KENYA DEMOGRAPHIC AND HEALTH SURVEY 1993

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This report summarises the findings of the 1993 Kenya Demographic and Health Survey (KDHS) conducted by the National Council for Population and Development (NCPD) in collaboration with the Central Bureau of Statistics. Macro International Inc. provided technical assistance. Funding was provided by the U.S. Agency for International Development (USAID).

The KDHS is part of the worldwide Demographic and Health Surveys (DHS) programme, which is designed to collect data on fertility, family planning and maternal and child health. Additional information about the Kenya survey may be obtained from the National Council for Population and Development, P.O. Box 30478, Nairobi, Kenya (Telephone 228-411; Fax 213-642). Additional information about the DHS programme may be obtained by writing to: DHS, Macro International Inc., 11785 Beltsville Drive, Calverton MD 20705, USA (Telephone: 301-572-0200; Fax: 301-572-0999).
Background

The Kenya Demographic and Health Survey (KDHS) is a nationally representative survey of 7,540 women age 15-49. Interviews were also conducted with a subsample of 2,336 men age 20-54. In addition, information on the availability of community services was collected in each cluster of the sample. All areas of Kenya were covered by the survey, except for seven northern districts (all 3 districts in North Eastern Province, as well as Samburu, Turkana, Isiolo, and Marsabit Districts), in North Eastern Province, as well as Samburu, Turkana, Isiolo, and Marsabit Districts), which together contain less than four percent of the country’s population. Fieldwork for the KDHS took place from mid-February until mid-August 1993.

The KDHS was designed to provide information on levels and trends of fertility, infant and child mortality, family planning knowledge and use, maternal and child health, and knowledge of AIDS. The male survey obtained data on men’s knowledge and attitudes toward family planning and awareness of AIDS. The data are intended for use by programme managers and policymakers to evaluate and improve family planning and maternal and child health programmes. The 1993 KDHS is similar to the 1989 KDHS.

The KDHS was conducted by the National Council for Population and Development (NCPD) and the Central Bureau of Statistics of the Government of Kenya. Macro International Inc. provided financial and technical assistance to the project through the international Demographic and Health Surveys (DHS) contract with the U.S. Agency for International Development.
Figure 1
Age-Specific Fertility Rates
1977/78 KFS, 1989 KDHS and 1993 KDHS

Fertility

Levels and Trends

- At current fertility levels, a Kenyan woman will give birth to an average of 5.4 children during her reproductive years. This figure represents a steep fertility decline from the level reported for the late 1980s (6.7 births per woman).

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- A rural woman can expect to have an average of 5.8 children, over two children more than an urban woman (3.4 children). Fertility rates are much higher in Western Province (6.4 children per woman) than in Nairobi and Central Province (3.4 and 3.9, respectively).

- Childbearing begins early in Kenya. One in 5 teenage women (age 15-19) has begun childbearing (either given birth or is pregnant with her first child). By the time they reach age 19, over 40 percent of women have begun childbearing.

- Births that occur too soon after a previous birth face higher risks of illness and early death. The KDHS indicates that one quarter of births in Kenya take place less than two years after a prior birth.
Marriage and Exposure to the Risk of Pregnancy

- There has been a steady increase over the past two decades in the age at which Kenyan women first marry. The median age at marriage among women age 25-29 is 19.5 compared to 18.1 among women age 45-49.

- Women with secondary education generally marry three years later (21.5) than women with no education (17.0). Women in Coast and Nyanza Provinces have the lowest median age at first marriage (17.4).

There has been a steady increase over the past two decades in the age at which Kenyan women first marry.

- One in 5 currently married women is in a polygynous union. Polygyny occurs in all provinces and age groups. It is most common among uneducated women (33 percent).

- The median age at first sexual intercourse is about 17 years for women. Comparison with data from the 1989 KDHS indicate that there has been a slight increase in the median age at first intercourse. Sixty percent of the women interviewed in 1993 said they had been sexually active in the four weeks before the survey.
Fertility Preferences

- Over half of married women in Kenya either do not want to have any more children or have been sterilised. Another one quarter want to wait two years or longer before having another child. Thus, 78 percent of married women want either to space or to limit their births.

- When asked how many children they would like to have if they could live their lives over and choose exactly, women report an average ideal family size of 3.7 children. There has been a large decline in ideal family size over the past decade, from a mean of 5.8 children reported in a 1984 survey to 4.4 reported in the 1989 KDHS, to 3.7 in 1993.

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- Results from the survey indicate that if unwanted births were eliminated, the fertility rate in Kenya would be 3.4 births per woman or 2 children fewer than the actual fertility rate of 5.4.

- Men are slightly more pronatalist than women. Regardless of the number of children they already have, a higher percentage of men than women say they want to have another child. However, the average ideal number of children is almost identical—3.8 for men and 3.7 for women.
Family Planning

Knowledge and Use of Contraception

- Knowledge of a family planning method is virtually universal among both men and women. Among currently married respondents, 97 percent of women and men know at least one modern contraceptive method. The pill, injection, female sterilisation and condom are the most widely known methods. Moreover, almost all women and men who know a method, also know of a place to obtain it.

- One third of married women are currently using a contraceptive method. The level of use has almost doubled in the past decade, from 17 percent of married women in 1984 to 33 percent in 1993. Use of modern methods has increased even faster—from 10 to 27 percent of married women.

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- Over 80 percent of women who are using contraception employ modern methods, principally the pill (10 percent of married women), injection (7 percent) and female sterilisation (6 percent). Use of the pill and injection has risen rapidly over the last five years.

- Contraceptive use is higher in urban than in rural areas. The differential in use by education level is particularly striking: 52 percent of married women with some secondary education are using a family planning method, compared to 20 percent of those with no education.
Figure 6  
Source of Supply among Current Users of Modern Contraceptive Methods

- Contraceptive use varies greatly by province. Women in Central Province have the highest prevalence rate (56 percent), compared to Coast Province with the lowest (20 percent).

- The government is the most important provider of family planning services, supplying more than two thirds of women who use modern methods.

Unmet Need for Family Planning Services

- Over one third of currently married women in Kenya have an unmet need for family planning. This group comprises women who are not using any family planning methods but either want to wait two years or more before their next birth (22 percent of married women) or do not want any more children (15 percent).

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- Combined with the 33 percent of married women who are currently using a contraceptive method, the total potential demand for family planning comprises almost 70 percent of married women in Kenya.
Maternal and Child Health

Infant and Child Mortality

* KDHS findings indicate that 1 in 10 children dies before reaching his/her fifth birthday. For the most recent five-year period (1988-93), under-five mortality was 96 per 1,000 live births and infant mortality was 62 per 1,000 live births.

One in 10 children dies before reaching his/her fifth birthday.

* There has been almost no change in childhood mortality levels over the past decade, according to the results of the 1993 KDHS. Comparison of the 1989 and 1993 KDHS childhood mortality data also shows no real change, indicating that the previous rapid decline in childhood mortality has stagnated.

* Differences in mortality by province for the past decade are quite marked. Childhood mortality is exceptionally high in Nyanza Province, where almost 1 in 5 children dies in the first five years of life. Infant mortality in Nyanza Province (128 deaths per 1,000 live births) is almost twice that of Coast Province, which has the second highest level of infant mortality (68 deaths per 1,000 live births).

Figure 7
Trends in Infant and Child Mortality
Kenya, 1978-1993

Figure 8
Under-Five Mortality by Province and Prior Birth Interval
(Based on the 10-year Period Preceding the Survey)
- Spacing births can potentially reduce childhood mortality levels. Children born less than 24 months after a preceding child are almost twice as likely to die before their fifth birthday as those born after an interval of four or more years.

**Antenatal Care and Assistance at Delivery**

- Utilisation of antenatal services is high. In the five years prior to the survey, mothers received antenatal care from a doctor, nurse or midwife for 95 percent of births. The median number of antenatal care visits is 4.7.

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- Mothers reported receiving at least one tetanus toxoid injection for about 90 percent of births in the five years preceding the survey.

- Over half (55 percent) of births take place at home. Forty-five percent of deliveries are assisted by medically trained personnel, while almost one quarter are assisted by relatives; 10 percent of women deliver without assistance.
Immunisation

- The 1993 KDHS found that 79 percent of children age 12-23 months are fully vaccinated and only 3 percent have received no vaccinations at all. Seventy-one percent of children received all the recommended vaccinations during the first year of life.

- Children of lower birth orders (1-3) are more likely to be fully vaccinated than children of higher birth orders. Coverage levels are higher for children in Central Province and Nairobi and lower for children in Nyanza and Western Provinces.

Treatment of Childhood Diseases

- During the two weeks before the survey, 18 percent of children under five experienced symptoms of acute respiratory infection—cough with short, rapid breathing. Half of these children were taken to a health facility or doctor for treatment.
Four in 10 children under five were reported to have had fever in the two weeks preceding the survey; half of these children were taken to a health facility for treatment.

- Four in 10 children under five (42 percent) were reported to have had fever in the two weeks preceding the survey; half of these children were taken to a health facility for treatment. Many of the children with fever who were taken to a health facility received antimalarial medicine.

- Fourteen percent of children under five had diarrhoea during the two weeks preceding the survey. About 40 percent of these children were taken to a health facility for treatment.

- Among children with diarrhoea, one third were given a solution prepared from ORS packets and almost half received an increased amount of fluids.
Infant Feeding Practices

- Almost all children born in the five years before the survey (97 percent) were breastfed for some period of time. The median duration of breastfeeding is 21 months.

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- On average, the introduction of supplementary liquids and foods in addition to breast milk occurs far too early in life; over half of children under the age of two months are given some form of supplemental feeding.

- Use of infant formula is not widespread in Kenya. However, bottlefeeding is common: one in 6 infants under the age of four months is fed with a bottle.
One third of children under the age of five are short for their age (stunted), which reflects chronic undernutrition.

- Six percent of children under five are wasted (i.e., low weight in relation to height). Wasting generally indicates acute undernutrition in recent months and may be related to illness or shortage of food.

- Women whose height is 150 centimetres or less and whose mean body mass index (BMI) falls below 18.5 are considered to be at greater risk of undernutrition than other women. In the 1993 KDHS, height and weight measurements were obtained for mothers of children under age five. These data show that less than 6 percent of mothers are shorter than 150 centimetres. The mean weight is 55.8 kilogrammes; 9 percent of mothers have a BMI below 18.5.
AIDS Knowledge and Sexual Practices

- All but a small fraction of respondents have heard about AIDS. Almost all—96 percent of men and 90 percent of women—know that the virus can be transmitted through sexual intercourse. About 90 percent of respondents say it is possible for a mother with the AIDS virus to pass it to her child at birth.

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- A large majority of men and women believe it is possible to protect against getting AIDS. About 40 percent of men and women know someone who either has AIDS or has died of AIDS. Two thirds of men and almost half of women think they are at personal risk of contracting AIDS.

- Misconceptions regarding modes of transmission of AIDS are common. About one quarter of men and women said they believed it was possible to get AIDS from sharing clothes or eating utensils with someone who has AIDS; one third of respondents said they thought it was possible to get AIDS from kissing someone who has AIDS, and over half said it was possible to get AIDS from insect bites.
Thirty-two percent of men and 4 percent of women said they had had two or more sexual partners in the six months prior to the survey. Nineteen percent of men and 6 percent of women said they had used a condom in the six months before the survey. Condom use was much higher among those who reported having more than one sexual partner.

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Availability of Family Planning and Health Services

- About half of Kenyan women (48 percent) live in communities served by community-based distribution (CBD) workers who provide family planning methods and supplies. Of these, half (23 percent of all women) are covered by government-sponsored CBD workers and half by CBD workers sponsored by non-governmental organisations.

- Family planning methods are readily available in Kenya. Two thirds of married women live within 5 kilometres of a source of family planning services.

- Health services are somewhat less available than family planning services. Half of women live within 5 kilometres of a facility that provides antenatal care and only one third live within 5 kilometres of a facility that provides delivery services.

Figure 15
Distance to Nearest Source of Family Planning Services
(Currently Married Women 15-49)
Conclusions

Fertility and Family Planning

Fertility and family planning behaviour in Kenya have changed dramatically over the past decade. Fertility levels have fallen sharply and use of family planning has almost doubled. Use of modern contraceptive methods has almost tripled since 1984. Today, virtually all married women and men have heard of at least one family planning method, well over half have used a method at some time, and one third of married women are currently using a method.

The 1993 KDHS data indicate that family planning methods are easily accessible to the vast majority of women, although, of course, not all methods are equally available. Moreover, attitudes towards contraceptive use are generally favourable.

Despite these successes of the family planning programme in Kenya, there are a number of continuing challenges. One is that the level of unwanted fertility remains high; 1 in 6 recent births was unwanted and 1 in 3 was mistimed. KDHS data indicate that the fertility rate in Kenya would be substantially lower if all unwanted births could be avoided.

Another challenge is to reduce regional disparities in fertility, fertility preferences and family planning use. For example, fertility in Coast Province has hardly declined at all, no doubt because women there have the highest mean ideal family size, the lowest proportion who want no more children, and the lowest proportions who approve of and use family planning. Thus efforts in Coast Province should concentrate on education and motivation activities. In Western Province, both fertility and unmet need are highest.

Maternal and Child Health

The results from the KDHS indicate that Kenya has made remarkable progress in the delivery of key child survival interventions: use of antenatal care is high; tetanus toxoid coverage among pregnant women is high; almost half of women deliver with the assistance of medical professionals; childhood immunisation coverage is high; there is a fairly high level of utilisation of curative services for diarrhoea and acute respiratory infections; one third of children with diarrhoea are given oral rehydration salts.
Yet, 1 in 10 Kenyan children dies before reaching his/her fifth birthday. Moreover, declines in childhood mortality have stagnated recently. Poor nutrition may play a role; one third of children under five are stunted. Spacing births at longer intervals can also reduce the level of childhood mortality. KDHS data show substantially lower infant mortality among children born four years or more after a prior birth compared to those born two years or less after a sibling. Mortality among children under five is particularly high in Nyanza Province.

The AIDS epidemic poses a major threat to the health of adults and children in Kenya. Data on knowledge of AIDS among adult men and women show that AIDS awareness is high, but that the quality of knowledge on AIDS can still be improved. More importantly, the survey results on sexual behaviour indicate that having multiple partners is common—one third of men reported having more than one sexual partner in the six months before the survey. Condom use is low.
Fact Sheet

1989 Population Data

- Total population (millions): 21.4
- Urban population (percent): 18
- Annual intercensal population growth (percent): 3.4
- Life expectancy at birth both sexes (years): 59

Kenya Demographic and Health Survey 1993

Sample Population
- Women age 15-49: 7,540
- Men age 20-54: 2,336

Background Characteristics of Women Interviewed
- Percent with no education: 17.9
- Percent attended secondary or higher: 24.5

Marriage and Other Fertility Determinants
- Percent of women 15-49 currently married: 61.4
- Percent of women 15-49 ever married: 69.8
- Median age at first marriage among women age 25-49: 18.8
- Median duration of breastfeeding (in months): 21.1
- Median duration of postpartum amenorrhea (in months): 10.8
- Median duration of postpartum abstinence (in months): 3.0

Fertility
- Total fertility rate: 5.4
- Mean number of children ever born to women age 40-49: 7.3

Desire for Children
- Percent of currently married women who:
  - Want no more children: 46.2
  - Want to delay their next birth at least 2 years: 26.0
- Mean ideal number of children among women 15-49: 3.7
- Percent of women giving a non-numeric response to ideal family size: 5.7
- Percent of births in the last 5 years which were:
  - Unwanted: 16.7
  - Mistimed: 34.2

Knowledge and Use of Family Planning
- Percent of currently married women:
  - Knowing any method: 97.2
  - Knowing a modern method: 96.9
  - Knowing a modern method and knowing a source for the method: 93.1
  - Has ever used any method: 55.2
  - Currently using any method: 32.7

Percent of currently married women currently using:
- Pill: 9.5
- IUD: 4.2
- Injection: 7.2
- Diaphragm, foam, jelly: 0.1
- Condom: 0.8
- Female sterilisation: 5.5
- Male sterilisation: 0.0
- Periodic abstinence: 4.4
- Withdrawal: 0.4
- Other traditional: 0.6

Mortality and Health

Infant mortality rate: 61.7
Under-five mortality rate: 96.1
Percent of births whose mothers:
- Received antenatal care from medical provider: 95.2
- Received 2 or more tetanus toxoid injections: 51.9
Percent of births whose mothers were assisted at delivery by:
- Doctor: 12.3
- Midwife/Trained nurse: 33.1
- Traditional birth attendant: 21.1
Percent of children 0-1 month who are breastfeeding: 98.5
Percent of children 4-5 months who are breastfeeding: 99.5
Percent of children 10-11 months who are breastfeeding: 98.4
Percent of children 12-23 months who received:
- BCG: 96.3
- DPT (three doses): 86.9
- Polio (three doses): 86.7
- Measles: 83.8
- All vaccinations: 78.7

Percent of children under 5 years who:
- Had diarrhea in the 2 weeks preceding the survey: 13.9
- Had a cough accompanied by rapid breathing in the 2 weeks preceding the survey: 18.3
- Had a fever in the 2 weeks preceding the survey: 41.8
- Are chronically undernourished (stunted): 32.7
- Are acutely undernourished (wasted): 5.9

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1 Based on 1989 census data
2 Based on data from the World Bank
3 Current status estimate based on births during the 36 months preceding the survey
4 Based on births to women 15-49 years during the period 0-2 years preceding the survey
5 Excludes women who gave a non-numeric response to ideal family size
6 Rates are for the period 0-4 years preceding the survey (1988 to 1993)
7 Figure includes births in the period 1-59 months preceding the survey
8 Based on information from vaccination cards and mothers' reports
9 Figures include children born in the period 1-59 months preceding the survey
10 Stunted: percentage of children whose height-for-age Z-score is below -2SD based on the NCHS/CDC/WHO reference population; wasted: percentage of children whose weight-for-height Z-score is below -2SD based on the NCHS/CDC/WHO reference population.