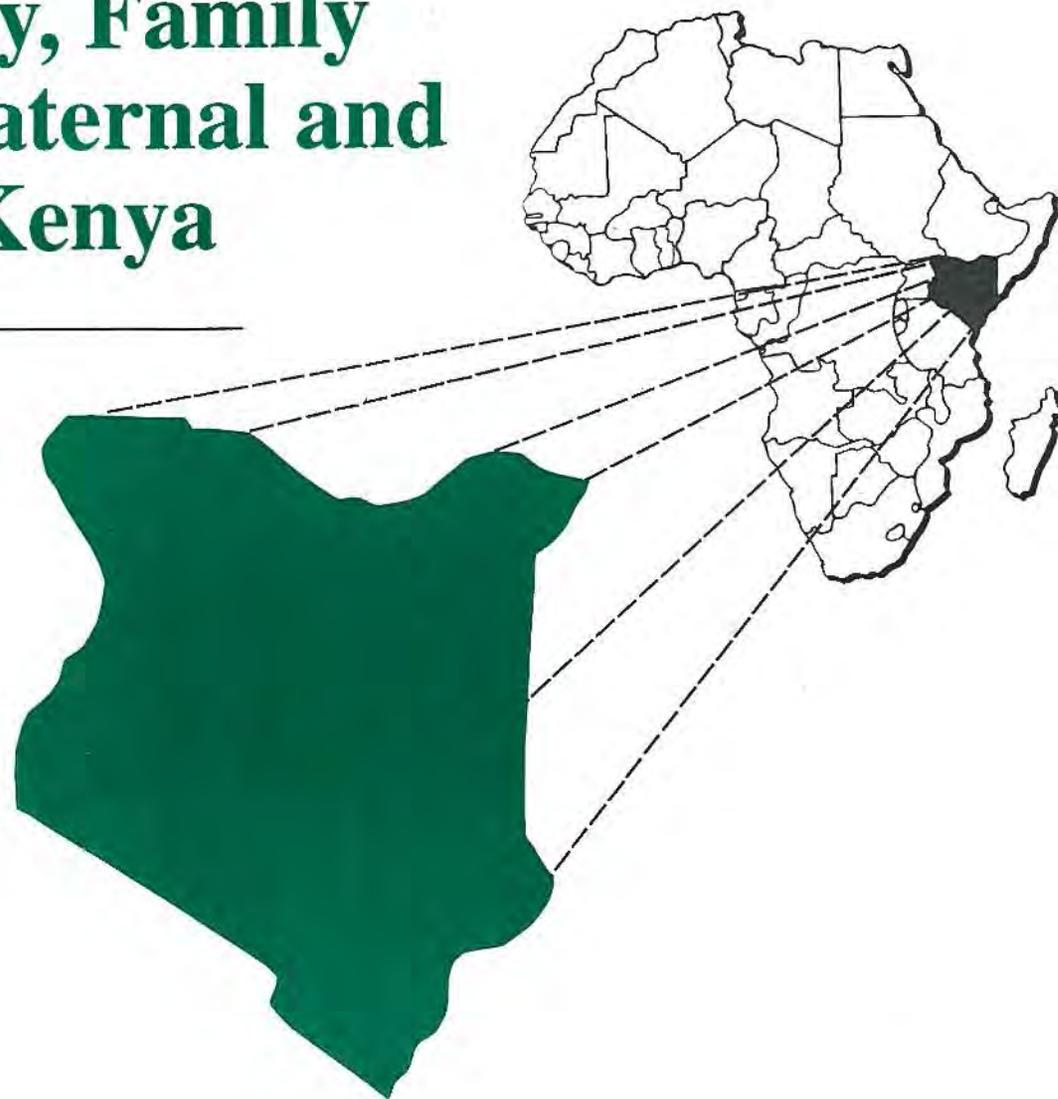


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# Trends in Fertility, Family Planning, and Maternal and Child Health in Kenya

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RESULTS FROM THE  
KENYA DEMOGRAPHIC  
AND HEALTH SURVEY 1993



Demographic and Health Surveys  
Macro International Inc.



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Macro International Inc.  
Calverton, Maryland, U.S.A.**

**June 1994**

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## **Introduction**

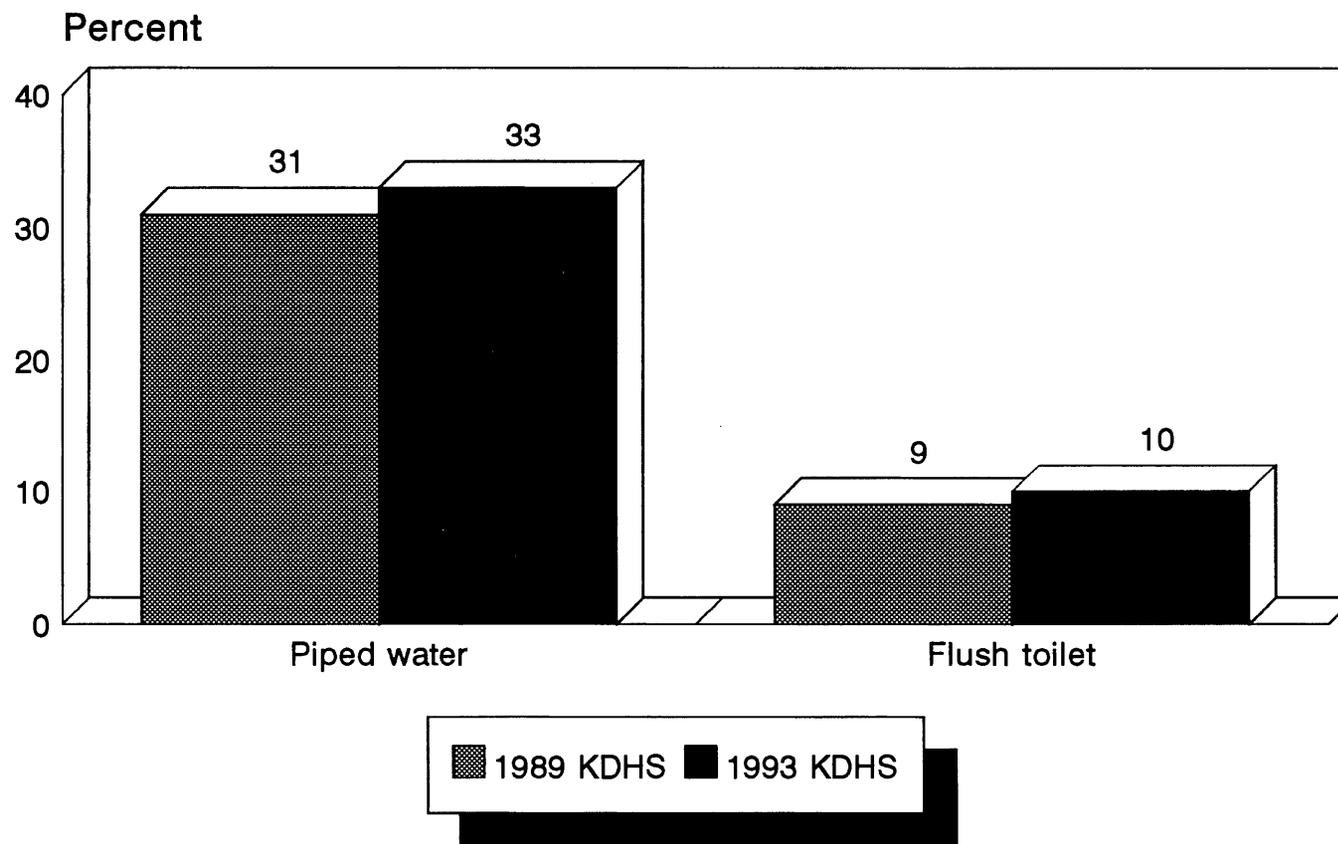
The 1993 Kenya Demographic and Health Survey (KDHS) was a nationally representative survey of 7,540 women age 15-49 and 2,336 men age 20-54. It provides information on levels and trends of fertility, child mortality, family planning knowledge and use, maternal and child health, and knowledge of AIDS. Data are intended for use by program managers and policy makers to evaluate and improve family planning and maternal and child health programs. Fieldwork for the KDHS took place from mid-February to mid-August 1993.

The availability of results from the 1993 KDHS affords an opportunity to compile data on trends in various indicators of fertility, family planning knowledge and use, and maternal and child health. Comparisons are made with three prior surveys: the 1977/78 Kenya Fertility Survey (KFS), the 1984 Kenya Contraceptive Prevalence Survey (KCPS), and the first KDHS conducted in 1989. The KFS and KCPS were implemented by the Central Bureau of Statistics (CBS); the 1989 and 1993 KDHSs were implemented by the National Council for Population and Development (NCPD), along with the CBS and with financial and technical assistance from the international Demographic and Health Surveys program funded by the U.S. Agency for International Development.

All four surveys utilized similar sample designs, omitting seven northern districts which together account for less than 4 percent of the country's population. Moreover, all four surveys had other procedural similarities, such as using female interviewers to interview female respondents, translating the questionnaires into all the major local languages, and grouping the field staff into teams with field editors to check each completed questionnaire.

Differences between the surveys rest mainly in the questionnaires used. All except the 1984 KCPS included birth histories of women age 15-49, which allow direct estimation of fertility and childhood mortality rates. All included questions on knowledge and use of contraceptives, although the specific methods asked about differed. Questionnaires became considerably longer over time; the two KDHSs included questions on maternal and child health and knowledge of AIDS and the 1993 KDHS included anthropometric measures (height and weight) of children under age five and their mothers. The 1989 KDHS included a survey of a subsample of husbands of interviewed women, while the 1993 KDHS surveyed a subsample of men age 20-54. These differences in questionnaires as well as in the availability of tabulated data limit the comparisons in the figures that follow.

**Figure 1**  
**Percentage of Households with Piped Water and**  
**Flush Toilets, 1989 and 1993**



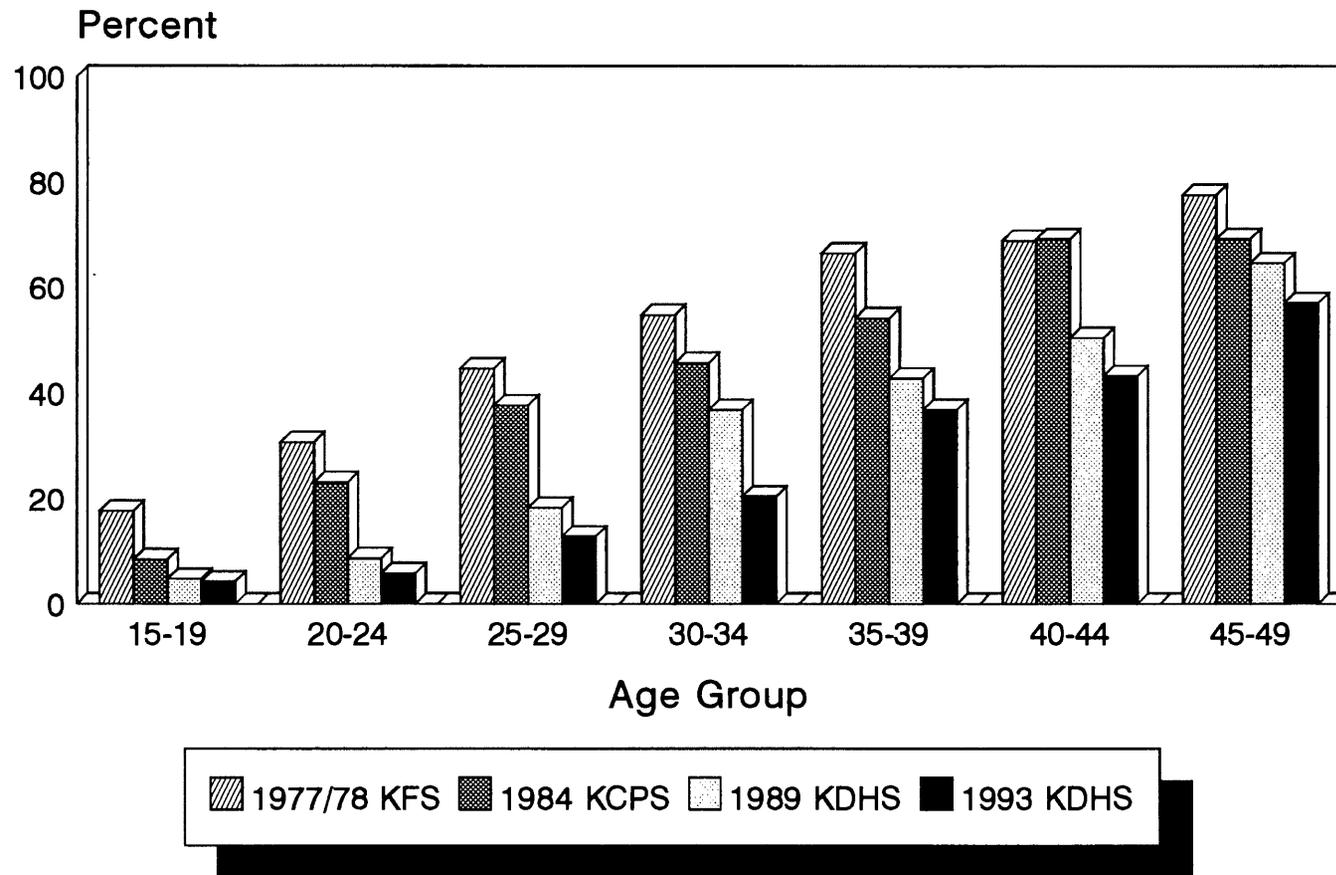
Source: NCPD, 1989:70,71; NCPD, 1994:14.

Note: in 1989, refers to proportion of women 15-49, not households.

## **Household Characteristics**

- **One third of households in Kenya get drinking water from either public or private taps. This proportion has not changed significantly since 1989.**
- **One in 10 households has a flush toilet, almost the same as in 1989. In both surveys, three-quarters of the households reported having pit latrines (not shown).**

**Figure 2**  
**Percentage of Women with No Formal Education**  
**by Age Group, 1977/78-1993**



Source: CBS, 1980:A-1; CBS, 1984:27; NCPD, 1989:8; NCPD, 1994:18.

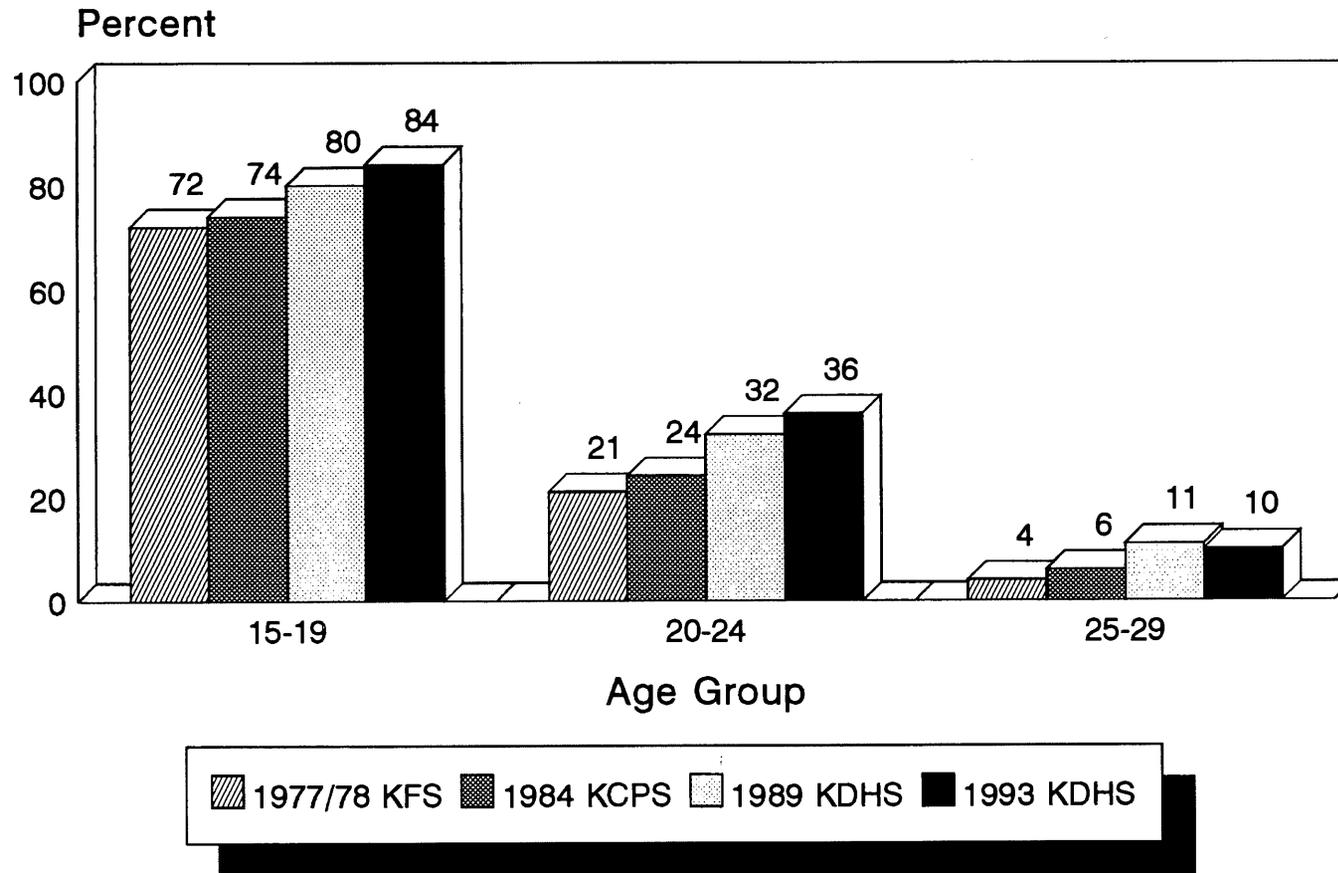
## Education of Women

- In all four surveys, younger women are much less likely than older women to have never attended school.
- At every age group, there has been a steep decline over time in the proportion with no education.
- The declines have been steepest at the young adult ages; for example, in 1977/78, over half of women age 30-34 had never been to school, compared to one fifth in 1993. Similarly, the proportion of women age 20-24 with no schooling has fallen from 31 percent in 1977/78 to 6 percent in 1993.

Percentage of women with no education

Age group	1977/78 KFS	1984 KCPS	1989 KDHS	1993 KDHS
15-19	17.6	8.3	4.7	4.2
20-24	30.7	23.1	8.5	5.8
25-29	44.6	37.7	18.2	12.7
30-34	54.7	45.6	36.8	20.4
35-39	66.5	54.1	42.7	36.9
40-44	68.9	69.2	50.4	43.2
45-49	77.6	69.2	64.6	57.0
Total	44.0	34.8	25.1	17.9

**Figure 3**  
**Percentage of Women Who Have Never Married**  
**by Age Group, 1977/78-1993**



Source: CBS,1980:71; CBS,1984:39; NCPD,1989:9; NCPD,1994:62.

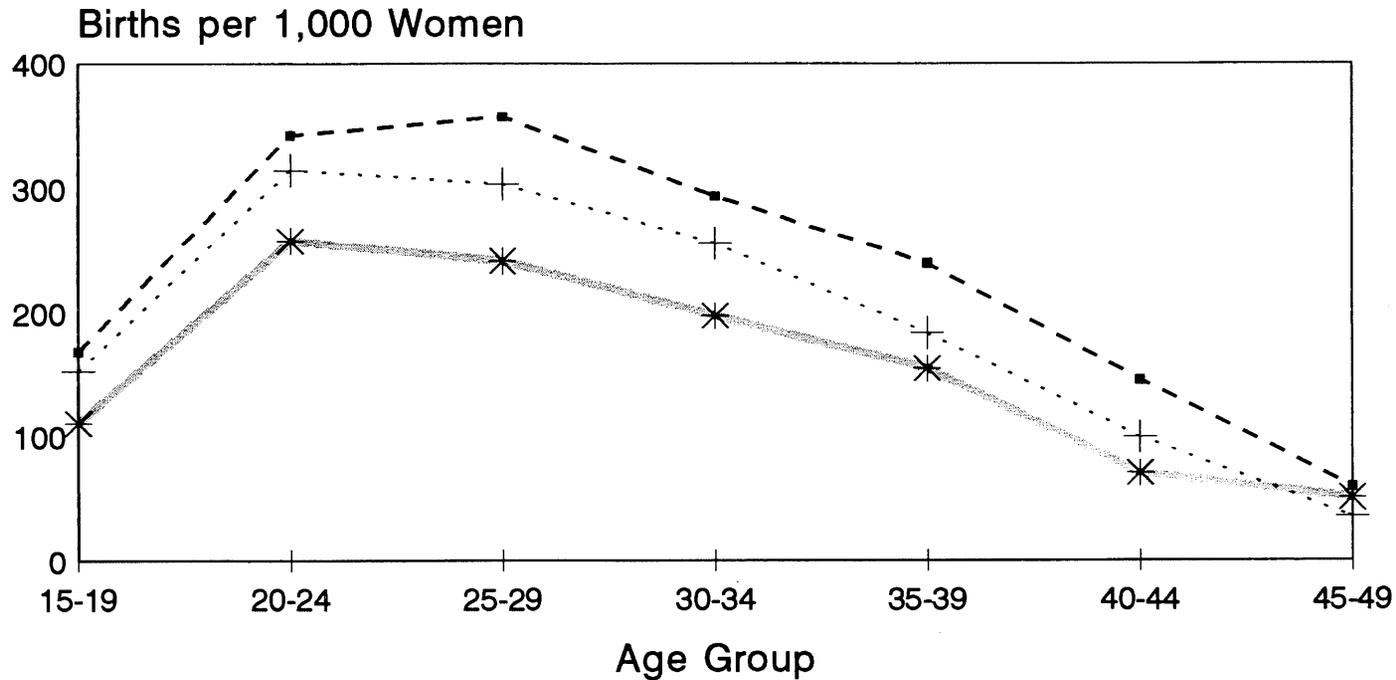
## Age at Marriage

- Women are postponing the age at which they marry.<sup>1</sup> In 1977/78, 72 percent of women age 15-19 had never married. This proportion rose to 84 percent in 1993. Similarly, the proportion of women age 20-24 who had never married rose from 21 percent in 1977/78 to 36 percent in 1993.
- The median age at first marriage has shown a steady increase over time. Among women age 25-29, it increased from 17.5 in 1977/78, to 17.8 in 1984, 18.6 in 1989, and 19.5 in 1993 (data not shown).
- The practice of polygyny has been declining over time. The proportion of married women who were in polygynous unions was 30 percent in 1977/78, 25 percent in 1984, 23 percent in 1989, and 20 percent in 1993 (data not shown).

---

<sup>1</sup> In all four surveys, marriage was defined to include both legal and traditional marriages, as well as consensual unions ("living together").

### Figure 4 Age-Specific Fertility Rates 1975-77, 1984-88, and 1990-92



■ 1975-77 (1977/78 KFS)
+ 1984-88 (1989 KDHS)
\* 1990-92 (1993 KDHS)

Source: CBS, 1980:87; NCPD, 1989:18; NCPD, 1994:22

Note: The KFS and 1993 KDHS used a 3-year reference period and the 1989 KDHS a 5-year period.

## Age-Specific Fertility Rates

- Kenya has experienced an extremely rapid decline in fertility over the past 15-20 years.
- The decline has occurred at all age groups, although the largest absolute decline has occurred among women in their late 20s and early 30s.
- The decline in fertility has accelerated recently. This can be seen by the fact that the change between 1984-88 and 1990-92 is generally greater than the change from 1975-77 to 1984-88, despite the fact that the period of time separating the second two surveys is approximately half that between the first two surveys.<sup>2</sup>

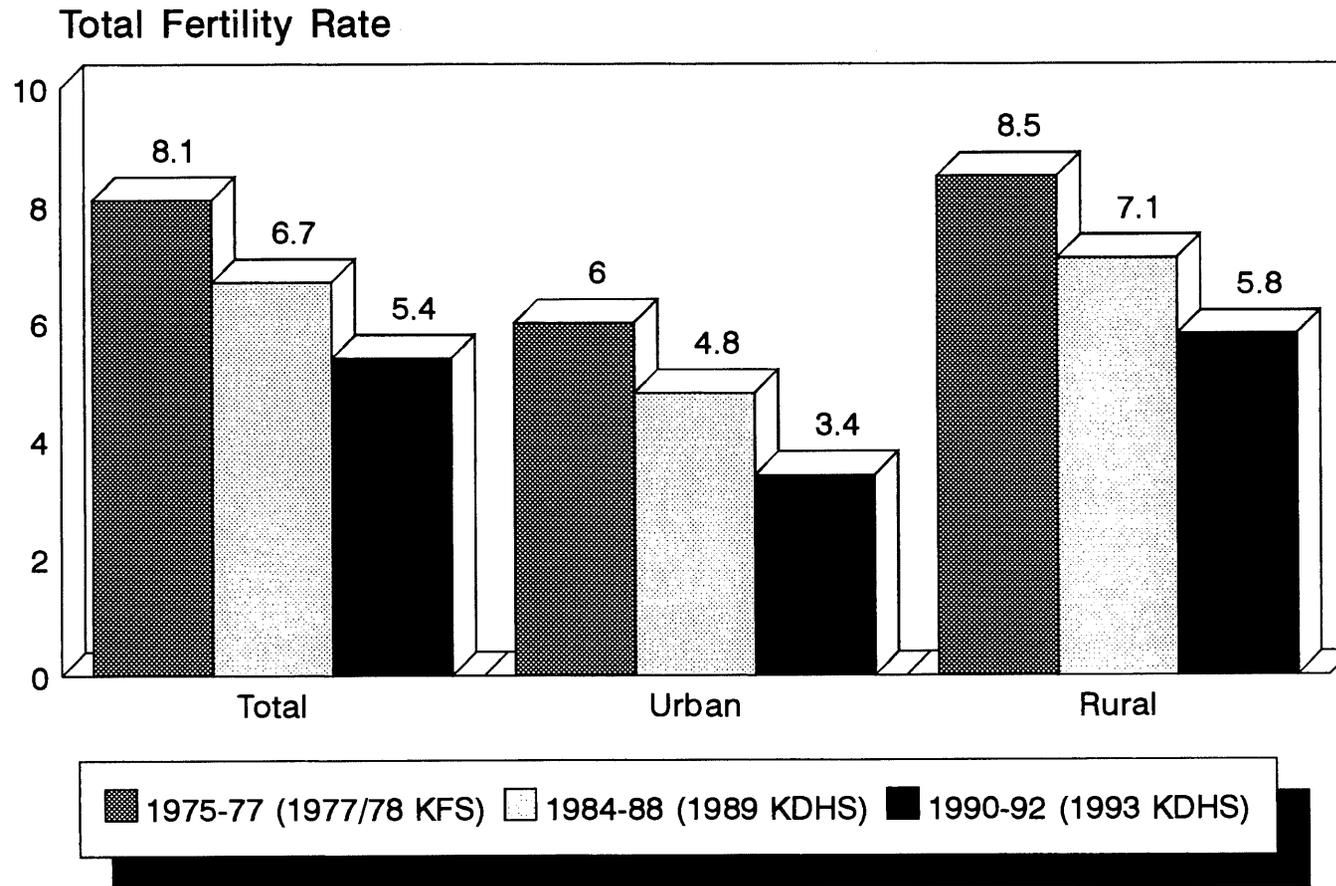
Age-specific fertility rates

Age group	1977/78 KFS	1989 KDHS	1993 KDHS
15-19	168	152	110
20-24	342	314	257
25-29	357	303	241
30-34	293	255	197
35-39	239	183	154
40-44	145	99	70
45-49	59	35	50
Total	8.1	6.7	5.4

---

<sup>2</sup> The 1977/78 KFS and the 1993 KDHS rates are based on the 3-year period prior to the survey, while those from the 1989 KDHS are based on a 5-year reference period. Rates from the 1984 KCPS are not shown because, unlike data from the other three surveys, they were not derived from complete histories of respondents' births. Moreover, they are based on a 1-year reference period and are subject to high levels of sampling error.

**Figure 5**  
**Total Fertility Rates by Urban-Rural Residence**



Source: CBS, 1980:87 and WFS, 1984:Chart 5; NCPD, 1989:22; NCPD, 1994:23

Note: Rates from the 1989 KDHS and the urban-rural rates from 1977/78 KFS are based on the 5 years before the survey; those from the total 1977/78 KFS and the 1993 KDHS refer to a 3-year period.

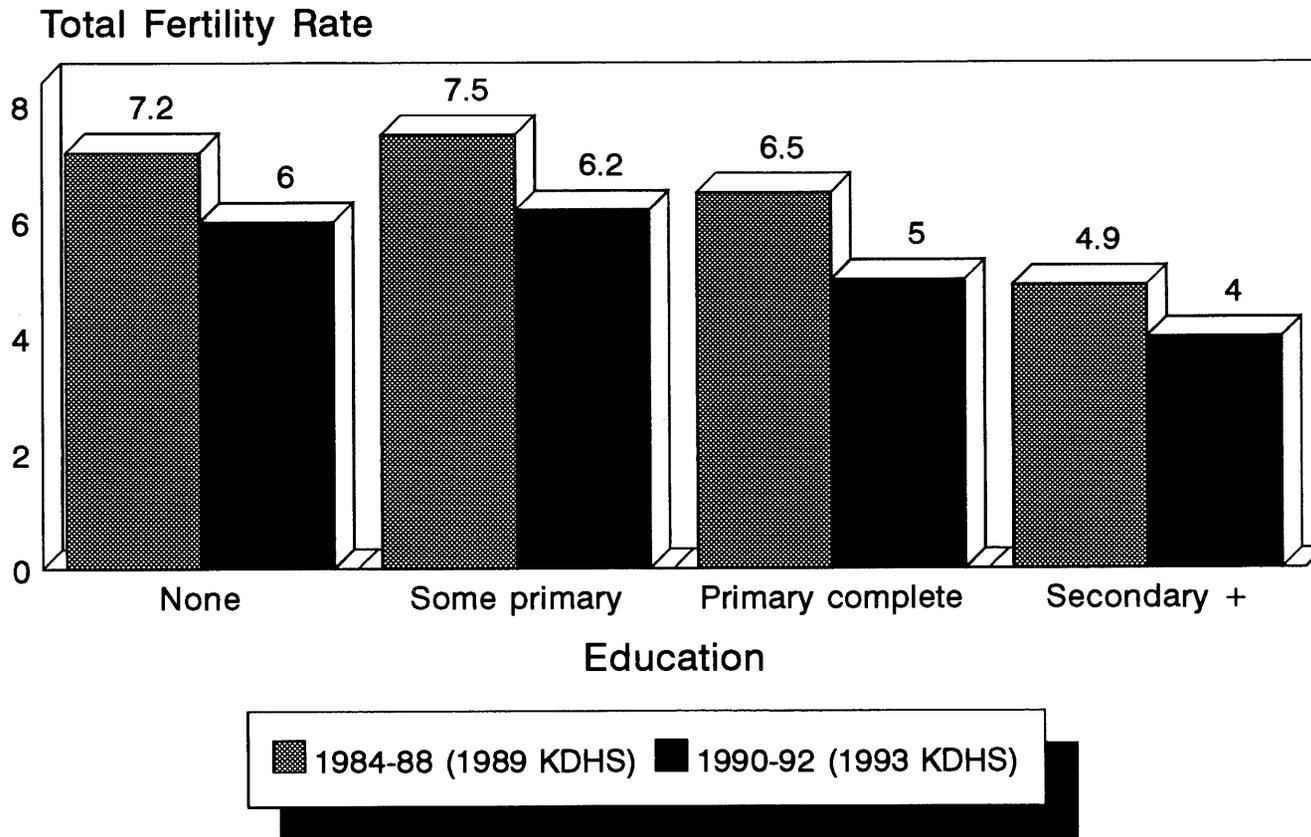
## **Fertility by Urban-Rural Residence**

- Over the past 15 years, fertility rates in Kenya have declined by one third, from a total fertility rate of 8.1 children per woman in 1975-77 to 5.4 in 1990-92.
- Urban women have substantially lower fertility than rural women. This has remained true over time; for all three time periods shown, rural women were bearing an average of over two children more than urban women.<sup>3</sup>
- Fertility has declined relatively faster in urban areas than in rural areas.

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<sup>3</sup> Data from the 1977/78 KFS by urban-rural residence actually refer to approximately 1973-77, a five-year period prior to the survey.

**Figure 6**  
**Total Fertility Rates by Education,**  
**1984-88 and 1990-92**



Source: NCPD, 1989:22; NCPD, 1994:23

Note: The 1989 KDHS used a 5-year reference period; the 1993 KDHS a 3-year period.

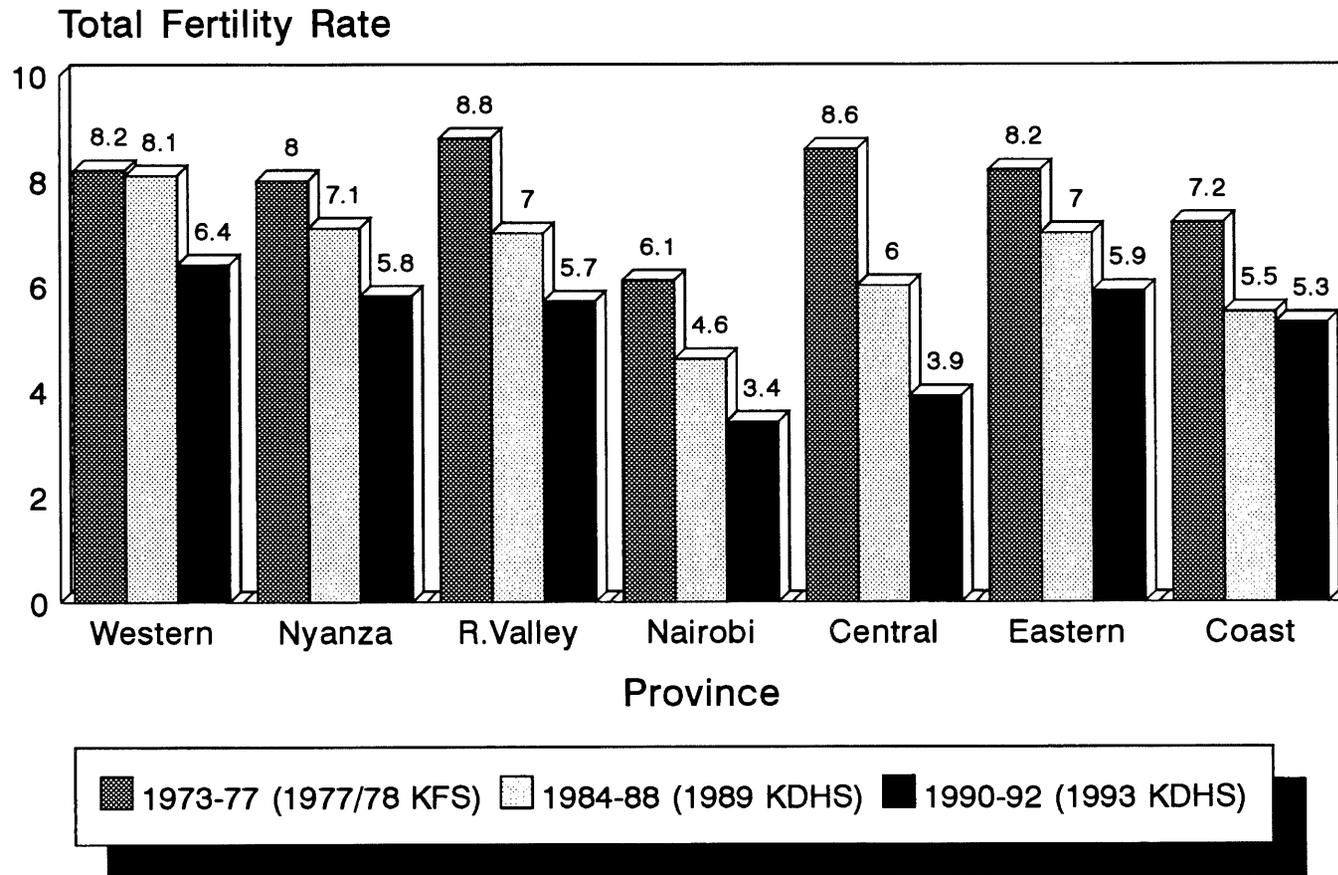
## **Fertility Rates by Education**

- **The decline in fertility in Kenya is not limited to women in certain educational categories. On the contrary, fertility rates have declined steeply for women in every level of education.**
- **As expected, more highly educated women have lower fertility than less educated women. In 1990-92, women with secondary education were having an average of two children fewer than women with no education (4 vs. 6 children).**
- **The rapid decline in overall fertility levels is due in part to a decline in fertility within educational categories as well as to an increase in the proportion of women who fall in the better-educated categories.<sup>4</sup>**

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<sup>4</sup> Data from the 1977/78 KFS are not shown because they were tabulated in different education categories.

**Figure 7**  
**Total Fertility Rates by Province**  
**1973-77 to 1990-92**

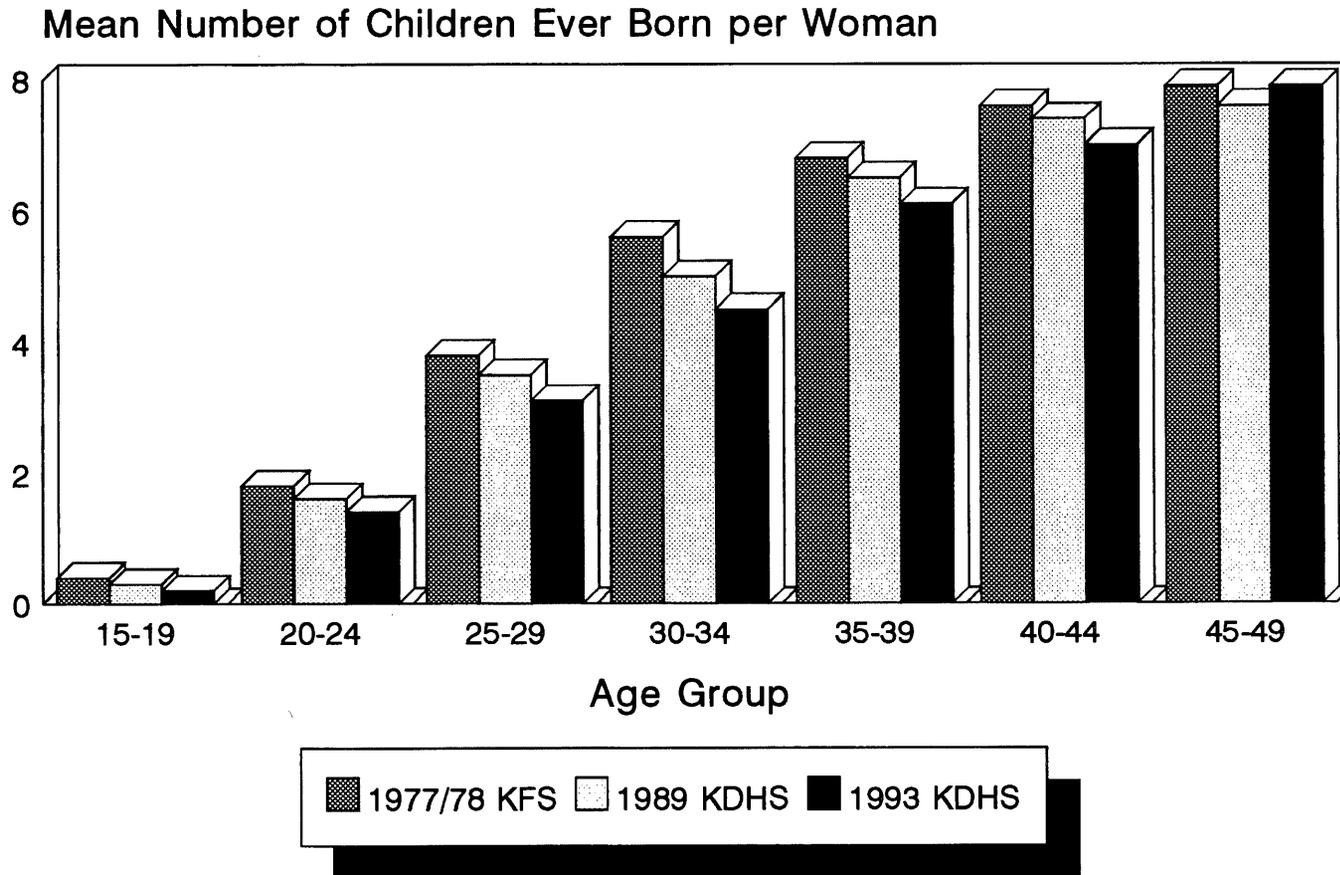


Source: CBS, 1980:101; CBS, 1984:52; NCPD, 1989:22; NCPD, 1994:23.

## **Fertility Rates by Province**

- Although all provinces in Kenya experienced a fertility decline between the mid-1970s and the early 1990s, some experienced a larger decline than others. By far the largest decline--from 8.6 to 3.9 children per woman--has occurred in Central Province. Fertility has also declined sharply in Rift Valley Province and Nairobi.
- Because the fertility decline did not occur uniformly among the provinces, the rank order of provinces by fertility level has changed. Although Nairobi had, and still has, the lowest total fertility rate, Central Province, which used to have one of the highest rates, now has the second lowest.
- With the provinces arranged in Figure 7 roughly in a west-to-east pattern, it is easy to see that fertility is lowest in the central part of Kenya (Nairobi and Central Province) and highest in the far west (Western and Nyanza Provinces) and the east (Eastern and Coast Provinces).

**Figure 8**  
**Mean Number of Children Ever Born**  
**1977/78, 1989 and 1993**

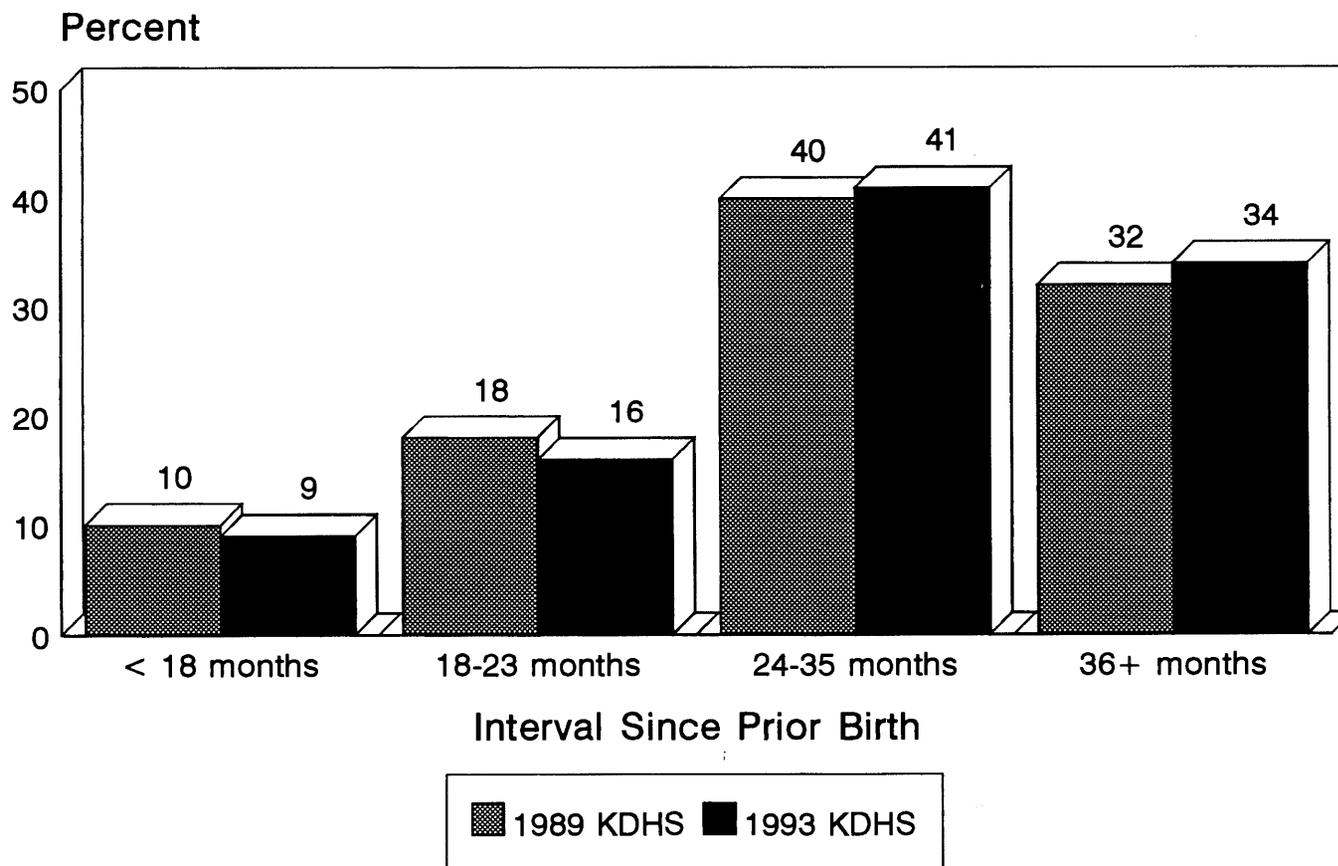


Source: CBS, 1980:84; NCPD, 1989:24; NCPD, 1994:28

## **Number of Children Ever Born**

- **The decline in fertility is apparent in the total number of children women report ever having borne. Between 1977/78 and 1993, the average number of children ever born has declined at every age group except 45-49.**
- **The absolute decline is greatest among women age 30-34. Relatively, it is also large among women age 15-19 and 20-24.**
- **Despite the decline, fertility is still high; on average, women have given birth to three children by their late 20s, six children by their late 30s, and almost eight children by their late 40s.**

**Figure 9**  
**Interval Since Prior Birth, 1989 and 1993**  
**(Births in 5 Years Before Survey)**

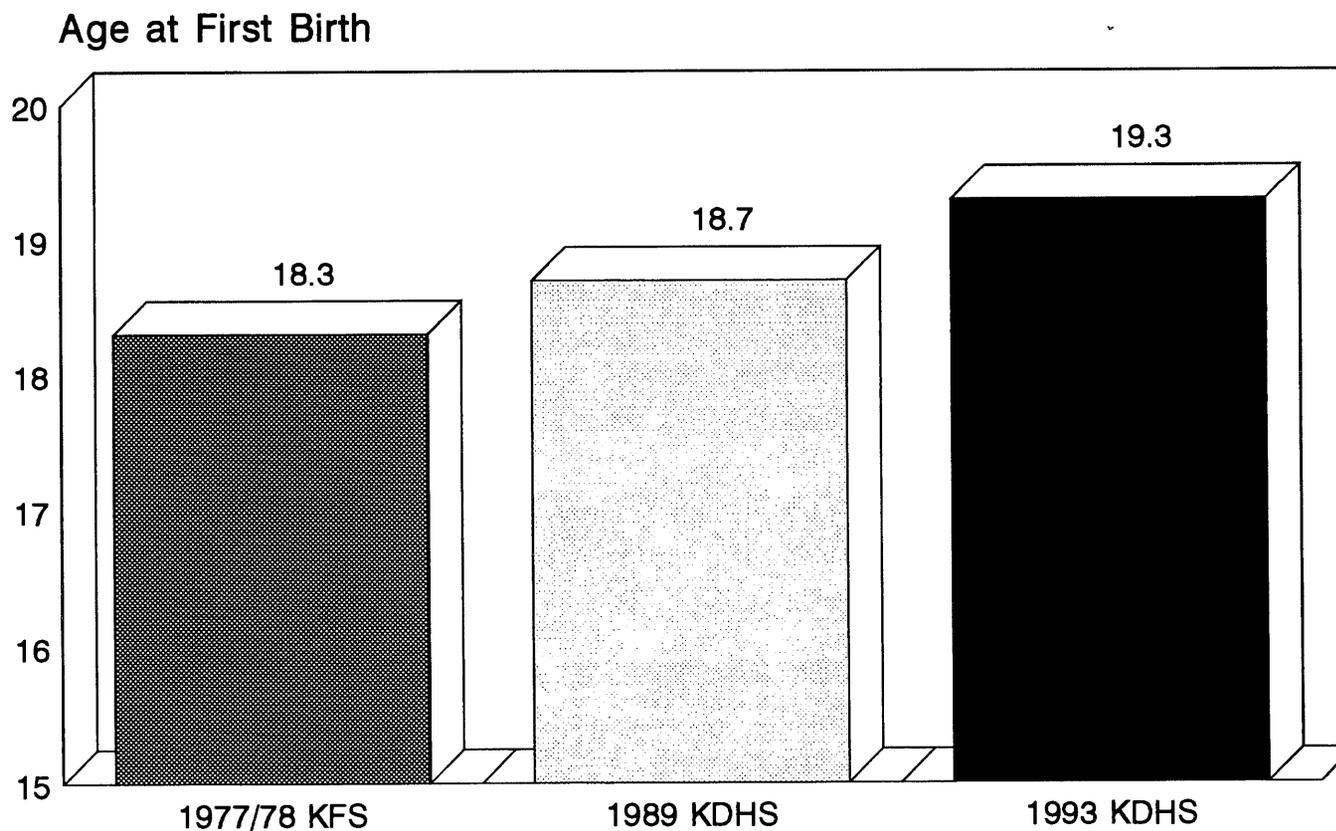


Source: Unpublished table and NCPD, 1994:29

## **Birth Intervals**

- There has been a slight trend towards spacing births at longer intervals. Among births in the five years before the 1989 KDHS, 28 percent took place less than 24 months after a prior birth; in 1993, the corresponding figure was 25 percent.
- The median birth interval was 29 months for births occurring in the five years before the 1989 KDHS, compared to 30 months for the 1993 KDHS (data not shown).
- Although slight, this tendency towards longer birth intervals is reassuring, since KDHS data indicate that short birth intervals significantly reduce a child's chances of survival.

**Figure 10**  
**Median Age at First Birth Among Women**  
**Age 25-29, 1977/78, 1989 and 1993**

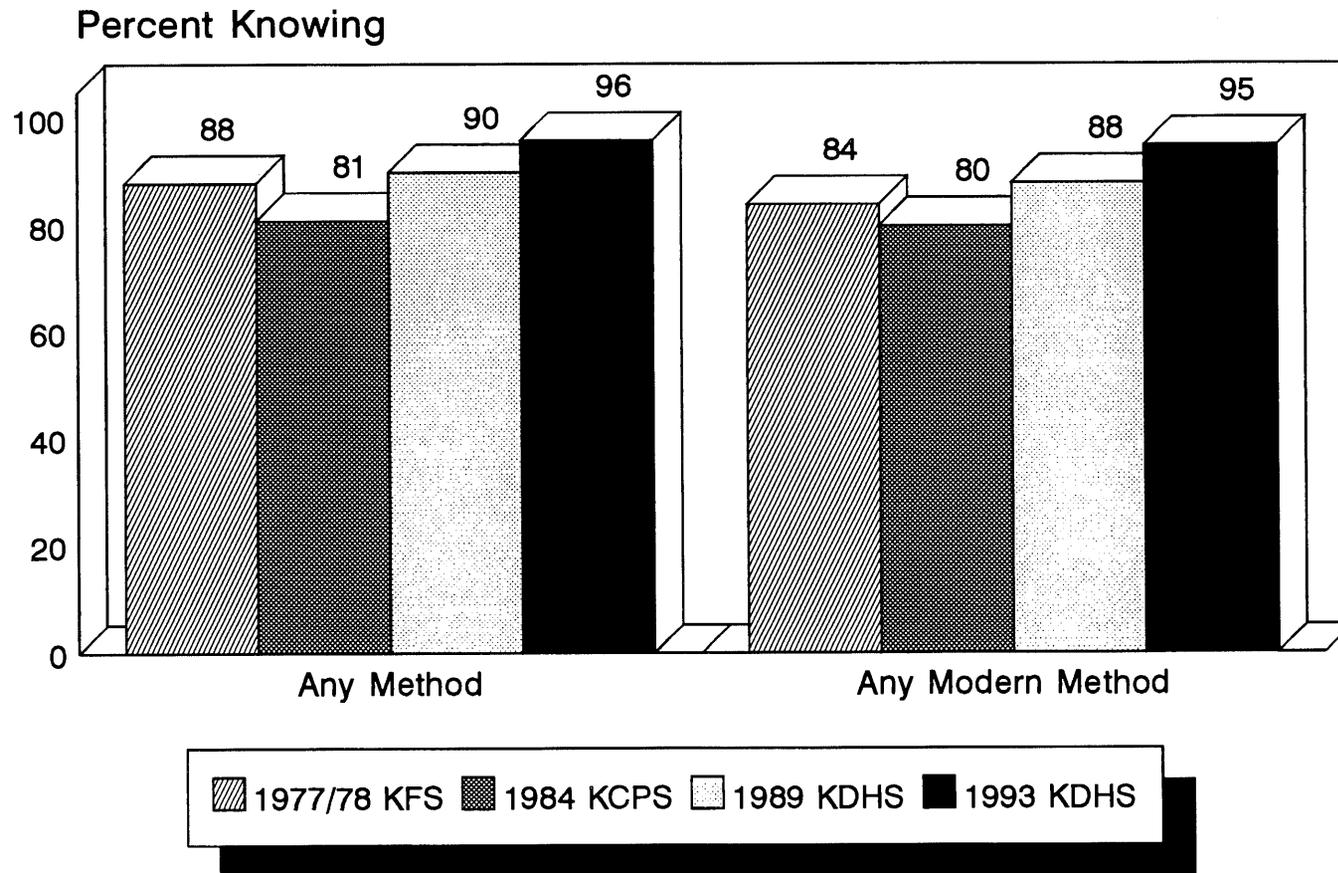


Source: CBS,1980:86; NCPD,1989:26; NCPD,1994:30

## **Age at First Birth**

- The median age at first birth among women age 25-29 has risen from 18.3 recorded in the 1977/78 KFS, to 19.3 in the 1993 KDHS.
- This trend is encouraging, since childbearing at very young ages is hazardous to the health of both the child and the mother.
- Further evidence of this trend is the fact that the proportion of teenagers (age 15-19) who had either given birth or were pregnant with their first child declined from 25 percent in 1989 to 21 percent in 1993 (Macro International Inc., 1993:17 and NCPD 1994:32).

**Figure 11**  
**Knowledge of Family Planning, 1977/78-1993**  
**(Percentage of Women 15-49)**



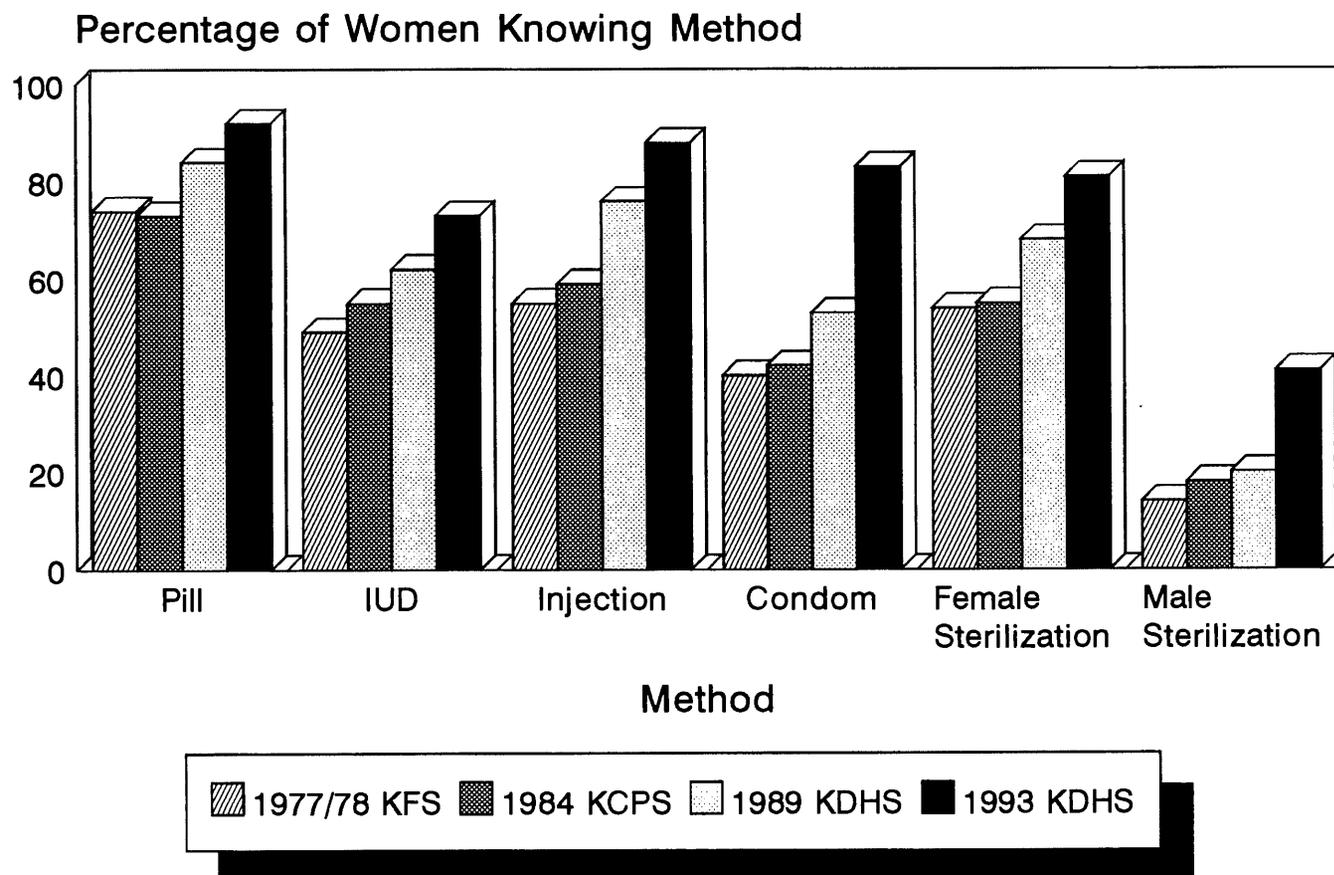
Source: CBS, 1980:130,132; CBS, 1984:69; NCPD, 1989:29; NCPD, 1994:37

## **Knowledge of Family Planning**

- Knowledge of family planning methods has increased considerably since the late 1970s.
- In 1977/78, 88 percent of women 15-49 reported knowing at least some method of family planning; by 1993, this proportion had increased to 96 percent of women.
- Knowledge of at least one modern contraceptive method (pill, IUD, injection, condom, female and male sterilization) has increased even more rapidly, from 84 to 95 percent of women.

## Figure 12

### Knowledge of Specific Modern Contraceptives, Among Women 15-49, 1977/78-1993



Source: CBS, 1980:132; CBS, 1984:69; NCPD, 1989:29; NCPD, 1994:37

## Knowledge of Specific Modern Contraceptives

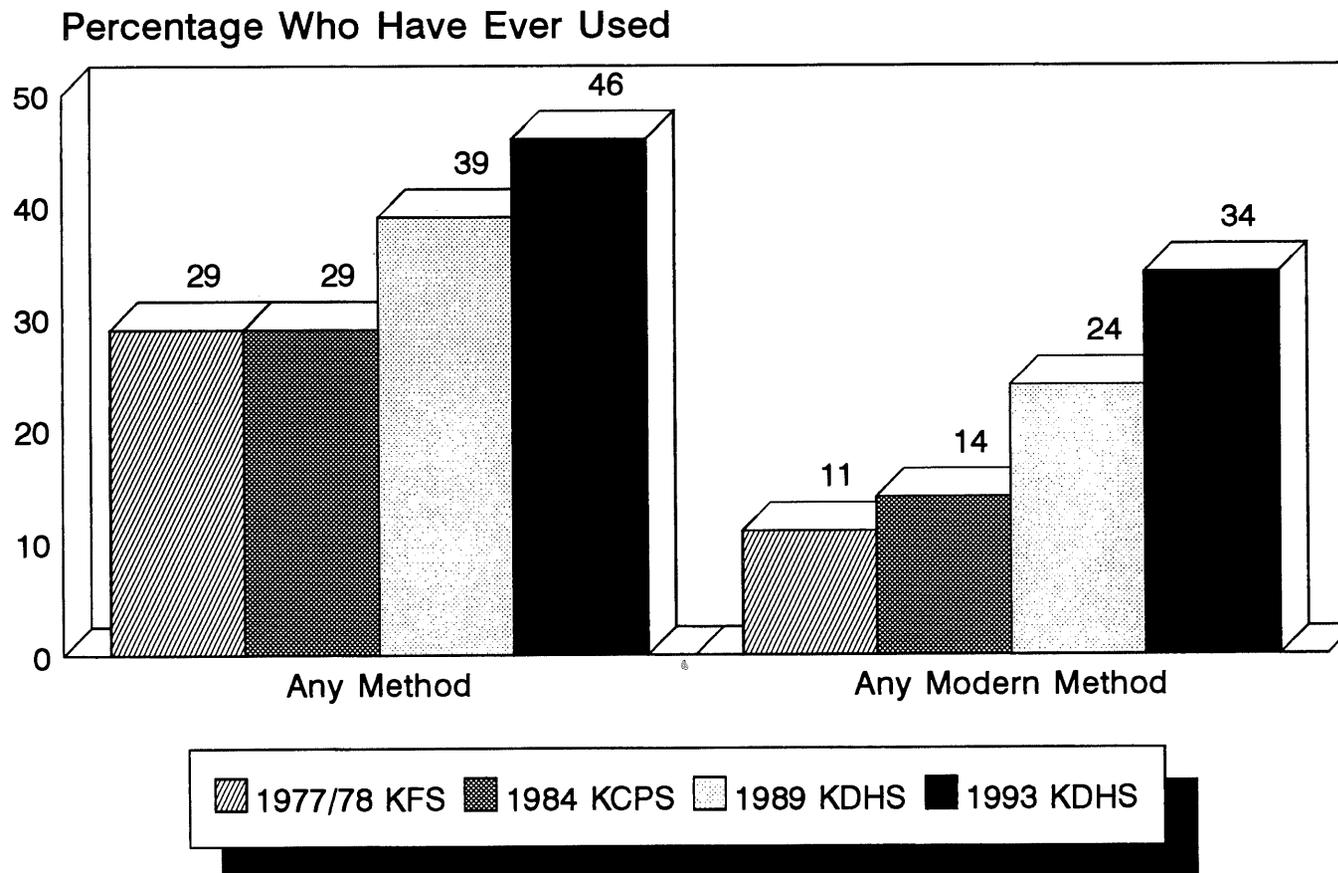
- All the major modern contraceptive methods have become much more widely known among Kenyan women. For example, the proportion of women who have heard of contraceptive injections increased from 55 to 88 percent between 1977/78 and 1993. Similarly, the proportion who have heard of condoms doubled from 40 to 83 percent of women over the same time period.
- While some of the increase in knowledge of methods occurred during the 1980s, there was a large gain between 1989 and 1993, most notable for knowledge of condoms and male sterilization.
- The fact that knowledge of many methods is becoming more widespread should have a positive effect on the level of family planning use, since a woman who knows about several methods is more likely to find one that suits her particular needs.

Percentage of women 15-49 knowing contraceptive methods

Method	1977/78 KFS	1984 KCPS	1989 KDHS	1993 KDHS
Pill	74	73	84	92
IUD	49	55	62	73
Injection	55	59	76	88
Condom	40	42	53	83
F.Sterilization	54	55	68	81
M.Sterilization	14	18	20	41

### Figure 13

## Ever Use of Family Planning Methods Among Women 15-49, 1977/78-1993

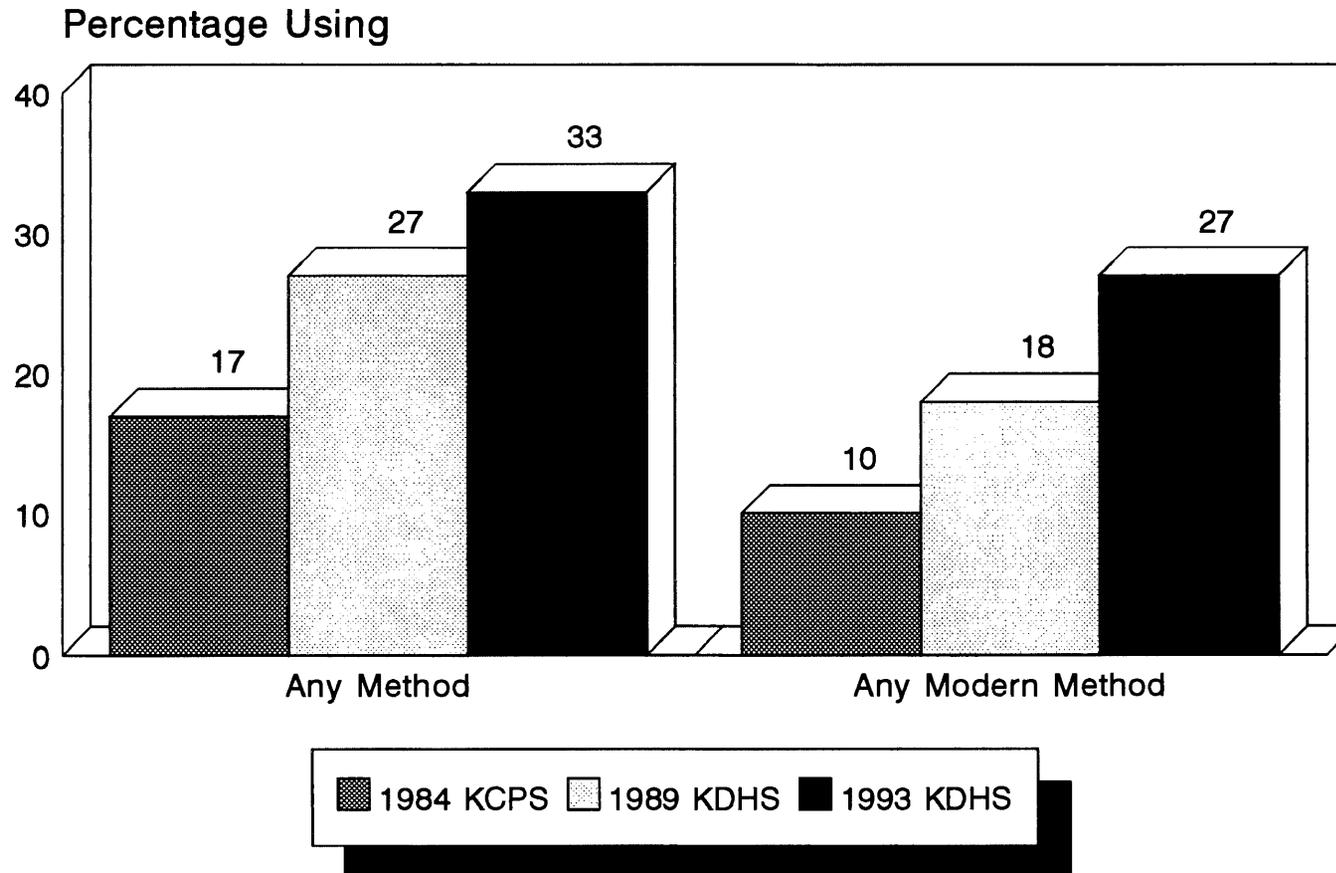


Source: CBS, 1980:130,132; CBS, 1984:78; NCPD, 1989:33; NCPD, 1994:40

## **Ever Use of Family Planning**

- The proportion of women who have used a family planning method at some time in their lives has increased substantially over the last 15 years.
- In 1977/78, only 29 percent of all women age 15-49 reported ever having used a method of family planning, compared to 46 percent in 1993.
- Ever use of modern methods has tripled between 1977/78 and 1993, with greater use of the pill and injection accounting for the bulk of the increase (not shown).

**Figure 14**  
**Current Use of Family Planning**  
**Among Married Women 15-49, 1984-1993**

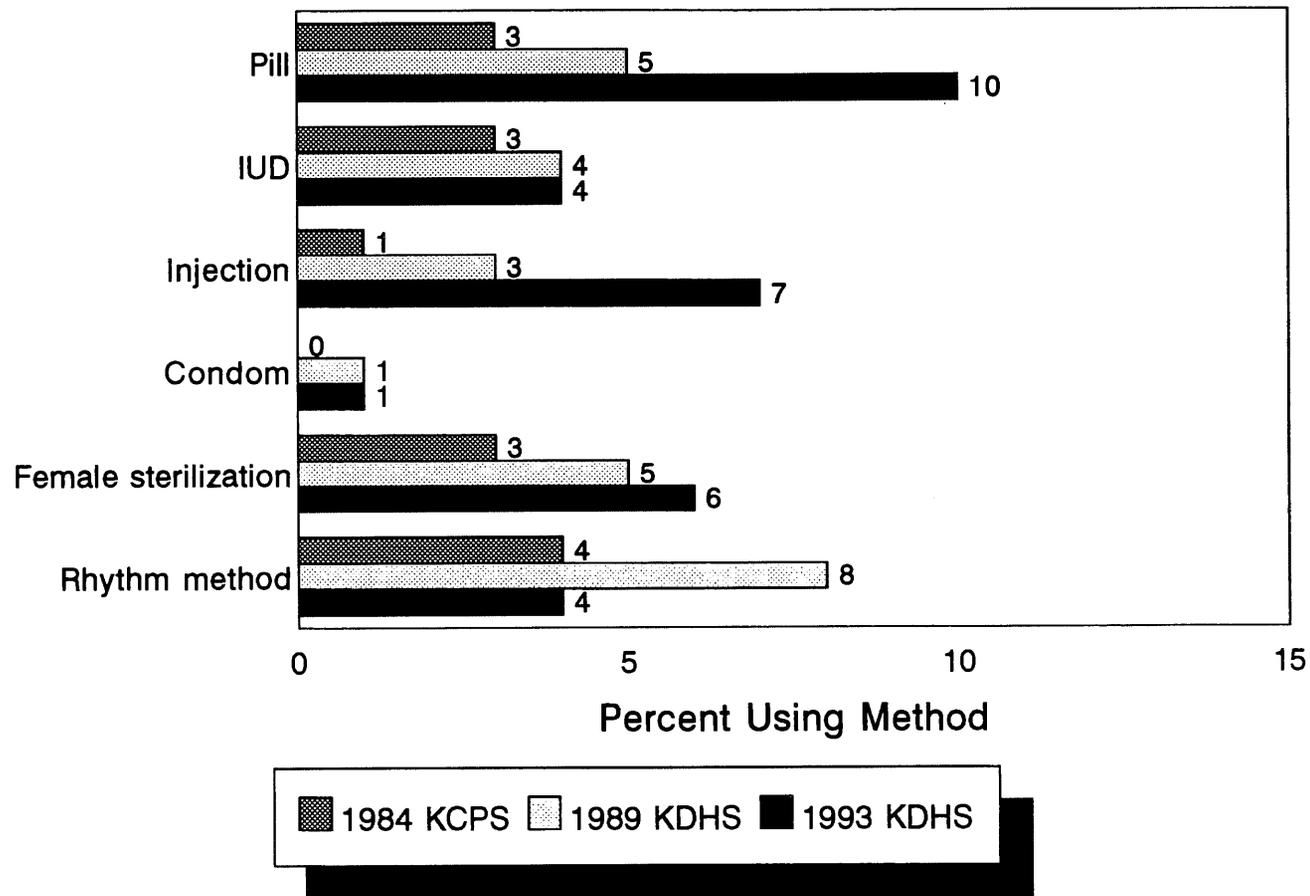


Source: CBS, 1984:85,86; NCPD, 1989:35; NCPD, 1994:41

## **Current Use of Family Planning**

- **Current use of family planning has shown a steady increase over the past nine years, from 17 percent of married women in 1984 to 33 percent in 1993.**
- **Moreover, there has been a radical shift to greater use of modern methods. In 1984, 10 percent of married women were using modern methods, compared to 27 percent in 1993.**
- **Looked at another way, use of modern methods accounted for 57 percent of total use in 1984; in 1993, modern methods accounted for 83 percent of use (not shown).**

**Figure 15**  
**Current Use of Specific Methods 1984-1993**  
**among Currently Married Women 15-49**



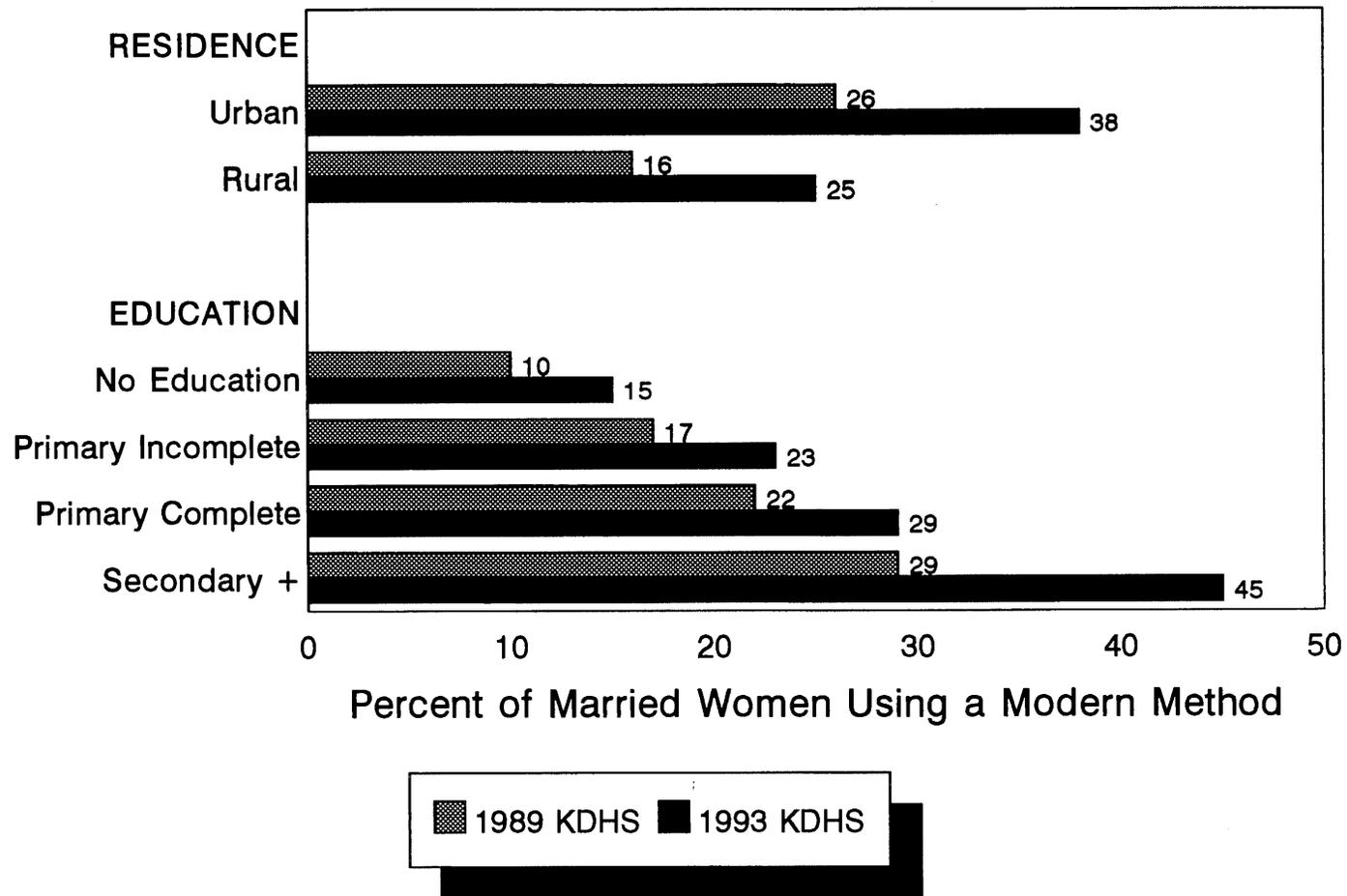
## Current Use of Specific Methods

- Use of all methods except the rhythm method (includes calendar rhythm and natural family planning) has increased since 1984.<sup>5</sup>
- Use of injections has experienced a particularly steep increase, from less than one percent of married women in 1984 to 7 percent in 1993.
- Use of the pill has tripled, from 3 percent of married women in 1984 to 10 percent in 1993.
- The proportion of women protected from pregnancy by sterilization has doubled since 1984, from 3 to 6 percent.

---

<sup>5</sup> The apparent increase and subsequent decline in use of the rhythm method may be due to the use of the term *periodic abstinence* in the 1989 KDHS. There are indications that some women confused the method with abstinence after the birth of a child (postpartum abstinence).

**Figure 16**  
**Current Use of Modern Contraception**  
**By Residence and Education, 1989-1993**



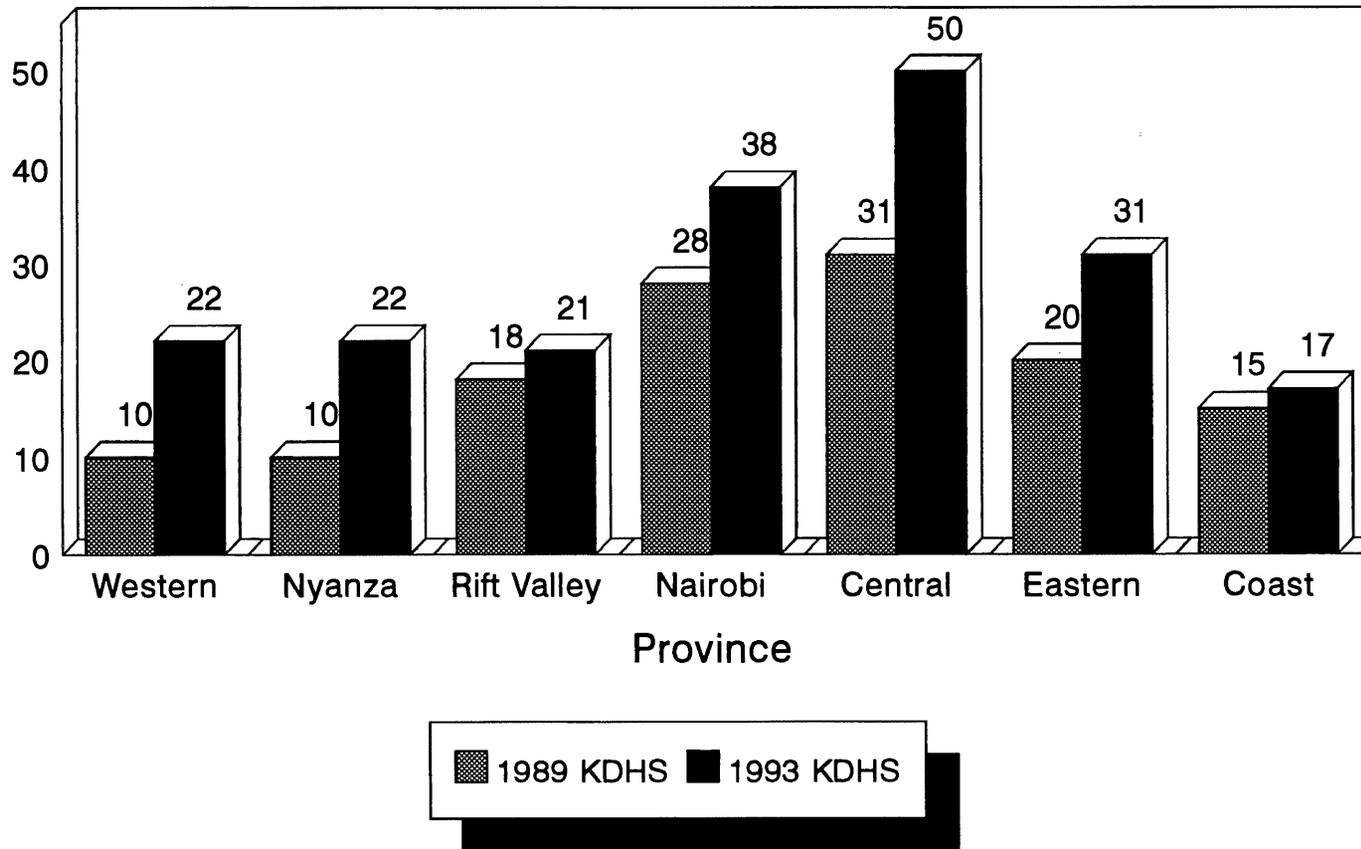
Source: NCPD, 1989:37; NCPD, 1994:43.

## **Modern Contraceptive Use by Residence and Education**

- Use of modern contraceptives has increased among both urban and rural women between 1989 and 1993. The contraceptive prevalence rate for modern methods grew from 26 to 38 percent of married urban women, compared to from 16 to 25 percent of rural women.
- Although in 1989, urban women who used family planning were much more likely than rural women to be using modern methods, by 1993, the ratio of modern to total method use was roughly the same (82-87 percent) among both urban and rural users (data not shown).
- The proportion of married women who are currently using a modern method of family planning has increased at every level of educational attainment. The rise has been particularly rapid among married women with secondary education; in 1989, 29 percent were using a modern method, compared to 45 percent in 1993.
- The fact that better educated women are three times more likely than uneducated women to be using a modern method of family planning is the major reason that fertility rates are so much lower among the better educated (see Figure 6).

# Figure 17 Current Use of Modern Contraception By Province, 1989-1993

Percent of Married Women 15-49 Using A Modern Method

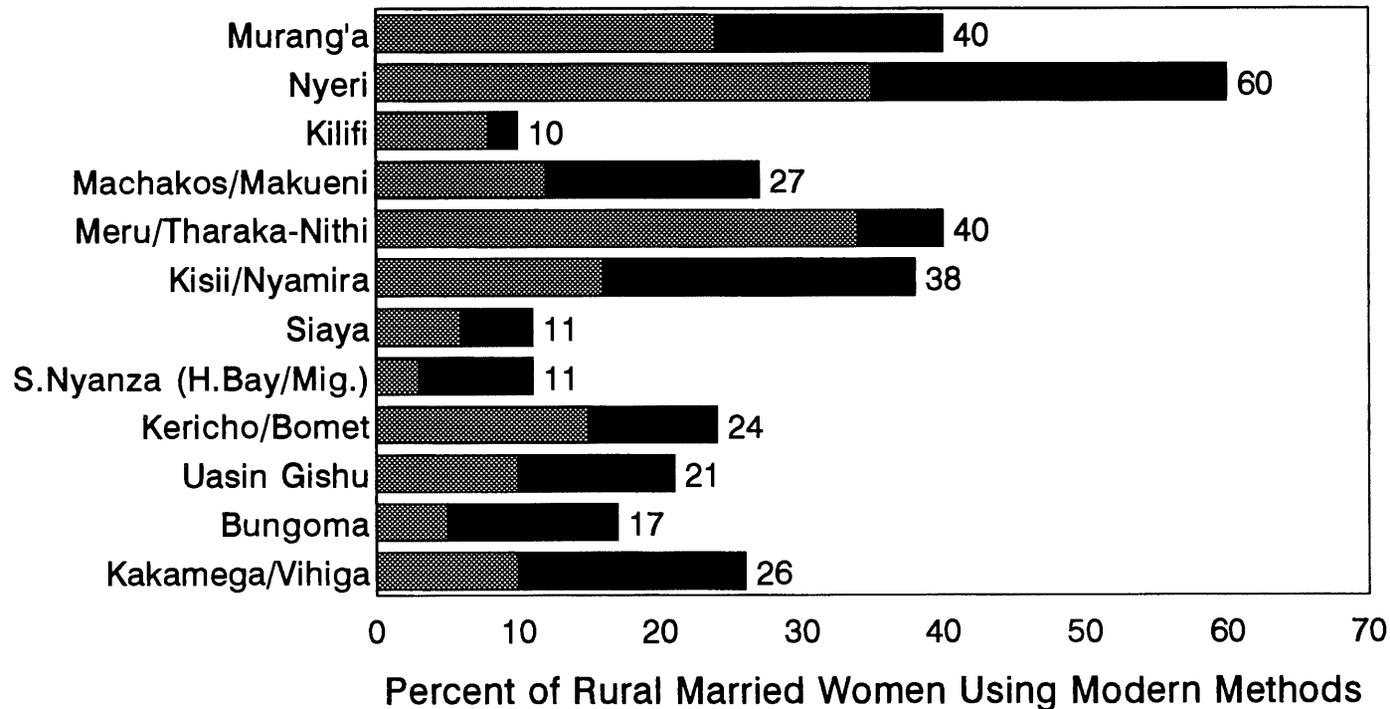


Source: NCPD, 1989:37; NCPD, 1994:43

## **Current Use of Modern Contraception by Province**

- **The proportion of married women using a modern method of family planning has risen between 1989 and 1993 in every province.**
- **The largest increase was in Central Province, where the modern contraceptive prevalence rate rose from 31 percent of married women in 1989 to 50 percent in 1993.**
- **Contraceptive use is considerably higher in the central part of Kenya (Nairobi and Central Provinces) than in either the western or eastern part of the country. This pattern is more or less the reverse of the fertility rates by province (see Figure 7), showing the relationship between high contraceptive use and lower fertility.**

**Figure 18**  
**Current Use of Modern Contraceptive Methods**  
**By District, 1989 and 1993**



1989 KDHS
  1993 KDHS

Note: Refers to rural women only and to the former boundaries of districts that were subdivided.  
 Source: NCPD, 1989:37; NCPD, 1994:45

## Current Use of Modern Contraceptives by District

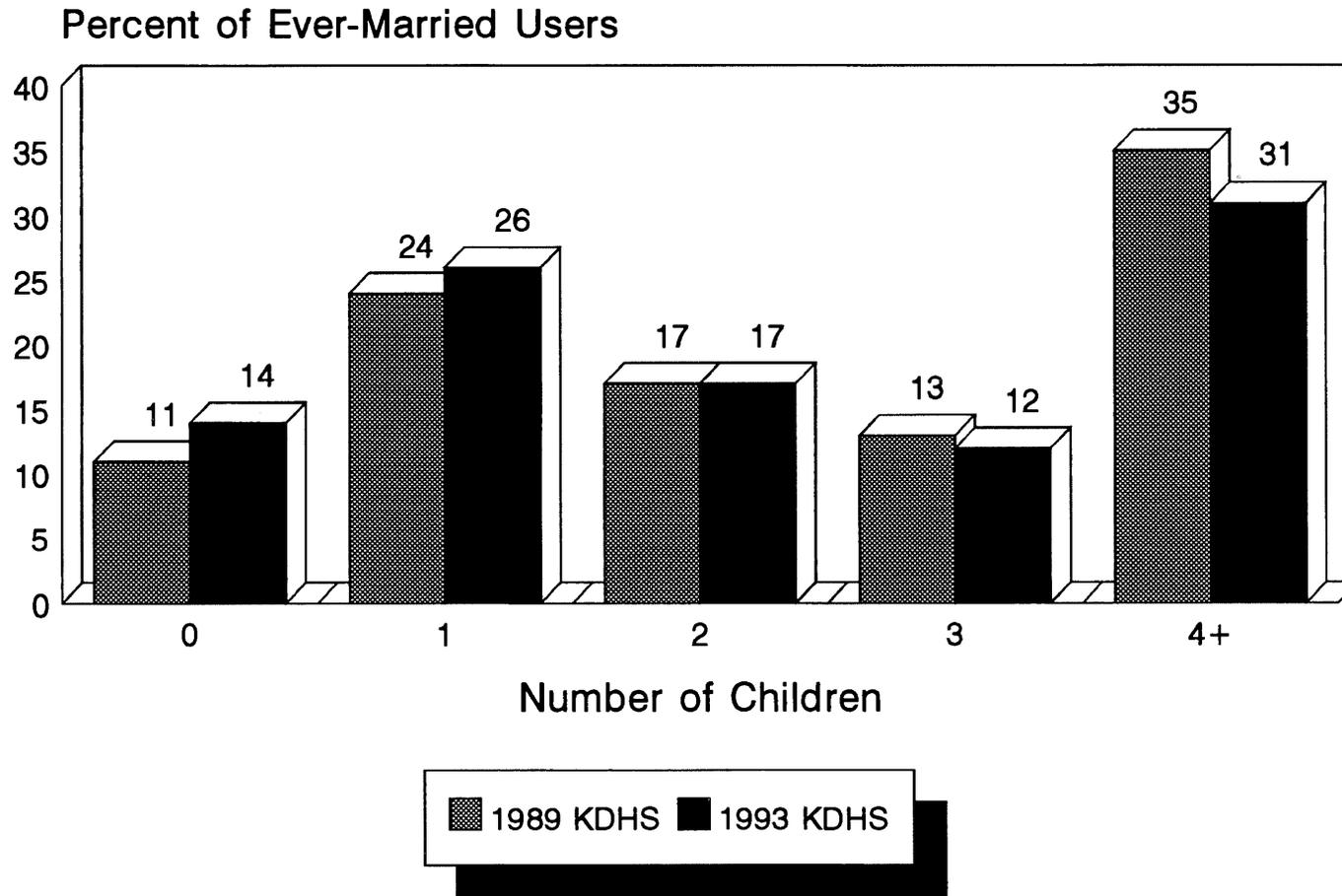
- Both the 1989 and 1993 KDHSs oversampled women living in the rural areas of selected districts.<sup>6</sup> Results show that the use of modern contraceptives<sup>7</sup> increased in each of the 12 districts covered in both surveys.
- By far the largest increase has been in Nyeri District, where 60 percent of married women are currently using modern contraceptives, up from 35 percent in 1989. Large increases were also recorded for Kisii/Nyamira District (from 16 to 38 percent), and Murang'a District (from 24 to 40 percent), and Kakamega/Vihiga District (from 10 to 26 percent).
- Kilifi and Siaya Districts show the smallest absolute increase in use of modern methods.

---

<sup>6</sup> Because the number of women interviewed in many of the districts is small and the figures are thus subject to higher sampling errors, the data should be viewed with caution. Also, although six of the districts were recently subdivided, the data shown here refer to the prior boundaries of the district.

<sup>7</sup> The graph shows use of modern contraceptives because the level of use of any method declined in several districts between 1989 and 1993 and the graph would have been more complicated.

**Figure 19**  
**Number of Children at First Use of Contraception**  
**Among Ever-Married Users**

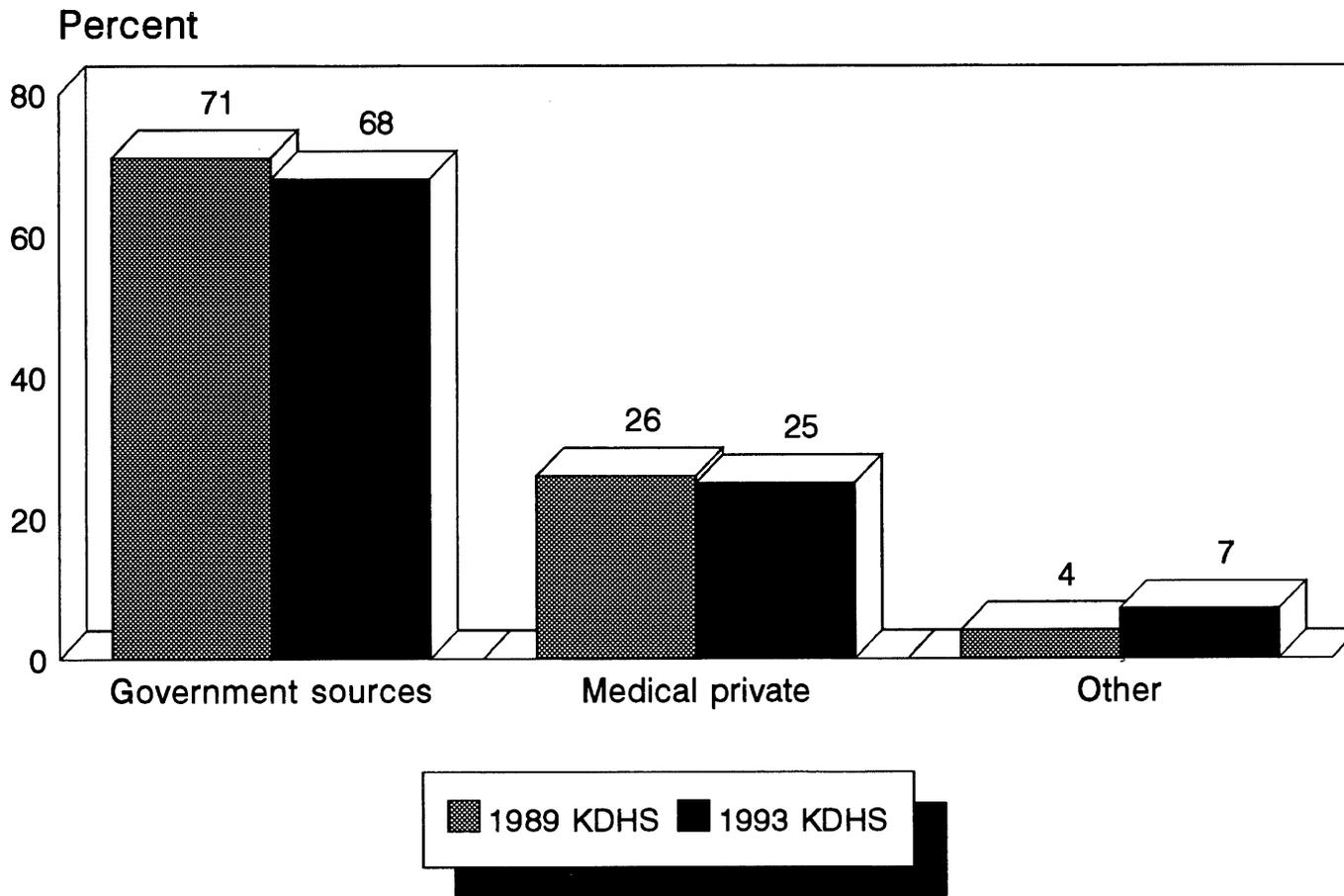


Source: NCPD, 1989:38; NCPD, 1994:46

## Number of Children at First Use of Contraception

- There is a slight trend towards using family planning earlier in the family building process. Among women who had ever used family planning, the proportion who had first used before having any children increased from 11 percent in 1989 to 14 percent in 1993. The proportion who had first used when they had only one child increased from 24 to 26 percent.
- These figures provide indirect evidence that women are increasingly regarding family planning as a means of *spacing* their children, as opposed to waiting to use contraception until after they have had all the children they want.

**Figure 20**  
**Source of Contraceptive Supply**  
**Among Current Users of Modern Methods**



Source: NCPD, 1989:41; NCPD, 1994:49

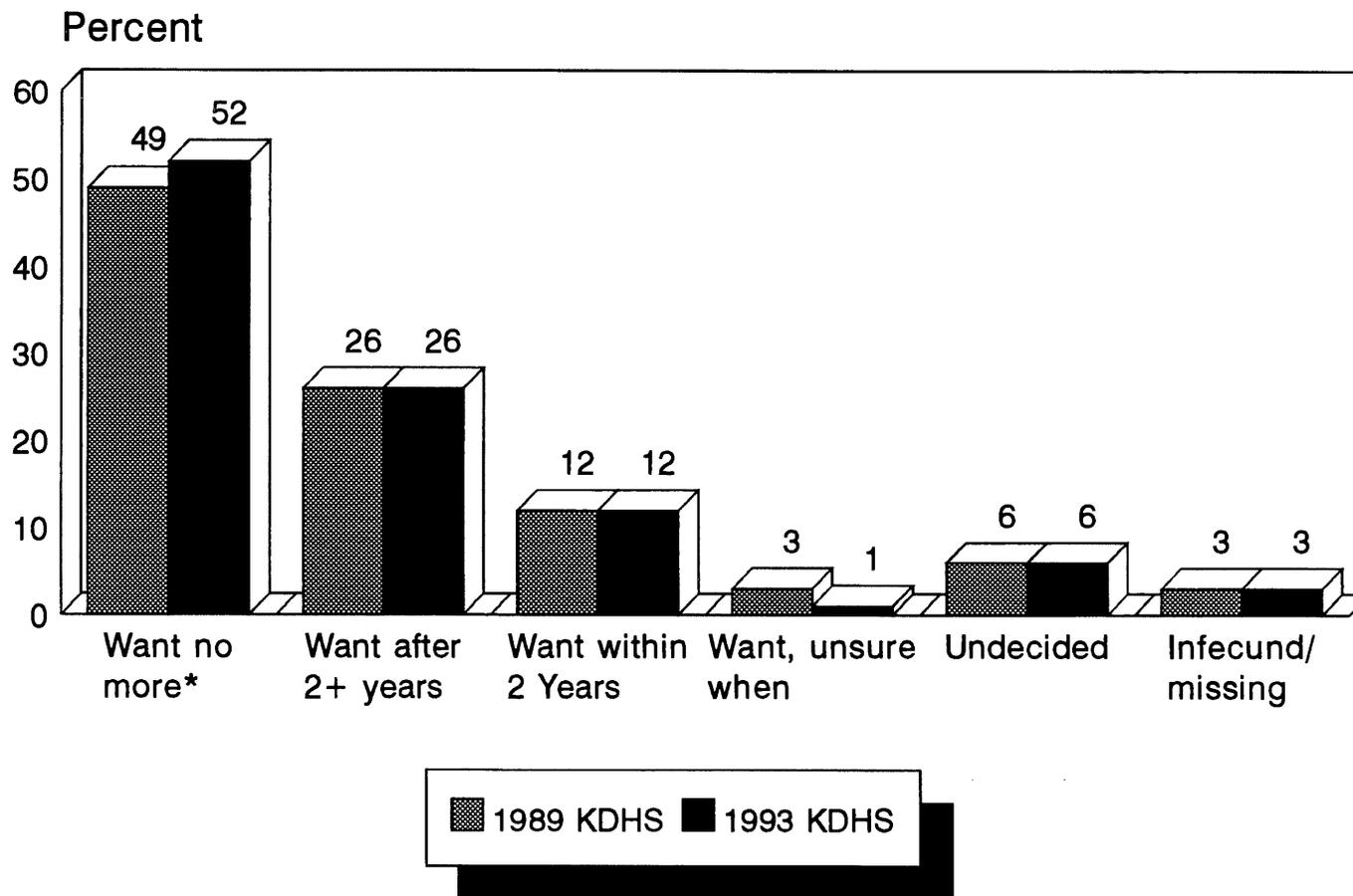
## Source of Contraceptive Supply

- There has been little change since 1989 in the broad categories of sources from which current users obtain their family planning methods.<sup>8</sup> In both surveys, about 70 percent of modern method users reported obtaining their methods from government sources (hospitals, health centers and dispensaries), while about 25 percent obtained their methods from private medical sources (mission facilities, Family Planning Association of Kenya clinics, private doctors/clinics, and pharmacies).

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<sup>8</sup> The questions differed between the two surveys, making comparison of more detailed categories of sources difficult.

## Figure 21 Fertility Preferences Among Currently Married Women 15-49



\* Includes sterilized women.

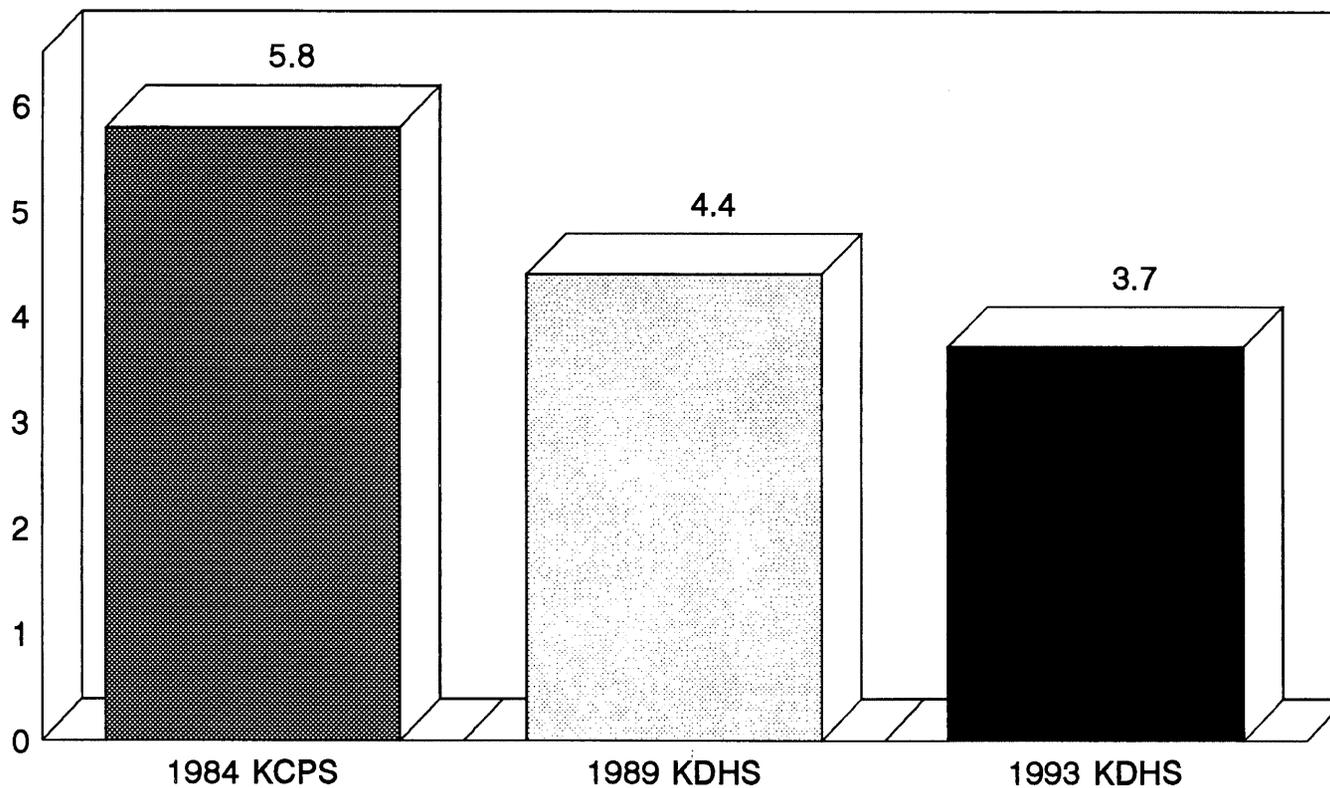
Source: NCPD, 1989:47; NCPD, 1994:73

## **Fertility Preferences**

- There has been little change in fertility preferences among married women since 1989. The proportion of women who want no more children or have been sterilized rose from 49 to 52 percent and the proportion who want another child but are not sure when declined slightly. Otherwise the proportions stating other fertility preferences remained the same between 1989 and 1993.
- In 1977/78, 17 percent of married women who considered themselves to be physically capable of bearing more children said they did not want any more children. Although the figures are not strictly comparable, they show that the desire to stop childbearing has increased tremendously in Kenya since the late 1970s.
- The proportion of women who want no more children is considerably higher in Kenya than in many other African countries. Most probably it is this widespread interest in limiting the number of children that has fueled the recent increase in contraceptive use.

**Figure 22**  
**Mean Ideal Family Size**  
**Among Women 15-49, 1984-1993**

Mean Number of Children Considered Ideal



Source: CBS, 1984:61; NCPD, 1989:52; NCPD, 1994:80

## Ideal Family Size

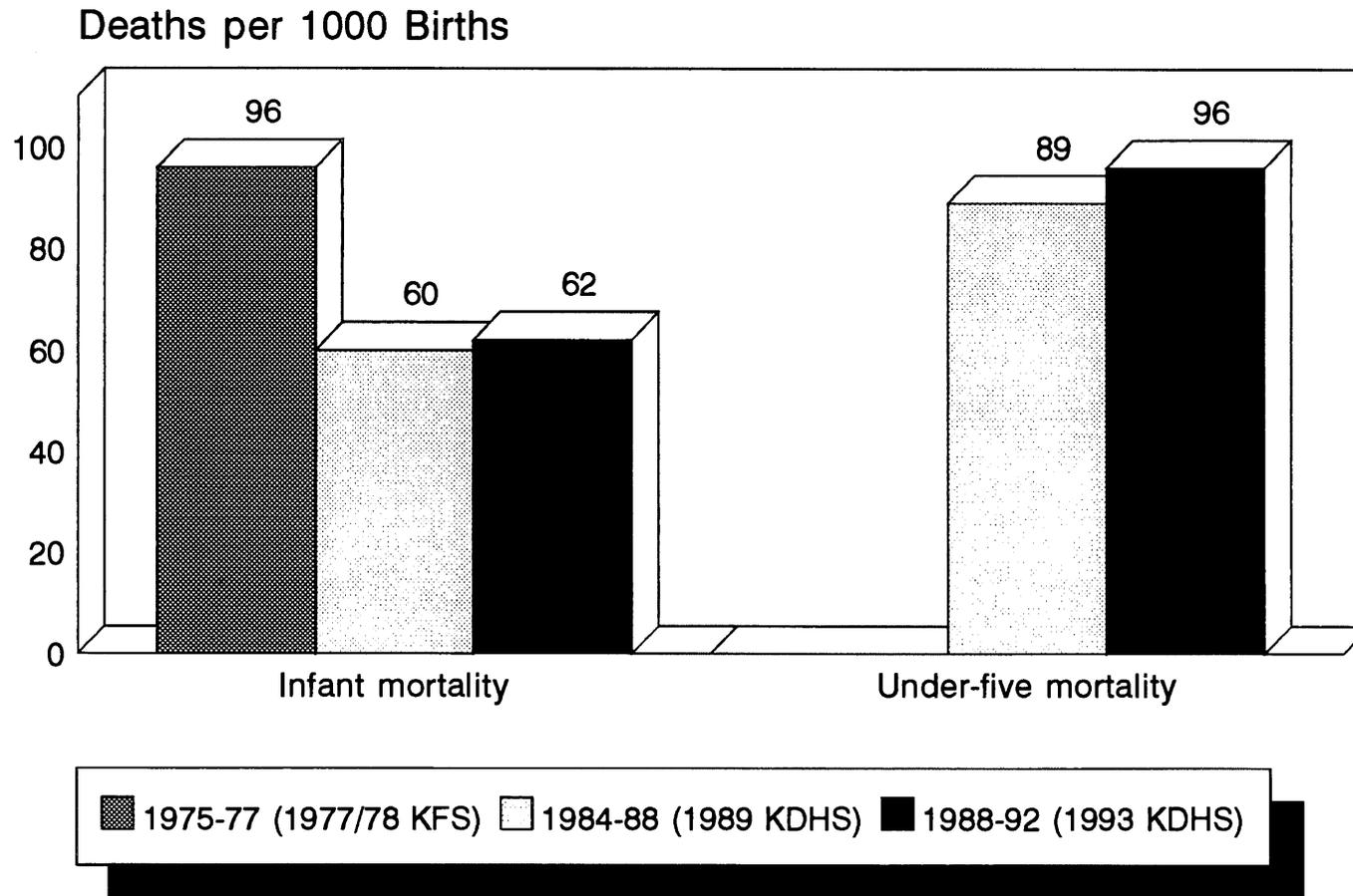
- There has been a steep decline in the average number of children women consider ideal,<sup>9</sup> from 5.8 children in 1984 to 4.4 children in 1989 and 3.7 children in 1993.
- Although four children is still stated as the ideal family size by more women than any other number, the proportion of women citing two children as ideal has increased from 11 percent in 1989 to 23 percent in 1989. The proportion citing six or more children as ideal has declined from 21 to 10 percent of women between 1989 and 1993.

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<sup>9</sup> In all three surveys cited, women were asked how many children they would like to have if they could choose exactly. In the 1989 and 1993 KDHSs, women who had children were asked how many they would have if they could go back to the time they did not have any children. Although a similar question was asked of respondents in the 1977/78 KFS, the data were tabulated only for ever-married women and, for this reason, are not presented here.

## Figure 23

### Infant and Under-Five Mortality Rates 1975-77, 1984-88 and 1988-92



Note: Rate for 1977/78 refers to 3-year period; all others to 5-year period.  
 Source: CBS, 1980:104; NCPD, 1989:56; NCPD, 1994:84

## **Infant and Under-Five Mortality**

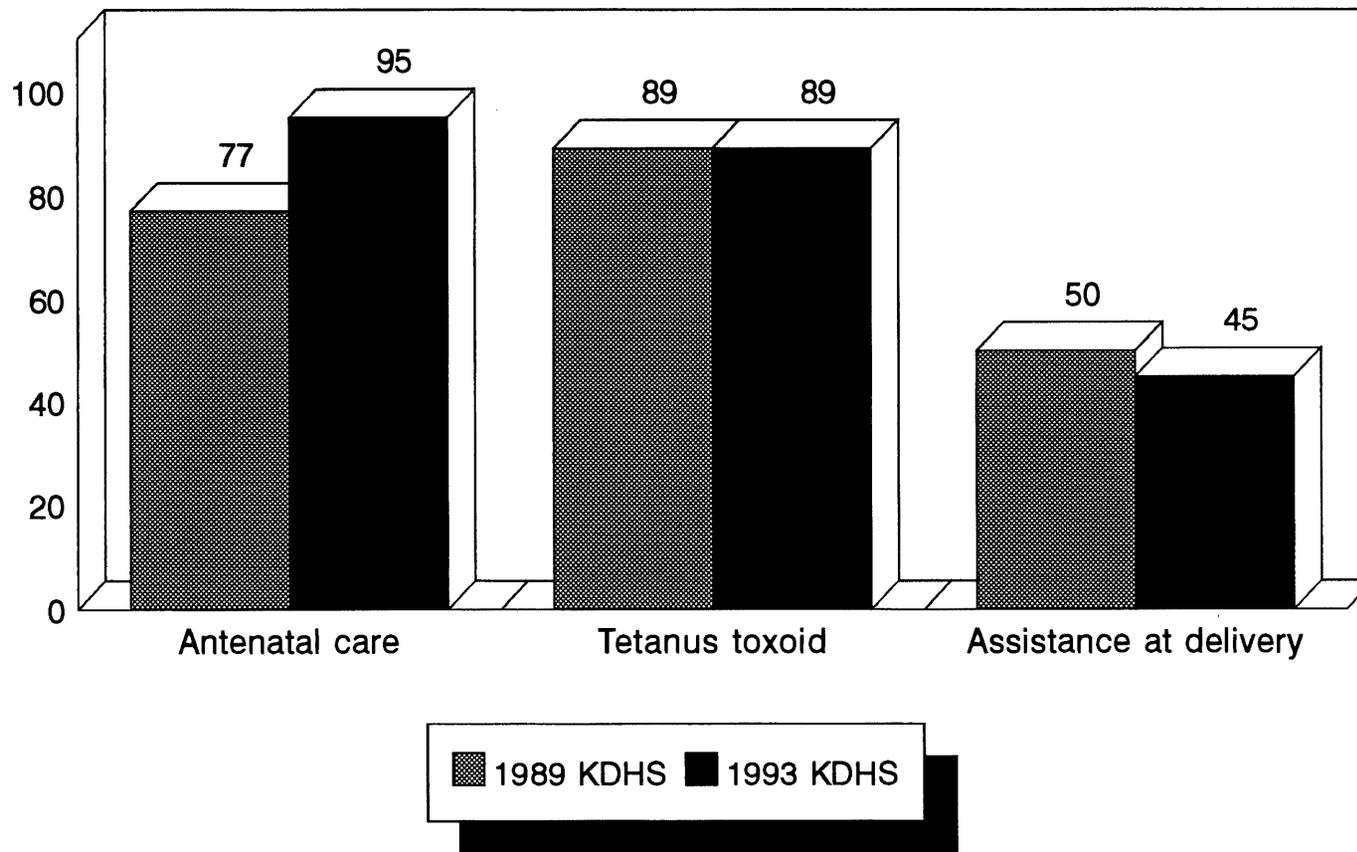
- **Between the mid-1970s and the mid-1980s, there was a steep decline in infant mortality rates in Kenya, from 96 to 60 deaths per 1000 births<sup>10</sup>.**
- **It appears that the decline in infant mortality rates has stagnated in the past decade or so. Between 1984-88 and 1988-92, both the infant mortality rate and the mortality rate for children under five have increased slightly.**
- **Mortality rates constructed for different time periods from the birth history data from the 1993 KDHS alone also show a "plateau" effect, with rates remaining more or less constant over the past decade.**

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<sup>10</sup> Only the infant mortality rate was calculated from the 1977/78 KFS data. No comparable data exist from the 1984 KCPS, because the survey did not include a birth history of respondents.

**Figure 24**  
**Antenatal Care, Tetanus Toxoid Coverage and Delivery Assistance From Medical Staff, 1989 and 1993**

Percentage of Births in the Past 5 Years

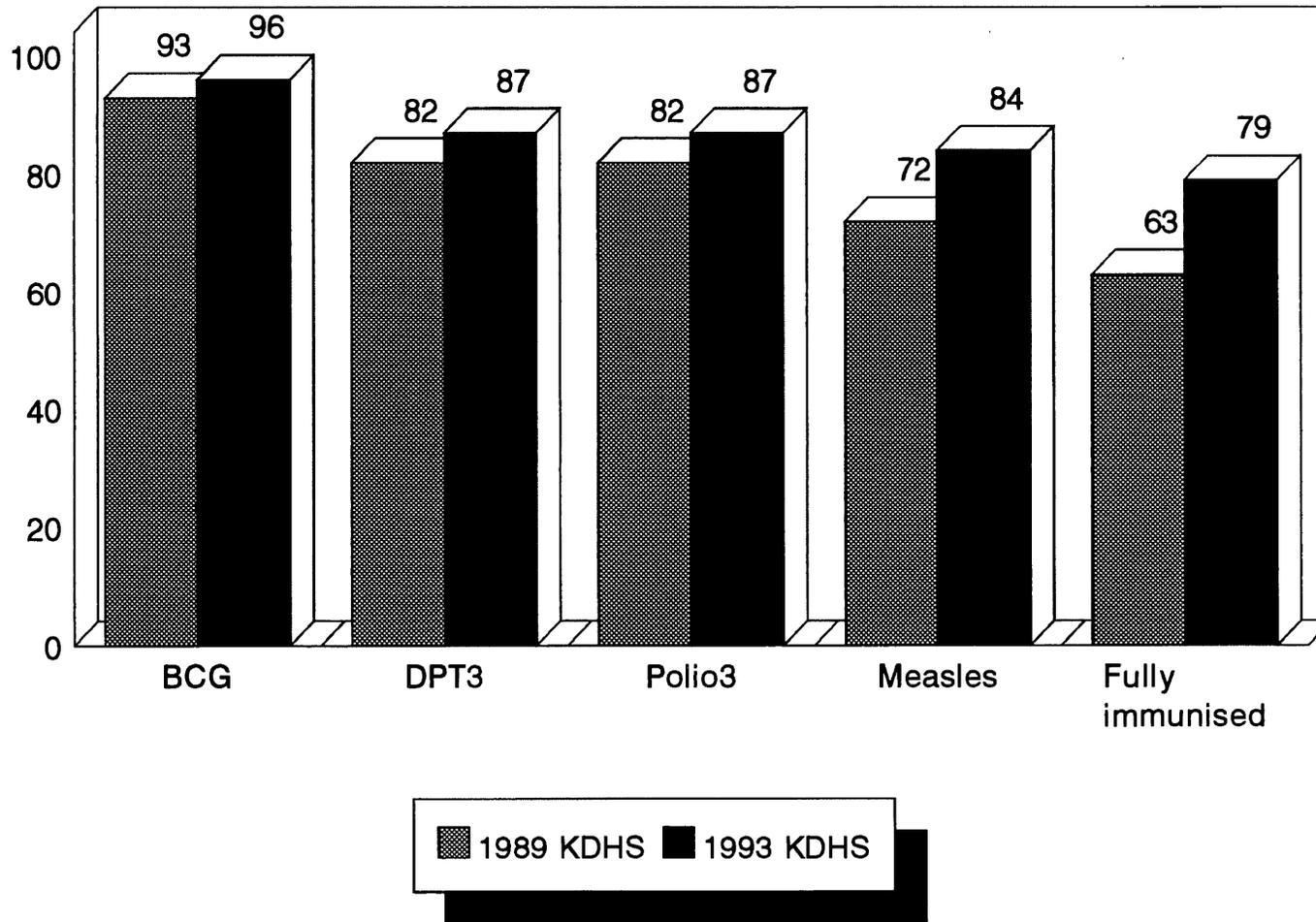


Source: NCPD, 1989:61,62; NCPD, 1994:94,96,100.

## **Antenatal Care, Tetanus Toxoid Coverage, and Delivery Assistance**

- **Between 1989 and 1993, antenatal care coverage increased considerably. Among all births occurring in the five years before the surveys, the proportion whose mothers obtained antenatal care increased from 77 to 95 percent.**
- **Although the level of antenatal care increased, tetanus toxoid coverage remained constant between 1989 and 1993, with 89 percent of the mothers of births in the five years preceding the survey reporting that they received at least one tetanus toxoid injection during pregnancy.**
- **Unfortunately, the proportion of births which are assisted by medically trained staff (doctors, midwives, and nurses) apparently declined between 1989 and 1993, from 50 to 45 percent. Most of the change is due to a decrease in the proportion of births assisted by doctors, with a corresponding increase in the proportion assisted by traditional birth attendants (not shown).**

Figure 25  
Vaccination Coverage of Children 12-23 Months



Source: Boerma et al., 1990:10; NCPD, 1994:104.  
Figures for 1989 are estimated indirectly.

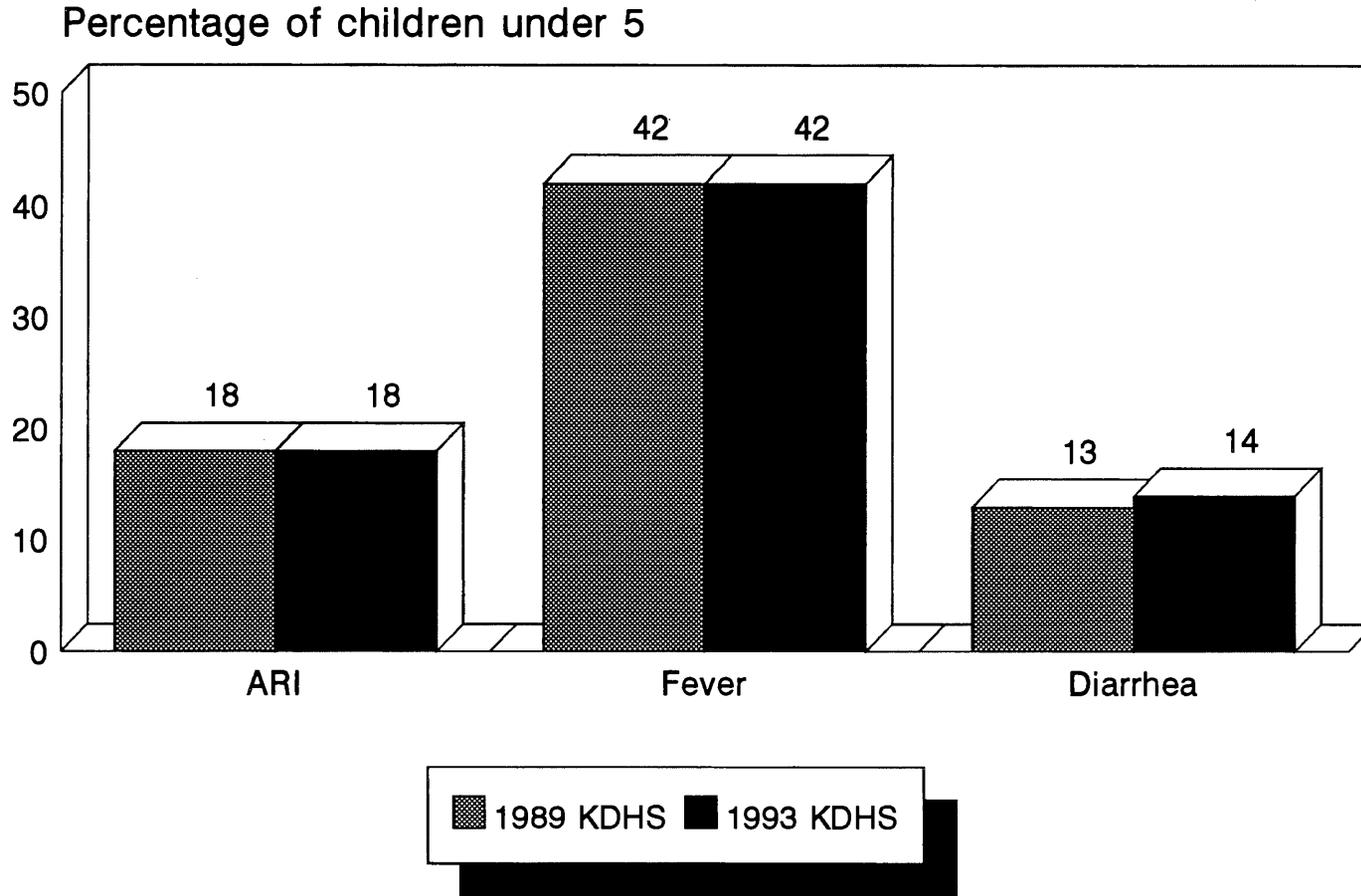
## Vaccination Coverage Among Children 12-23 Months

- An increasing proportion of children are being protected from the major childhood diseases through vaccination. In 1989, approximately 63 percent of children age 12-23 months had been fully immunized,<sup>11</sup> compared to 79 percent in 1993.
- While increases in the proportions of children who received BCG and the third doses of DPT and polio were modest, the increase in the proportion receiving measles vaccine were much larger--from 72 to 84 percent.

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<sup>11</sup> Comparison of vaccination data from the 1989 and 1993 surveys is difficult because the questions were substantially altered between the two surveys. In the 1989 KDHS, if mothers could not produce a vaccination card for their children, they were merely asked if the child had ever been vaccinated, whereas in the 1993 survey, they were asked about specific vaccinations the child might have received. Rough estimates of what coverage rates would be if mothers had been asked to report on specific vaccinations have been produced indirectly (Boerma et al., 1990).

**Figure 26**  
**Prevalence of Acute Respiratory Infection (ARI), Fever,**  
**and Diarrhea in the 2 Weeks\* before Survey, 1989 and 1993**



Source: NCPD, 1989:66,68,69; NCPD, 1994:109-110.

\* For ARI and fever in 1989, refers to a 4-week period

## **Prevalence of ARI, Fever, and Diarrhea among Children**

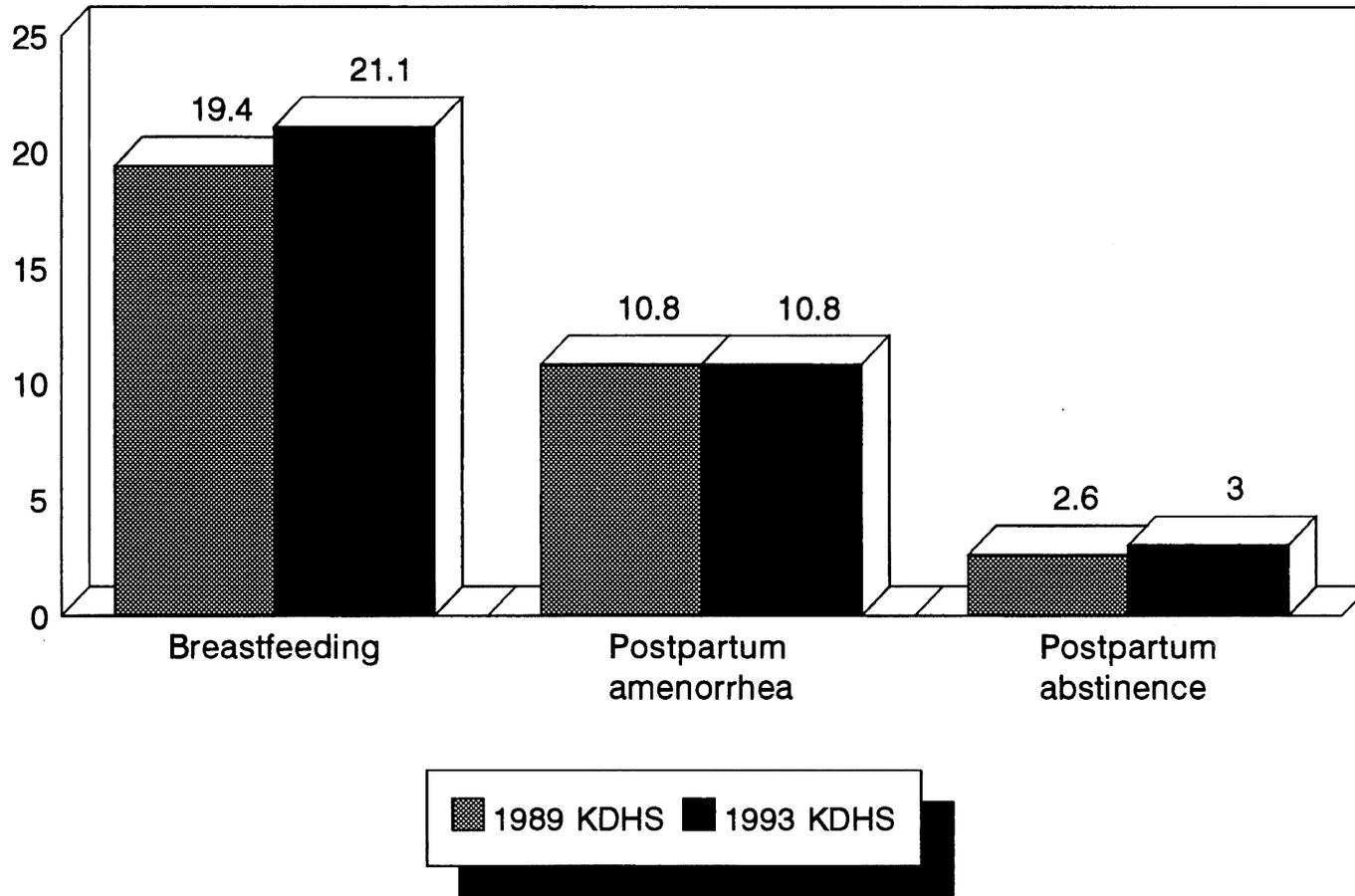
- The prevalence of major childhood diseases--acute respiratory infection (ARI), fever, and diarrhea--has remained stable between 1989 and 1993. Despite the differences in reference periods,<sup>12</sup> the proportion of children under five who were reported by their mothers to have had a cough with difficult or rapid breathing, fever, and diarrhea were the same in 1993 as in 1989 (18, 42, and 13-14 percent, respectively).<sup>13</sup>
- Mothers were queried about these three illnesses because they are among the major causes of morbidity and mortality among children in Kenya. A cough with short, rapid breathing is a sign of pneumonia, while many children with fevers are suffering from malaria.

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<sup>12</sup> In the 1989 KDHS, the questions on ARI and fever referred to a four-week period before the survey; for diarrhea, the reference period was two weeks prior to the survey.

<sup>13</sup> The 1989 KDHS data collection took place between December 1988 and May 1989, while that of the 1993 KDHS took place between February and August 1993.

**Figure 27**  
**Median Duration (in Months) of Breastfeeding, Amenorrhea, and Postpartum Abstinence, 1989 and 1993**



Source: NCPD, 1989:14; NCPD, 1994:69,119.

## **Duration of Breastfeeding, Amenorrhea, and Abstinence**

- Although the length of time that women breastfeed their babies has been known to decline in many countries that are developing economically, the median duration of breastfeeding in Kenya appears to be increasing, from 19.4 months in 1989 to 21.1 months in 1993. This is encouraging, since breast milk contains valuable nutrients for the baby, as well as antibodies against various diseases. Breastfeeding also retards the early return of a woman's ovulatory cycle and thus acts as a natural method of childspacing.
- Despite the slight increase in the length of breastfeeding, there has been no apparent increase in the length of postpartum amenorrhea. After the birth of a child, it takes a median of 11 months before a woman's menstrual period returns.
- Similarly, there has been no real change in the length of time that women abstain from sexual intercourse after the birth of a child. The median length of postpartum abstinence is about 3 months.



## References

- Boerma, J. Ties, A. Elisabeth Sommerfelt, Shea O. Rutstein, and Guillermo Rojas. 1990. *Immunization: Levels, Trends and Differentials*, DHS Comparative Studies No. 1. Columbia, Maryland: Institute for Resource Development/Macro Systems Inc.
- Central Bureau of Statistics (CBS), Ministry of Planning and National Development [Kenya]. 1984. *Kenya Contraceptive Prevalence Survey 1984. First Report*. Nairobi: CBS.
- Central Bureau of Statistics (CBS), Ministry of Economic Planning and Development [Kenya]. 1980. *Kenya Fertility Survey 1977-1978. Vol. 1, First Report*. Nairobi: CBS.
- Macro International Inc. 1993. *A Profile of Teenage and Young Adult Women in Kenya: Findings from the 1989 Kenya Demographic and Health Survey*. Columbia, Maryland: Demographic and Health Surveys.
- National Council for Population and Development (NCPD), Ministry of Home Affairs and National Heritage, and Institute for Resource Development/Macro Systems Inc. (IRD/Macro). 1989. *Kenya Demographic and Health Survey, 1989*. Columbia, Maryland: NCPD and IRD/Macro.
- National Council for Population and Development (NCPD), Central Bureau of Statistics (CBS) and Macro International Inc. (Macro). 1994. *Kenya Demographic and Health Survey, 1993*. Calverton, Maryland: NCPD, CBS and Macro.
- World Fertility Survey. 1984. *Fertility in the Developing World*. London: International Statistical Institute.





