DHS

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Liberia

Demographic and Health Survey 1986

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This report summarizes the findings of the Liberia Demographic and Health Survey, implemented by the Ministry of Planning and Economic Affairs in 1986. Editorial and production support for the report was provided by the IMPACT project of the Population Reference Bureau. The Liberia DHS survey is part of the worldwide Demographic and Health Surveys Program, which is designed to collect data on fertility, family planning, and maternal and child health. Additional information on the Liberia DHS survey can be obtained from the Bureau of Statistics, Ministry of Planning and Economic Affairs, P.O. Box 9016, Monrovia, Liberia. Additional information about the DHS program can be obtained by writing to: DHS, IRD/Westinghouse, P.O. Box 866, Columbia, MD, U.S.A. (Telex 87775).

Photographs by Tom Weir, National Museum of African Art, Eliot Elisofon Archives, Smithsonian Institution. Page 1: "Liberian child." Pages 2, 6, and 15: "Villagers near Belifaunai."

September 1988

Executive Summary

The Liberia Demographic and Health Survey (DHS) was designed to provide planners and policymakers with vital information on fertility, family planning, and maternal and child health. It was conducted by the Bureau of Statistics of the Liberian Ministry of Planning and Economic Affairs. A total of 5,239 women between the ages of 15 and 49 were interviewed in a national-level sample between February and July 1986.

At current rates, women will give birth to an average of about six children during their reproductive lives.

The survey draws a picture of Liberia as a rapidly growing country with high fertility. Modern family planning methods have yet to gain broad acceptance, and traditional practices of sexual abstinence and breastfeeding after childbirth remain the chief protection against pregnancy.

Data pertaining to child mortality are more encouraging. While mortality for children under the age of five is still high, rates have declined over the last 15 years. Liberia's continued commitment to providing maternal and child health services will undoubtedly contribute to further declines.

FERTILITY

Typical of many countries in Africa, Liberia shows a pattern of high fertility (see Figure 1). At current rates, women will give birth to an average of about six children during their reproductive lives. One-quarter of women in the oldest age group have given birth to ten or more children. The Liberia DHS results indicate little change in fertility rates over the last 20 years.

The most important differences in fertility levels are between educational groups. For example, women with secondary or higher education have an average of five births compared with seven births for those with primary education. Fertility also varies with place of residence. At the present rate, urban women will give birth to an average of six children; rural women will have almost seven. The majority of women (57 percent) reside in rural areas.

Demographic Factors

The survey findings highlight a number of demographic factors which influence fertility levels and trends in Liberia. They include: 1) marriage patterns, 2) age at which a woman first bears a child, and 3) abstinence and breastfeeding following birth.

Figure 1
PAST, CURRENT, AND IDEAL FAMILY SIZE

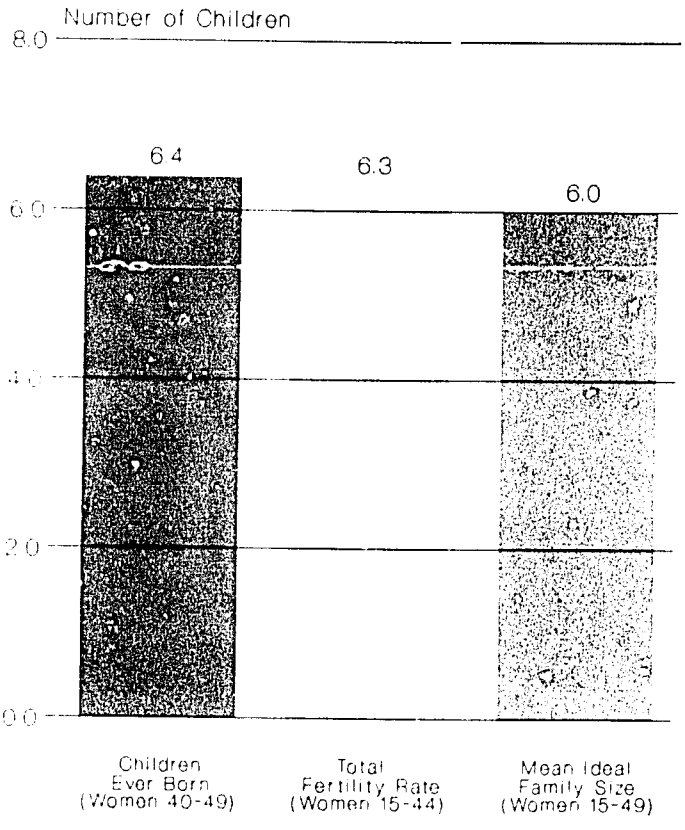

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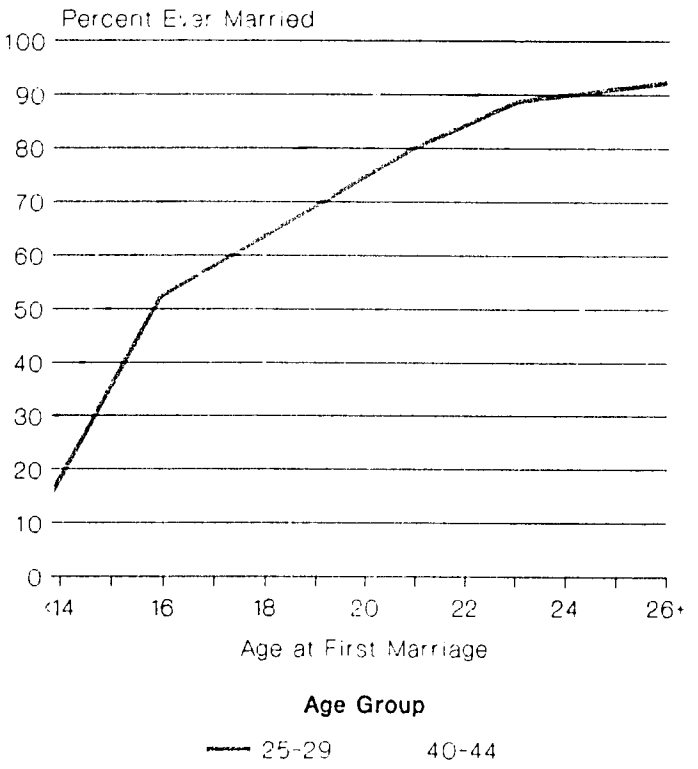
Figure 2
AGE AT FIRST MARRIAGE
(Women 25-29 and 40-44)



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Marriage Patterns

The age at which a woman first marries is often an important determinant of the total number of children she will have. Women who marry at an early age tend to bear children sooner and give birth to more children than women who marry at a later age. One reason for the high fertility in Liberia is that marriage (whether legal or consensual) occurs early and is almost universal. Half of all Liberian women are married by age 18 and fewer than one percent never marry (see Figure 2). The median age at first marriage has shifted from 16 for older women to 18 for younger women.

Age at First Birth

In many countries, the postponement of first births has had a large impact on overall fertility decline. In Liberia, however, childbearing typically begins in the teenage years, when over half the women experience their first birth. This pattern of early childbearing not only contributes to high fertility, but also has been shown to be detrimental to the health of young mothers and to result in increased morbidity and mortality of their children.

Traditional Breastfeeding and Abstinence

Fertility might be even higher if it were not for traditional patterns of breastfeeding and sexual abstinence after childbirth. Liberian women breastfeed their children an average of 17 months. This long period of breastfeeding protects against pregnancy by prolonging postpartum amenorrhea — the period following the birth before the normal return of the menstrual cycle. For Liberian women, the average period of postpartum amenorrhea extends 11 months after childbirth.

In Liberia, as in many areas of Sub-Saharan Africa, breastfeeding is tied to the practice of postpartum abstinence and couples consider both essential to the health and normal development of the child. Postpartum sexual

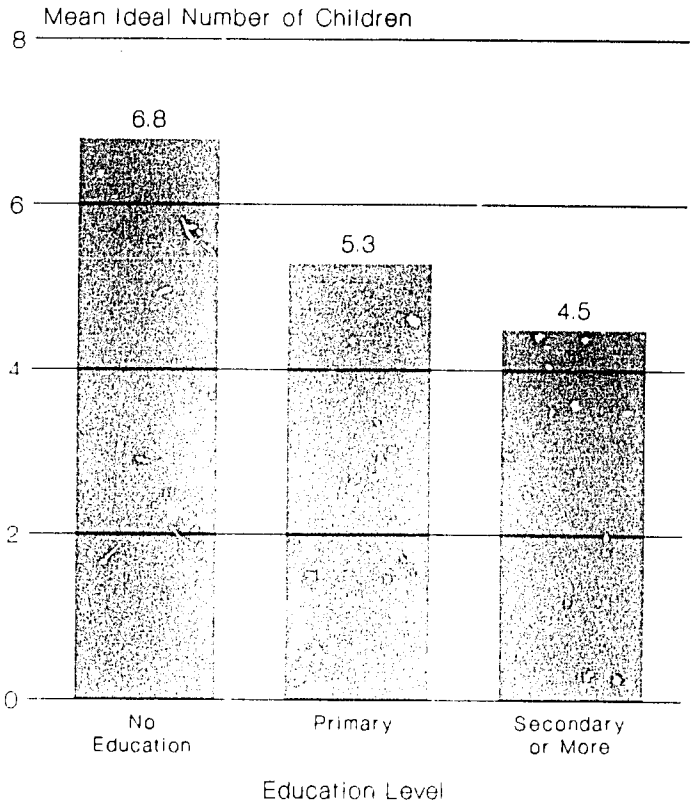
abstinence is widely practiced in Liberia with a mean duration of 13 months. This is 2 months longer than the mean duration of postpartum amenorrhea. As a result, postpartum protection from pregnancy is currently determined more by abstinence than by amenorrhea.

Fertility Desires

The high level of fertility in Liberia reflects, in part, a desire for large families. Women in the survey were asked the number of children they would ideally like to have. Nearly one-quarter of the respondents gave answers such as "as many as possible," or "as many as God wishes." Among those who gave numeric responses, the average ideal number of children is six. That younger and more educated women desire smaller family sizes may signal a reduction in fertility in the future (see Figure 3).

Some women want fewer children than they already have — an important indicator of unmet need for family planning. While such sentiment is generally rare, 21 percent of women with six or more children indicate that if given a choice they would prefer a smaller family.

Figure 3
EFFECT OF EDUCATION ON FERTILITY DESIRES
(All Women 15-49)



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Family Planning

Contraceptive Use

Another important contributor to high fertility in Liberia is the low level of contraceptive use (see Figure 4). Only one in five married women has ever used any contraceptive method; only one in 16 is currently using any. The most widely used method is the pill, which is used by half of all currently married users. A smaller number of women rely on voluntary sterilization, periodic abstinence, and the IUD.

Over half of Liberian women want to space or limit their births. Nevertheless, only one in 16 married women is currently using a contraceptive method.

There are some exceptions to the generally low level of contraceptive use. A woman's education makes the greatest difference in whether or not she will use contraception (see Figure 5). Over one-quarter of women with secondary school education are currently using a contraceptive method—almost ten times the rate among women with no schooling. Similarly, urban women are more than three times as likely to practice family planning as rural women.

Family Planning Services

The major service providers are the Family Planning Association of Liberia (FPAL), which provides 40 percent of the contraceptive users with methods or advice, and government hospitals and clinics, which serve 29 percent. FPAL currently serves more than half the women using the pill and nearly one-third of those using

Figure 4
CURRENT USE OF FAMILY PLANNING BY METHOD
(Currently Married Women 15-49)

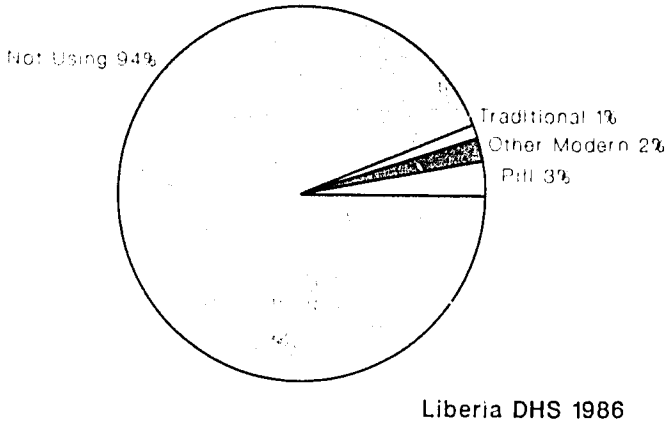
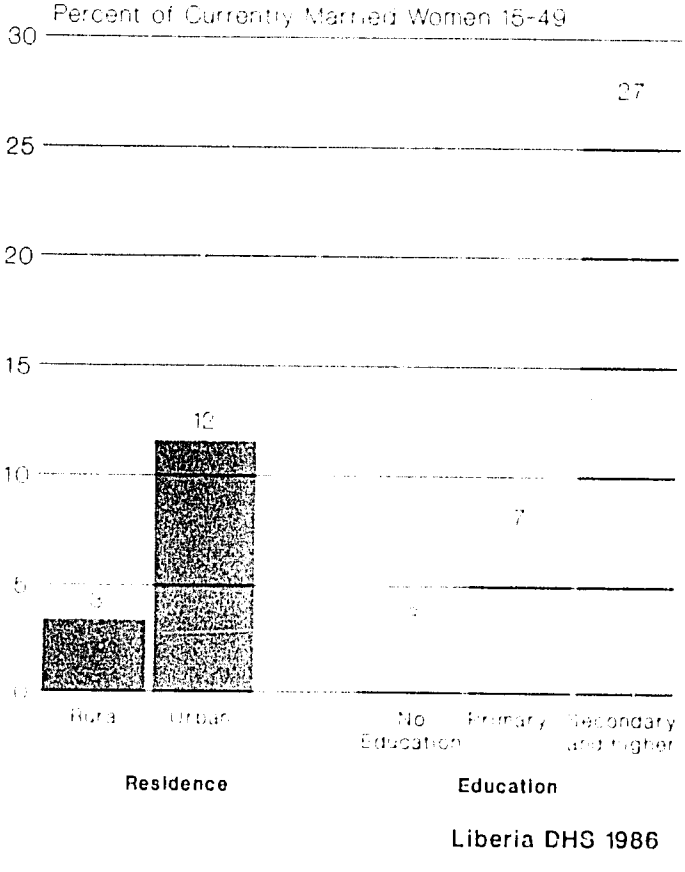


Figure 5
CURRENT USE OF FAMILY PLANNING BY RESIDENCE AND EDUCATION



other modern methods. Government hospitals and clinics provide most of the voluntary sterilization services and modern methods other than the pill. Private-sector providers, including pharmacies, shops, and private doctors, serve one-sixth of current users.

Barriers to Contraceptive Use

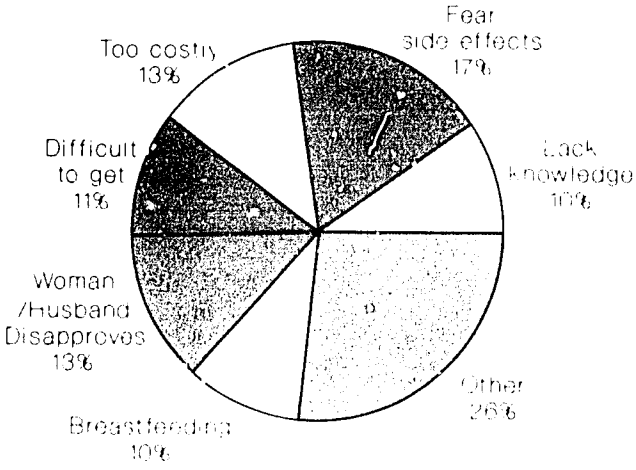
Contraceptive Knowledge

The survey shows that 70 percent of married women have heard of at least one contraceptive method. Knowledge of specific methods — the basis for informed choice — is limited, however. While the pill is known to the majority of women, fewer than half could identify other methods. Knowledge of where to obtain family planning services is similarly limited: fewer than half of currently married women know where to go to obtain a method or counseling.

Attitudes Toward Family Planning

Along with lack of knowledge about specific methods and sources, the absence of widespread approval of family planning is a major barrier to use. The survey results show that among married women who know a contraceptive method, fewer than half approve of family planning. Husbands' attitudes toward family planning are perceived by their wives as more disapproving than approving, although one in three wives was unsure of

Figure 6
REASONS FOR NOT USING FAMILY PLANNING(*)



(*) Women 15-49 at risk of pregnancy and not using a method, who say they would be upset if they became pregnant.

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her husband's attitude. Only one-quarter of couples in Liberia jointly approve of family planning, and communication about the subject is limited. For example, two-thirds of the married women did not talk about family planning with their husbands in the year preceding the survey.

Other Barriers to Use

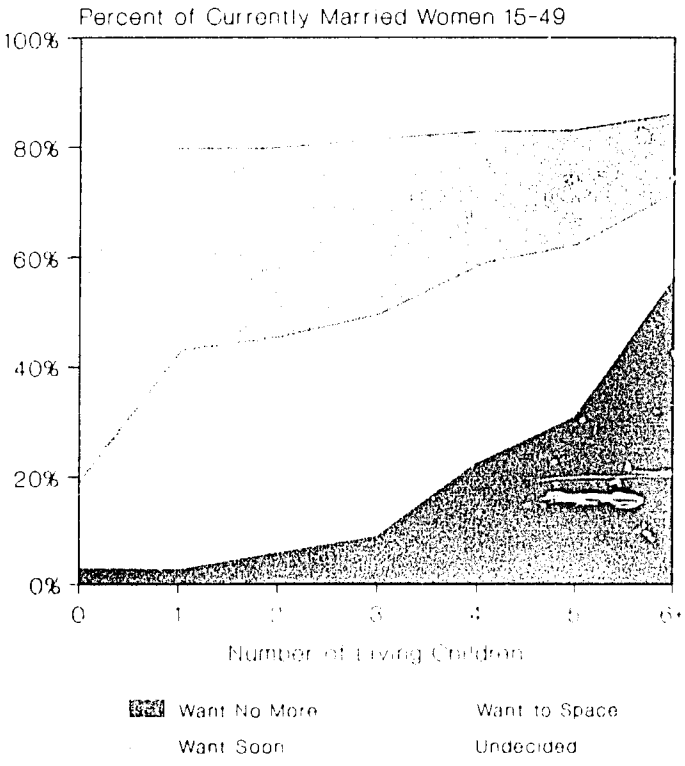
Other barriers to contraceptive use revealed by the survey include lack of access to services and inadequate information about particular family planning methods (see Figure 6). Among those most in need of family planning — nonusers who were at risk but did not want to become pregnant — nearly one-quarter were discouraged from using contraception because services were too difficult to reach or too costly. Others feared side effects from the methods available. Overall, half of this group of potential family planning users were discouraged by these factors which could be addressed by improved information and service delivery.

Need For Family Planning Services

Although the survey shows that Liberian women want large families, it also points to a considerable desire to limit and space births (see Figure 7). One in five married women wants no more children, and one in three would like to delay the next birth for at least two years. Among younger women and those who already have one to three children, 40 percent would like to delay the next birth.

Taken together, the desire to limit or space births affects fully half of potential mothers in Liberia. Enabling women to achieve their preferences through use of family planning would result in a substantial number of births being postponed or avoided. For example, three in ten births in the year prior to the survey were reported as either being unwanted or mistimed.

Figure 7
DESIRE TO LIMIT OR SPACE BIRTHS BY NUMBER OF LIVING CHILDREN



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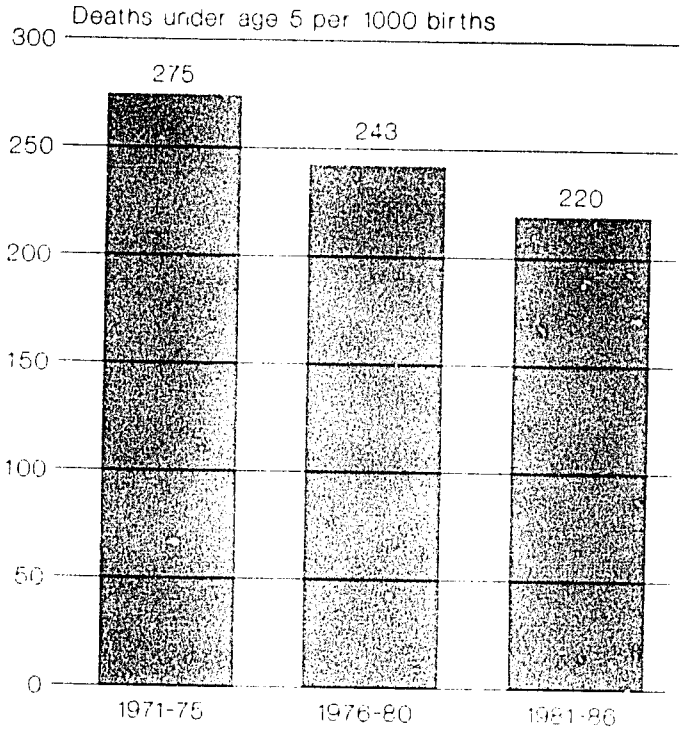
Overcoming the various barriers to contraceptive use represents a major challenge to Liberian family planning service providers. However, the survey findings on the potential demand for family planning among married nonusers offer some encouragement. Nearly one-third of nonusers say that they intend to use a contraceptive method in the future. The pill and injectable contraceptives are the preferred methods among these potential users.

Figure 8
TRENDS IN CHILD MORTALITY



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MATERNAL AND CHILD HEALTH

Liberia continues to suffer from high child mortality (see Figure 8). Currently, one child in five dies before reaching his or her fifth birthday. The Liberia DHS results show, however, that death rates have been declining, especially during the first year of life — infant mortality rates have fallen from 192 in the early 1970s to 144 in the early 1980s. The findings highlight a number of factors that directly influence the health and survival of a mother and child, starting from pregnancy and continuing after the child's birth.

Pregnancy-related Factors

High-risk Pregnancies

Research indicates that the risk of pregnancy-related illness and death is higher for certain categories of women: 1) women under 18 or over 35 years of age, 2) women who have experienced more than four births, and 3) women for whom the interval between births is short. Children born to women in these categories are also at greater risk of illness and death. For example, data from the Liberia survey show that babies born less than two years after an earlier birth are almost three times more likely to die in infancy than those born at least four years after a previous birth (see Figure 9). If they survive to their first birthday, these children still have a 50 percent higher risk of dying — through age five — than their better-spaced counterparts.

Maternity Care

Because the health of the child begins before birth with the health of the mother, the care a woman receives during pregnancy can be critical to her child's chances of survival. According to the survey, most Liberian mothers receive some type of prenatal care. While fewer than one

in five had seen a medical doctor, two-thirds report seeing a trained nurse or midwife prior to their most recent birth. Also, 71 percent received an injection during pregnancy to protect their children from neonatal tetanus, a highly fatal disease that strikes infants in the first weeks after birth.

Trained assistance at the time of delivery is common: 58 percent of all women giving birth were assisted by a trained nurse/midwife or doctor. Traditional birth attendants aided an additional 33 percent of mothers at delivery; their involvement was more frequent in births to rural women and to women with no education.

Breastfeeding

In addition to offering the mother some protection against pregnancy, breastfeeding plays an important role in child survival. Breast milk — the ideal source of nutrition during the first year of life and beyond — contains antibodies that help protect the child from disease. Fortunately, breastfeeding is still widely practiced in Liberia. More than 60 percent of mothers are still breastfeeding one year after the birth of a child, and 25 percent continue for 18 months or longer.

Patterns vary, however. Younger mothers do not breastfeed as long as older mothers, and urban mothers wean their children several months sooner than rural

Figure 9
BIRTHSPACING AND INFANT MORTALITY

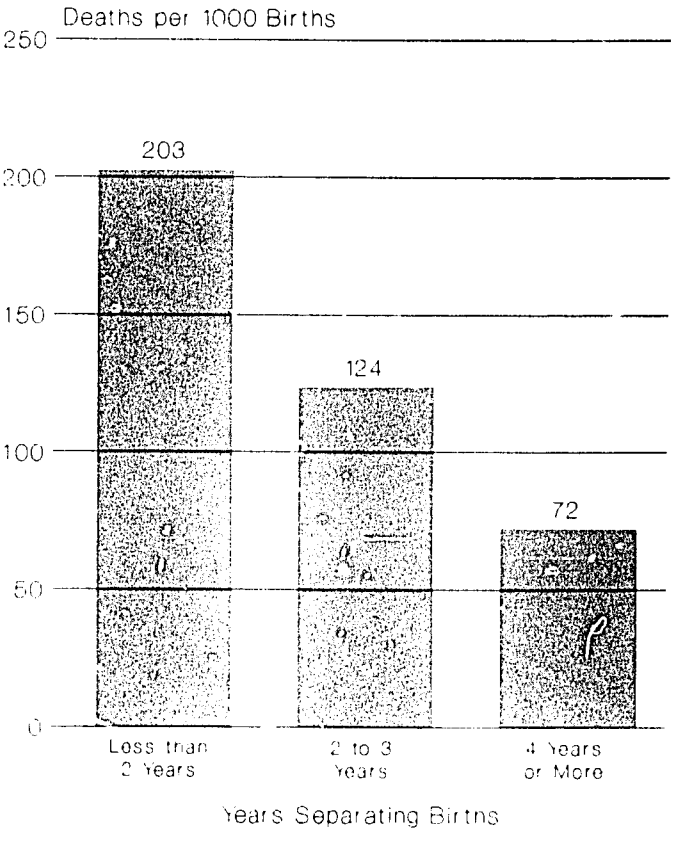

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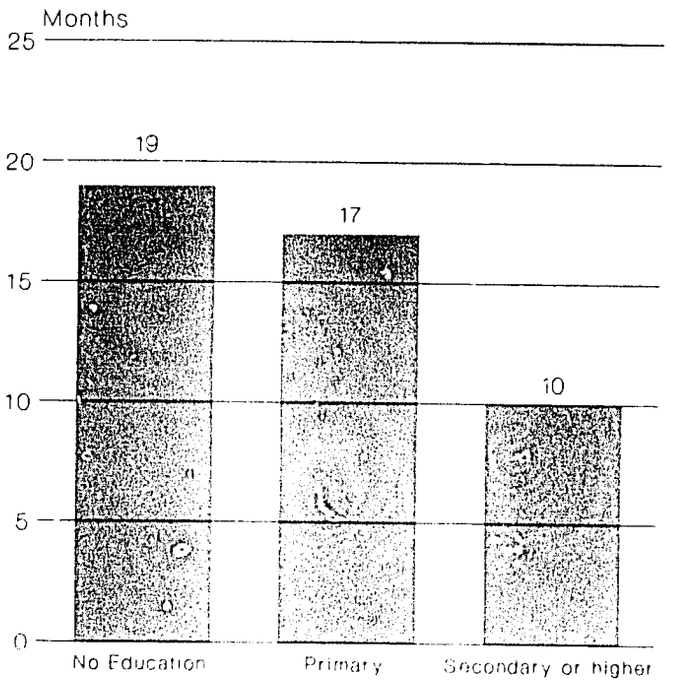
Figure 10
MEAN DURATION OF BREASTFEEDING BY MOTHERS' EDUCATION



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mothers. Women with secondary education or higher breastfeed about half as long — an average of 10 mont — as women with no education — an average of 19 months (see Figure 10). These patterns reflect a parad common to many parts of the world: modernization a development tend to erode traditional practices, inclu ing beneficial ones such as breastfeeding. Thus, the de crease in breastfeeding associated with urbanization a increased education for women may have an adverse effect on child health.

Childhood Diseases

Prevalence

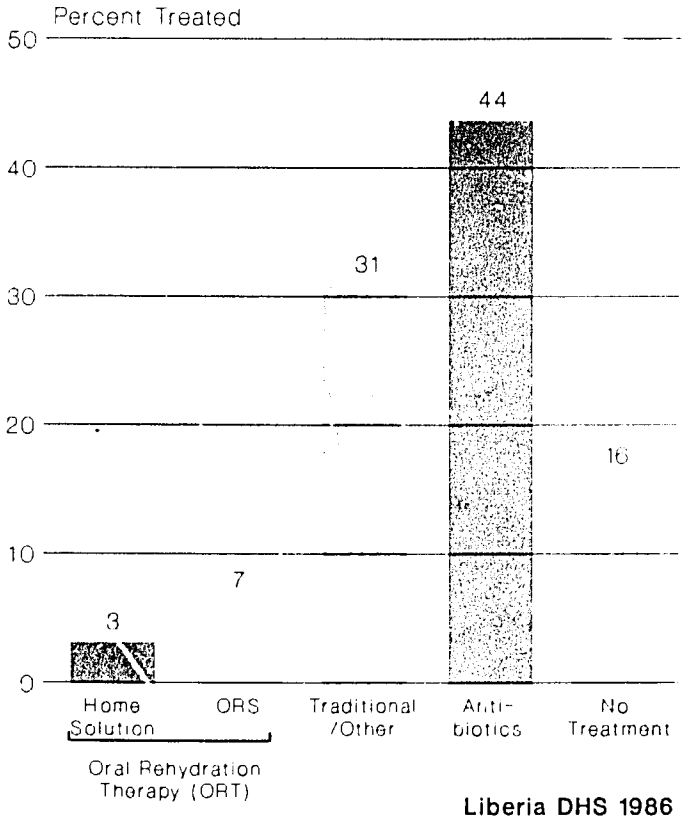
The prevalence of childhood illness in Liberia is high. In the month preceding the survey, more than o child in three suffered diarrhea, and the same proportion experienced coughing or difficult breathing, symp toms of respiratory illness. Diarrhea and respiratory illness are the leading causes of childhood mortality in the developing world. In the same period, half of all children experienced fever — probably attributable to malaria, which is endemic to Liberia. One child in five had previously contracted measles, one of the most dar gerous childhood infections.

Treatment

The DHS data indicate that the majority of mothe seek treatment for their children when they become ill. In general, they rely on pharmaceutical products in treating illness. For example, six children in ten sufferi from respiratory illness were given cough syrup. Reliance on these products tends to be greater among urban, educated mothers, but even rural mothers appear to favor commercially prepared medicines.

A cause for particular concern among health professionals is the widespread use of antibiotics for treating diarrhea (see Figure 11). In Liberia, nearly half

Figure 11
TREATMENT OF CHILDHOOD DIARRHEA
(Episodes in the 4 Weeks before the Survey)



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(44 percent) of the most recent diarrheal episodes among children were treated with antibiotics. Not only are antibiotics expensive, but they are also largely ineffective against the majority of agents that cause diarrhea. In addition, over-use of these powerful drugs leads to the development of resistant strains of disease-causing bacteria.

Oral rehydration therapy (ORT), one of the most inexpensive and effective treatments for diarrhea, is still rarely used in Liberia. Overall, about one in ten diarrheal episodes among children was treated with ORT, using either special salt packets (ORS) or a home solution prepared with sugar and salt. Urban children with diarrhea were almost twice as likely to receive ORT as rural children, and children of mothers with secondary education were almost three times as likely to receive ORT as children of women with no education.

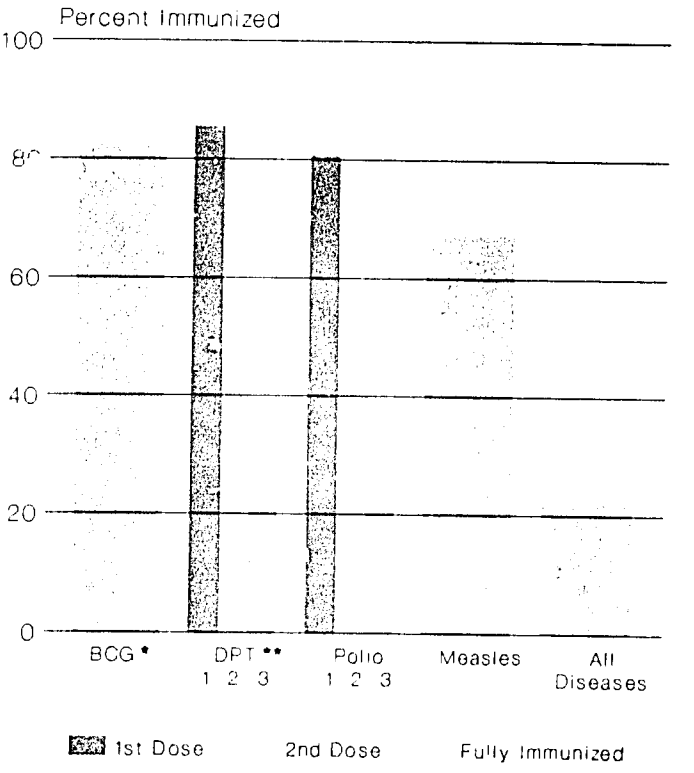
Prevention

Immunization against the six major preventable childhood diseases — diphtheria, whooping cough, tetanus, polio, measles, and tuberculosis — is a basic weapon for improving child survival rates in developing countries. The survey found that two-thirds of children under the age of five are immunized against at least one of these diseases (see Figure 12). Unfortunately, immunization status for specific diseases could be verified only for children possessing a health card, about one-third of the total sample.

The survey findings indicate that even for those children with health cards, immunization coverage is far from complete. For example, only 20 percent of children aged 12-23 months — when infection strikes most frequently and fatally — have been fully immunized against all six target diseases.

Immunization coverage would be significantly greater if it were not for the high drop-out rate for children who receive the first dose of a three-dose vaccine, then do not return for the required second or third dose. Among children 12-23 months with health cards, fewer than one-third of those receiving the first dose of DPT or polio vaccine returned for the final dose. For vaccines that require only one dose, the program has been more successful. Approximately three-quarters of children in this age group have been fully immunized against measles and tuberculosis.

Figure 12
IMMUNIZATION COVERAGE
(Children 12-23 Months with Health Cards)



* tuberculosis
** diphtheria, pertussis (whooping cough), and tetanus

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CONCLUSIONS

The findings of the Liberia Demographic and Health Survey provide a valuable resource for national planning and the development of programs to meet the family planning and health needs of the population.

Early marriage and childbearing, the desire for large families, and the low level of contraceptive use — all contribute to high fertility in Liberia. At the same time, over half of Liberian women want to limit or space their births, underlining the potential need for family planning services. The need for family planning will grow even further if urbanization and higher education continue to reduce desired family size and erode the traditional practices of abstinence and breastfeeding which protect women from pregnancy. Without effective use of modern contraceptive methods, the already high level of fertility may increase. The DHS survey points to the need for expanded family planning information, education, and services, as well as active encouragement of traditional practices that reduce fertility.

Although infant and child mortality rates have declined, only twenty percent of children have been fully immunized against all six target diseases.

In the area of maternal and child health (MCH), the survey indicates that some of the most effective child survival strategies have not been widely implemented. For example, diarrhea -- which continues to be a major child health problem — is treated mainly with antibiotics instead of the cheaper and more effective oral rehydration therapy (ORT). Also, many children have not received the second and third doses of DPT and polio vaccine required for full immunization.

Nonetheless, progress has been made. Overall, the findings of the Demographic and Health Survey point to an improving health picture for Liberian mothers and children. Although still high, infant and child mortality rates have declined. Use of MCH services is common, and most women receive prenatal care and trained assistance at births. Two-thirds of children receive at least some immunization against the major childhood diseases.

FACT SHEET

Liberia, *Demographic and Health Survey 1986*

Sample Population

Women 15-49	5,239

Background Characteristics

Percent urban	43.2
Percent with more than primary education[1]	19.0

Marriage and Other Fertility Determinants

Percent currently married	67.5
Percent ever-married	78.6
Median age at first marriage for women 20-49	17.5
Mean length of breastfeeding (in months)[2]	17.0
Mean length of postpartum amenorrhea (in months)[2]	11.2
Mean length of postpartum abstinence (in months)[2]	13.2

Fertility

Total fertility rate[3]	6.3
Mean number of children ever born to women 40-49	6.4
Percent of currently married women who are pregnant	15.4

Desire for Children

Percent of currently married women:	
Wanting no more children	17.2
Wanting to delay next birth at least 2 years	33.0
Mean ideal number of children for women aged 15-49	6.0
Percent of unwanted births[4]	25.6
Percent of mistimed births[5]	5.6

Knowledge and Use of Family Planning

Percent of currently married women:	
Knowing any method	69.8
Knowing source for modern method	44.0
Ever using any method	18.8
Currently using any method	6.4
Pill	3.3
IUD	0.6
Injection	0.3
Vaginal methods	0.2
Condom	0.0
Female sterilization	1.1
Male sterilization	0.0
Periodic abstinence	0.6
Withdrawal	0.1
Other methods	0.2
Percent of contraceptors obtaining method from:	
Government hospital/clinic	28.7
Family Planning Association of Liberia (FPAL)	40.4
Church hospital/clinic	5.7
Private doctor/clinic	5.7
Pharmacy/shop	11.9
Fieldworker/other	6.9

Mortality and Health

Infant mortality rate[6]	144
Under five mortality rate[6]	220
Percent of mothers of recent births:[7]	
Received prenatal care during pregnancy	84.0
Immunized against tetanus during pregnancy	71.4
Assisted at delivery by doctor or trained nurse/midwife[7]	58.1
Percent of children 12-23 months with health cards immunized against:	
BCG	82.2
DPT (3 doses)	31.1
Polio (3 doses)	26.6
Measles	67.4
Percent of children under five years of age with diarrhea[8]	39.1
Percent of children with diarrhea treated with:	
Any treatment	84.0
Oral rehydration therapy	9.7

[1] 7 or more years of education

[2] Current status estimate based on births within 36 months of the survey

[3] Based on births to women 15-44 years during the period 0-4 years before the survey

[4] Percent of women giving birth in the 12-month period before the survey who did not want the child

[5] Percent of women giving birth in the 12-month period before the survey who wanted the birth later

[6] Rates are for the five-year period preceding the survey (1981-1986)

[7] Based on last births occurring during the five years before the survey

[8] Based on children reported by the mothers as having diarrhea during the four weeks before the survey