Kenya

Demographic and Health Survey 1993

Republic of Kenya

National Council for Population and Development

Central Bureau of Statistics
Office of the Vice President and Ministry of Planning and National Development

DHS

Demographic and Health Surveys
Macro International Inc.

Kenya Demographic and Health Survey 1993

National Council for Population and Development
Central Bureau of Statistics
Office of the Vice President and Ministry of Planning and National Development
Nairobi, Kenya

Macro International Inc.
Calverton, Maryland USA

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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 and the Central Bureau of Statistics. Macro International Inc. provided technical assistance. Funding was provided by the U.S. Agency for International Development (USAID) and the Government of Kenya.

The KDHS is part of the worldwide Demographic and Health Surveys (DHS) program, 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 program may be obtained by writing to: DHS, Macro International Inc., 11785 Beltsville Drive, Calverton, MD 20705 (Telephone: 301-572-0200; Fax: 301-572-0999).

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FOREWORD

The 1993 Kenya Demographic and Health Survey (KDHS) is the second survey of its kind to be carried out in the country; the first one was conducted in 1989. Information on fertility, infant and child mortality, knowledge and practice of family planning, maternal and child health and AIDS awareness was collected. The survey therefore provides a complete set of relevant data for evaluation of population, health and family planning programmes, and necessary information for assessing the overall demographic situation in the country since 1989 and for development of future strategies. We hope that policymakers, health project implementers, social scientists and researchers will make optimal use of the survey data.

The 1993 KDHS reinforces evidence of a major decline in fertility which was first revealed by the findings of the 1989 KDHS. Fertility continues to decline and family planning use has increased. However, the disparity between knowledge and use of family planning remains quite wide. There are indications that infant and under five child mortality rates are increasing, which in part might be attributed to the increase in AIDS prevalence. These are some of the critical issues that need to be addressed without delay.

Finally, I would like to acknowledge assistance by both the Washington, D.C. and Kenya offices of the United States Agency for International Development (USAID) for financial support, Macro International Inc. of Calverton, Maryland, USA for technical support, and the Central Bureau of Statistics and the National Council for Population and Development for making the 1993 KDHS a success.

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EXECUTIVE SUMMARY

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. 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. In addition, the male survey obtained data on men's knowledge and attitudes towards 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. Fieldwork for the KDHS took place from mid-February until mid-August 1993. All areas of Kenya were covered by the survey, except for seven northern districts which together contain less than four percent of the country's population.

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.

Fertility. Survey results show that fertility has declined precipitously in Kenya over the last 5-10 years. At current fertility levels, a Kenyan woman will give birth to an average of 5.4 children during her reproductive years. Although this is still high, it is far lower than the level of 6.7 births per women reported for the late 1980s. A rural woman can expect to have an average of 5.8 children, over two children more than an urban women (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 five 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 shows that one-quarter of births in Kenya take place less than two years after a prior birth.

Marriage. 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).

Twenty percent of currently married women are in polygynous unions. 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.

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 of women want to wait two years or longer before having their next child. Thus, 78 percent of all married women in Kenya either want 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.

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 want slightly more children 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. The average ideal number of children among is 3.8 among men and 3.7 for women.

Family Planning. Knowledge of some 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.

Over 80 percent of women users 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 particularly rapidly over the last five years.

Among both men and women, contraceptive use is higher in urban than in rural areas. The differential in use by education level is particularly striking: 20 percent of married women with no education are using family planning, compared to 52 percent of those with some secondary education.

Contraceptive use also 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 over two-thirds of the women who use modern methods.

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) or do not want any more children (15 percent). 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.

Child Mortality. KDHS findings indicate that one in ten Kenyan 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 62 per 1,000 live births.

There has apparently been no change in childhood mortality over the past decade, according to the birth histories recorded from women interviewed in the survey. Further evidence that the previous rapid decline in childhood mortality has stagnated comes from a comparison of the childhood mortality data from the 1989 and 1993 KDHSs, which also show no real change.

Differences in mortality by province are quite marked. Childhood mortality is exceptionally high in Nyanza Province, where almost one in five children do not live to see their fifth birthdays. The infant mortality rate in Nyanza Province (128) is almost twice that of the second highest rate (Coast Province--68).

KDHS data indicate that spacing births can potentially reduce childhood mortality levels; a child born less than 24 months after a preceding child is almost twice as likely to die before his first birthday than a child born after an interval of four or more years. Risks are also greater for children whose birth order is greater than seven and those born to mothers under age 20.

Maternal Health. Utilisation of antenatal services is high. In the five years prior to the survey, mothers received antenatal care for 95 percent of births. The median number of antenatal care visits is 4.7.

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; ten percent of women deliver without assistance.

Child Health. The KDHS found that 79 percent of children aged 12-23 months were fully vaccinated and only 3 percent had not received any vaccinations at all. Seventy-one percent of children had 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.

During the two weeks before the survey, 18 percent of children under age five experienced symptoms of acute respiratory infection (ARI)--cough with short, rapid breathing. Half of these children were taken to a health facility or doctor for treatment.

Four in ten 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 increased fluids to drink.

Nutrition. 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. In Kenya, 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. Bottlefeeding, however, is more common; one in six infants under the age of 4 months is fed with a bottle.

One in three children under the age of five is short for his/her age (stunted), which reflects chronic undernutrition. This proportion is 14 times the level expected in a healthy, well-nourished population. Twelve percent of the children were severely stunted.

Six percent of children under five are wasted (i.e., low weight low 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 being undernourished than other women. Height and weight measurements were obtained in the KDHS for mothers of children under age five. These data show that less than six percent of mothers are shorter than 150 centimetres. The mean weight was 55.8 kilogrammes; 9 percent of mothers have a BMI below 18.5.

Knowledge of AIDS. All but a tiny fraction of respondents reported they had heard about AIDS. Almost all (96 percent of men and 90 percent of women mentioned sexual intercourse as a mode of transmission of the AIDS virus. About 90 percent of respondents say it is possible for a mother with the AIDS virus to pass it along to her child at birth.

A large majority of men and women said it is possible to protect against getting AIDS. About 40 percent of men and women know someone who either has AIDS or who died of AIDS. And two-thirds of men and almost half of women say they themselves can get AIDS.

Misconceptions regarding modes of transmission of the AIDS virus are common. About one-quarter of men and women interviewed 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 it is possible to get AIDS from kissing somone who has AIDS, and over half say it is possible to get AIDS from insect bites.

One-third of men and less than 5 percent of women said they had had two or more sexual partners in the six months prior to the survey. Twenty 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 sexual partners.

Availability of Health and Family Planning Services. KDHS data indicate that about half of women (48 percent) live in communities served by community-based distributors (CBDs) of family planning methods. Of these, half (23 percent of all women) are covered by government-sponsored CBDs and half by CBDs sponsored by non-governmental organisations.

At least some method of family planning is 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 proximate. 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.

Conclusions. 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 KDHS data also 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; one in six recent births was

unwanted and one in three was mistimed. KDHS data indicate that the fertility rate in Kenya would be substantially lower if all unwanted births could be avoided.

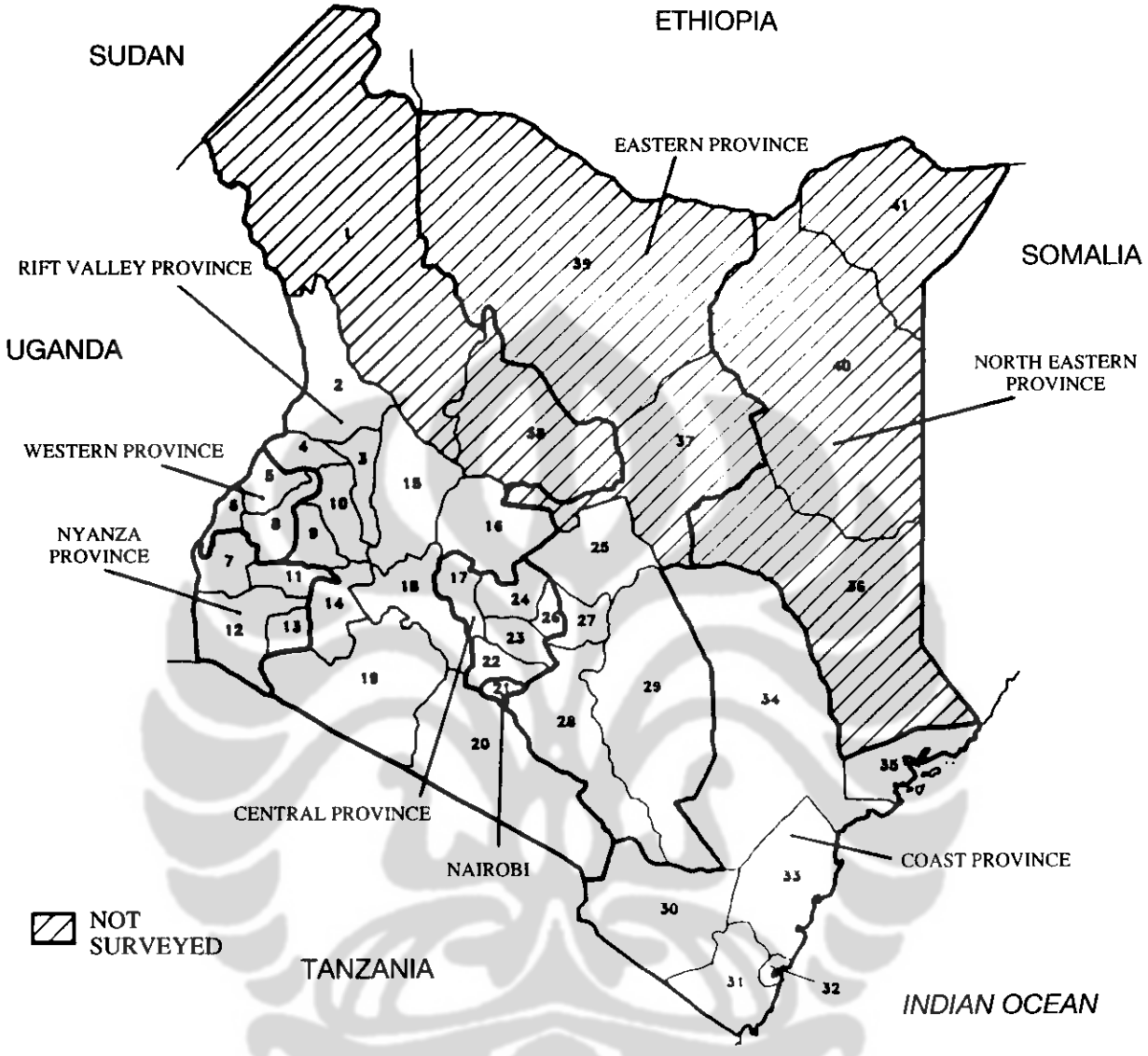
Another challenge is to reduce regional disparities in fertility, fertility preferences and family planning use. For example, fertility in Coast Province has hardly declined at all, no doubt because women there have the highest mean ideal family size, the lowest proportion who want no more children, 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.

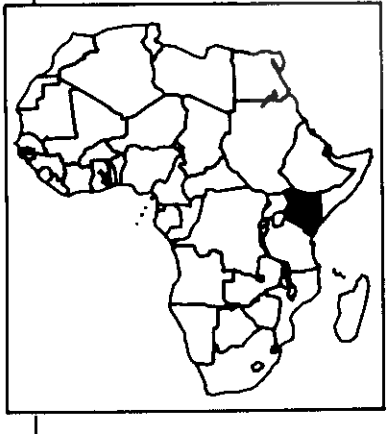
The results from the KDHS indicate that Kenya has made remarkable progress in the delivery of key child survival interventions: use of antenatal care is high; tetanus toxoid coverage among pregnant women is high; almost half of women deliver with the assistance of medical professionals; childhood immunisation 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, one in ten 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 for 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 and condom use is not widespread.

KENYA





MAP KEY

21 Nairobi

CENTRAL PROVINCE
- 22 Kiambu
- 26 Kirinyaga
- 23 Murang'a
- 17 Nyandarua
- 24 Nyeri

COAST PROVINCE
- 33 Kilifi
- 31 Kwale
- 35 Lamu
- 32 Mombasa
- 30 Taita
- 34 Tana River

EASTERN PROVINCE
- 27 Embu
- 37 Isiolo
- 29 Kitui
- 28 Machakos*
- 39 Marsabit
- 25 Meru *

NORTHEASTERN PROVINCE
- 36 Garissa
- 41 Mandera
- 40 Wajir

NYANZA PROVINCE
- 13 Kisii*
- 11 Kisumu
- 7 Siaya
- 12 South Nyanza*

RIFT VALLEY PROVINCE
- 15 Baringo
- 3 Elgeyo Marakwet
- 20 Kajiado
- 14 Kericho*
- 16 Laikipia
- 18 Nakuru
- 9 Nandi
- 19 Narok
- 38 Samburu
- 4 Trans Nzola
- 1 Turkana
- 10 Uasin Gishu
- 2 West Pokot

WESTERN PROVINCE
- 5 Bungoma
- 6 Busia
- 8 Kakamega*

* Note: Each of the six districts marked with an asterisk was recently subdivided into two or more districts. The former boundaries are shown here since they were used in this survey.

AIDS IN KENYA

SUDAN
ETHIOPIA
UGANDA
TANZANIA
SOMALIA
INDIAN OCEAN
LAKE VICTORIA
LAKE TURKANA
Tana
Athi
Sabaki

34°E 36°E 38°E 40°E
4°N 2°N 0° 2°S 4°S

Lodwar
Moyale
Mandera
Marsabit
Wajir
Kapenguria
Kitale
Maralal
Iten
Eldoret
Bungoma
Busia
KAKAMEGA
Kapsabet
Siaya
Rumuruti
Meru
KISUMU
Kericho
NAKURU
NYERI
EMBU
GARISSA
Homa Bay
Kisii
Muranga
Narok
NAIROBI
Kitui
Machakos
Kajiado
Hola
Wundanyi
Voi
Malindi
Kilifi
MOMBASA

RIFTVALLEY
WESTERN
EASTERN
NORTH EASTERN
NYANZA
CENTRAL
COAST

Annual average number of reported cases of AIDS

250 500 750 1000

Average No. of HIV Related Deaths

Deaths '000
150
100
50
0
93 94 95 96 97 98 Year

Scale 1: 3 000 000
0 20 40 60 80 100 120 km

Compiled and drawn by J.A. Muhindi, P. O. Box 64005 Nairobi

SUPERVISOR: DOUGLAS MUSIEGA
LECTURER, KISM

This map is based on data on AIDS provided by National AIDS and STDs Control Program (NASCOP), Nairobi (1993-1998)