

KENYA
DEMOGRAPHIC
AND
HEALTH SURVEY
1989

PRELIMINARY
REPORT

National Council for Population and Development
Ministry of Home Affairs and National Heritage

Demographic and Health Surveys
IRD/Macro Systems, Inc.



The Demographic and Health Surveys Program (DHS) is assisting government and private agencies with the implementation of 60 surveys in developing countries. Funded primarily by the United States Agency for International Development (USAID), DHS is implemented by the Institute for Resource Development, [REDACTED] (IRD), with assistance from the Population Council. The main objectives of the project are: (1) to provide decisionmakers in the survey countries with a database and analyses useful for informed policy choices; (2) to expand the international population and health database; (3) to advance survey methodology; (4) to develop in participating countries the skills and resources necessary to conduct high quality demographic and health surveys.

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I BACKGROUND

A. Introduction

The Kenya Demographic and Health Survey (KDHS) was conducted by the National Council for Population and Development (NCPD), with assistance from the Central Bureau of Statistics (CBS). The U.S. Agency for International Development (U.S.A.I.D.) provided financial assistance for the survey, partly through its contract with the Demographic and Health Surveys Programme at the Institute for Resource Development (IRD), which also provided technical assistance for the project.

This report is designed to provide preliminary results for some of the principal topics covered in the KDHS. A fuller presentation of the results will appear in the main survey report which is expected to be published before the end of the year. Final results may differ slightly from those presented here. Such differences are expected to be minimal; nevertheless, readers are urged to view the results in this report as provisional.

B. Objectives of the Survey

The KDHS is the third in a series of similar surveys that include the Kenya Fertility Survey (KFS) in 1977/78 and the Kenya Contraceptive Prevalence Survey (KCPS) in 1984. As such, it reflects Kenya's continuing desire to monitor its progress in meeting its health and family planning targets. The primary objective of the KDHS is to provide information on fertility; awareness, approval and use of family planning methods; and basic indicators of maternal and child health. The survey results are expected to be used by programme administrators and policy makers in making informed decisions.

C. Questionnaires

Three questionnaires were used for the KDHS: the Household Questionnaire, the Individual Woman's Questionnaire and the Husband's Questionnaire. The Household and Woman's questionnaires were adapted from the DHS Model "B" Questionnaire, intended for use in countries with low contraceptive prevalence.

The Household Questionnaire was used to list all usual members and any visitors in the selected households, together with information on their age and sex, as well as information on fostering for children under age 15. The major purpose of the Household Questionnaire was to identify those women and husbands who were eligible for individual interviews.

The Woman's Questionnaire was used to collect data for individual eligible women, namely those who were 15-49 years of age and who spent the night prior to the interview in the selected household, regardless of whether they were usual members of the household or temporary visitors. The Woman's Questionnaire collected information on the following topics:

- Respondent's background
- Reproductive history
- Knowledge and use of family planning methods
- Maternal and child health and breastfeeding
- Marriage
- Fertility preferences
- Husband's background and women's work.

The Husband's Questionnaire was used to collect data on eligible husbands, who were defined as those husbands whose wives had been successfully interviewed and who had themselves spent the previous night in the household. Since only a sub-sample of husbands was desired, every other sampled household was identified as eligible for the husband's interview. The Husband's Questionnaire included questions on the respondent's background, contraceptive knowledge and use, and fertility preferences.

All three questionnaires in the KDHS were translated into Kiswahili and eight local languages: Kalenjin, Kamba, Kikuyu, Kisii, Luhya, Luo, Meru, and Mijikenda.

D. Sample Design and Implementation

The sample for the KDHS is based on the National Sample Survey and Evaluation Programme (NASSEP) master sample maintained by the CBS. The KDHS sample is national in coverage, with the exclusion of Northeastern Province and four other northern districts which together account for only about five percent of Kenya's population. The KDHS sample was designed to produce completed interviews with 7,500 women aged 15-49 and with a subsample of 1,000 husbands of these women.

The NASSEP sample is a two-stage design, stratified by urban-rural residence, and within the rural stratum, by individual district. In the first stage, 1979 census enumeration areas (EAs) were selected with probability proportional to size. The selected EAs were then segmented into the expected number of standard-sized clusters, one of which was selected at random to form the NASSEP cluster. The selected clusters were then mapped and listed by CBS fieldstaff. In rural areas, household listings made in 1984/85 were used to select the KDHS households, while KDHS pretest staff were used to relist households in the selected urban clusters.

Despite the emphasis on obtaining district-level data for planning purposes, it was decided that reliable estimates could not be produced from the KDHS for all 32 districts in NASSEP, unless the sample size were expanded to an unmanageable size. However, it was felt that reliable estimates of certain variables could be produced for the rural areas in 13 districts that have been initially targeted by the NCPD; namely, Kilifi, Machakos, Meru, Nyeri, Murang'a, Kirinyaga, Kericho, Uasin Gishu, South Nyanza, Kisii, Siaya, Kakamega, and Bungoma. Thus, all 24 rural clusters in the NASSEP were selected for inclusion in the KDHS sample in these 13 districts. In total, about 450 households were selected in each of these districts, just over 1000 rural households in other districts, and over 3000 households in urban areas.

Sample weights were used to compensate for the unequal probability of selection between strata. The weighted totals are used throughout the remainder of this report.

E. Training and Fieldwork

The KDHS questionnaires were pretested in July/August, 1988. Nineteen women and 10 men were trained for 17 days, after which they conducted about 200 interviews with women and about 100 with husbands in various parts of the country.

Training for the main fieldwork was held for three weeks in Machakos in October/November, 1988. Altogether, there were 81 participants, about 25 of whom had participated in the pretest. NCPD and IRD staff were primarily responsible for conducting the training. In addition, CBS staff conducted several sessions and a representative from the Ministry of Health's Family Health Division presented a lecture on human reproduction and contraceptive methods.

At the end of the course, certain trainees were selected to act as team supervisors and field editors. Most of those selected had participated in the pretest. In all, 44 female interviewers, 9 male interviewers, 9 supervisors, 9 field editors, and 9 drivers participated in the fieldwork, and 9 were identified as data processing staff. Several teams started fieldwork on 1 December, 1988, but due to transport problems, all teams were not launched until early February, 1989. Fieldwork was completed on 31 May, 1989.

F. Data Processing

Completed questionnaires were delivered to NCPD regularly. Coding, data entry and machine editing went on concurrently at the NCPD data processing room as the fieldwork progressed. Three desktop microcomputers and the DHS program, ISSA, were used to process the KDHS data. Both coding and data entry, which were started in early February, were completed by mid-June, 1989. The tabulations for this preliminary report were produced two weeks after the last interview took place.

Over 8000 households were interviewed in the KDHS. Within these households, 7150 eligible women and 1116 husbands were interviewed. The response rates were 97 percent for households and 96 percent among eligible women.

II RESULTS

A. Characteristics of the Respondents

The distributions of all women and currently married women in the KDHS sample by selected background characteristics are shown in Table 1. Two-thirds of the women are currently married or living with a man, while one-third either said they had never been married or lived with a man or that they were formerly in a union. Fifty-eight percent of the women are under the age of 30, 18 percent live in urban areas and 47 percent have completed primary education or higher.

B. Fertility and Reproductive Intentions

All female respondents in the KDHS were asked to report the total number of sons and daughters they had given birth to during their lives. They were also asked to provide a complete birth history, giving the date of birth, sex, and survival status of each child.

Table 2 shows that fertility in Kenya is high. Women in their early twenties have had an average of more than one and a half births each. This increases rapidly to 3.5 births each among women in their late twenties and to 6.5 children for women in their late thirties. By the time they reach the end of their childbearing years (age 45-49), women have had, on average, 7.7 births.

Of the average of 3.7 children born to women age 15-49, 3.3 were still alive at the time of the survey. Thus, approximately 11 percent of children born to these women had died before the survey. The proportion of children who died generally increases with each successive age group of women, which reflects both the longer average exposure to the chance of dying for children of older women as well as the decline over time in infant and childhood mortality rates.

The total fertility rate (TFR) for the five-year period prior to the survey is 6.7, which represents the total number of births a woman would have by the time she reached age 50 if she had children at the same rate as women are currently having at each age group. A TFR of 6.7 represents a substantial decline in fertility from the rate of 7.7 recorded in the 1984 Kenya Contraceptive Prevalence Survey (Figure 1). The KCPS showed slight evidence of a decline, however, the KDHS data are the first evidence of a major decline in fertility. Some of this decline may be due to differences in the methods used to measure fertility in the two surveys, however, the decline is consistent with the increase in the use of family planning in Kenya (see next section).

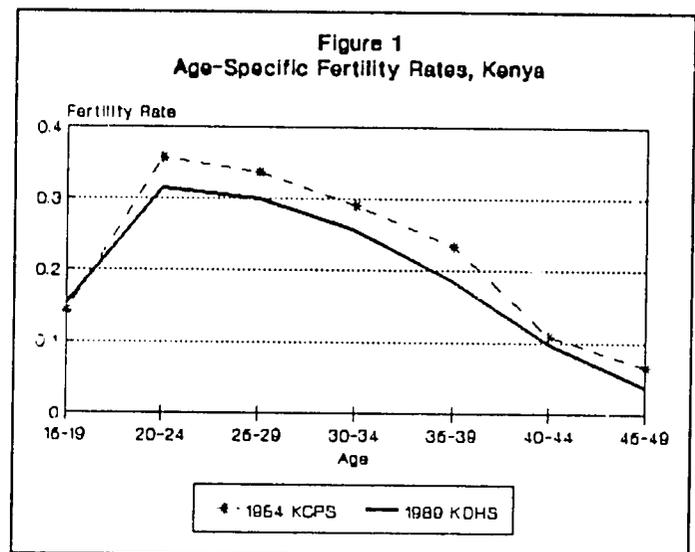


Table 1. Percent Distribution of All Women and Currently Married Women by Selected Background Characteristics, Kenya, 1989

Background characteristic	All Women			Currently Married Women		
	Per-cent	Unwtd. no.	Wtd. no.	Per-cent	Unwtd. no.	Wtd. no.
Age						
15-19	20.9	1481	1496	5.8	300	279
20-24	18.6	1402	1328	17.5	882	833
25-29	18.7	1357	1335	23.2	1126	1107
30-34	13.7	1007	982	17.5	853	834
35-39	12.5	830	691	16.2	720	775
40-44	9.4	646	672	12.0	544	573
45-49	6.2	427	445	7.7	353	369
No. of Living Children						
0-2 Children	47.2	3506	3373	29.6	1535	1412
3-4 Children	20.6	1499	1476	27.1	1314	1291
5+ Children	32.2	2145	2300	43.3	1929	2067
Residence						
Urban	17.8	1917	1273	16.1	1160	770
Rural	82.2	5233	5877	83.9	3618	4000
Province						
Nairobi	8.0	859	570	7.2	519	345
Central	15.7	1281	1124	13.7	787	655
Coast	6.9	720	491	7.2	529	345
Eastern	17.5	898	1253	16.6	561	793
Nyanza	17.5	1265	1248	18.7	895	894
Rift Valley	20.4	1100	1462	21.1	742	1006
Western	14.0	1027	1002	15.3	745	732
Education						
No education	24.9	1702	1779	31.3	1438	1491
Primary incomp.	27.7	1888	1979	30.7	1394	1466
Primary complete	26.8	1938	1916	20.8	1026	993
Secondary/higher	20.5	1612	1466	17.1	914	814
Missing	0.1	10	9	0.1	6	6
Religion						
Catholic	34.6	2390	2472	34.6	1589	1652
Protestant	57.7	4075	4123	57.0	2670	2719
Muslim	3.5	317	250	3.4	213	163
Other	1.6	104	113	1.7	77	79
No religion	2.5	254	180	3.1	222	148
Missing	0.1	10	12	0.2	7	9
Total	100.0	7150	7150	100.0	4778	4770

Despite this decline, Kenya's fertility is still higher than many other African countries. DHS surveys in other African countries give the following total fertility rates: Uganda, 7.3; Ghana, 6.4; Zimbabwe, 5.7; and Botswana, 5.0.

Age-specific fertility rates for the five years prior to the survey are also shown in Table 2. The rate increases from 152 births per 1000 women in the youngest age group to around 300 for women age 20-29 and then decreases steadily to 36 for women 45-49.

Table 2. For All Women, the Mean Number of Children Ever Born and Surviving, the Proportion Dead, and Age-Specific Fertility Rates for Five Years Preceding the Survey, by Maternal Age, Kenya, 1989

Age	Children ever born	Children surviving	Proportion dead	Fertility rates	Number of women
15-19	0.28	0.25	.120	0.152	1496
20-24	1.58	1.44	.089	0.315	1328
25-29	3.47	3.18	.083	0.300	1335
30-34	5.01	4.49	.105	0.254	982
35-39	6.47	5.80	.105	0.187	891
40-44	7.35	6.50	.115	0.096	672
45-49	7.65	6.56	.142	0.036	445
Total	3.66	3.27	.106	6.706	7150

Fertility intentions were investigated by asking women if they want to have another child and, if so, how soon. Table 3 shows the percent distribution of currently married women according to their desires to limit family size or space births. Fifty-two percent of women report that they want no more children and 26 percent say they want another child, but only after two or more years. Thus, three out of four currently married women can be considered potential users of contraception for the purpose of either limiting their family size or spacing births.

Table 3. Percent Distribution of Currently Married Women by Desire for Children, According to Age, Kenya, 1989

Age	Want no more children	Want more later*	Want more soon**	Undecided***	Missing	Total	Number of women
15-19	9.3	53.7	25.8	3.4	7.8	100.0	279
20-24	18.6	55.1	15.7	6.1	4.6	100.0	833
25-29	39.8	35.7	14.4	7.0	3.2	100.0	1107
30-34	58.4	17.6	12.8	8.5	2.7	100.0	834
35-39	71.0	11.6	8.8	6.4	2.1	100.0	775
40-44	84.6	2.0	6.6	4.7	2.1	100.0	573
45-49	90.0	0.9	6.4	1.0	1.6	100.0	369
Total	51.9	26.3	12.6	6.0	3.2	100.0	4770

* Want a child after 2 or more years

** Want a child within next 2 years

*** Undecided either about whether or when to have next child

The desire to limit childbearing appears to be considerably higher in Kenya than in many other sub-Saharan countries where DHSs have been conducted. For example, the proportion of married women who want no more children is 38 percent in Botswana, 33 percent in Zimbabwe, and only 23 percent in Ghana and Uganda, as compared to 52 percent in Kenya. The desire to stop childbearing, as expected, increases with the age of the woman, with 90 percent of women 45-49 wanting no more. These results suggest that many women in Kenya might be candidates for more long-term methods of family planning such as sterilization or the IUD.

C. Family Planning Knowledge and Use

Knowledge of at least some method of family planning is almost universal among Kenyan women. The KDHS results show that 90 percent of women in Kenya have heard of at least one method of contraception (Table 4). Knowledge of methods is slightly higher among currently married women than for all women. Women are most likely to have heard of the pill, followed by injections, female sterilization, and the IUD. Almost all women who have heard of a method also know a source for obtaining the method.

Table 4. Percentage of All Women and Currently Married Women Who Know Contraceptive Methods, Who Know a Source for Methods, Who Have Ever Used Methods and Who Are Currently Using Methods, by Method, Kenya, 1989

Contraceptive method	Percent who know method		Percent who know source		Percent ever using method		Percent currently using	
	All	CM	All	CM	All	CM	All	CM
Any Method	90.1	92.6	87.9	90.9	39.0	44.9	23.0	26.7
Any Modern Method	88.5	91.4	86.7	90.1	24.2	29.0	14.6	17.8
Pill	84.5	88.6	81.8	86.4	15.2	18.0	4.6	5.2
IUD	62.2	67.1	60.1	65.3	6.8	8.4	3.0	3.7
Injections	76.6	82.1	74.5	80.1	5.5	6.7	2.6	3.3
Diaphragm/Foam/Jelly	24.6	26.9	23.4	25.7	1.8	2.1	0.3	0.4
Condom	53.6	56.0	49.4	52.0	3.6	4.3	0.4	0.5
Female Sterilization	68.4	72.7	66.1	70.8	3.8	4.9	3.6	4.7
Male Sterilization	19.8	21.8	19.1	21.3	0.1	0.1	0.0	0.0
Any Trad. Method	54.8	55.8	41.2	42.6	21.8	24.1	8.4	8.9
Periodic Abstinence	50.7	51.0	41.2	42.6	19.3	20.8	6.9	7.4
Withdrawal	16.9	18.3	0.0	0.0	2.4	3.0	0.2	0.2
Other methods	5.0	6.2	0.0	0.0	2.6	3.1	1.3	1.3

All= all women (Number = 7150)

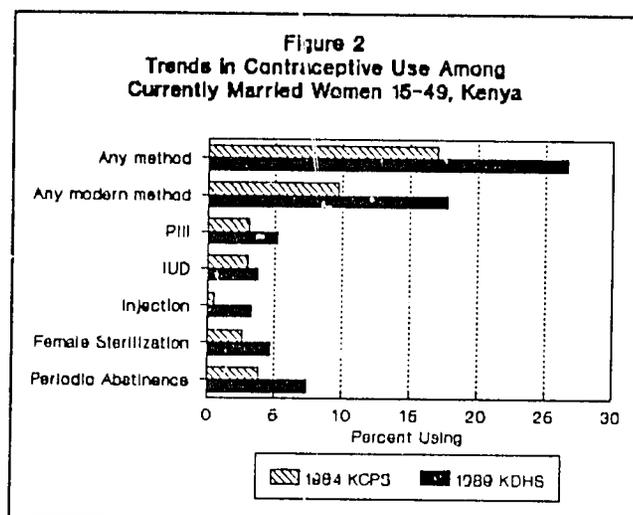
CM = women currently in a marital union (number = 4770)

Almost 40 percent of all women and 45 percent of currently married women have used a contraceptive method at some time. Most of these women have used either periodic abstinence or the pill.

Twenty-seven percent of married women are currently using some method of contraception, two-thirds of which are modern methods. The most widely used method is periodic abstinence (7 percent), followed by the pill (5 percent) and female sterilization (5 percent).

Contraceptive use has increased by more than 50 percent in the five years since the 1984 KCPS, while use of modern methods has almost doubled (Figure 2). Undoubtedly, this increase in contraceptive use has played a role in the fertility decline noted above.

Table 5 shows the percent of married women using contraception by background characteristics. Women age 30 or over are more likely to use contraception than younger women and are also more likely to use more effective, long-term methods like sterilization, IUD and injection, and less likely to use temporary methods like the pill and periodic abstinence. A similar pattern in method use occurs by number of living children.



Urban-rural differentials in level of contraceptive use are not large, with 31 percent of urban women using a method, compared to 26 percent of rural women. There are pronounced differences in the method mix among urban and rural users, with a greater proportion of urban users rely on modern methods than rural users. While urban women are more likely to use the pill and the IUD, rural women are more likely to use periodic abstinence, female sterilization and injections.

There are large differentials in contraceptive use by province. Eastern Province shows the highest level with 40 percent of married women currently using, however, almost half of these users are reportedly using periodic abstinence. Central Province, Nairobi, and Rift Valley Province also show high levels of contraceptive use of about 30 percent or more, while Western (14), Nyanza (14) and Coast (18) Provinces have much lower levels.

Differentials in contraceptive use by education are also significant. The proportion of women with some secondary education who are using contraception (40 percent) is more than twice that of women with no education (18 percent). Catholic women are only slightly less likely than Protestant women to be using a method, and a greater proportion of the former rely on periodic abstinence. Muslim women and those who report no religion are considerably less likely to be using contraception than their Christian counterparts.

Table 5. Percentage of Currently Married Women Who Are Currently Using A Contraceptive Method, by Method, According to Selected Background Characteristics, Kenya, 1989

Background characteristic	Any method	Pill	IUD	Injection	Diaphragm/foam	Condom	Female sterilization	Periodic abstinence	Withdrawal	Other	Not using	Total	No. of women
Age													
<30	22.0	6.8	2.7	2.2	0.1	0.8	0.9	7.4	0.3	0.8	78.0	100.0	2219
30+	30.8	3.8	4.6	4.2	0.7	0.2	7.9	7.4	0.2	1.7	69.2	100.0	2551
Living Children:													
0-2 Children	17.4	5.0	2.6	1.0	0.1	0.7	0.9	6.6	0.1	0.5	82.6	100.0	1412
3-4 Children	29.7	7.9	4.8	3.9	0.2	0.5	3.0	7.9	0.5	1.0	70.3	100.0	1291
5+ Children	31.2	3.7	3.9	4.5	0.8	0.3	8.3	7.6	0.2	2.0	68.8	100.0	2067
Residence													
Urban	30.5	9.8	8.0	2.8	0.5	0.8	3.6	4.0	0.4	0.6	69.5	100.0	770
Rural	26.0	4.3	2.9	3.4	0.4	0.4	4.9	8.1	0.2	1.4	74.0	100.0	4000
Province													
Nairobi	33.5	11.8	7.9	2.3	1.2	0.4	4.4	4.0	0.8	0.8	66.5	100.0	345
Central	39.6	8.0	10.1	3.6	0.3	1.2	7.8	7.1	0.3	1.2	60.4	100.0	655
Coast	18.2	5.6	1.7	3.6	0.1	0.3	3.6	3.0	0.3	0.0	81.8	100.0	345
Eastern	40.2	6.0	4.6	3.4	0.4	0.4	4.5	18.1	0.3	2.5	59.8	100.0	793
Nyanza	13.6	2.7	0.8	2.5	0.0	0.3	3.9	3.0	0.0	0.5	86.4	100.0	894
Rift Valley	29.4	3.7	2.4	5.3	1.0	0.5	5.4	8.9	0.3	2.1	70.6	100.0	1006
Western	13.7	3.7	1.6	1.6	0.2	0.3	2.7	3.0	0.0	0.7	86.3	100.0	732
Education													
No education	18.2	2.1	1.2	2.3	0.1	0.3	3.7	6.8	0.0	1.7	81.8	100.0	1492
Primary incmp.	25.7	4.3	2.8	4.0	0.3	0.1	5.7	7.2	0.2	1.3	74.3	100.0	1466
Primary comp.	30.0	7.1	4.2	4.4	0.6	0.3	4.9	6.9	0.3	1.2	70.0	100.0	993
Secondary+	40.3	10.3	9.5	2.6	1.0	1.7	4.4	9.5	0.7	0.7	59.7	100.0	814
Religion													
Catholic	25.6	4.5	3.2	2.2	0.7	0.6	3.2	9.7	0.4	1.2	74.4	100.0	1652
Protestant	29.0	5.8	4.1	4.2	0.3	0.4	5.9	6.7	0.1	1.5	71.0	100.0	2719
Muslim	17.1	4.8	3.1	2.9	0.0	1.0	2.7	2.5	0.2	0.0	82.9	100.0	163
Other	21.2	5.6	8.0	0.0	0.0	0.8	1.7	3.4	1.7	0.0	78.8	100.0	79
No religion	9.8	2.4	1.0	1.0	0.0	0.0	2.0	3.5	0.0	0.0	90.2	100.0	148
Total	26.7	5.2	5.7	3.3	0.4	0.5	4.7	7.4	0.2	1.3	73.3	100.0	4770

All women in the KDHS who were currently using contraception were asked where they obtained the method the last time. The responses to this question, classified by type of method, are shown in Table 6. The majority of users of all methods except periodic abstinence obtained their methods from either a hospital or a government clinic. The Family Planning Association of Kenya (FPAK) is the next most important supplier of services. The private sector supplies about 10 percent of the users of modern methods and more than 20 percent of condom users. The majority of women who rely on periodic abstinence obtain information about the method from friends or relatives.

Table 6. Percent Distribution of All Women Currently Using Contraception by Source for Method, According to Specific Method, Kenya, 1989

Source	Pill	IUD	Injec- tion	Condom	Female steril- isation	Periodic abstin- ence	Total
Government hospital	44.0	58.6	50.3	28.9	74.9	1.0	37.9
Government clinic	23.9	15.5	15.1	25.1	1.5	3.5	11.1
FPAK clinic	14.8	11.5	12.5	9.4	2.9	2.7	7.9
Mobile clinic/fieldworker	3.5	0.8	2.6	0.0	0.8	2.3	2.0
Private doctor	5.1	10.7	10.8	4.6	9.8	1.3	6.2
Other hospital/clinic	6.6	1.6	7.5	4.3	9.3	2.9	5.5
Pharmacy	1.0	0.0	0.0	17.6	0.0	0.0	0.5
Friends/relatives	0.0	0.3	0.3	7.9	0.0	58.6	19.3
Other	0.8	1.0	0.8	0.0	0.5	26.1	8.9
Missing	0.4	0.0	0.0	2.3	0.3	1.6	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	328	217	189	29	255	496	1541*

* Includes 24 users of diaphragm/foam/jelly and 3 users of male sterilisation

D. Reasons for Nonuse of Family Planning

All women who were not pregnant and not using contraception were asked "If you became pregnant in the next few weeks, would you feel happy, unhappy, or would it not matter very much?". Those in the latter two categories were then asked why they were not using a method to avoid pregnancy. As shown in Table 7, the major reason given for nonuse is lack of knowledge, followed by disapproval of husband or partner, and health concerns. About 20 percent of these women do not feel themselves to be at risk of pregnancy, either because they are menopausal, breastfeeding, or are only infrequently sexually active.

Table 7. Percent Distribution of Currently Married Women Who Are Not Pregnant, Not Using Contraception and Would Not Be Happy to Become Pregnant in the Next Few Weeks by Reason for Nonuse, Kenya, 1989

Reason not using	Percent	Number
Lack of knowledge	21.2	382
Opposed to FP	4.5	82
Husband disapproves	12.6	226
Health concerns	12.2	221
Access/Availability	0.6	12
Inconvenient to use	1.8	32
Infrequent sex	6.6	119
Fatalistic	2.3	42
Religion	1.1	20
Postpartum/Breastfeeding	5.8	105
Menopausal/Subfecund	10.7	192
Other	12.0	216
Don't know	4.4	79
Missing	4.2	76
Total	100.0	1803

E. Prevalence and Treatment of Diarrhoea among Children

Data on the prevalence of certain illnesses among children age 0-4 years were collected in the KDHS. As shown in Table 8, mothers reported that about 7 percent of their children had diarrhoea in the 24 hours before the survey and that about 13 percent had diarrhoea in the two weeks preceding the survey. Children whose mothers are younger than 30 have a slightly higher prevalence of diarrhoea, as do children of women in rural areas. Childhood diarrhoea seems to be more common in Western, Nyanza and Eastern Provinces, and least common in Rift Valley, Coast, and Central Provinces. There is little variation in the proportion of children that had diarrhoea by education of the mother.

Table 8. Percentage of Children Under 5 Years of Age Having an Episode of Diarrhoea Within 24 Hours and Within 2 Weeks Preceding the Survey, and Among Children Who Have Had Diarrhoea, the Percentage Receiving Oral Rehydration Therapy (ORT), by Background Characteristics, Kenya, 1989

Background characteristic	Percent with diarrhoea		Percent receiving ORT*	Number of children
	In past 24 hours	In past 2 weeks		
Age of mother				
<30	7.2	14.3	64.9	3755
30+	6.0	10.9	56.2	2751
Residence				
Urban	5.4	10.8	62.0	924
Rural	6.9	13.2	61.8	5582
Province				
Nairobi	7.4	13.1	67.9	396
Central	4.6	10.0	82.9	933
Coast	4.3	9.9	53.9	372
Eastern	7.8	15.0	60.8	1160
Nyanza	7.0	15.5	55.8	1128
Rift Valley	4.7	7.5	53.0	1478
Western	10.6	18.7	62.9	1040
Education of mother				
No education	7.5	13.3	54.1	1701
Primary incomplete	7.0	13.1	66.1	2046
Primary complete	6.8	12.8	64.5	1550
Secondary/higher	5.0	11.9	62.0	1204
Total	6.7	12.9	61.8	6506

Among the children who had diarrhoea, more than three out of five received some kind of oral rehydration therapy (ORT), whether homemade or from a ready made packet. Children of younger mothers and mothers who lived in Central Province are more likely to receive ORT than other children. Urban and rural mothers are equally likely to treat their children with ORT. Aside from the fact that women with no education are the least likely to use ORT, there is no real difference in ORT use between mothers in the other education categories.

F. Immunization of Children

In the KDHS, mothers of children age 0-4 years were asked whether they had health cards for these children and, if so, were asked to show them to the interviewer. From these health cards, interviewers recorded the dates on which the following vaccinations were given: BCG; Polio doses 1,2,3 and 4; DPT doses 1,2,3 and 4; and measles.

Data presented here are only for children age 1-4, since, by the time children are one year old they should be fully vaccinated against the principal childhood diseases listed above. Data from Table 9 show that a health card was seen for 48 percent of children age 1-4 years. This figure probably underestimates the proportion of children with health cards because some children do not live with their mothers and the health cards are with the children, not with their mothers.

Table 9. Percent of Children 1-4 Years of Age For Whom Mother Could Show a Health Card and Among Children With Health Cards, the Percent Who Received Specific Immunizations, According to Background Characteristics, Kenya, 1989

Background characteristic	Percent children < 5:			Among children under 5 with health cards, percent who received:									All immunizations* of children	No. children
	With health card seen	Immunized on health card	Mother reports some immuns.	BCG	DPT 1	DPT 2	DPT 3+	Polio 1	Polio 2	Polio 3+	Measles			
Age of Child														
12-23 months	61.0	60.9	35.0	96.7	97.7	95.8	91.9	97.8	95.1	93.2	77.9	72.3	1315	
24-35 months	49.6	49.5	46.3	97.1	98.9	93.0	87.9	96.6	93.4	89.2	80.3	73.2	1381	
36-47 months	44.7	44.5	50.9	95.9	97.6	94.1	88.9	97.4	92.8	87.9	80.9	71.6	1242	
48-59 months	35.7	35.1	58.6	96.0	94.4	91.3	84.4	94.1	89.1	83.1	81.6	72.0	1259	
Age of Mother														
<30	50.8	50.5	46.2	96.0	97.1	95.1	90.3	96.4	94.2	91.0	82.5	74.9	2891	
30+	44.3	44.1	49.2	97.1	97.8	91.9	86.6	97.1	91.4	86.3	76.1	68.6	2305	
Residence														
Urban	37.7	37.4	59.4	96.4	96.9	94.5	91.3	95.9	94.5	91.3	82.4	74.7	732	
Rural	49.6	49.4	45.6	96.5	97.5	93.7	88.5	96.8	92.9	88.8	79.6	72.0	4465	
Province														
Nairobi	36.9	36.3	59.9	93.7	96.0	94.8	90.2	95.4	94.3	90.8	85.1	75.3	313	
Central	43.9	43.9	53.1	95.8	98.7	98.5	96.5	98.8	99.0	96.9	91.8	86.2	750	
Coast	53.9	52.8	44.2	94.3	95.9	93.0	90.3	95.3	90.7	92.5	77.0	69.9	309	
Eastern	60.4	59.9	37.0	97.2	98.3	97.1	91.7	97.5	96.9	92.7	84.5	78.4	949	
Nyanza	46.8	46.5	46.7	97.1	96.3	90.4	84.8	96.7	90.9	86.2	68.4	62.9	892	
Rift Valley	48.6	48.6	46.0	97.6	97.6	93.2	88.6	96.6	91.5	87.2	81.6	71.8	1170	
Western	39.5	39.3	54.2	95.4	96.8	88.8	79.7	94.5	86.5	79.3	71.0	60.6	813	
Education														
No education	45.2	45.1	45.7	96.1	97.2	90.9	83.4	96.3	90.2	84.5	69.0	61.5	1379	
Prim. incom.	49.2	48.7	46.5	96.3	97.2	92.7	87.2	96.6	92.0	86.8	79.4	69.4	1633	
Primary comp.	52.5	52.2	45.4	96.1	98.1	96.9	92.6	97.7	96.0	93.7	84.5	79.3	1233	
Secondary+	43.9	43.7	54.6	98.1	97.1	95.4	93.9	96.0	94.7	93.1	90.0	83.3	946	
Total	47.9	47.7	47.5	96.5	97.4	93.8	88.8	96.7	93.1	89.1	79.9	72.3	5196	

* Received BCG, measles, and three doses of DPT and polio vaccines.

Note: Numbers of children may not add to total due to a small number of cases with missing information.

Children 12-23 months old are more likely to have a health card seen than older children, which is encouraging, since they have recently passed from the 0-11 month group, the primary focus of the Kenya Expanded Programme of Immunization (KEPI). Children of mothers under age 30, children of rural women and children of mothers with only primary education are more likely to have health cards than children of other women. Mothers of children in Coast and Eastern Provinces are more likely to be able to show health cards for their children.

Among children whose health cards were seen, nearly all had received BCG and three or more doses of DPT and polio vaccines. Coverage for measles was slightly lower at 80 percent, so the proportion of children with health cards who are fully immunized (e.g., BCG, at least 3 doses of DPT and polio and measles) is 72 percent. Children of younger, better educated mothers and children who live in Central and Eastern Provinces or in Nairobi are more fully immunized than other children. Surprisingly, there are few differences in immunization by age of child or by urban-rural residence.

Other sources of data on immunization (KEPI, 1987) indicate that 41 percent of children 12-23 months old were fully immunized according to information on their health cards and a further 10 percent according to mothers' reports. KDHS data show a slightly higher rate of 44 percent for children 12-23 months old based on cards (72.4 percent fully immunized among those with cards x 61.1 percent with cards seen). No comparable information based on mothers' memory is available from the KDHS, since mothers were not asked to report on the specific immunizations their children had received.

G. Prenatal Care and Delivery Assistance

The KDHS also collected information on the health care received by women during pregnancy and at the time of delivery. These data are presented in Table 10 for all births in the five years preceding the survey.

Almost nine out of ten women reported receiving an injection during pregnancy to protect the child from tetanus. There are only very minor differences by background characteristics in the proportion receiving tetanus injections.

Table 10 shows that over three-quarters of births in the five years before the survey benefitted from at least one pre-natal check from trained health personnel (doctor, nurse or trained midwife). The proportion receiving a pre-natal check from trained health personnel was somewhat higher for urban than rural women and for women with more education compared to women with less education.

About half of the births in the five years before the survey had medical assistance at the time of delivery from a doctor, nurse or midwife, most often from a nurse or midwife. About one in seven births was assisted by a traditional birth attendant.

Differences by urban-rural residence are particularly striking, with over 75 percent of births to urban women being delivered with the assistance of a doctor, nurse or midwife, compared to only 46 percent of rural births. The proportion of births delivered by doctors, nurses and midwives differs by province, from 83 percent of births in Nairobi to only 35 percent of births in Western Province. There are also large differentials in assistance at delivery according to education. Only three out of ten births to women with no education receive trained assistance, while almost 8 out of 10 births to women with secondary or higher education receive assistance.

Table 10. For All Births in the Five Years Preceding the Survey, the Percent Whose Mothers Received a Tetanus Toxoid Injection, Prenatal Care or Assistance at Delivery from a Doctor, Nurse/Midwife, or Traditional Birth Attendant (TBA), by Selected Background Characteristics, Kenya, 1989

Background characteristic	Received tetanus toxoid	Received prenatal care from:			Assistance at delivery from:			Number of births
		Doctor	Nurse/ midwife	TBA	Doctor	Nurse/ midwife	TBA	
Age of Mother								
<30	89.4	28.6	49.7	1.7	17.8	37.6	14.1	4088
30+	88.0	27.8	47.9	2.2	14.4	28.4	14.3	2958
Residence								
Urban	92.2	28.4	53.1	0.9	23.2	54.5	5.0	1006
Rural	88.2	28.3	48.2	2.0	15.2	30.3	15.7	6040
Province								
Nairobi	90.2	27.3	55.9	0.6	19.9	63.5	2.3	428
Central	90.1	52.6	16.3	0.4	34.8	38.4	5.9	976
Coast	89.3	35.4	33.7	0.4	14.1	27.3	4.8	417
Eastern	88.3	31.1	49.1	1.0	12.5	27.8	19.7	1218
Nyanza	90.8	22.9	60.8	1.2	14.1	39.2	17.7	1310
Rift Valley	86.4	25.6	54.1	4.4	16.8	28.0	20.7	1536
Western	88.3	12.3	59.0	2.4	6.4	28.8	10.6	1162
Education of Mother								
No education	84.7	24.1	48.1	4.2	9.5	23.9	17.1	1864
Primary incom.	89.0	26.1	50.1	1.3	14.3	30.5	15.2	2242
Primary complete	90.1	32.9	46.9	0.8	19.4	35.1	15.6	1661
Secondary/higher	92.6	32.2	50.7	0.8	26.1	51.9	6.3	1279
Total	88.8	28.3	48.9	1.9	16.4	33.7	14.2	7046

H. Results from the Husband's Survey

As mentioned above, the KDHS included interviews with a subsample of husbands of interviewed women. In order to be eligible for interview, a man had to have spent the night before the interview in the selected household where his wife (or one of his wives) was interviewed. Readers are cautioned to understand that these results do not refer to all married men, but only to the subset that live with their wives and were available for interview.

Table 11 gives the distribution of husbands by background characteristics. One-quarter of the husbands interviewed are 50 years of age or older and half have completed primary school.

Table 11. Percent Distribution of Husbands According to Selected Background Characteristics, Kenya, 1989

Background characteristic	Per- cent	Unwd. no.	Wtd. no.
Age			
< 30	13.1	160	152
30-39	32.8	379	382
40-49	28.5	311	333
50 +	25.7	266	299
No. of Living Children			
0-2 Children	17.6	225	206
3-4 Children	24.0	276	281
5+ Children	58.1	612	678
Residence			
Urban	13.9	244	162
Rural	86.1	872	1004
Province			
Nairobi	5.7	100	66
Central	14.3	214	167
Coast	5.8	99	69
Eastern	21.3	177	249
Nyanza	16.7	188	194
Rift Valley	24.3	207	284
Western	11.8	131	137
Education			
No education	17.0	185	198
Primary incomplete	32.6	352	379
Primary complete	23.3	247	272
Secondary/higher	27.1	332	316
Religion			
Catholic	36.3	389	423
Protestant	54.6	605	637
Muslim	3.5	43	42
Other	1.0	18	11
No religion	4.5	59	52
Total	100.0	1116	1166

Table 12 shows that almost all husbands have heard of at least one contraceptive method, with 65 percent having used a method at some point in their lives. Almost half of the husbands interviewed reported that they were currently using a contraceptive method, with one out of four reporting use of modern methods. Almost one quarter of husbands report current use of periodic abstinence. Of modern methods husbands report using, the pill is the most common, followed by female sterilization. In contrast to female respondents in the KDHS, husbands were allowed to report current use of more than one method.

Table 13 shows that urban husbands, husbands in Nairobi and husbands with secondary education are much more likely to be using contraception than other husbands.

Table 12. Percentage of Husbands By Contraceptive Knowledge and Use, According to Method, Kenya, 1989

Method	Know method	Know source	Ever used	Currently using
Any Method	94.8	92.4	64.8	48.4
Any Modern Method	93.2	91.4	35.0	24.4
Pill	87.6	83.3	16.9	7.8
IUD	67.4	63.9	8.8	5.3
Injections	80.0	76.9	6.3	3.4
Diaphragm/Foam/Jelly	29.2	28.0	2.3	0.6
Condom	81.7	74.0	16.7	3.2
Female Sterilization	83.2	79.6	7.1	6.3
Male Sterilization	35.0	31.9	1.0	0.3
Any Traditional Method	82.6	51.4	54.2	28.2
Periodic Abstinence	76.6	51.4	48.0	25.1
Withdrawal	47.3	0.0	15.2	2.5
Other methods	17.9	0.0	8.0	2.7

Table 13. Percentage of Husbands Who Are Currently Using A Contraceptive Method, by Method, According to Selected Background Characteristics, Kenya, 1989

Background characteristic	Any method	Any modrn meth.	Pill	IUD	Injec- tion	Diaph- ragm/ foam	Con- dom	Female steril- ization	Any trad. method	Per. ab.ti- nence	With- draw- al	Other	No. of Husb
Age													
<30	44.3	20.9	10.8	1.4	2.8	1.0	4.5	1.7	30.4	26.6	3.7	2.5	152
30+	49.0	24.9	7.4	5.9	3.5	0.6	3.0	6.9	27.9	24.9	2.3	2.7	1013
No. Living Children													
0-2 Children	43.2	23.5	9.3	7.1	1.3	0.7	6.8	0.4	25.2	23.5	5.6	0.7	206
3-4 Children	51.6	28.4	11.2	6.9	5.3	0.0	1.8	4.9	26.0	24.1	0.2	2.0	281
5+ Children	48.7	23.1	6.0	4.2	3.3	0.9	2.7	8.6	30.0	26.0	2.4	3.5	678
Residence													
Urban	55.3	39.8	15.2	11.9	3.7	0.4	7.4	5.3	21.3	21.3	0.8	0.0	162
Rural	47.3	21.9	6.6	4.3	3.4	0.7	2.5	6.4	29.3	25.8	2.7	3.1	1003
Province													
Nairobi	65.0	46.0	16.0	15.0	3.0	0.0	9.0	8.0	27.0	27.0	1.0	0.0	66
Central	62.3	38.8	7.7	9.4	5.3	0.5	2.2	13.7	27.4	25.7	0.7	0.9	167
Coast	35.5	19.1	9.7	1.5	1.5	0.0	3.0	3.4	20.7	16.4	0.0	4.8	69
Eastern	61.1	21.6	7.1	6.4	3.2	0.0	1.7	5.3	43.5	41.8	3.0	0.9	249
Nyanza	41.6	19.3	8.2	1.4	4.7	0.3	3.1	4.8	26.5	26.0	3.3	1.0	194
Rift Valley	45.6	21.9	5.4	4.0	3.0	2.1	3.9	5.5	29.0	22.2	4.5	5.8	284
Western	22.0	16.3	8.8	3.8	1.9	0.0	3.3	3.3	6.7	2.7	0.0	4.0	137
Education													
No education	37.2	16.3	4.6	1.5	1.3	0.0	0.5	7.3	26.4	20.4	3.4	6.8	198
Prim. incom.	44.6	18.4	4.5	2.9	3.4	0.0	3.0	7.1	28.8	24.6	3.0	3.5	379
Primary comp.	46.2	18.0	5.5	4.7	1.9	0.0	3.3	2.8	30.7	29.4	1.0	0.9	272
Secondary+	61.8	42.1	15.8	11.1	6.1	2.3	5.1	7.5	26.5	25.1	2.4	0.5	316
Religion													
Catholic	47.5	21.4	7.4	4.7	2.6	0.7	2.5	4.6	32.1	30.7	2.2	0.9	423
Protestant	51.3	27.9	8.4	6.1	4.5	0.7	3.5	8.1	26.4	22.9	2.6	3.0	637
Muslim	48.4	21.0	12.8	4.1	0.0	0.0	4.1	1.6	36.2	25.9	7.1	10.3	42
No religion	15.8	4.1	1.3	0.0	0.0	0.0	1.2	1.5	11.7	4.6	0.0	7.8	52
Total	48.4	24.4	7.8	5.3	3.4	0.6	3.2	6.3	28.2	25.1	2.5	2.7	1166

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