C**).

▪ The percentages of women with a live birth in the 2 years preceding the survey who received three or more doses of SP/Fansidar are highest in the lake endemic zone (38%) and the coastal endemic zone (29%).

Table 20 Use of intermittent preventive treatment (IPTp) by women during pregnancy

Percentage of women age 15–49 with a live birth and/or a stillbirth in the 2 years preceding the survey who received one or more doses of SP/Fansidar, received two or more doses of SP/Fansidar, and received three or more doses of SP/Fansidar during the pregnancy that resulted in the last live birth or stillbirth, according to background characteristics, Kenya DHS 2022

Background characteristic	Percentage who received one or more doses of SP/Fansidar	Percentage who received two or more doses of SP/Fansidar	Percentage who received three or more doses of SP/Fansidar	Number of women with a live birth and/or a stillbirth in the 2 years preceding the survey
LIVE BIRTHS				
Residence				
Urban	24.2	16.1	9.7	1,273
Rural	30.4	21.9	14.1	2,251
Endemicity zone				
Highland epidemic prone	14.2	9.3	6.3	752
Lake endemic	70.6	56.7	38.1	636
Coastal endemic	75.8	50.1	29.2	286
Seasonal	12.7	8.5	5.3	608
Low risk	11.5	5.8	2.9	1,242
Total	28.2	19.8	12.5	3,523
STILLBIRTHS				
Total	25.6	21.8	10.5	58
LIVE BIRTHS AND STILLBIRTHS[1]				
Total	28.2	19.8	12.5	3,575

Note: Data for this table were collected in the full woman's questionnaire but not in the short questionnaire.
[1] For women who had both a live birth and a stillbirth in the 2 years preceding the survey, data are tabulated for the most recent birth only.

Table 20C Use of intermittent preventive treatment (IPTp) by women during pregnancy by county

Percentage of women age 15–49 with a live birth in the 2 years preceding the survey who received one or more doses of SP/Fansidar, received two or more doses of SP/Fansidar, and received three or more doses of SP/Fansidar during the pregnancy that resulted in the last live birth, according to county, Kenya DHS 2022

County	Percentage who received one or more doses of SP/Fansidar	Percentage who received two or more doses of SP/Fansidar	Percentage who received three or more doses of SP/Fansidar	Number of women with a live birth in the 2 years preceding the survey
Areas where IPTp is implemented	**70.4**	**52.7**	**33.8**	**983**
Mombasa	80.1	51.2	31.2	94
Kwale	75.3	48.1	27.7	60
Kilifi	74.7	49.2	27.6	93
Tana River	40.3	24.3	5.8	29
Lamu	81.0	67.2	42.2	16
Taita/Taveta	61.7	43.1	22.7	24
Kakamega	74.4	62.2	45.7	152
Vihiga	88.3	77.0	59.1	36
Bungoma	75.3	58.2	40.6	106
Busia	73.5	54.2	34.7	74
Siaya	68.7	56.8	33.8	53
Kisumu	48.4	38.4	25.5	79
Homa Bay	61.7	49.6	34.2	72
Migori	68.2	49.7	25.4	97
Areas where IPTp is not implemented	**11.8**	**7.0**	**4.3**	**2,540**
Garissa	0.6	0.6	0.6	47
Wajir	4.2	2.6	2.2	27
Mandera	0.0	0.0	0.0	47
Marsabit	3.1	3.1	3.1	28
Isiolo	28.0	22.1	21.4	21
Meru	7.3	7.3	6.5	98
Tharaka-Nithi	12.9	3.8	2.9	26
Embu	25.6	13.8	4.3	31
Kitui	8.6	6.9	4.9	72
Machakos	8.8	2.6	2.6	76
Makueni	15.6	5.7	0.0	60
Nyandarua	7.4	2.8	2.3	47
Nyeri	5.1	0.0	0.0	49
Kirinyaga	25.7	10.4	2.1	45
Murang'a	5.6	1.8	0.0	69
Kiambu	2.0	1.0	1.0	199
Turkana	30.2	18.2	9.9	64
West Pokot	0.0	0.0	0.0	87
Samburu	4.1	2.3	0.8	29
Trans Nzoia	32.3	20.7	11.9	77
Uasin Gishu	15.1	8.9	3.8	106
Elgeyo/Marakwet	9.4	1.8	0.3	33
Nandi	21.9	20.5	20.5	58
Baringo	12.5	5.0	3.5	52
Laikipia	6.5	1.6	1.6	32
Nakuru	12.0	8.4	2.2	166
Narok	4.4	1.9	0.0	119
Kajiado	11.7	9.6	7.2	102
Kericho	11.1	9.8	5.2	79
Bomet	5.1	1.5	1.5	63
Kisii	16.6	12.5	11.2	94
Nyamira	6.8	2.1	2.1	32
Nairobi City	18.1	9.8	5.9	403
Total	28.2	19.8	12.5	3,523

Note: Data in this table were collected in the full woman's questionnaire but not in the short questionnaire.

3.16.3 Case management of malaria in children

Care seeking for children under age 5 with fever

Percentage of children under age 5 with a fever in the 2 weeks before the survey for whom advice or treatment was sought from a health provider, a health facility, or a pharmacy.

Sample: Children under age 5 with a fever in the 2 weeks before the survey

Diagnosis of malaria in children under age 5 with fever

Percentage of children under age 5 with a fever in the 2 weeks before the survey who had blood taken from a finger or heel for testing. This is a proxy measure of diagnostic testing for malaria.

Sample: Children under age 5 with a fever in the 2 weeks before the survey

Artemisinin-based combination therapy (ACT) for children under age 5 with fever

Percentage of children under age 5 with a fever in the 2 weeks before the survey who received ACT.

Sample: Children under age 5 with a fever in the 2 weeks before the survey who took any antimalarial drug

Another recommendation of the Kenya Malaria Strategy 2019–2023 is that all individuals with suspected malaria cases be tested and that those confirmed as having malaria receive the recommended antimalarial treatment. According to the National Malaria Treatment Guidelines, caregivers of children under age 5 with fever should seek advice or treatment within 24 hours.

- Overall, 17% of children under age 5 had a fever in the 2 weeks before the survey; in the lake endemic zone, the zone with the highest burden of malaria, 26% of children had a fever in the past 2 weeks (**Table 21** and **Table 21C**).

- Advice or treatment was sought for 70% of children with a fever, and 33% had blood taken from a finger or heel for testing. The percentage of children with fever for whom advice or treatment was sought and the percentage who had blood taken from a finger or heel for testing were highest in the lake endemic zone (74% and 49%, respectively).

- The majority (84%) of children with a fever who took any antimalarial drug received ACT. In the lake endemic zone, 91% of children who took an antimalarial received ACT.

Table 21 Children with fever and care seeking for, diagnosis of, and treatment of fever

Percentage of children under age 5 with a fever in the 2 weeks preceding the survey; among children under age 5 with fever, percentage for whom advice or treatment was sought and percentage who had blood taken from a finger or heel for testing; and among children under age 5 with fever who took any antimalarial drug, percentage who received artemisinin-based combination therapy (ACT), according to background characteristics, Kenya DHS 2022

Background characteristic	Children under age 5		Children under age 5 with fever			Children under age 5 with fever who took any antimalarial drug	
	Percentage with a fever in the 2 weeks preceding the survey	Number of children	Percentage for whom advice or treatment was sought[1]	Percentage who had blood taken from a finger or heel for testing	Number of children	Percentage who received any ACT	Number of children
Residence							
Urban	17.0	6,316	68.9	33.5	1,071	75.5	109
Rural	17.2	10,567	69.8	33.3	1,818	85.9	475
Endemicity zone							
Highland epidemic prone	14.3	3,427	71.1	30.4	491	85.7	68
Lake endemic	25.6	2,986	74.1	49.4	764	91.4	370
Coastal endemic	15.5	1,403	54.2	34.5	218	*	10
Seasonal	15.9	2,973	62.9	29.3	474	76.8	76
Low risk	15.5	6,095	71.7	23.8	942	(46.6)	59
Wealth quintile							
Lowest	17.0	3,784	64.2	33.5	643	83.6	165
Second	17.6	3,038	69.5	36.1	535	91.2	158
Middle	17.2	2,955	74.2	33.9	509	84.1	126
Fourth	18.7	3,410	70.2	29.9	636	78.9	84
Highest	15.3	3,697	70.4	34.2	566	70.6	50
Total	17.1	16,883	69.5	33.4	2,890	84.0	583

Note: Data in this table were collected in the full woman's questionnaire but not in the short questionnaire. Figures in parentheses are based on 25–49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes advice or treatment from the following sources: public sector, private medical sector, nongovernmental organization (NGO) medical sector, faith-based sector/organization (FBO) medical sector, shop, market, and itinerant drug seller. Excludes advice or treatment from a traditional practitioner.

Table 21C Children with fever and care seeking for, diagnosis of, and treatment of fever by county

Percentage of children under age 5 with a fever in the 2 weeks preceding the survey; among children under age 5 with fever, percentage for whom advice or treatment was sought and percentage who had blood taken from a finger or heel for testing; and among children under age 5 with fever who took any antimalarial drug, percentage who received artemisinin-based combination therapy (ACT), according to county, Kenya DHS 2022

	Children under age 5		Children under age 5 with fever			Children under age 5 with fever who took any antimalarial drug	
County	Percentage with a fever in the 2 weeks preceding the survey	Number of children	Percentage for whom advice or treatment was sought[1]	Percentage who had blood taken from a finger or heel for testing	Number of children	Percentage who received any ACT	Number of children
Mombasa	20.6	429	41.7	43.6	88	*	0
Kwale	5.9	296	*	*	17	*	4
Kilifi	16.4	494	61.0	30.7	81	*	6
Tana River	17.7	137	54.0	27.8	24	*	2
Lamu	28.8	62	78.6	19.5	18	*	1
Taita/Taveta	10.8	123	(57.6)	(25.0)	13	*	0
Garissa	6.5	233	(55.0)	(54.1)	15	*	1
Wajir	24.0	143	56.9	14.7	34	*	0
Mandera	13.1	246	37.5	24.7	32	*	3
Marsabit	6.9	130	(46.1)	(32.3)	9	*	0
Isiolo	17.3	94	59.9	34.3	16	*	3
Meru	21.3	461	66.5	17.8	98	*	12
Tharaka-Nithi	31.4	125	74.4	34.2	39	*	2
Embu	11.4	163	(79.5)	(6.4)	19	*	1
Kitui	10.0	334	(54.4)	(12.4)	33	*	6
Machakos	16.5	379	(78.0)	(24.3)	63	*	8
Makueni	4.0	291	*	*	12	*	2
Nyandarua	9.4	193	(73.3)	(23.2)	18	*	1
Nyeri	15.2	222	(97.6)	(23.0)	34	*	0
Kirinyaga	5.6	198	*	*	11	*	1
Murang'a	16.1	317	(71.3)	(11.3)	51	*	3
Kiambu	17.1	1,058	68.0	28.8	181	*	0
Turkana	23.1	299	76.2	56.0	69	78.3	24
West Pokot	8.3	403	72.0	52.6	34	*	13
Samburu	13.6	144	51.0	23.7	20	*	2
Trans Nzoia	17.8	348	74.0	41.9	62	*	22
Uasin Gishu	24.7	490	77.9	29.6	121	*	10
Elgeyo/Marakwet	8.7	160	(64.6)	(15.1)	14	*	0
Nandi	13.2	289	72.5	34.6	38	*	8
Baringo	17.4	243	85.3	35.4	42	*	11
Laikipia	9.0	155	(77.9)	(13.8)	14	*	0
Nakuru	19.6	853	66.2	18.6	167	*	16
Narok	10.8	554	58.0	29.5	60	*	5
Kajiado	21.1	511	60.1	21.5	108	*	9
Kericho	4.7	360	*	*	17	*	2
Bomet	20.9	325	67.0	9.6	68	*	3
Kakamega	23.6	609	72.2	38.4	144	(80.2)	50
Vihiga	16.2	159	64.2	23.8	26	*	4
Bungoma	19.6	561	71.4	50.5	110	(99.0)	59
Busia	29.3	317	85.0	79.7	93	95.2	56
Siaya	13.6	302	84.1	65.6	41	(95.9)	31
Kisumu	19.4	413	66.3	49.6	80	(66.9)	32
Homa Bay	36.4	360	78.2	43.6	131	97.7	70
Migori	39.4	422	73.7	44.5	166	93.1	74
Kisii	11.3	368	(69.2)	(30.4)	42	*	4
Nyamira	15.7	129	(67.2)	(26.8)	20	*	1
Nairobi City	15.0	1,982	72.3	27.5	296	*	21
Total	17.1	16,883	69.5	33.4	2,890	84.0	583

Note: Data in this table were collected in the full woman's questionnaire but not in the short questionnaire. Figures in parentheses are based on 25–49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes advice or treatment from the following sources: public sector, private medical sector, nongovernmental organization (NGO) medical sector, faith-based sector/organization (FBO) medical sector, shop, market, and itinerant drug seller. Excludes advice or treatment from a traditional practitioner.

3.17 TB AND HIV

3.17.1 Knowledge and diagnosis of tuberculosis

Tuberculosis (TB) remains a major health concern in Kenya and is associated with high levels of morbidity and mortality. **Table 22** presents the percentage of women and men age 15–49 by knowledge of TB according to background characteristics.

- Awareness of TB is almost universal in Kenya; 97% of women and 98% of men age 15–49 have heard of TB.

- Five percent of women and 4% of men think that all people with TB also have HIV.

- Less than 1% of women and men were diagnosed with TB in the 12 months prior to the survey.

Table 22 Knowledge of, beliefs about, and diagnosis of tuberculosis

Percentage of women and men age 15–49 who have heard of TB, and among those who have heard of TB, percentage who think that all people with TB have HIV and percentage who were diagnosed with TB in the past 12 months, according to background characteristics, Kenya DHS 2022

			Among women who have heard of TB					Among men who have heard of TB		
Background characteristic	Have heard of TB	Number of women	Think all people with TB have HIV	Percent-age diagnosed with TB in past 12 months	Number of women	Have heard of TB	Number of men	Think all people with TB have HIV	Percent-age diagnosed with TB in past 12 months	Number of men
Age										
15–24	96.2	6,188	3.6	0.3	5,955	97.3	5,579	4.5	0.3	5,426
15–19	95.6	3,125	3.4	0.3	2,987	97.2	3,175	4.9	0.4	3,086
20–24	96.9	3,063	3.8	0.3	2,967	97.3	2,404	4.0	0.2	2,340
25–29	97.4	2,916	4.4	0.2	2,840	99.1	2,268	2.4	0.3	2,247
30–39	97.2	4,652	6.1	0.6	4,523	98.8	3,364	4.8	0.4	3,325
40–49	96.6	2,960	5.4	0.7	2,859	98.9	2,441	5.3	1.6	2,413
Marital status										
Never married	96.7	5,348	3.0	0.3	5,173	97.4	6,576	4.3	0.3	6,407
Ever had sex	97.6	2,775	2.9	0.2	2,709	97.8	4,303	4.0	0.4	4,207
Never had sex	95.7	2,573	3.1	0.3	2,464	96.8	2,273	5.0	0.1	2,200
Married or living together	96.9	9,319	5.5	0.4	9,031	99.0	6,257	4.2	0.6	6,193
Divorced/separated/ widowed	96.3	2,049	6.1	1.1	1,973	99.0	819	6.0	2.0	811
Residence										
Urban	98.3	6,850	3.8	0.4	6,733	98.2	5,382	2.9	0.7	5,285
Rural	95.7	9,866	5.4	0.4	9,444	98.3	8,270	5.4	0.5	8,127
Education[1]										
No education	88.7	920	6.9	0.3	817	92.8	369	7.2	0.6	342
Primary	95.5	6,107	6.5	0.7	5,835	97.7	4,894	6.7	0.7	4,780
Secondary	98.0	6,320	3.9	0.4	6,191	98.9	5,386	3.3	0.6	5,326
More than secondary	99.0	3,208	2.7	0.2	3,177	98.7	2,797	2.1	0.3	2,762
Wealth quintile										
Lowest	93.3	2,599	6.9	0.5	2,425	96.8	2,062	7.1	0.8	1,996
Second	96.0	2,974	5.0	0.7	2,854	98.4	2,584	5.8	0.4	2,542
Middle	96.5	3,086	5.5	0.3	2,979	98.2	2,754	3.9	0.5	2,704
Fourth	97.8	3,729	4.2	0.5	3,646	99.0	3,325	3.2	0.7	3,291
Highest	98.7	4,328	3.3	0.2	4,272	98.4	2,927	3.1	0.5	2,880
Total 15–49	96.8	16,716	4.7	0.4	16,177	98.2	13,652	4.4	0.6	13,412
50–54	na	na	na	na	na	98.6	801	5.6	1.2	789
Total 15–54	na	na	na	na	na	98.3	14,453	4.5	0.6	14,201

Note: Data in this table were collected in the full woman's and man's questionnaires but not in the short questionnaires.
na = not applicable
[1] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

3.17.2 HIV prevention knowledge among young people

Knowledge about HIV prevention

Knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting two major misconceptions about HIV transmission: HIV can be transmitted by mosquito bites and a person can become infected by sharing food with a person who has HIV.

Sample: Women and men age 15–24

Knowledge of how HIV is transmitted is crucial to enabling people to avoid HIV infection, and this is especially true for young people, who are often at greater risk of infection because they may have shorter sexual relationships with multiple partners or engage in other risky behavior. **Table 23** and **Table 23C** present information on knowledge of HIV prevention among young people age 15–24.

- Slightly more than half of young people in Kenya know about HIV prevention (54% of women and 55% of men).

- Knowledge of prevention is lowest among respondents age 15–17 (44% each of women and men) and among those who have never had sex (47% of women and 48% of men).

- Young women and men in urban areas are more likely than their counterparts in rural areas to have knowledge about HIV prevention; 57% of young women and 63% of young men in urban areas have knowledge about prevention, as compared with 52% of young women and 51% of young men in rural areas.

- Knowledge about HIV prevention increases with increasing education, from 13% among young women with no education to 69% among those with more than a secondary education and from 14% among young men with no education to 80% among those with more than a secondary education.

Table 23 Knowledge about HIV prevention methods among young people

Percentage of young women and young men age 15–24 who, in response to prompted questions, say that people can reduce the risk of getting HIV by using condoms every time they have sexual intercourse and by having one sex partner who is not infected and has no other partners, and percentage who correctly identify both ways of preventing sexual transmission of HIV and reject major misconceptions about HIV transmission, according to background characteristics, Kenya DHS 2022

	Women age 15–24				Men age 15–24			
	Percentage who say HIV can be prevented by:				Percentage who say HIV can be prevented by:			
Background characteristic	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Percentage with knowledge about HIV prevention[3]	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Percentage with knowledge about HIV prevention[3]	Number of men
Age								
15–19	72.8	84.1	47.3	3,125	79.7	85.7	48.7	3,175
15–17	69.7	82.2	43.9	1,822	76.5	83.0	43.8	1,954
18–19	77.2	86.9	52.1	1,303	84.7	90.1	56.5	1,221
20–24	86.0	91.9	61.1	3,063	87.8	92.3	63.8	2,404
20–22	83.9	91.2	59.5	1,850	87.7	91.8	64.1	1,484
23–24	89.2	93.1	63.7	1,212	87.8	93.0	63.3	920
Marital status								
Never married	77.5	87.3	52.9	4,381	82.9	88.1	54.7	5,140
Ever had sex	86.4	92.6	60.9	1,883	87.1	91.5	59.8	2,934
Never had sex	70.8	83.4	46.9	2,498	77.3	83.6	48.0	2,207
Ever married	83.8	89.6	57.1	1,807	86.1	93.9	60.6	439
Residence								
Urban	82.4	88.9	57.2	2,430	86.1	92.7	63.3	1,830
Rural	77.4	87.4	52.2	3,758	81.7	86.5	51.2	3,750
Education[4]								
No education	37.1	55.0	13.3	160	58.7	63.6	13.8	63
Primary	73.1	84.3	42.9	1,591	75.5	82.5	38.3	1,713
Secondary	81.0	89.4	56.7	3,384	85.4	90.8	59.7	3,007
More than secondary	90.6	93.8	69.4	995	94.3	95.5	79.8	725
Wealth quintile								
Lowest	69.6	80.3	40.8	1,062	75.0	84.1	44.9	935
Second	78.2	89.2	51.4	1,203	84.1	86.3	50.4	1,211
Middle	82.3	89.8	58.3	1,146	81.6	86.5	52.5	1,288
Fourth	81.2	91.0	60.5	1,371	86.1	92.6	61.7	1,273
Highest	83.5	88.4	57.0	1,406	88.8	93.5	67.4	872
Total 15–24	79.4	88.0	54.2	6,188	83.2	88.6	55.2	5,579

Note: Data in this table were collected in the full woman's and man's questionnaires but not in the short questionnaires.
[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners
[3] Knowledge about HIV prevention means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting two common misconceptions about transmission or prevention of HIV: HIV can be transmitted by mosquito bites and a person can become infected by sharing food with a person who has HIV.
[4] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

Table 23C Knowledge about HIV prevention methods among young people by county

Percentage of young women and young men age 15–24 who, in response to prompted questions, say that people can reduce the risk of getting HIV by using condoms every time they have sexual intercourse and by having one sex partner who is not infected and has no other partners, and percentage who correctly identify both ways of preventing sexual transmission of HIV and reject major misconceptions about HIV transmission, according to county, Kenya DHS 2022

| | Women age 15–24 | | | | Men age 15–24 | | | |
| | Percentage who say HIV can be prevented by: | | | | Percentage who say HIV can be prevented by: | | | |
County	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Percentage with knowledge about HIV prevention[3]	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Percentage with knowledge about HIV prevention[3]	Number of men
Mombasa	75.6	83.5	45.3	173	70.0	97.2	60.9	159
Kwale	86.2	87.4	63.4	111	63.5	95.1	42.8	104
Kilifi	75.7	90.8	57.1	208	74.1	84.5	51.0	197
Tana River	49.9	71.8	35.2	31	57.3	53.7	32.3	29
Lamu	49.7	81.6	34.7	21	97.9	95.5	84.7	14
Taita/Taveta	82.3	85.3	61.0	37	82.4	89.5	49.0	37
Garissa	27.7	55.3	15.0	78	95.4	99.8	88.7	56
Wajir	45.9	76.3	26.9	39	73.9	87.1	43.1	38
Mandera	15.0	26.2	4.5	46	57.3	61.5	16.8	41
Marsabit	58.2	58.6	26.0	24	58.4	89.5	34.7	17
Isiolo	68.0	75.7	35.7	31	83.7	95.9	58.6	19
Meru	66.2	84.8	41.1	162	81.6	86.8	50.2	179
Tharaka-Nithi	74.4	90.1	51.5	33	80.9	92.5	51.8	49
Embu	79.6	84.5	49.4	51	75.0	75.5	56.5	58
Kitui	75.4	86.5	65.6	140	96.7	94.4	80.9	142
Machakos	88.1	98.1	68.1	205	84.9	86.8	54.5	200
Makueni	76.3	88.2	55.0	133	86.9	98.4	52.5	113
Nyandarua	80.2	96.2	59.1	79	85.3	79.7	47.0	73
Nyeri	88.2	86.8	62.0	85	88.0	80.2	53.7	81
Kirinyaga	82.2	92.9	65.0	79	93.3	90.6	74.0	70
Murang'a	81.7	89.5	47.3	118	96.0	97.4	64.0	114
Kiambu	80.3	85.3	50.8	368	72.2	80.7	37.5	309
Turkana	67.0	75.6	23.2	63	70.1	73.8	49.4	38
West Pokot	74.7	79.6	43.7	77	90.8	94.9	77.2	61
Samburu	67.3	84.8	31.8	32	73.5	88.5	30.6	22
Trans Nzoia	91.1	98.6	74.0	144	82.9	93.7	64.3	129
Uasin Gishu	79.5	90.5	56.6	218	85.5	82.6	63.0	164
Elgeyo/Marakwet	82.1	92.4	53.6	38	77.8	69.6	43.7	46
Nandi	76.6	87.0	43.0	137	85.0	77.0	61.9	111
Baringo	69.5	88.4	46.8	76	78.6	69.9	45.2	87
Laikipia	81.1	88.0	50.0	62	75.9	90.2	44.4	67
Nakuru	84.2	89.1	54.3	262	75.9	76.5	35.1	294
Narok	76.2	87.8	49.7	156	69.5	87.3	35.6	138
Kajiado	80.2	90.6	60.0	149	88.5	92.3	50.4	114
Kericho	88.6	87.4	49.0	140	97.0	98.5	85.4	115
Bomet	82.3	94.5	58.2	129	94.1	91.7	54.2	110
Kakamega	75.1	88.8	50.6	251	86.0	97.3	44.3	279
Vihiga	75.5	83.7	58.5	99	76.5	81.6	50.1	82
Bungoma	68.7	85.3	32.4	237	69.4	80.0	36.1	231
Busia	83.1	93.3	63.3	147	75.9	82.9	38.3	136
Siaya	90.4	90.8	71.5	106	83.0	91.5	39.9	114
Kisumu	95.8	95.6	73.5	159	97.0	99.4	78.9	126
Homa Bay	86.7	90.8	58.4	143	82.3	77.0	49.4	122
Migori	71.9	82.8	44.8	144	94.5	99.1	62.7	106
Kisii	92.1	97.3	78.8	182	97.7	99.2	95.0	150
Nyamira	86.9	96.6	78.2	68	75.6	84.6	51.9	62
Nairobi City	87.8	89.7	58.0	715	95.6	98.9	74.2	578
Total 15–24	79.4	88.0	54.2	6,188	83.2	88.6	55.2	5,579

Note: Data in this table were collected in the full woman's and man's questionnaires but not in the short questionnaires.
[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners
[3] Knowledge about HIV prevention means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting two common misconceptions about transmission or prevention of HIV: HIV can be transmitted by mosquito bites and a person can become infected by sharing food with a person who has HIV.

3.17.3 Sexual behavior

Information on sexual behavior is important in designing, implementing, and monitoring HIV prevention programs. **Tables 24.1**, **24C.1**, **24.2**, and **24C.2** present information on multiple sexual partners and higher-risk sexual intercourse in the last 12 months among women and men who have ever had sexual intercourse.

- A higher proportion of men (15%) than women (4%) reported having two or more sexual partners in the 12 months prior to the survey. Of those with more than one partner in the last 12 months, 24% of women and 45% of men reported using a condom during their last sexual intercourse.

- In the 12 months before the survey, 19% of women had sex with a person who neither was their husband nor lived with them, and just 37% of these women reported using a condom during their last sexual intercourse with such a partner.

- Thirty-five percent of men reported having sex in last 12 months with a person who neither was their wife nor lived with them, and 68% of these men reported using a condom during their last sexual intercourse with such a partner.

- Average numbers of sexual partners are 2.3 among women and 7.4 among men.

- Among women but not men, the percentage who reported using a condom at last sex with a person who neither was their spouse nor lived with them decreases with age, from 46% among women age 15–19 to 29% among women age 30–49.

Table 24.1 Multiple sexual partners and higher-risk sexual intercourse in the last 12 months: Women

Among all women age 15–49, percentage who had sexual intercourse with more than one sexual partner in the last 12 months and percentage who had intercourse in the last 12 months with a person who neither was their husband nor lived with them; among women having more than one partner in the last 12 months, percentage reporting that a condom was used during last intercourse; among women who had sexual intercourse in the last 12 months with a person who neither was their husband nor lived with them, percentage who used a condom during last sexual intercourse with such a partner; and among women who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to background characteristics, Kenya DHS 2022

Background characteristic	All women			Women who had 2+ partners in the last 12 months		Women who had intercourse in the last 12 months with a person who neither was their husband nor lived with them		Women who ever had sexual intercourse[1]	
	Percentage who had 2+ partners in the last 12 months	Percentage who had intercourse in the last 12 months with a person who neither was their husband nor lived with them	Number of women	Percentage who reported using a condom during last sexual intercourse	Number of women	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of women	Mean number of sexual partners in lifetime	Number of women
Age									
15–24	3.7	24.2	6,188	35.5	227	42.6	1,498	2.0	3,669
15–19	1.5	17.5	3,125	30.7	48	46.3	546	1.6	1,029
20–24	5.8	31.1	3,063	36.8	179	40.4	952	2.1	2,640
25–29	4.7	19.9	2,916	13.4	137	35.2	581	2.5	2,825
30–39	3.2	14.8	4,652	15.6	147	29.2	688	2.4	4,541
40–49	2.4	12.4	2,960	26.0	72	29.3	367	2.5	2,912
Marital status									
Never married	4.3	35.8	5,348	39.2	232	38.0	1,913	2.4	2,715
Married/living together	2.2	2.7	9,319	4.8	208	44.7	255	2.1	9,229
Divorced/separated/widowed	6.9	47.1	2,049	27.7	142	32.1	966	3.1	2,003
Residence									
Urban	4.3	22.5	6,850	29.1	292	39.9	1,543	2.5	5,752
Rural	2.9	16.1	9,866	19.1	290	33.6	1,591	2.2	8,195
Education[2]									
No education	1.6	7.0	920	*	15	23.6	64	1.6	870
Primary	3.3	16.3	6,107	21.2	204	32.1	993	2.4	5,371
Secondary	3.0	18.4	6,320	22.7	188	39.3	1,164	2.2	4,666
More than secondary	5.3	27.2	3,208	31.5	172	39.9	872	2.6	2,892
Wealth quintile									
Lowest	2.5	13.7	2,599	16.5	64	29.1	356	1.9	2,168
Second	2.9	16.6	2,974	14.8	88	40.7	494	2.2	2,414
Middle	3.2	18.4	3,086	21.8	100	33.7	567	2.3	2,549
Fourth	3.7	20.1	3,729	28.4	139	37.2	751	2.4	3,197
Highest	4.4	22.3	4,328	29.0	192	38.9	966	2.6	3,620
Total	3.5	18.7	16,716	24.1	582	36.7	3,134	2.3	13,948

Note: Data for this table were collected in the woman's full questionnaire but not in the short questionnaire. Figures in parentheses are based on 25–49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Means are calculated excluding respondents who gave non-numeric responses.
[2] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

Table 24C.1 Multiple sexual partners and higher-risk sexual intercourse in the last 12 months by county: Women

Among all women age 15–49, percentage who had sexual intercourse with more than one sexual partner in the last 12 months and percentage who had intercourse in the last 12 months with a person who neither was their husband nor lived with them; among women having more than one partner in the last 12 months, percentage reporting that a condom was used during last intercourse; among women who had sexual intercourse in the last 12 months with a person who neither was their husband nor lived with them, percentage who used a condom during last sexual intercourse with such a partner; and among women who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to county, Kenya DHS 2022

County	All women			Women who had 2+ partners in the last 12 months		Women who had intercourse in the last 12 months with a person who neither was their husband nor lived with them		Women who ever had sexual intercourse[1]	
	Percentage who had 2+ partners in the last 12 months	Percentage who had intercourse in the last 12 months with a person who neither was their husband nor lived with them	Number of women	Percentage who reported using a condom during last sexual intercourse	Number of women	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of women	Mean number of sexual partners in lifetime	Number of women
Mombasa	2.1	14.6	494	*	11	49.7	72	1.9	401
Kwale	0.5	7.8	260	*	1	(12.3)	20	1.3	195
Kilifi	4.7	19.9	489	*	23	30.7	97	2.2	379
Tana River	0.5	3.9	80	*	0	*	3	1.5	67
Lamu	3.8	11.2	54	*	2	(36.4)	6	2.3	43
Taita/Taveta	1.4	18.7	122	*	2	(33.9)	23	2.2	105
Garissa	3.0	4.3	163	*	5	*	7	1.3	111
Wajir	0.8	0.8	90	*	1	*	1	1.3	61
Mandera	0.0	0.5	113	*	0	*	1	1.3	85
Marsabit	2.4	2.5	72	*	2	*	2	1.2	61
Isiolo	3.3	9.3	77	*	3	(28.1)	7	2.0	58
Meru	2.3	20.2	488	*	11	22.1	99	2.2	423
Tharaka-Nithi	1.4	10.7	132	*	2	(49.0)	14	1.8	120
Embu	2.7	13.2	180	*	5	(29.8)	24	2.1	151
Kitui	3.0	11.8	374	*	11	(12.0)	44	2.6	296
Machakos	3.4	17.8	544	*	19	32.9	97	2.5	443
Makueni	1.5	13.8	356	*	5	23.0	49	2.2	292
Nyandarua	1.4	13.1	225	*	3	(19.7)	30	2.7	177
Nyeri	2.0	19.6	261	*	5	32.6	51	2.6	217
Kirinyaga	2.7	20.2	262	*	7	24.9	53	2.5	224
Murang'a	11.0	27.7	339	(19.6)	37	43.4	94	3.3	276
Kiambu	5.8	22.8	1095	*	63	30.4	250	2.6	917
Turkana	0.9	7.0	172	*	2	(28.0)	12	1.4	147
West Pokot	0.9	13.4	197	*	2	5.3	26	1.5	179
Samburu	0.8	21.1	79	*	1	25.4	17	1.9	74
Trans Nzoia	1.2	16.1	359	*	4	34.4	58	2.1	298
Uasin Gishu	3.7	24.5	527	*	19	45.1	129	2.5	452
Elgeyo/Marakwet	3.2	22.1	116	*	4	41.1	26	2.6	106
Nandi	1.4	25.0	332	*	5	31.0	83	2.1	274
Baringo	3.4	18.0	193	*	7	25.0	35	2.2	162
Laikipia	4.6	20.5	173	*	8	36.4	36	2.3	141
Nakuru	1.9	19.9	862	*	16	41.6	172	2.2	772
Narok	4.7	19.1	374	*	18	39.1	71	2.1	337
Kajiado	3.0	20.6	451	*	14	36.7	93	2.2	401
Kericho	6.5	27.9	372	(16.9)	24	29.5	104	2.6	330
Bomet	1.3	10.5	327	*	4	45.7	35	1.6	262
Kakamega	1.5	16.5	652	*	10	43.6	108	2.4	545
Vihiga	0.7	13.5	201	*	1	40.3	27	1.9	143
Bungoma	5.5	23.6	572	*	32	43.2	135	2.8	483
Busia	6.2	17.3	336	(23.4)	21	29.0	58	2.8	262
Siaya	3.1	15.1	275	*	9	37.7	42	3.0	221
Kisumu	3.8	18.4	396	*	15	46.9	73	2.2	321
Homa Bay	4.3	21.2	344	*	15	62.6	73	2.4	297
Migori	4.6	19.0	350	*	16	42.6	66	2.4	300
Kisii	3.1	19.8	463	*	14	40.3	92	2.2	402
Nyamira	1.2	19.9	169	*	2	45.0	34	2.4	143
Nairobi City	4.8	22.7	2157	*	103	39.7	491	2.6	1793
Total	3.5	18.7	16,716	24.1	582	36.7	3,134	2.3	13,948

Note: Data for this table were collected in the full woman's questionnaire but not in the short questionnaire. Figures in parentheses are based on 25–49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Means are calculated excluding respondents who gave non-numeric responses.

Table 24.2 Multiple sexual partners and higher-risk sexual intercourse in the last 12 months: Men

Among all men age 15–49, percentage who had sexual intercourse with more than one sexual partner in the last 12 months and percentage who had intercourse in the last 12 months with a person who neither was their wife nor lived with them; among men having more than one partner in the last 12 months, percentage reporting that a condom was used during last intercourse; among men who had sexual intercourse in the last 12 months with a person who neither was their wife nor lived with them, percentage who used a condom during last sexual intercourse with such a partner; and among men who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to background characteristics, Kenya DHS 2022

Background characteristic	All men			Men who had 2+ partners in the last 12 months		Men who had intercourse in the last 12 months with a person who neither was their wife nor lived with them		Men who ever had sexual intercourse[1]	
	Percentage who had 2+ partners in the last 12 months	Percentage who had intercourse in the last 12 months with a person who neither was their wife nor lived with them	Number of men	Percentage who reported using a condom during last sexual intercourse	Number of men	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of men	Mean number of sexual partners in lifetime	Number of men
Age									
15–24	12.2	40.8	5,579	63.5	682	69.6	2,275	5.1	3,342
15–19	5.3	25.2	3,175	62.2	170	67.0	801	3.1	1,259
20–24	21.3	61.3	2,404	64.0	512	71.1	1,474	6.3	2,083
25–29	21.7	48.6	2,268	48.4	492	66.1	1,102	8.0	2,194
30–39	17.1	27.7	3,364	31.5	575	67.3	931	8.6	3,235
40–49	13.1	17.5	2,441	27.2	319	65.2	428	8.7	2,323
Marital status									
Never married	13.8	48.9	6,576	69.5	909	67.4	3,219	6.1	4,258
Married/living together	15.0	15.1	6,257	19.7	939	72.6	945	7.7	6,050
Divorced/separated/ widowed	26.7	69.9	819	55.9	219	63.4	573	12.5	785
Type of union									
In polygynous union	51.2	16.2	285	8.3	146	59.4	46	12.3	269
Not in polygynous union	13.3	15.0	5,973	21.8	794	73.3	898	7.5	5,781
Not currently in union	15.3	51.3	7,395	66.8	1,128	66.8	3,792	7.1	5,043
Residence									
Urban	17.2	37.0	5,382	47.9	927	67.0	1,991	8.2	4,574
Rural	13.8	33.2	8,270	43.4	1,140	68.7	2,746	6.9	6,520
Education[2]									
No education	14.8	19.5	369	11.4	54	37.4	72	5.8	320
Primary	15.0	29.7	4,894	36.2	735	65.2	1,456	7.9	3,911
Secondary	12.7	35.2	5,386	48.8	685	68.6	1,897	6.5	4,055
More than secondary	20.1	43.4	2,797	56.8	563	71.9	1,215	8.4	2,616
Wealth quintile									
Lowest	15.6	32.2	2,062	33.1	321	62.4	663	7.0	1,598
Second	12.3	33.5	2,584	45.5	318	70.2	865	6.6	2,032
Middle	14.4	34.4	2,754	48.8	397	69.7	947	7.4	2,191
Fourth	16.9	36.9	3,325	45.9	561	65.2	1,226	7.6	2,796
Highest	16.1	35.4	2,927	50.4	471	71.4	1,035	8.2	2,477
Total 15–49	15.1	34.7	13,652	45.4	2,067	68.0	4,736	7.4	11,093
50–54	9.9	14.2	801	16.0	79	65.1	114	9.9	758
Total 15–54	14.9	33.6	14,453	44.3	2,147	67.9	4,850	7.6	11,851

[1] Means are calculated excluding respondents who gave non-numeric responses.
[2] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

Table 24C.2 Multiple sexual partners and higher-risk sexual intercourse in the last 12 months by county: Men

Among all men age 15–49, percentage who had sexual intercourse with more than one sexual partner in the last 12 months and percentage who had intercourse in the last 12 months with a person who neither was their wife nor lived with them; among men having more than one partner in the last 12 months, percentage reporting that a condom was used during last intercourse; among men who had sexual intercourse in the last 12 months with a person who neither was their wife nor lived with them, percentage who used a condom during last sexual intercourse with such a partner; and among men who ever had sexual intercourse, mean number of sexual partners during their lifetime, according to county, Kenya DHS 2022

County	All men			Men who had 2+ partners in the last 12 months		Men who had intercourse in the last 12 months with a person who neither was their wife nor lived with them		Men who ever had sexual intercourse[1]	
	Percentage who had 2+ partners in the last 12 months	Percentage who had inter-course in the last 12 months with a person who neither was their wife nor lived with them	Number of men	Percentage who reported using a condom during last sexual inter-course	Number of men	Percentage who reported using a condom during last sexual intercourse with such a partner	Number of men	Mean number of sexual partners in lifetime	Number of men
Mombasa	20.9	36.7	442	46.7	93	68.7	162	6.6	379
Kwale	13.7	35.1	209	(36.6)	29	58.8	73	7.0	150
Kilifi	16.9	38.2	405	38.0	68	65.7	155	5.7	323
Tana River	6.1	6.8	64	*	4	*	4	2.4	44
Lamu	7.7	20.3	41	*	3	(44.6)	8	4.0	31
Taita/Taveta	16.0	36.8	103	(43.5)	17	67.3	38	7.3	76
Garissa	2.3	3.4	117	*	3	*	4	2.3	67
Wajir	6.6	17.9	63	*	4	54.3	11	1.8	40
Mandera	8.1	3.9	81	(4.9)	7	*	3	1.5	45
Marsabit	9.5	24.2	45	*	4	(57.3)	11	4.2	35
Isiolo	18.9	32.6	55	(57.7)	10	78.4	18	7.1	48
Meru	11.2	31.0	489	(36.3)	55	58.9	151	7.5	384
Tharaka-Nithi	20.1	41.3	137	27.8	27	66.6	57	12.3	123
Embu	25.5	36.0	176	42.4	45	55.4	63	6.6	147
Kitui	6.6	28.9	312	*	21	73.5	90	4.8	255
Machakos	18.5	37.1	480	52.7	89	74.3	178	9.2	390
Makueni	16.4	36.4	279	67.4	46	81.8	102	6.7	233
Nyandarua	16.0	30.5	169	(61.1)	27	77.8	52	7.6	126
Nyeri	6.9	32.8	235	*	16	68.3	77	6.0	189
Kirinyaga	1.6	24.9	191	*	3	72.2	48	3.7	153
Murang'a	22.6	43.3	297	45.4	67	69.7	129	14.1	253
Kiambu	17.7	33.4	911	(36.1)	161	64.2	304	8.2	710
Turkana	5.0	18.2	111	*	6	(41.9)	20	6.8	95
West Pokot	27.2	44.5	150	23.5	41	47.5	67	7.3	145
Samburu	21.1	33.9	51	(39.0)	11	65.4	17	6.8	39
Trans Nzoia	7.6	31.8	272	*	21	80.3	87	6.7	216
Uasin Gishu	19.2	45.0	451	61.0	87	81.4	203	7.7	391
Elgeyo/Marakwet	28.5	49.4	110	49.9	32	65.9	55	10.2	102
Nandi	15.1	41.0	265	66.3	40	88.2	109	6.0	231
Baringo	8.2	27.7	165	(46.6)	14	83.0	46	7.7	130
Laikipia	13.8	39.2	145	(39.5)	20	69.6	57	7.5	123
Nakuru	9.5	22.3	670	(30.6)	64	70.1	149	7.1	515
Narok	42.5	61.9	314	29.3	133	64.5	194	8.0	284
Kajiado	11.3	33.2	339	(34.1)	38	52.4	112	7.7	275
Kericho	2.2	38.1	330	*	7	61.1	126	4.0	300
Bomet	14.3	34.0	268	36.3	38	67.6	91	3.8	225
Kakamega	5.6	20.3	532	*	30	67.7	108	7.6	365
Vihiga	6.9	30.3	156	(54.9)	11	67.6	47	6.7	114
Bungoma	14.6	36.2	448	(58.4)	66	68.9	162	6.2	320
Busia	14.8	32.0	262	(32.7)	39	64.7	84	8.4	185
Siaya	13.2	22.8	228	(40.4)	30	88.2	52	7.1	162
Kisumu	19.7	37.6	345	48.7	68	84.6	130	9.6	272
Homa Bay	15.9	34.9	258	(58.1)	41	88.8	90	7.7	223
Migori	28.7	44.1	246	41.5	71	63.2	108	7.5	221
Kisii	6.4	22.2	326	*	21	86.6	72	4.6	267
Nyamira	13.1	28.9	133	(55.7)	17	80.5	38	5.5	107
Nairobi City	18.4	43.6	1,777	52.5	326	58.3	775	9.3	1,586
Total 15–49	15.1	34.7	13,652	45.4	2,067	68.0	4,736	7.4	11,093

Note: Figures in parentheses are based on 25–49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Means are calculated excluding respondents who gave non-numeric responses.

3.17.4 Prior HIV testing

HIV testing services function as the entry point to HIV prevention, care, and treatment. This is important since those newly diagnosed with HIV are linked to care and start antiretroviral therapy and those who test HIV negative are linked to age-appropriate HIV prevention services.

Tables 25.1, **25C.1**, **25.2**, and **25C.2** present information on coverage of prior HIV testing among women and men age 15–49 by background characteristics.

- A greater percentage of women (85%) than men (73%) have ever been tested for HIV.

- In the 12 months preceding the survey, 47% of women and 39% of men were tested for HIV and received the results of the last test.

- The percentages of respondents who were tested in the last 12 months and received the test results vary widely by county, from a low of 5% in Mandera to a high of 72% in Turkana among women and from a low of 15% in Tana River and Wajir to a high of 59% in Kisumu among men.

Table 25.1 Coverage of prior HIV testing: Women

Percent distribution of women age 15–49 by HIV testing status and by whether they received the results of the last test, percentage of women ever tested, and percentage of women who were tested in the last 12 months and received the results of the last test, according to background characteristics, Kenya DHS 2022

Background characteristic	Percent distribution of women by testing status and by whether they received the results of the last test				Percentage ever tested	Percentage who were tested for HIV in the last 12 months and received the results of the last test	Number of women
	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total			
Age							
15–24	67.0	0.6	32.4	100.0	67.6	40.2	6,188
15–19	46.6	0.8	52.6	100.0	47.4	25.2	3,125
20–24	87.9	0.4	11.8	100.0	88.2	55.5	3,063
25–29	96.9	0.6	2.5	100.0	97.5	60.1	2,916
30–39	96.0	0.8	3.2	100.0	96.8	50.8	4,652
40–49	92.5	0.6	6.9	100.0	93.1	40.9	2,960
Marital status							
Never married	62.9	0.6	36.6	100.0	63.4	35.3	5,348
Ever had sex	84.9	0.4	14.7	100.0	85.3	52.1	2,775
Never had sex	39.1	0.7	60.2	100.0	39.8	17.3	2,573
Married or living together	95.1	0.7	4.2	100.0	95.8	52.0	9,319
Divorced/separated/widowed	95.4	0.5	4.1	100.0	95.9	52.8	2,049
Residence							
Urban	88.4	0.5	11.1	100.0	88.9	49.7	6,850
Rural	82.3	0.7	16.9	100.0	83.1	44.7	9,866
Education[2]							
No education	72.3	1.4	26.4	100.0	73.6	32.4	920
Primary	86.1	0.7	13.1	100.0	86.9	45.4	6,107
Secondary	81.1	0.7	18.2	100.0	81.8	46.5	6,320
More than secondary	92.7	0.2	7.1	100.0	92.9	54.0	3,208
Wealth quintile							
Lowest	75.4	0.9	23.7	100.0	76.3	38.6	2,599
Second	80.7	1.0	18.3	100.0	81.7	43.3	2,974
Middle	85.9	0.6	13.5	100.0	86.5	48.2	3,086
Fourth	89.9	0.3	9.8	100.0	90.2	51.8	3,729
Highest	88.1	0.6	11.3	100.0	88.7	48.7	4,328
Total	84.8	0.6	14.6	100.0	85.4	46.8	16,716

Note: Data for this table were collected in the woman's full questionnaire but not in the short questionnaire.
[1] Includes respondents who have not heard of HIV or who refused to answer questions on testing
[2] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

Table 25C.1 Coverage of prior HIV testing by county: Women

Percent distribution of women age 15–49 by HIV testing status and by whether they received the results of the last test, percentage of women ever tested, and percentage of women who were tested in the last 12 months and received the results of the last test, according to county, Kenya DHS 2022

County	Percent distribution of women by testing status and by whether they received the results of the last test				Percentage ever tested	Percentage who were tested for HIV in the last 12 months and received the results of the last test	Number of women
	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total			
Mombasa	89.9	0.4	9.7	100.0	90.3	49.0	494
Kwale	73.5	0.0	26.5	100.0	73.5	38.5	260
Kilifi	82.7	0.4	17.0	100.0	83.0	39.8	489
Tana River	73.2	0.4	26.4	100.0	73.6	29.3	80
Lamu	80.2	0.6	19.2	100.0	80.8	35.5	54
Taita/Taveta	91.9	0.5	7.7	100.0	92.3	45.3	122
Garissa	52.4	0.0	47.6	100.0	52.4	18.6	163
Wajir	49.2	0.0	50.8	100.0	49.2	16.7	90
Mandera	16.5	4.5	79.0	100.0	21.0	4.9	113
Marsabit	53.1	2.0	44.9	100.0	55.1	17.4	72
Isiolo	75.9	0.2	23.9	100.0	76.1	28.8	77
Meru	85.3	2.1	12.6	100.0	87.4	38.8	488
Tharaka-Nithi	91.6	0.6	7.8	100.0	92.2	49.6	132
Embu	86.4	0.2	13.4	100.0	86.6	39.0	180
Kitui	76.6	0.0	23.4	100.0	76.6	25.2	374
Machakos	86.5	1.4	12.1	100.0	87.9	46.2	544
Makueni	85.0	0.5	14.5	100.0	85.5	53.5	356
Nyandarua	82.7	1.4	15.9	100.0	84.1	46.8	225
Nyeri	90.0	0.5	9.5	100.0	90.5	55.6	261
Kirinyaga	91.6	0.6	7.8	100.0	92.2	48.8	262
Murang'a	92.2	1.1	6.7	100.0	93.3	51.7	339
Kiambu	90.1	1.0	8.9	100.0	91.1	49.9	1,095
Turkana	92.0	0.0	8.0	100.0	92.0	71.7	172
West Pokot	79.0	1.3	19.8	100.0	80.2	37.6	197
Samburu	80.7	0.2	19.2	100.0	80.8	38.1	79
Trans Nzoia	81.5	0.0	18.5	100.0	81.5	48.0	359
Uasin Gishu	84.9	1.1	14.0	100.0	86.0	46.8	527
Elgeyo/Marakwet	88.4	0.7	10.9	100.0	89.1	45.2	116
Nandi	79.9	0.3	19.8	100.0	80.2	42.4	332
Baringo	80.3	1.1	18.6	100.0	81.4	37.1	193
Laikipia	88.2	0.0	11.8	100.0	88.2	46.8	173
Nakuru	86.3	0.7	13.0	100.0	87.0	42.7	862
Narok	84.1	0.9	15.0	100.0	85.0	48.5	374
Kajiado	86.1	0.7	13.1	100.0	86.9	48.4	451
Kericho	81.8	3.0	15.2	100.0	84.8	36.8	372
Bomet	81.9	0.6	17.5	100.0	82.5	43.8	327
Kakamega	82.8	0.0	17.2	100.0	82.8	45.0	652
Vihiga	76.5	0.3	23.1	100.0	76.9	44.4	201
Bungoma	74.3	1.3	24.5	100.0	75.5	39.3	572
Busia	77.9	0.3	21.8	100.0	78.2	46.2	336
Siaya	87.7	0.4	11.9	100.0	88.1	59.2	275
Kisumu	95.1	0.0	4.9	100.0	95.1	66.5	396
Homa Bay	93.1	0.7	6.2	100.0	93.8	66.3	344
Migori	91.3	0.5	8.2	100.0	91.8	59.1	350
Kisii	91.5	0.3	8.3	100.0	91.7	63.5	463
Nyamira	88.3	0.4	11.4	100.0	88.6	56.2	169
Nairobi City	90.1	0.1	9.8	100.0	90.2	50.3	2,157
Total	84.8	0.6	14.6	100.0	85.4	46.8	16,716

Note: Data for this table were collected in the woman's full questionnaire but not in the short questionnaire.
[1] Includes respondents who have not heard of HIV or who refused to answer questions on testing

Table 25.2 Coverage of prior HIV testing: Men

Percent distribution of men age 15–49 by HIV testing status and by whether they received the results of the last test, percentage of men ever tested, and percentage of men who were tested in the last 12 months and received the results of the last test, according to background characteristics, Kenya DHS 2022

| Background characteristic | Percent distribution of men by testing status and by whether they received the results of the last test | | | | Percentage ever tested | Percentage who were tested for HIV in the last 12 months and received the results of the last test | Number of men |
	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total			
Age							
15–24	49.9	0.6	49.5	100.0	50.5	25.0	5,579
15–19	32.5	0.8	66.7	100.0	33.3	12.3	3,175
20–24	72.9	0.3	26.8	100.0	73.2	41.8	2,404
25–29	89.1	0.4	10.6	100.0	89.4	55.6	2,268
30–39	89.3	0.3	10.4	100.0	89.6	49.3	3,364
40–49	84.8	0.4	14.9	100.0	85.1	40.5	2,441
Marital status							
Never married	55.0	0.5	44.5	100.0	55.5	28.1	6,576
Ever had sex	68.8	0.4	30.8	100.0	69.2	37.8	4,303
Never had sex	28.8	0.8	70.4	100.0	29.6	9.7	2,273
Married or living together	89.0	0.4	10.6	100.0	89.4	49.6	6,257
Divorced/separated/widowed	84.5	0.3	15.2	100.0	84.8	43.5	819
Residence							
Urban	82.0	0.3	17.7	100.0	82.3	44.7	5,382
Rural	66.0	0.5	33.4	100.0	66.6	35.1	8,270
Education[2]							
No education	56.6	0.1	43.3	100.0	56.7	28.6	369
Primary	66.6	0.6	32.8	100.0	67.2	32.1	4,894
Secondary	68.8	0.5	30.7	100.0	69.3	36.7	5,386
More than secondary	90.5	0.1	9.4	100.0	90.6	55.5	2,797
Wealth quintile							
Lowest	58.7	0.5	40.8	100.0	59.2	29.4	2,062
Second	64.9	0.5	34.7	100.0	65.3	34.1	2,584
Middle	68.5	0.5	31.1	100.0	68.9	36.3	2,754
Fourth	80.2	0.6	19.2	100.0	80.8	44.2	3,325
Highest	83.3	0.2	16.5	100.0	83.5	46.1	2,927
Total 15–49	72.3	0.4	27.2	100.0	72.8	38.9	13,652
50–54	85.6	0.5	13.9	100.0	86.1	39.3	801
Total 15–54	73.1	0.5	26.5	100.0	73.5	38.9	14,453

[1] Includes respondents who have not heard of HIV or who refused to answer questions on testing
[2] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

Table 25C.2 Coverage of prior HIV testing by county: Men

Percent distribution of men age 15–49 by HIV testing status and by whether they received the results of the last test, percentage of men ever tested, and percentage of men who were tested in the last 12 months and received the results of the last test, according to county, Kenya DHS 2022

County	Percent distribution of men by testing status and by whether they received the results of the last test				Percentage ever tested	Percentage who were tested for HIV in the last 12 months and received the results of the last test	Number of men
	Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total			
Mombasa	80.2	0.4	19.4	100.0	80.6	44.3	442
Kwale	65.2	0.5	34.3	100.0	65.7	40.0	209
Kilifi	64.8	0.7	34.5	100.0	65.5	34.3	405
Tana River	53.3	0.1	46.6	100.0	53.4	14.6	64
Lamu	68.1	0.0	31.9	100.0	68.1	37.5	41
Taita/Taveta	76.0	0.0	24.0	100.0	76.0	45.6	103
Garissa	51.6	0.0	48.4	100.0	51.6	24.4	117
Wajir	38.8	0.7	60.5	100.0	39.5	14.9	63
Mandera	45.9	0.2	53.9	100.0	46.1	24.3	81
Marsabit	61.8	0.3	37.9	100.0	62.1	25.3	45
Isiolo	73.0	0.7	26.3	100.0	73.7	39.6	55
Meru	69.5	0.0	30.5	100.0	69.5	31.1	489
Tharaka-Nithi	69.9	0.3	29.8	100.0	70.2	33.9	137
Embu	68.7	0.3	30.9	100.0	69.1	35.1	176
Kitui	59.6	0.0	40.4	100.0	59.6	29.6	312
Machakos	76.9	0.0	23.1	100.0	76.9	34.8	480
Makueni	76.7	1.0	22.3	100.0	77.7	41.0	279
Nyandarua	68.0	1.3	30.6	100.0	69.4	34.8	169
Nyeri	77.7	0.8	21.5	100.0	78.5	40.2	235
Kirinyaga	75.4	0.0	24.6	100.0	75.4	35.7	191
Murang'a	78.0	2.6	19.5	100.0	80.5	42.0	297
Kiambu	76.1	0.6	23.3	100.0	76.7	31.7	911
Turkana	72.7	0.0	27.3	100.0	72.7	49.6	111
West Pokot	61.4	0.1	38.6	100.0	61.4	34.1	150
Samburu	68.6	0.0	31.4	100.0	68.6	41.4	51
Trans Nzoia	65.8	0.3	33.8	100.0	66.2	33.4	272
Uasin Gishu	79.0	0.2	20.8	100.0	79.2	44.9	451
Elgeyo/Marakwet	65.6	1.2	33.1	100.0	66.9	38.8	110
Nandi	51.2	2.6	46.2	100.0	53.8	28.1	265
Baringo	52.1	0.5	47.4	100.0	52.6	26.3	165
Laikipia	73.5	0.7	25.8	100.0	74.2	33.7	145
Nakuru	60.1	0.3	39.7	100.0	60.3	30.5	670
Narok	74.9	0.0	25.1	100.0	74.9	55.3	314
Kajiado	75.5	0.0	24.5	100.0	75.5	35.7	339
Kericho	69.7	0.9	29.3	100.0	70.7	38.3	330
Bomet	72.6	0.5	26.9	100.0	73.1	35.6	268
Kakamega	55.4	0.0	44.6	100.0	55.4	32.2	532
Vihiga	60.0	0.0	40.0	100.0	60.0	26.7	156
Bungoma	56.9	0.3	42.8	100.0	57.2	30.8	448
Busia	62.2	1.2	36.6	100.0	63.4	30.2	262
Siaya	78.1	0.0	21.9	100.0	78.1	42.7	228
Kisumu	84.0	0.3	15.7	100.0	84.3	59.0	345
Homa Bay	85.1	1.5	13.4	100.0	86.6	53.5	258
Migori	82.4	0.5	17.1	100.0	82.9	53.7	246
Kisii	80.7	0.3	19.0	100.0	81.0	47.2	326
Nyamira	73.6	0.0	26.4	100.0	73.6	44.0	133
Nairobi City	89.1	0.2	10.8	100.0	89.2	50.3	1,777
Total	72.3	0.4	27.2	100.0	72.8	38.9	13,652

[1] Includes respondents who have not heard of HIV or who refused to answer questions on testing

3.18 WOMEN'S AND MEN'S OWNERSHIP OF A HOUSE OR LAND AND DOCUMENTATION OF OWNERSHIP

Women's access to land and property with secure tenure is central to their economic empowerment as it serves as a base for income as well as collateral for credit (Kabeer 2009). Ownership and control of land and other assets by women and men enhance their ability to access economic resources at the societal level and confer additional economic value, status, and bargaining power at the household level. For women in particular, ownership of assets may provide protection in case of marital dissolution or abandonment, positively influence their position in their homes, and decrease their vulnerability to various forms of violence or discrimination. In the 2022 KDHS, respondents were asked if they own a house and agricultural and nonagricultural land alone, jointly with someone else, both alone and jointly, or not at all.

3.18.1 House and land ownership

Table 26.1 presents details on house and land ownership among women age 15–49 according to marital status.

- Thirty-three percent of women own a house, including 5% who do so alone and 28% who own it jointly with their spouse or partner only.

- Twenty-five percent of women own agricultural land. Three percent own land alone, while 20% own land jointly with their spouse or partner only.

- Only 7% of women own nonagricultural land.

Table 26.1 House and land ownership: Women

Percent distribution of women age 15–49 by house and land ownership, according to current marital status, Kenya DHS 2022

	Marital status				
Ownership status	Never married	Married/living together	Widowed	Divorced/ separated	Total
HOUSE OWNERSHIP					
Owns	**1.8**	**52.5**	**65.2**	**14.0**	**32.8**
Alone	1.6	2.5	54.7	11.8	4.5
Jointly with spouse/partner only	na	49.1	9.4	1.5	27.7
Jointly with someone else only	0.0	0.2	0.6	0.6	0.2
Jointly with spouse/partner and someone else	Na	0.6	0.4	0.0	0.3
Both alone and jointly	0.2	0.1	0.0	0.1	0.1
Does not own	**98.2**	**47.5**	**34.8**	**86.0**	**67.2**
Total	100.0	100.0	100.0	100.0	100.0
Number of women	10,438	17,822	908	2,989	32,156
AGRICULTURAL LAND OWNERSHIP					
Owns	**1.7**	**39.4**	**48.6**	**10.7**	**24.8**
Alone	1.4	1.6	37.3	7.8	3.1
Jointly with spouse/partner only	na	34.9	7.7	1.6	19.7
Jointly with someone else only	0.3	0.9	2.1	1.3	0.8
Jointly with spouse/partner and someone else	na	1.8	1.1	0.0	1.1
Both alone and jointly	0.1	0.2	0.4	0.0	0.1
Does not own	**98.3**	**60.6**	**51.4**	**89.3**	**75.2**
Total	100.0	100.0	100.0	100.0	100.0
Number of women	10,438	17,822	908	2,989	32,156
NONAGRICULTURAL LAND OWNERSHIP					
Owns	**1.1**	**10.2**	**11.5**	**4.1**	**6.7**
Alone	0.9	0.9	10.0	3.1	1.4
Jointly with spouse/partner only	na	8.5	1.1	0.4	4.8
Jointly with someone else only	0.2	0.3	0.2	0.5	0.3
Jointly with spouse/partner and someone else	na	0.4	0.0	0.0	0.2
Both alone and jointly	0.1	0.2	0.1	0.1	0.1
Does not own	**98.9**	**89.8**	**88.5**	**95.9**	**93.3**
Total	100.0	100.0	100.0	100.0	100.0
Number of women	10,438	17,822	908	2,989	32,156

na = not applicable

Table 26.2 presents details on house and land ownership among men by marital status. Forty-five percent of men age 15–49 own a house, 31% own agricultural land, and 8% own nonagricultural land.

Table 26.2 House and land ownership: Men

Percent distribution of men age 15–49 by house and land ownership, according to current marital status, Kenya DHS 2022

	Marital status						
Ownership status	Never married	Married/living together	Widowed	Divorced/ separated	Total 15–49	50–54	Total 15–54
	HOUSE OWNERSHIP						
Owns	**18.3**	**70.1**	**(76.5)**	**60.1**	**44.6**	**88.7**	**47.0**
Alone	16.1	51.0	(76.5)	58.3	34.7	63.1	36.3
Jointly with spouse/partner only	na	18.4	(0.0)	0.4	8.5	24.7	9.4
Jointly with someone else only	0.0	0.3	(0.0)	1.3	0.2	0.5	0.2
Jointly with spouse/partner and someone else	na	0.3	(0.0)	0.0	0.6	0.4	0.6
Both alone and jointly	1.3	0.1	(0.0)	0.1	0.7	0.0	0.6
Does not own	**81.7**	**29.9**	**(23.5)**	**39.9**	**55.4**	**11.3**	**53.0**
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	6,576	6,257	49	771	13,652	801	14,453
	AGRICULTURAL LAND OWNERSHIP						
Owns	**8.7**	**53.3**	**(60.5)**	**42.2**	**31.2**	**73.3**	**33.6**
Alone	6.3	41.5	(57.5)	35.8	24.3	58.6	26.2
Jointly with spouse/partner only	na	7.6	(0.0)	0.2	3.5	10.3	3.9
Jointly with someone else only	2.3	3.2	(3.0)	5.6	2.9	3.3	2.9
Jointly with spouse/partner and someone else	Na	0.9	(0.0)	0.0	0.4	1.1	0.5
Both alone and jointly	0.2	0.2	(0.0)	0.6	0.2	0.0	0.2
Does not own	**91.3**	**46.7**	**(39.5)**	**57.8**	**68.8**	**26.7**	**66.4**
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	6,576	6,257	49	771	13,652	801	14,453
	NONAGRICULTURAL LAND OWNERSHIP						
Owns	**2.1**	**14.0**	**(18.9)**	**8.3**	**8.0**	**22.6**	**8.8**
Alone	1.5	11.3	(18.0)	7.3	6.4	18.3	7.0
Jointly with spouse/partner only	Na	1.9	(0.0)	0.3	0.9	2.9	1.0
Jointly with someone else only	0.6	0.5	(0.8)	0.7	0.6	0.5	0.6
Jointly with spouse/partner and someone else	na	0.3	(0.0)	0.0	0.1	0.0	0.1
Both alone and jointly	0.0	0.1	(0.0)	0.0	0.0	0.8	0.1
Does not own	**97.9**	**86.0**	**(81.1)**	**91.7**	**92.0**	**77.4**	**91.2**
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	6,576	6,257	49	771	13,652	801	14,453

Note: Figures in parentheses are based on 25–49 unweighted cases.
na = not applicable

3.18.2 House ownership and documentation of ownership

Table 27.1 presents the percentage distribution of women age 15–49 by house ownership and documentation of ownership. Five percent of women report owning a house alone, while 28% own a house jointly with their husband and/or with someone else. Among women who own a house, only 9% have a title deed or any other government-recognized document with their name on it; 73% do not have a title deed or any other government-recognized document.

- House ownership increases with age and is highest among women age 45–49 (63%).

- Women in rural areas (44%) are more likely to own a house than women in urban areas (17%), although women in urban areas are much more likely to have a title deed for the house they own than women in rural areas.

- House ownership among women increases with increasing wealth. Three percent of women in the lowest wealth quintile own a house and have their name on the ownership documents, as compared with 29% of women in the highest wealth quintile.

Table 27.1 House ownership and documentation of ownership: Women

Percent distribution of women age 15–49 by ownership of a house, and among women who own a house, percent distribution by whether the house owned has a title deed and whether or not the woman's name appears on the title deed, according to background characteristics, Kenya DHS 2022

Background characteristic	Percentage who own a house: Alone	Jointly[2]	Both alone and jointly	Percent-age who do not own a house	Total	Number	House has a title deed:[1] Woman's name is on title/ deed[1]	Woman's name is not on title deed[1]	Does not have a title/ deed[1]	Don't know[3]	Total	Number of women who own a house[4]
Age												
15–19	0.3	2.8	0.1	96.8	100.0	6,025	6.0	9.8	80.6	3.6	100.0	196
20–24	1.0	16.7	0.1	82.1	100.0	6,001	3.5	10.5	82.9	3.1	100.0	1,072
25–29	2.0	30.3	0.1	67.6	100.0	5,687	6.9	13.0	78.1	2.0	100.0	1,842
30–34	4.5	37.4	0.1	57.9	100.0	4,530	9.8	13.9	74.6	1.7	100.0	1,906
35–39	8.1	41.7	0.2	50.0	100.0	4,311	11.1	16.9	71.2	0.9	100.0	2,155
40–44	11.4	46.9	0.1	41.7	100.0	3,084	11.7	18.3	68.7	1.3	100.0	1,799
45–49	14.0	48.8	0.2	37.1	100.0	2,518	11.2	20.4	67.3	1.1	100.0	1,584
Residence												
Urban	2.4	14.6	0.1	82.9	100.0	13,143	22.0	23.7	52.5	1.8	100.0	2,253
Rural	6.0	37.5	0.1	56.3	100.0	19,013	5.9	13.4	79.1	1.6	100.0	8,300
Education[5]												
No education	10.2	36.3	0.4	53.1	100.0	1,770	5.3	8.9	84.8	0.9	100.0	830
Primary	6.7	36.6	0.1	56.7	100.0	11,687	5.3	14.4	78.6	1.7	100.0	5,065
Secondary	2.4	21.1	0.1	76.4	100.0	12,204	8.9	16.6	72.4	2.1	100.0	2,883
More than secondary	2.9	23.3	0.1	73.6	100.0	6,150	25.7	21.8	51.6	0.9	100.0	1,623
Wealth quintile												
Lowest	8.8	36.8	0.1	54.2	100.0	5,019	2.8	8.2	87.5	1.4	100.0	2,297
Second	5.7	38.3	0.1	56.0	100.0	5,698	3.5	12.7	81.9	2.0	100.0	2,509
Middle	4.6	34.0	0.1	61.3	100.0	6,069	6.3	15.2	77.2	1.3	100.0	2,351
Fourth	2.9	21.1	0.1	75.8	100.0	7,139	11.9	20.3	66.0	1.8	100.0	1,726
Highest	2.4	17.8	0.1	79.7	100.0	8,231	29.0	26.1	43.4	1.5	100.0	1,669
Total	4.5	28.2	0.1	67.2	100.0	32,156	9.4	15.6	73.4	1.6	100.0	10,553

[1] Title deed or other government-recognized document
[2] Jointly with husband, someone else, or both husband and someone else
[3] Includes women who have a house with a title deed or other government-recognized document, but they do not know if their name is on it, and women who do not know if there is a title deed or other government-recognized document for the house
[4] Includes women who own a house alone, jointly with their husband only, jointly with someone else only, jointly with their husband and someone else, or both alone and jointly
[5] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

Table 27C.1 presents information on house ownership and documentation of ownership status among women age 15–49 according to county. The percentage of women who own a house is highest in Samburu (61%) and lowest in Garissa and Wajir (8% each).

Table 27C.1 House ownership and documentation of ownership by county: Women

Percent distribution of women age 15–49 by ownership of a house, and among women who own a house, percent distribution by whether the house owned has a title deed and whether or not the woman's name appears on the title deed, according to county, Kenya DHS 2022

| County | Percentage who own a house: | | | Percent-age who do not own a house | Total | Number | House has a title deed:[1] | | | | Total | Number of women who own a house[4] |
	Alone	Jointly[2]	Both alone and jointly				Woman's name is on title/deed[1]	Woman's name is not on title/deed[1]	Does not have a title/deed[1]	Don't know[3]		
Mombasa	4.3	12.4	0.2	83.1	100.0	947	24.0	17.9	56.6	1.5	100.0	160
Kwale	3.7	29.9	0.0	66.4	100.0	498	7.3	3.1	89.2	0.4	100.0	167
Kilifi	5.1	24.4	0.0	70.5	100.0	928	7.5	6.4	82.8	3.3	100.0	274
Tana River	4.8	45.5	0.0	49.7	100.0	149	1.2	2.2	95.5	1.0	100.0	75
Lamu	6.7	28.7	0.2	64.4	100.0	101	14.4	8.0	76.7	0.8	100.0	36
Taita/Taveta	6.7	20.5	0.1	72.7	100.0	234	12.6	37.8	48.7	0.9	100.0	64
Garissa	2.3	6.1	0.0	91.6	100.0	290	27.6	19.3	53.1	0.0	100.0	24
Wajir	5.7	2.0	0.1	92.2	100.0	160	1.2	0.0	97.4	1.4	100.0	13
Mandera	3.2	7.3	2.7	86.8	100.0	206	12.1	10.6	76.5	0.8	100.0	27
Marsabit	4.9	9.9	0.2	85.0	100.0	129	3.8	1.0	95.2	0.0	100.0	19
Isiolo	3.5	26.7	0.1	69.8	100.0	137	9.0	13.7	75.2	2.1	100.0	41
Meru	9.4	33.3	0.2	57.1	100.0	979	8.2	24.6	65.6	1.6	100.0	420
Tharaka-Nithi	6.1	36.8	0.6	56.4	100.0	271	3.7	9.7	85.7	0.9	100.0	118
Embu	4.4	23.0	0.0	72.6	100.0	358	11.2	16.4	72.4	0.0	100.0	98
Kitui	4.0	36.6	0.1	59.4	100.0	735	8.3	3.6	87.2	0.9	100.0	299
Machakos	3.3	42.8	0.0	53.9	100.0	992	8.8	11.8	77.0	2.4	100.0	457
Makueni	3.7	35.0	0.0	61.3	100.0	683	2.5	12.7	84.7	0.0	100.0	265
Nyandarua	5.5	35.5	0.0	59.0	100.0	409	11.0	44.6	44.4	0.0	100.0	168
Nyeri	2.9	23.9	0.0	73.2	100.0	501	15.4	21.9	62.8	0.0	100.0	134
Kirinyaga	5.4	28.2	0.0	66.4	100.0	481	15.3	16.1	66.5	2.1	100.0	162
Murang'a	3.9	25.9	0.3	69.9	100.0	692	6.0	21.2	72.2	0.7	100.0	209
Kiambu	4.2	18.1	0.5	77.2	100.0	2,094	15.4	15.9	68.7	0.0	100.0	477
Turkana	17.7	38.8	0.2	43.2	100.0	331	2.0	2.8	95.0	0.2	100.0	188
West Pokot	3.3	45.9	0.0	50.8	100.0	384	3.8	4.2	91.9	0.1	100.0	189
Samburu	10.7	50.4	0.0	38.9	100.0	156	2.3	4.5	93.0	0.2	100.0	95
Trans Nzoia	3.3	36.1	0.2	60.4	100.0	675	13.7	16.3	68.7	1.3	100.0	267
Uasin Gishu	3.3	23.8	0.1	72.8	100.0	983	15.8	19.3	64.4	0.5	100.0	267
Elgeyo/Marakwet	1.6	20.9	0.2	77.3	100.0	228	4.7	30.5	63.2	1.6	100.0	52
Nandi	7.0	36.6	0.0	56.4	100.0	622	2.5	3.9	91.2	2.4	100.0	271
Baringo	10.6	23.1	0.0	66.3	100.0	378	4.4	9.1	85.1	1.4	100.0	127
Laikipia	7.1	9.0	0.0	83.9	100.0	332	19.7	28.7	51.6	0.0	100.0	53
Nakuru	3.6	24.2	0.0	72.2	100.0	1,658	9.8	22.6	66.8	0.8	100.0	461
Narok	5.5	53.6	0.3	40.6	100.0	718	8.8	32.4	57.4	1.4	100.0	427
Kajiado	5.6	25.1	0.2	69.1	100.0	887	20.6	19.2	58.4	1.8	100.0	274
Kericho	2.9	17.5	0.0	79.6	100.0	729	9.0	8.3	82.7	0.0	100.0	149
Bomet	5.4	23.7	0.1	70.8	100.0	650	2.2	1.5	96.3	0.0	100.0	190
Kakamega	3.2	30.4	0.0	66.4	100.0	1,283	7.2	2.9	89.3	0.5	100.0	431
Vihiga	5.5	34.2	0.1	60.2	100.0	371	2.5	11.4	85.4	0.7	100.0	148
Bungoma	3.7	42.8	0.1	53.4	100.0	1,138	6.1	7.0	85.0	1.9	100.0	531
Busia	6.4	44.6	0.0	49.0	100.0	622	4.8	10.7	84.5	0.0	100.0	317
Siaya	4.4	47.4	0.0	48.2	100.0	537	7.9	25.9	64.8	1.5	100.0	278
Kisumu	5.9	26.2	0.0	67.9	100.0	771	4.2	6.9	88.4	0.5	100.0	247
Homa Bay	8.2	51.1	0.0	40.7	100.0	662	7.7	26.7	60.9	4.7	100.0	392
Migori	9.8	31.9	0.0	58.3	100.0	674	6.7	18.9	72.8	1.6	100.0	281
Kisii	2.7	53.9	0.1	43.3	100.0	831	1.2	11.2	80.4	7.2	100.0	471
Nyamira	6.5	43.3	0.0	50.3	100.0	327	1.7	9.5	87.0	1.8	100.0	162
Nairobi City	1.4	12.2	0.0	86.4	100.0	4,235	29.8	32.0	34.4	3.8	100.0	576
Total	4.5	28.2	0.1	67.2	100.0	32,156	9.4	15.6	73.4	1.6	100.0	10,553

[1] Title deed or other government-recognized document
[2] Jointly with husband, someone else, or both husband and someone else
[3] Includes women who have a house with a title deed or other government-recognized document, but they do not know if their name is on it, and women who do not know if there is a title deed or other government-recognized document for the house
[4] Includes women who own a house alone, jointly with their husband only, jointly with someone else only, jointly with their husband and someone else, or both alone and jointly

Tables 27.2 presents the percent distribution of men by ownership of a house and, among those who own a house, ownership documentation.

- Thirty-five percent of men age 15–49 own a house alone, 9% own a house jointly with their wife or someone else, and 1% own a house alone and jointly with someone else.

- Among men who own a house, 83% report that the house does not have a title deed or any other government-recognized document.

- Only 11% of men who own a house have a title deed or any other government-recognized document with their name on it.

Table 27.2 House ownership and documentation of ownership: Men

Percent distribution of men age 15–49 by ownership of a house, and among men who own a house, percent distribution by whether the house owned has a title deed and whether or not the man's name appears on the title deed, according to background characteristics, Kenya DHS 2022

| Background characteristic | Percentage who own a house: | | | Percentage who do not own a house | Total | Number of men | House has a title deed:[1] | | | Don't know[3] | Total | Number of men who own a house[4] |
	Alone	Jointly[2]	Both alone and jointly				Man's name is on title/ deed[1]	Man's name is not on title/ deed[1]	Does not have a title/ deed[1]			
Age												
15–19	10.5	0.9	1.4	87.2	100.0	3,175	0.4	0.6	98.6	0.4	100.0	408
20–24	19.3	3.1	1.1	76.5	100.0	2,404	2.9	3.4	93.5	0.2	100.0	566
25–29	33.4	9.0	0.6	57.1	100.0	2,268	5.1	6.4	88.1	0.3	100.0	973
30–34	47.9	13.1	0.1	38.9	100.0	1,787	9.8	6.9	82.9	0.3	100.0	1,091
35–39	56.4	15.1	0.1	28.5	100.0	1,577	13.4	6.8	79.6	0.2	100.0	1,128
40–44	58.7	19.6	0.0	21.6	100.0	1,332	16.6	7.1	76.1	0.1	100.0	1,044
45–49	59.0	20.1	0.1	20.8	100.0	1,109	17.8	5.4	76.5	0.3	100.0	878
Residence												
Urban	21.7	7.1	0.1	71.1	100.0	5,382	18.9	3.7	76.9	0.5	100.0	1,558
Rural	43.1	10.7	1.0	45.2	100.0	8,270	8.0	6.6	85.2	0.2	100.0	4,532
Education[5]												
No education	46.7	20.7	0.3	32.3	100.0	369	15.6	4.0	80.3	0.1	100.0	250
Primary	42.6	12.1	0.5	44.8	100.0	4,894	7.5	6.7	85.6	0.2	100.0	2,701
Secondary	27.2	6.5	0.9	65.4	100.0	5,386	9.4	5.1	85.0	0.5	100.0	1,862
More than secondary	32.2	8.4	0.5	59.0	100.0	2,797	20.2	5.9	73.7	0.2	100.0	1,147
Wealth quintile												
Lowest	43.8	12.3	1.0	42.9	100.0	2,062	3.7	6.1	89.9	0.2	100.0	1,178
Second	43.9	10.3	1.5	44.3	100.0	2,584	5.4	6.5	87.9	0.1	100.0	1,439
Middle	38.2	9.7	0.4	51.7	100.0	2,754	8.9	6.8	84.1	0.2	100.0	1,331
Fourth	29.8	8.0	0.5	61.6	100.0	3,325	14.0	5.1	80.4	0.5	100.0	1,276
Highest	22.4	7.1	0.1	70.5	100.0	2,927	27.4	4.1	68.2	0.3	100.0	865
Total 15–49	34.7	9.2	0.7	55.4	100.0	13,652	10.8	5.9	83.1	0.3	100.0	6,089
50–54	63.1	25.6	0.0	11.3	100.0	801	24.2	5.2	70.2	0.4	100.0	710
Total 15–54	36.3	10.2	0.6	53.0	100.0	14,453	12.2	5.8	81.7	0.3	100.0	6,799

[1] Title deed or other government-recognized document
[2] Jointly with wife, someone else, or both wife and someone else
[3] Includes men who have a house with a title deed or other government-recognized document, but they do not know if their name is on it, and men who do not know if there is a title deed or other government-recognized document for the house
[4] Includes men who own a house alone, jointly with their wife only, jointly with someone else only, jointly with their wife and someone else, or both alone and jointly
[5] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

3.18.3 Agricultural land ownership and documentation of ownership

Women age 15–49 were asked if they own agricultural land alone, jointly with someone else, or both alone and jointly. Women who reported owning agricultural land were asked if they had a title deed for the land and whether their name appeared on the title deed. The results by background characteristics are shown in **Table 28.1**.

- Twenty-five percent of women own agricultural land, including 3% who own agricultural land alone. Sixty-two percent of women do not have a title deed for the agricultural land they own, and 13% who own agricultural land have a title deed with their name on it.

- Thirty-two percent of women in rural areas own agricultural land, as compared with 14% of women in urban areas. However, women in urban areas who own agricultural land are three times more likely (27%) to have their name on the title deed than their counterparts in rural areas (9%).

- The likelihood of women who own agricultural land having the title deed in their name increases with increasing wealth, from 4% among women in the lowest quintile to 33% among those in the highest quintile.

Table 28.1 Agricultural land ownership and documentation of ownership: Women

Percent distribution of women age 15–49 by ownership of agricultural land, and among women who own agricultural land, percent distribution by whether the agricultural land owned has a title deed and whether or not the woman's name appears on the title deed, according to background characteristics, Kenya DHS 2022

| Background characteristic | Percentage who own land: | | | | | | Land has a title deed:[1] | | | | | Number of women who own land[4] |
	Alone	Jointly[2]	Both alone and jointly	Percent-age who do not own land	Total	Number	Woman's name is on title/ deed[1]	Woman's name is not on title/ deed[1]	Does not have a title/ deed[1]	Don't know[3]	Total	
Age												
15–19	0.3	1.8	0.0	97.9	100.0	6,025	6.7	22.5	62.4	8.4	100.0	124
20–24	0.9	12.8	0.1	86.3	100.0	6,001	8.4	23.3	64.7	3.6	100.0	825
25–29	2.0	23.3	0.0	74.7	100.0	5,687	13.1	21.6	62.8	2.5	100.0	1,439
30–34	3.4	28.4	0.1	68.1	100.0	4,530	14.7	20.5	63.3	1.5	100.0	1,447
35–39	4.8	31.6	0.5	63.2	100.0	4,311	14.4	22.1	61.7	1.7	100.0	1,587
40–44	7.1	36.1	0.2	56.6	100.0	3,084	15.1	22.9	60.3	1.7	100.0	1,337
45–49	9.5	38.4	0.2	52.0	100.0	2,518	12.9	27.8	57.6	1.7	100.0	1,209
Residence												
Urban	2.1	11.9	0.1	85.9	100.0	13,143	27.4	29.0	42.1	1.5	100.0	1,854
Rural	3.8	28.2	0.2	67.8	100.0	19,013	9.1	21.0	67.6	2.3	100.0	6,114
Education[5]												
No education	3.3	20.6	0.2	76.0	100.0	1,770	6.8	16.4	75.2	1.6	100.0	426
Primary	4.2	28.1	0.2	67.6	100.0	11,687	8.4	22.2	67.4	2.0	100.0	3,791
Secondary	2.1	16.4	0.1	81.4	100.0	12,204	13.3	23.6	60.4	2.7	100.0	2,270
More than secondary	2.9	19.1	0.2	77.8	100.0	6,150	30.2	26.4	41.8	1.5	100.0	1,366
Wealth quintile												
Lowest	4.0	25.1	0.1	70.8	100.0	5,019	4.3	16.0	77.7	2.0	100.0	1,466
Second	4.1	29.1	0.0	66.8	100.0	5,698	6.4	18.6	71.8	3.2	100.0	1,893
Middle	3.1	26.0	0.2	70.6	100.0	6,069	10.0	22.9	65.2	1.9	100.0	1,782
Fourth	2.2	16.7	0.2	80.9	100.0	7,139	16.7	29.8	51.8	1.7	100.0	1,362
Highest	2.6	15.1	0.1	82.2	100.0	8,231	32.6	28.6	37.3	1.4	100.0	1,465
Total	3.1	21.5	0.1	75.2	100.0	32,156	13.4	22.8	61.7	2.1	100.0	7,968

[1] Title deed or other government-recognized document
[2] Jointly with husband, someone else, or both husband and someone else
[3] Includes women who have land with a title deed or other government-recognized document, but they do not know if their name is on it, and women who do not know if there is a title deed or other government-recognized document for the land
[4] Includes women who own land alone, jointly with their husband only, jointly with someone else only, jointly with their husband and someone else, or both alone and jointly
[5] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

Table 28.2 shows agricultural land ownership and documentation of ownership among men.

- Twenty-four percent of men age 15–49 own agricultural land alone and 7% own land jointly with others.

- Twenty-two percent of men have their name on the title deed, while 59% do not have a title deed for their agricultural land.

Table 28.2 Agricultural land ownership and documentation of ownership: Men

Percent distribution of men age 15–49 by ownership of agricultural land, and among men who own agricultural land, percent distribution by whether the agricultural land owned has a title deed and whether or not the man's name appears on the title deed, according to background characteristics, Kenya DHS 2022

| | Percentage who own land: | | | | | | Land has a title deed:[1] | | | | | |
Background characteristic	Alone	Jointly[2]	Both alone and jointly	Percent-age who do not own land	Total	Number of men	Man's name is on title/ deed[1]	Man's name is not on title/ deed[1]	Does not have a title/ deed[1]	Don't know[3]	Total	Number of men who own land[4]
Age												
15–19	2.2	1.6	0.2	95.9	100.0	3,175	8.4	18.1	58.0	15.5	100.0	129
20–24	8.6	3.9	0.1	87.4	100.0	2,404	7.9	25.6	63.1	3.4	100.0	302
25–29	21.8	6.7	0.4	71.2	100.0	2,268	15.8	24.0	59.4	0.8	100.0	654
30–34	36.9	7.0	0.0	56.0	100.0	1,787	21.9	17.8	59.9	0.4	100.0	786
35–39	43.6	11.1	0.2	45.2	100.0	1,577	21.4	17.4	60.9	0.3	100.0	865
40–44	46.4	12.7	0.2	40.7	100.0	1,332	25.5	18.7	55.4	0.3	100.0	790
45–49	51.9	14.1	0.6	33.4	100.0	1,109	30.8	12.7	56.0	0.5	100.0	739
Residence												
Urban	16.7	5.2	0.1	78.0	100.0	5,382	34.5	20.6	44.2	0.8	100.0	1,186
Rural	29.2	7.8	0.3	62.8	100.0	8,270	16.8	17.7	64.3	1.2	100.0	3,079
Education[5]												
No education	18.6	15.1	0.3	66.0	100.0	369	17.4	11.9	68.8	1.9	100.0	125
Primary	30.6	8.9	0.3	60.3	100.0	4,894	15.7	18.4	64.8	1.1	100.0	1,945
Secondary	17.1	4.6	0.3	78.0	100.0	5,386	20.5	19.8	58.0	1.7	100.0	1,184
More than secondary	27.1	5.9	0.1	66.9	100.0	2,797	36.5	18.5	44.8	0.2	100.0	925
Wealth quintile												
Lowest	26.1	9.7	0.3	63.9	100.0	2,062	8.1	16.0	74.3	1.5	100.0	744
Second	29.2	6.6	0.4	63.8	100.0	2,584	12.9	15.8	70.8	0.6	100.0	935
Middle	26.8	7.6	0.2	65.4	100.0	2,754	16.9	22.1	59.4	1.6	100.0	954
Fourth	20.0	6.1	0.2	73.7	100.0	3,325	31.0	20.0	47.5	1.5	100.0	874
Highest	21.0	4.8	0.1	74.1	100.0	2,927	41.1	18.1	40.4	0.4	100.0	758
Total 15–49	24.3	6.8	0.2	68.8	100.0	13,652	21.7	18.5	58.7	1.1	100.0	4,265
50–54	58.6	14.7	0.0	26.7	100.0	801	34.9	13.2	51.9	0.0	100.0	587
Total 15–54	26.2	7.2	0.2	66.4	100.0	14,453	23.3	17.9	57.9	1.0	100.0	4,852

[1] Title deed or other government-recognized document
[2] Jointly with wife, someone else, or both wife and someone else
[3] Includes men who have land with a title deed or other government-recognized document, but they do not know if their name is on it, and men who do not know if there is a title deed or other government-recognized document for the land
[4] Includes men who own land alone, jointly with their wife only, jointly with someone else only, jointly with their wife and someone else, or both alone and jointly
[5] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

3.18.4 Nonagricultural land ownership and documentation of ownership

Table 28.3 presents information on nonagricultural land ownership and documentation of ownership among women age 15–49. Women were asked if they own nonagricultural land alone, jointly with someone else, both alone and jointly, or not at all. Women who own nonagricultural land were asked if they had a title deed for the land and whether or not their name appeared on the title deed.

- Only 7% of women own nonagricultural land: 1% own land alone and 5% own land jointly with their husband and/or with someone else.

- Thirty-one percent of women who own nonagricultural land have their name on the title deed, while 44% report that the land they own does not have a title deed.

Table 28.3 Nonagricultural land ownership and documentation of ownership: Women

Percent distribution of women age 15–49 by ownership of nonagricultural land, and among women who own nonagricultural land, percent distribution by whether the nonagricultural land owned has a title deed and whether or not the woman's name appears on the title deed, according to background characteristics, Kenya DHS 2022

| Background characteristic | Percentage who own land: | | | | | | Land has a title deed:[1] | | | | | Number of women who own land[4] |
	Alone	Jointly[2]	Both alone and jointly	Percentage who do not own land	Total	Number	Woman's name is on title/ deed[1]	Woman's name is not on title/ deed[1]	Does not have a title/ deed[1]	Don't know[3]	Total	
Age												
15–19	0.0	0.4	0.1	99.4	100.0	6,025	(9.0)	(26.6)	(47.8)	(16.6)	100.0	34
20–24	0.3	2.0	0.1	97.6	100.0	6,001	22.0	24.1	51.9	2.0	100.0	141
25–29	1.1	5.9	0.0	93.1	100.0	5,687	23.0	25.6	49.9	1.4	100.0	395
30–34	1.6	7.1	0.1	91.3	100.0	4,530	36.2	24.8	37.7	1.2	100.0	396
35–39	2.7	8.4	0.3	88.6	100.0	4,311	35.5	21.4	42.3	0.8	100.0	490
40–44	2.9	9.4	0.3	87.4	100.0	3,084	30.7	27.1	41.8	0.4	100.0	387
45–49	3.4	9.3	0.1	87.2	100.0	2,518	32.7	23.8	42.8	0.7	100.0	323
Residence												
Urban	1.7	5.1	0.1	93.2	100.0	13,143	44.5	27.6	27.3	0.6	100.0	900
Rural	1.2	5.3	0.2	93.3	100.0	19,013	21.0	22.1	55.2	1.7	100.0	1,265
Education[5]												
No education	1.7	5.2	0.1	92.9	100.0	1,770	18.4	24.0	57.4	0.1	100.0	125
Primary	1.1	4.5	0.1	94.2	100.0	11,687	16.0	21.5	60.1	2.4	100.0	675
Secondary	0.8	3.8	0.1	95.2	100.0	12,204	30.3	26.9	41.6	1.2	100.0	584
More than secondary	2.8	9.4	0.2	87.7	100.0	6,150	47.1	25.7	26.9	0.4	100.0	755
Wealth quintile												
Lowest	0.8	3.8	0.1	95.3	100.0	5,019	9.0	21.1	67.9	2.0	100.0	236
Second	0.9	3.1	0.2	95.8	100.0	5,698	12.2	19.0	66.3	2.5	100.0	241
Middle	1.0	4.9	0.1	93.9	100.0	6,069	20.8	19.1	58.8	1.3	100.0	367
Fourth	1.6	5.5	0.1	92.8	100.0	7,139	27.2	26.9	44.6	1.3	100.0	513
Highest	2.1	7.6	0.1	90.2	100.0	8,231	49.5	27.8	22.1	0.5	100.0	807
Total	1.4	5.2	0.1	93.3	100.0	32,156	30.8	24.4	43.6	1.2	100.0	2,165

Note: Figures in parentheses are based on 25–49 unweighted cases.
[1] Title deed or other government-recognized document
[2] Jointly with husband, someone else, or both husband and someone else
[3] Includes women who have land with a title deed or other government-recognized document, but they do not know if their name is on it, and women who do not know if there is a title deed or other government-recognized document for the land
[4] Includes women who own land alone, jointly with their husband only, jointly with someone else only, jointly with their husband and someone else, or both alone and jointly
[5] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

Table 28.4 shows ownership of nonagricultural land and documentation among men. Eight percent of men age 15–49 own non-agricultural land, including 6% who own non-agricultural land alone and 2% who own land jointly with others. Forty-six percent of men who own nonagricultural land have their name on the title deed, and 43% report that their non-agricultural land does not have a title deed.

Table 28.4 Nonagricultural land ownership and documentation of ownership: Men

Percent distribution of men age 15–49 by ownership of nonagricultural land, and among men who own nonagricultural land, percent distribution by whether the nonagricultural land owned has a title deed and whether or not the man's name appears on the title deed, according to background characteristics, Kenya DHS 2022

| Background characteristic | Percentage who own land: | | | | | | Land has a title deed:[1] | | | | | |
	Alone	Jointly[2]	Both alone and jointly	Percent-age who do not own land	Total	Number of men	Man's name is on title/deed[1]	Man's name is not on title/deed[1]	Does not have a title/deed[1]	Don't know[3]	Total	Number of men who own land[4]
Age												
15–19	0.5	0.4	0.0	99.1	100.0	3,175	(15.6)	(23.4)	(46.5)	(14.5)	100.0	28
20–24	2.3	1.1	0.1	96.5	100.0	2,404	24.4	23.4	50.6	1.5	100.0	83
25–29	4.4	1.3	0.0	94.2	100.0	2,268	30.1	15.1	54.7	0.0	100.0	131
30–34	8.8	1.9	0.0	89.2	100.0	1,787	54.2	11.7	34.1	0.0	100.0	193
35–39	12.6	2.4	0.0	85.0	100.0	1,577	53.9	7.1	38.8	0.1	100.0	237
40–44	12.9	3.3	0.3	83.6	100.0	1,332	46.5	9.2	44.1	0.2	100.0	218
45–49	15.0	3.2	0.0	81.8	100.0	1,109	49.6	7.7	42.8	0.0	100.0	202
Residence												
Urban	6.9	1.3	0.1	91.7	100.0	5,382	58.8	8.3	32.6	0.3	100.0	444
Rural	6.0	1.8	0.0	92.2	100.0	8,270	36.5	12.9	49.8	0.7	100.0	648
Education[5]												
No education	6.4	2.3	0.0	91.3	100.0	369	(34.9)	(4.1)	(61.0)	(0.0)	100.0	32
Primary	5.5	1.5	0.0	92.9	100.0	4,894	29.9	12.5	57.2	0.4	100.0	345
Secondary	4.1	1.4	0.1	94.5	100.0	5,386	43.5	11.9	43.2	1.4	100.0	299
More than secondary	11.8	2.0	0.1	86.1	100.0	2,797	62.8	10.0	27.1	0.2	100.0	389
Wealth quintile												
Lowest	3.4	1.9	0.0	94.7	100.0	2,062	22.9	15.2	60.7	1.2	100.0	110
Second	5.1	1.1	0.0	93.8	100.0	2,584	25.1	11.9	62.2	0.7	100.0	161
Middle	6.0	2.0	0.0	92.0	100.0	2,754	32.0	14.7	52.4	0.8	100.0	221
Fourth	5.6	1.6	0.1	92.7	100.0	3,325	48.7	13.4	37.4	0.5	100.0	243
Highest	10.7	1.5	0.1	87.8	100.0	2,927	68.0	5.6	26.3	0.1	100.0	358
Total 15–49	6.4	1.6	0.0	92.0	100.0	13,652	45.6	11.1	42.8	0.6	100.0	1,093
50–54	18.3	3.5	0.8	77.4	100.0	801	61.8	9.2	29.0	0.0	100.0	181
Total 15–54	7.0	1.7	0.1	91.2	100.0	14,453	47.9	10.8	40.8	0.5	100.0	1,274

Note: Figures in parentheses are based on 25–49 unweighted cases.
[1] Title deed or other government-recognized document
[2] Jointly with wife, someone else, or both wife and someone else
[3] Includes men who have land with a title deed or other government-recognized document, but they do not know if their name is on it, and men who do not know if there is a title deed or other government-recognized document for the land
[4] Includes men who own land alone, jointly with their wife only, jointly with someone else only, jointly with their wife and someone else, or both alone and jointly
[5] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

3.19 GENDER-BASED VIOLENCE

Gender-based violence has been acknowledged worldwide as a violation of basic human rights. Research has highlighted the health burdens, intergenerational effects, and demographic consequences of such violence (United Nations 2006). Gender-based violence is defined as any act of violence that results in physical, sexual, economic, or psychological harm or suffering to women, girls, men, and boys, as well as threats of such acts, coercion, or the arbitrary deprivation of liberty. This definition covers violence by both current and former spouses and partners.

The module on violence against women and men was implemented in separate subsamples of households. In keeping with ethical requirements, only one woman or man per household was randomly selected for the module. As a result of these restrictions, a total of 16,926 women age 15–49 (unweighted) and 5,583 men age 15–54 (unweighted) were eligible for the module. About 5% of eligible women and 1% of eligible men could not be successfully interviewed because privacy could not be obtained or for other

reasons. Specially constructed weights were used to adjust for the selection of only one respondent per household and to ensure that the subsample was nationally representative.

3.19.1 Measurement of violence

> **Terminology for this section**
>
> **Husband:** a man with whom a woman is married or living with as if married.
>
> **Wife:** a woman with whom a man is married or living with as if married.
>
> **Intimate partner for women:** a man with whom a never-married woman is in a relationship that involves physical and/or emotional intimacy and for which the relationship is or has the expectation of being long lasting. As defined for the purposes of this chapter, an intimate partner is not a husband or a man a woman is living with and is also not a boyfriend with whom her relationship is casual or a man with whom she has a one-time encounter.
>
> **Intimate partner for men:** a woman with whom a never-married man is in a relationship that involves physical and/or emotional intimacy and for which the relationship is or has the expectation of being long lasting. As defined for the purposes of this chapter, an intimate partner is not a wife or a woman a man is living with and is also not a girlfriend with whom his relationship is casual or a woman with whom he has a one-time encounter.
>
> **Boyfriend:** a man with whom a woman has a casual relationship and who she did not mention as an intimate partner.
>
> **Girlfriend:** a woman with whom a man has a casual relationship and who he did not mention as an intimate partner.

In the 2022 KDHS, information was obtained from women and men age 15–49 on their experience of violence committed by any perpetrator, including current and former husbands, wives, or other intimate partners. To capture intimate partner violence, ever-married respondents were asked about experiences of violence committed by their current and former husbands/wives, and, if applicable, never-married respondents were asked about experiences of violence committed by their current and former intimate partners. More specifically, intimate partner violence was measured by asking women and men if their current or former spouse/intimate partner ever did the following to them:

- *Physical violence:* push you, shake you, or throw something at you; slap you; twist your arm or pull your hair; punch you with his/her fist or with something that could hurt you; kick you, drag you, or beat you up; try to choke you or burn you on purpose; or attack you with a knife, gun, or other weapon

- *Sexual violence:* physically force you to have sexual intercourse with him/her when you did not want to, physically force you to perform any other sexual acts you did not want to, or force you with threats or in any other way to perform sexual acts you did not want to

- *Emotional violence:* say or do something to humiliate you in front of others, threaten to hurt or harm you or someone you care about, or insult you or make you feel bad about yourself

In addition to the questions on different forms of intimate partner violence, information was also obtained from respondents about physical violence committed by anyone (other than a spouse/intimate partner) since they were age 15 by asking if anyone had hit, slapped, kicked, or done something else to hurt them physically. Similarly, respondents were asked about experiences of sexual violence committed by anyone (other than a spouse/intimate partner) by asking if at any time in their life, as a child or as an adult, they were forced in any way to have sexual intercourse or to perform any other sexual acts when they did not want to.

3.19.2 Experience of physical violence

> **Physical violence by perpetrator**
>
> Percentage of women who have experienced any physical violence (committed by a husband, intimate partner, or anyone else) since age 15 and in the 12 months before the survey.
>
> *Sample:* Women age 15–49
>
> Percentage of men who have experienced any physical violence (committed by a wife, intimate partner, or anyone else) since age 15 and in the 12 months before the survey.
>
> *Sample:* Men age 15–49

Prevalence of Physical Violence

Thirty-four percent of women in Kenya have experienced physical violence since age 15, including 16% who experienced physical violence often or sometimes in the 12 months before the survey. Slightly lower proportions of men experienced physical violence; 27% of men have experienced physical violence since age 15, including 10% who experienced such violence in the 12 months before the survey (**Table 29**).

Trends: The percentage of women who experienced physical violence in the 12 months before the survey declined from 20% in 2014 to 16% in 2022. Over the same period, the percentage among men declined slightly from 12% to 10%.

- Experience of violence among women increases with age; 20% of women age 15–19 have experienced physical violence since age 15, as compared with 42% of women age 45–49.

- Marital status is linked to experiences of violence among women. Women who have ever been married are much more likely to have experienced violence since age 15 than those who have never been married (41% versus 20%).

- By county, the percentage of women who have experienced physical violence since age 15 is highest in Bungoma (62%) and lowest in Mandera (9%) (**Table 29C**).

Table 29 Experience of physical violence

Percentage of women and men age 15–49 who have experienced physical violence since age 15 and percentage who experienced physical violence in the 12 months preceding the survey, according to background characteristics, Kenya DHS 2022

Background characteristic	Women					Men				
	Percentage who have experienced physical violence since age 15[1]	Percentage who experienced physical violence in the last 12 months			Number of women	Percentage who have experienced physical violence since age 15[3]	Percentage who experienced physical violence in the last 12 months			Number of men
		Often	Some-times	Often or some-times[2]			Often	Some-times	Often or some-times[4]	
Age										
15–19	19.5	1.0	10.0	11.2	3,063	29.2	1.7	15.5	17.4	1,252
20–24	29.0	2.9	12.3	15.4	3,289	26.6	0.7	9.7	10.4	921
25–29	36.9	4.4	14.4	18.9	3,071	28.3	0.6	7.8	8.3	847
30–39	40.2	4.9	13.2	18.2	4,575	25.3	0.9	7.5	8.4	1,350
40–49	41.7	4.0	9.8	13.9	2,928	26.1	1.0	4.9	6.0	996
Residence										
Urban	31.6	3.3	10.0	13.4	6,742	29.1	0.7	11.9	12.7	1,992
Rural	35.5	3.7	13.5	17.3	10,184	25.8	1.2	7.8	9.1	3,373
Marital status										
Never married	19.8	0.9	8.0	9.0	5,465	28.1	1.2	12.0	13.4	2,524
Never ever had intimate partner	12.3	0.5	6.2	6.7	2,314	30.0	1.1	14.5	15.6	1,204
Ever had intimate partner	25.2	1.3	9.3	10.7	3,151	26.3	1.3	9.8	11.3	1,319
Ever married	40.7	4.8	14.0	19.0	11,461	26.1	0.9	6.9	7.8	2,842
Married/living together	37.0	4.1	14.7	18.9	9,492	23.5	0.6	5.9	6.5	2,510
Divorced/separated/widowed	58.4	8.1	10.8	19.3	1,969	45.5	2.6	14.3	17.1	332
Education[5]										
No education	35.9	4.9	12.7	17.6	896	11.5	0.0	5.1	5.1	148
Primary	42.7	5.5	15.7	21.4	6,126	26.3	1.4	9.1	10.6	2,024
Secondary	30.9	2.9	11.6	14.7	6,469	29.5	0.9	11.1	12.1	2,063
More than secondary	23.3	0.9	5.8	6.8	3,253	25.9	0.8	6.8	7.6	1,047
Wealth quintile										
Lowest	36.9	5.3	15.8	21.2	2,716	23.0	1.1	8.1	9.2	828
Second	36.7	4.4	14.4	19.0	3,045	27.2	1.2	9.4	10.9	1,085
Middle	36.8	3.5	13.8	17.4	3,231	28.6	1.7	9.1	10.8	1,137
Fourth	33.6	2.8	11.0	14.1	3,775	27.4	0.3	8.5	8.8	1,230
Highest	28.1	2.4	7.6	10.0	4,159	27.9	0.9	11.3	12.2	1,085
Total 15–49	33.9	3.5	12.1	15.8	16,926	27.0	1.0	9.3	10.4	5,365
50–54	na	na	na	na	na	22.8	0.6	4.2	4.8	318
Total 15–54	na	na	na	na	na	26.8	1.0	9.0	10.1	5,683

[1] Includes physical violence in the last 12 months. For women who were married or living together with a partner before age 15 and reported violence only by their husband and for never-married women who had an intimate partner before age 15 and reported violence only by their intimate partner, the violence could have occurred before age 15.
[2] Includes women for whom frequency in the last 12 months is not known
[3] Includes physical violence in the last 12 months. For men who were married or living together with a partner before age 15 and reported violence only by their wife and for never-married men who had an intimate partner before age 15 and reported violence only by their intimate partner, the violence could have occurred before age 15.
[4] Includes men who reported physical violence in the last 12 months but for whom frequency is not known
[5] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

Percentage of women age 15–49 who have experienced physical violence since age 15 and percentage who experienced physical violence in the 12 months preceding the survey, according to county, Kenya DHS 2022

County	Percentage who have experienced physical violence since age 15[1]	Percentage who experienced physical violence in the last 12 months			Number of women
		Often	Sometimes	Often or sometimes[2]	
Mombasa	24.5	2.1	9.4	11.5	500
Kwale	13.1	3.0	8.3	11.3	264
Kilifi	20.1	1.6	5.9	8.3	491
Tana River	35.8	1.5	21.8	23.2	81
Lamu	33.9	4.3	7.7	12.0	51
Taita/Taveta	29.5	2.1	5.4	7.4	110
Garissa	21.0	6.4	6.4	12.8	148
Wajir	13.2	1.4	4.1	5.5	84
Mandera	8.6	0.7	2.6	3.3	104
Marsabit	16.4	1.7	12.3	14.2	68
Isiolo	45.6	9.8	19.5	29.3	69
Meru	35.8	4.9	10.2	15.1	547
Tharaka-Nithi	34.6	2.8	11.0	13.9	146
Embu	40.3	5.6	22.1	27.7	207
Kitui	11.5	0.5	4.1	4.7	391
Machakos	25.7	2.8	7.4	10.1	515
Makueni	22.7	2.2	9.7	11.9	362
Nyandarua	24.3	1.4	3.6	5.0	222
Nyeri	36.9	3.1	11.7	15.4	276
Kirinyaga	39.6	1.2	10.4	12.5	263
Murang'a	53.7	6.3	15.7	22.0	359
Kiambu	41.7	5.6	12.2	17.9	1,091
Turkana	42.4	5.0	14.9	19.9	176
West Pokot	27.1	4.2	14.8	19.1	205
Samburu	48.6	9.7	18.7	28.5	87
Trans Nzoia	40.8	5.0	12.2	17.2	351
Uasin Gishu	41.9	2.3	9.7	12.4	495
Elgeyo/Marakwet	30.2	1.7	14.2	15.9	119
Nandi	39.4	2.5	12.5	15.0	334
Baringo	37.9	8.5	10.3	19.6	207
Laikipia	34.5	2.9	8.8	11.7	175
Nakuru	23.5	1.2	8.2	9.4	898
Narok	40.5	3.6	12.6	16.3	376
Kajiado	36.1	5.6	11.0	17.0	471
Kericho	16.3	2.1	8.0	10.2	386
Bomet	32.8	1.6	9.1	10.7	369
Kakamega	40.1	3.5	15.5	19.1	707
Vihiga	33.8	3.1	13.9	17.1	195
Bungoma	62.2	4.0	24.8	29.4	623
Busia	38.4	6.5	14.6	21.1	309
Siaya	23.6	2.1	14.8	16.9	291
Kisumu	36.0	1.7	24.1	26.0	420
Homa Bay	53.5	6.9	19.7	26.6	352
Migori	51.1	4.7	24.7	29.5	364
Kisii	35.7	4.9	14.8	19.8	404
Nyamira	33.3	1.8	7.1	11.3	176
Nairobi City	29.7	3.6	9.9	13.5	2,088
Total	33.9	3.5	12.1	15.8	16,926

[1] Includes physical violence in the last 12 months. For women who were married or living together with a partner before age 15 and reported violence only by their husband and for never-married women who had an intimate partner before age 15 and reported violence only by their intimate partner, the violence could have occurred before age 15.
[2] Includes women for whom frequency in the last 12 months is not known

Perpetrators of Physical Violence

Table 30 shows perpetrators of physical violence, according to marital status, among women and men age 15–49 who reported experiencing any physical violence since age 15.

▪ The most commonly reported perpetrator of physical violence among women who have ever been married or ever had an intimate partner was their current husband or intimate partner (54%), followed by a former husband/intimate partner (34%).

- The most common perpetrators of physical violence among men who have ever been married or ever had an intimate partner were teachers (28%), followed by current wives/intimate partners (20%) and former wives/intimate partners (19%). Twenty-three percent of men who have ever been married or had an intimate partner experienced physical violence at the hands of other persons.

- Teachers (33%) and mothers/stepmothers (25%) were the most common perpetrators of physical violence against women who have never been married or never had an intimate partner. Teachers (46%) and schoolmates/classmates (22%) were the most common perpetrators of physical violence against men who have never been married or had an intimate partner.

Table 30 Persons committing physical violence

Among women and men age 15–49 who have experienced physical violence since age 15, percentage who report specific persons who committed the violence, according to the respondent's partnership status, Kenya DHS 2022

| | Partnership status | | |
| | Ever married/ ever had intimate | Never married/ never had intimate | |
Person	partner	partner	Total
WOMEN			
Current husband/intimate partner	53.9	na	51.2
Former husband/intimate partner	33.7	na	32.0
Current boyfriend	0.2	0.0	0.2
Former boyfriend	2.2	3.2	2.2
Father/stepfather	5.2	16.8	5.7
Mother/stepmother	8.1	24.8	8.9
Sister/brother	3.3	10.9	3.7
Daughter/son	0.1	0.0	0.1
Other relative	2.6	9.9	3.0
Mother-in-law	0.2	na	0.2
Father-in-law	0.1	na	0.1
Other in-law	1.0	na	0.9
Teacher	5.8	32.5	7.1
Schoolmate/classmate	1.8	14.3	2.4
Employer/someone at work	0.4	0.0	0.4
Police/soldier	0.3	0.9	0.3
Other	2.7	5.0	2.8
Number of women who have experienced physical violence since age 15	5,458	286	5,744
MEN			
Current wife/intimate partner	19.8	na	14.8
Former wife/intimate partner	19.3	na	14.5
Current girlfriend	0.3	0.0	0.2
Former girlfriend	1.5	0.0	1.2
Father/stepfather	13.1	13.5	13.2
Mother/stepmother	8.0	13.9	9.5
Sister/brother	3.4	7.3	4.4
Daughter/son	0.0	0.0	0.0
Other relative	5.7	7.9	6.2
Mother-in-law	0.1	na	0.1
Father-in-law	0.0	na	0.0
Other in-law	0.9	na	0.7
Teacher	27.9	46.2	32.5
Schoolmate/classmate	16.3	22.3	17.8
Employer/someone at work	5.4	0.5	4.2
Police/soldier	6.6	0.7	5.1
Other	22.5	18.9	21.6
Number of men who have experienced physical violence since age 15	1,089	362	1,451

Note: The term husband includes a partner with whom a woman is living as if married; the term wife includes a partner with whom a man is living as if married. Percentages may add to more than 100% since the respondent can report more than one perpetrator.
na = not applicable

3.19.3 Experience of sexual violence

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Sexual violence by any perpetrator

Percentage of women who have experienced any sexual violence (committed by a husband, intimate partner, or anyone else) ever and in the 12 months before the survey.

Sample: Women age 15–49

Percentage of men who have experienced any sexual violence (committed by a wife, intimate partner, or anyone else) ever and in the 12 months before the survey.

Sample: Men age 15–49

</div>

Prevalence of Sexual Violence

Thirteen percent of women reported that they had experienced sexual violence at some point in their lives, and 7% reported that they had experienced sexual violence in the last 12 months (**Table 31**). A slightly lower proportion of men reported experiencing sexual violence; 7% have ever experienced sexual violence, and 4% experienced sexual violence in the 12 months preceding the survey.

- The percentage of women who have experienced sexual violence increases with age, from 7% among those age 15–19 to 18% among those age 40–49.

- Three percent of women who have never been married and never had an intimate partner report sexual violence, as compared with 12% of never married women who ever had an intimate partner, 13% of currently married women, and 27% of formerly married women.

- By county, the percentages of women who have experienced sexual violence are highest in Bungoma (30%), Murang'a (24%), Homa Bay (23%), and Embu (22%) (**Table 31C**).

Table 31 Experience of sexual violence

Percentage of women and men age 15–49 who have ever experienced sexual violence and percentage who experienced sexual violence in the 12 months preceding the survey, according to background characteristics, Kenya DHS 2022

Background characteristic	Women			Men		
	Ever[1]	In the last 12 months	Number of women	Ever[1]	In the last 12 months	Number of men
Age						
15–19	7.2	3.3	3,063	4.8	2.9	1,252
20–24	11.3	6.3	3,289	8.1	5.5	921
25–29	13.1	7.6	3,071	7.6	5.1	847
30–39	15.2	7.9	4,575	8.0	3.7	1,350
40–49	17.5	7.0	2,928	6.7	2.9	996
Residence						
Urban	12.8	5.7	6,742	8.5	5.1	1,992
Rural	13.1	7.1	10,184	6.1	3.2	3,373
Marital status						
Never married	8.4	3.3	5,465	5.2	3.1	2,524
Never ever had intimate partner	3.0	0.5	2,314	1.7	0.2	1,204
Ever had intimate partner	12.3	5.3	3,151	8.4	5.7	1,319
Ever married	15.2	8.1	11,461	8.5	4.6	2,842
Married/living together	12.9	8.1	9,492	6.9	3.8	2,510
Divorced/separated/widowed	26.5	8.3	1,969	21.1	10.9	332
Employment						
Employed for cash	16.4	7.8	8,342	8.2	4.6	3,958
Employed not for cash	14.0	8.2	1,748	3.0	2.1	389
Not employed	8.6	4.6	6,836	3.9	1.8	1,018
Education[2]						
No education	8.0	4.8	896	5.3	2.5	148
Primary	16.2	8.3	6,126	7.0	4.2	2,024
Secondary	11.7	6.3	6,469	7.0	4.2	2,063
More than secondary	11.2	4.3	3,253	6.6	3.0	1,047
Wealth quintile						
Lowest	12.7	7.2	2,716	5.6	3.8	828
Second	14.8	8.1	3,045	7.4	3.8	1,085
Middle	12.9	7.2	3,231	7.2	3.9	1,137
Fourth	13.7	6.2	3,775	7.2	4.6	1,230
Highest	11.3	4.8	4,159	7.1	3.3	1,085
Total 15–49	13.0	6.5	16,926	7.0	3.9	5,365
50–54	na	na	na	6.3	0.2	318
Total 15–54	na	na	na	6.9	3.7	5,683

[1] Includes experience of sexual violence in the last 12 months
[2] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

Table 31C Experience of sexual violence by county

Percentage of women age 15–49 who have ever experienced sexual violence and percentage who experienced sexual violence in the 12 months preceding the survey, according to county, Kenya DHS 2022

County	Ever[1]	In the last 12 months	Number of women
Mombasa	9.8	3.8	500
Kwale	4.3	3.3	264
Kilifi	12.2	6.5	491
Tana River	2.3	1.5	81
Lamu	14.5	6.3	51
Taita/Taveta	14.0	3.0	110
Garissa	5.8	3.5	148
Wajir	1.5	1.0	84
Mandera	0.8	0.8	104
Marsabit	1.0	1.0	68
Isiolo	9.2	5.3	69
Meru	16.0	8.2	547
Tharaka-Nithi	12.5	6.9	146
Embu	21.5	13.0	207
Kitui	0.9	0.4	391
Machakos	6.3	3.0	515
Makueni	4.7	3.2	362
Nyandarua	17.5	6.9	222
Nyeri	15.1	5.6	276
Kirinyaga	12.9	3.2	263
Murang'a	24.3	13.6	359
Kiambu	16.6	9.8	1,091
Turkana	10.8	6.7	176
West Pokot	7.5	6.3	205
Samburu	6.9	4.2	87
Trans Nzoia	13.1	5.6	351
Uasin Gishu	9.9	4.6	495
Elgeyo/Marakwet	6.9	4.0	119
Nandi	6.0	2.6	334
Baringo	8.4	5.7	207
Laikipia	10.9	3.1	175
Nakuru	13.8	3.6	898
Narok	17.5	8.7	376
Kajiado	16.9	8.6	471
Kericho	3.2	1.5	386
Bomet	12.9	7.4	369
Kakamega	16.8	8.9	707
Vihiga	11.9	5.6	195
Bungoma	30.3	16.6	623
Busia	14.7	8.9	309
Siaya	5.7	4.3	291
Kisumu	10.8	6.6	420
Homa Bay	23.1	10.8	352
Migori	16.7	7.4	364
Kisii	16.0	10.1	404
Nyamira	14.5	6.3	176
Nairobi City	12.2	5.8	2,088
Total	13.0	6.5	16,926

[1] Includes experience of sexual violence in the last 12 months

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Perpetrators of Sexual Violence

The most commonly reported perpetrators of sexual violence among women who have ever been married or ever had an intimate partner were current husbands or intimate partners (71%) and former husbands or intimate partners (19%). Similarly, the most commonly reported perpetrators of sexual violence among men who have ever been married or had an intimate partner were current wives or intimate partners (63%) and former wives or intimate partners (32%) (**Table 32**).

Table 32 Persons committing sexual violence

Among women and men age 15–49 who have experienced sexual violence, percentage who report specific persons who committed the violence, according to respondent's partnership status, Kenya DHS 2022

| Person | Partnership status | | Total |
	Ever married/ever had intimate partner	Never married/never had intimate partner	
	WOMEN		
Current husband/intimate partner	70.9	na	68.6
Former husband/intimate partner	19.2	na	18.6
Current/former boyfriend	3.1	(2.6)	3.1
Father/stepfather	0.1	(1.9)	0.1
Brother/stepbrother	0.8	(0.7)	0.8
Other relative	5.1	(29.7)	5.9
In-law	0.4	na	0.4
Own friend/acquaintance	3.0	(21.1)	3.6
Family friend	1.5	(8.5)	1.7
Teacher	1.4	(0.0)	1.4
Schoolmate/classmate	1.4	(6.0)	1.6
Employer/someone at work	0.7	(0.5)	0.7
Police/soldier	0.3	(1.4)	0.4
Priest/religious leader	0.1	(0.0)	0.1
Stranger	6.0	(22.2)	6.5
Other	2.5	(6.7)	2.6
Number of women who have experienced sexual violence	2,132	70	2,202
	MEN		
Current wife/intimate partner	62.5	na	59.0
Former wife/intimate partner	32.2	na	30.5
Current/former girlfriend	6.1	*	7.2
Father/stepfather	0.1	*	0.1
Brother/stepbrother	0.0	*	0.0
Other relative	1.1	*	1.4
In-law	0.0	na	0.0
Own friend/acquaintance	3.1	*	5.0
Family friend	1.4	*	1.5
Teacher	1.5	*	1.4
Schoolmate/classmate	1.9	*	2.0
Employer/someone at work	2.2	*	2.1
Police/soldier	0.8	*	0.8
Priest/religious leader	0.0	*	0.0
Stranger	3.8	*	4.8
Other	7.3	*	7.1
Number of men who have experienced sexual violence	354	21	374

Note: The term husband includes a partner with whom a woman is living as if married; the term wife includes a partner with whom a man is living as if married. Percentages may add to more than 100% since the respondent can report more than one perpetrator. Figures in parentheses are based on 25–49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = not applicable

3.20 FEMALE GENITAL MUTILATION/CUTTING

Female genital mutilation/cutting (FGM/C), also known as female circumcision, is defined as any procedure that involves partial or total removal of the external genitalia and/or injury to the female genital organs, whether for cultural or any other nontherapeutic reasons (WHO, UNICEF, and UNFPA 1997). FGM/C is widely recognized as a violation of human rights and is deeply rooted in beliefs and perceptions over generations.

The 2010 Constitution of Kenya protects children and women from abuse, harmful cultural practices, and all forms of violence. The Government of Kenya has enacted legislation prohibiting FGM/C, including the Prohibition of Female Genital Mutilation Act, 2011 and the Children's Act, 2022. Furthermore, Sessional Paper No. 3 of 2019 on the National Policy for the Eradication of Female Genital Mutilation and the National Policy on Gender Based Violence 2019 guide the regulation of FGM/C in Kenya.

WHO classifies female genital mutilation into four main categories:

Type I: Excision of the prepuce with or without excision of part or all of the clitoris.

Type II: Excision of the clitoris with partial or total excision of the labia minora.

Type III: Excision of part or all of the external genitalia and stitching or narrowing of the vaginal opening (infibulation).

Type IV: Other forms, including pricking, piercing, or incising of the clitoris and/or labia; stretching of the clitoris and/or labia; cauterization by burning of the clitoris and surrounding tissue; scraping of tissue surrounding the opening of the vagina or cutting of the vagina; and introduction of corrosive substances or herbs into the vagina to cause bleeding or to tighten or narrow the vagina.

In the 2022 KDHS subsample of households selected for the male survey, women age 15–49 and men age 15–54 were asked if they had ever heard of female circumcision. In addition, women were asked whether they had ever been circumcised.

3.20.1 Respondents' knowledge of female genital mutilation

Table 33 and **Table 33C** present information on knowledge of female circumcision among women age 15–49 and men age 15–54. The results show that knowledge of female circumcision is almost universal among women and men age 15–49 (97% each).

Table 33 Knowledge of female circumcision

Percentage of women and men age 15–49 who have heard of female circumcision, according to background characteristics, Kenya DHS 2022

Background characteristic	Women		Men	
	Have heard of female circumcision	Number of women	Have heard of female circumcision	Number of men
Age				
15–19	94.4	3,125	93.8	3,175
20–24	96.9	3,063	97.9	2,404
25–29	97.7	2,916	98.2	2,268
30–34	97.7	2,364	98.0	1,787
35–39	97.5	2,288	99.0	1,577
40–44	98.3	1,615	98.8	1,332
45–49	97.2	1,346	98.9	1,109
Residence				
Urban	98.0	6,850	97.5	5,382
Rural	96.2	9,866	97.2	8,270
Education[1]				
No education	92.4	920	93.8	369
Primary	95.1	6,107	95.4	4,894
Secondary	98.2	6,320	98.1	5,386
More than secondary	99.3	3,208	99.9	2,797
Wealth quintile				
Lowest	93.2	2,599	95.8	2,062
Second	96.5	2,974	96.5	2,584
Middle	96.8	3,086	97.7	2,754
Fourth	98.1	3,729	97.5	3,325
Highest	98.6	4,328	98.5	2,927
Total 15–49	96.9	16,716	97.3	13,652
50–54	na	na	99.0	801
Total 15–54	na	na	97.4	14,453

Note: Data for this table were collected in the full woman's and man's questionnaires but not in the short questionnaires.
na = not applicable
[1] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

Table 33C Knowledge of female circumcision by county

Percentage of women and men age 15–49 who have heard of female circumcision, according to county, Kenya DHS 2022

	Women		Men	
County	Have heard of female circumcision	Number of women	Have heard of female circumcision	Number of men
Mombasa	96.6	493	97.1	442
Kwale	84.7	260	91.5	209
Kilifi	83.3	489	95.7	405
Tana River	93.0	79	94.8	64
Lamu	91.9	54	93.3	41
Taita/Taveta	97.3	122	93.8	103
Garissa	98.8	163	96.0	117
Wajir	100.0	90	100.0	63
Mandera	98.6	113	97.2	81
Marsabit	97.1	72	99.3	45
Isiolo	97.4	76	100.0	55
Meru	99.7	488	100.0	489
Tharaka-Nithi	98.0	131	100.0	137
Embu	98.5	180	100.0	176
Kitui	94.8	373	97.9	312
Machakos	98.2	544	100.0	480
Makueni	97.4	356	97.2	279
Nyandarua	98.8	225	99.4	168
Nyeri	97.0	261	98.6	235
Kirinyaga	98.1	262	99.1	191
Murang'a	99.7	339	98.5	297
Kiambu	97.9	1,095	99.3	911
Turkana	84.4	172	85.3	111
West Pokot	99.4	197	98.9	150
Samburu	99.8	79	100.0	51
Trans Nzoia	98.2	359	99.0	272
Uasin Gishu	96.6	527	99.1	451
Elgeyo/Marakwet	98.1	116	98.9	110
Nandi	94.1	332	98.9	265
Baringo	99.0	193	97.9	165
Laikipia	96.4	173	97.2	145
Nakuru	98.7	862	98.9	670
Narok	99.4	374	99.3	313
Kajiado	98.2	451	99.3	339
Kericho	98.4	372	100.0	330
Bomet	99.4	327	98.3	268
Kakamega	95.3	652	88.8	532
Vihiga	97.0	201	92.9	156
Bungoma	96.2	572	92.7	448
Busia	98.0	336	99.3	262
Siaya	95.4	275	93.8	227
Kisumu	98.6	396	99.5	345
Homa Bay	98.5	344	96.1	258
Migori	94.5	350	99.4	246
Kisii	100.0	463	99.3	326
Nyamira	98.9	168	98.5	133
Nairobi City	97.9	2,157	95.6	1,777
Total	96.9	16,716	97.3	13,652

Note: Data for this table were collected in the full woman's and man's questionnaires but not in the short questionnaires.

### 3.20.2 Prevalence and type of female genital mutilation
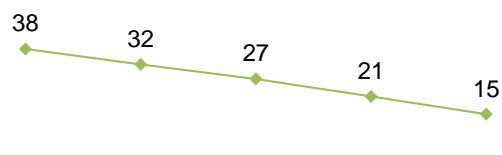
Table 34 presents findings on the prevalence and type of female circumcision among women age 15–49 by background characteristics. The prevalence of FGM is 15%. Seventy percent of women who were circumcised were cut and flesh removed.

Trends: The prevalence of FGM declined from 38% in 1998 to 15% in 2022 (**Figure 10**). Since 2014, the percentage of circumcised women who were cut and had flesh removed declined from 87% to 70%, while the percentage of circumcised women sewn closed increased from 9% to 12%.

- The prevalence of FGM generally increases with age; 9% of women age 15–19 have been circumcised, compared with 23% of women age 45–49.

Figure 10 **Trends in female genital mutilation**

Percentage of women 15–49 circumcised

	38	32	27	21	15
	1998 KDHS	2003 KDHS	2008–09 KDHS	2014 KDHS	2022 KDHS

Note: Data from 2003 and later are nationally representative, while data collected before 2003 exclude the North Eastern region and several northern districts in the Eastern and Rift Valley regions.

Table 34 Prevalence of female circumcision

Percentage of women age 15–49 circumcised, and percent distribution of circumcised women by type of circumcision, according to background characteristics, Kenya DHS 2022

Background characteristic	Percentage of women circumcised	Number of women	Type of circumcision				Total	Number of circumcised women
			Cut, no flesh removed	Cut, flesh removed	Sewn closed	Don't know		
Age								
15–19	9.1	3,125	11.9	67.3	12.6	8.1	100.0	286
20–24	9.9	3,063	13.9	63.3	13.0	9.9	100.0	303
25–29	13.2	2,916	12.0	69.5	12.0	6.4	100.0	384
30–34	16.1	2,364	11.3	69.8	12.7	6.2	100.0	380
35–39	18.7	2,288	12.3	70.1	11.6	6.0	100.0	428
40–44	23.8	1,615	11.1	72.9	10.9	5.1	100.0	385
45–49	23.1	1,346	10.9	76.6	7.9	4.5	100.0	311
Residence								
Urban	9.7	6,850	14.0	61.6	16.7	7.7	100.0	662
Rural	18.4	9,866	11.1	73.1	9.7	6.1	100.0	1,815
Education[1]								
No education	56.3	920	4.1	70.4	17.9	7.6	100.0	518
Primary	18.4	6,107	11.2	73.8	9.7	5.3	100.0	1,126
Secondary	10.0	6,320	16.7	64.5	10.8	8.0	100.0	634
More than secondary	5.9	3,208	21.8	64.2	8.0	6.0	100.0	189
Wealth quintile								
Lowest	32.0	2,599	8.8	74.7	11.3	5.2	100.0	832
Second	16.8	2,974	11.8	72.2	8.4	7.6	100.0	498
Middle	14.6	3,086	12.7	71.9	7.4	7.9	100.0	450
Fourth	11.0	3,729	15.7	61.4	16.4	6.5	100.0	409
Highest	6.6	4,328	14.3	62.2	17.3	6.2	100.0	287
Total	14.8	16,716	11.9	70.1	11.6	6.5	100.0	2,476

Note: Data for this table were collected in the full woman's questionnaire but not in the short questionnaire.
[1] No education includes informal education (Madrassa/Duksi/adult education), and more than secondary includes middle-level colleges and universities. Excludes people who reported vocational training as the highest education level attended.

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