Ghana

Demographic and Health Survey 1988

Ghana Statistical Service

DHS

Demographic and Health Surveys
Institute for Resource Development/Macro Systems, Inc.

Ghana Demographic and Health Survey 1988

Ghana Statistical Service
Accra, Ghana

Institute for Resource Development/Macro Systems, Inc.
Columbia, Maryland USA

September 1989

This report presents the findings of the Ghana Demographic and Health Survey (GDHS). The survey was a collaborative effort between the Ghana Statistical Service and the Institute for Resource Development/Macro Systems, Inc. (IRD). The 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. Funding for the survey was provided by the U.S. Agency for International Development (Contract No. DPE-3023-C-00-4083-00), the Government of Ghana and the United Nations Population Fund. The United Nations Children's Fund loaned vehicles for use during the survey fieldwork. Additional information on the GDHS can be obtained from the Ghana Statistical Service, P.O. Box 1098, Accra, Ghana. Additional information about the DHS Program can be obtained by writing to: DHS Program, IRD/Macro Systems, Inc., 8850 Stanford Blvd., Suite 4000, Columbia, MD 21045, USA (Telephone: 301-290-2800; Telex: 87775; Fax: 301-290-2999).

CONTENTS

Page

Page

Page

LIST OF TABLES

Page

Page

Page

Page

Page

Page

Page

Page

LIST OF FIGURES

Page

PREFACE

The Ghana Demographic and Health Survey (GDHS) is a national sample survey designed to provide information on fertility, family planning and health in Ghana. The survey, which was conducted by the Statistical Service of Ghana, is part of a worldwide programme coordinated by the Institute for Resource Development/Macro Systems, Inc., in more than 40 countries in Africa, Asia and Latin America.

The survey was conducted at a time when the government had launched an Economic Recovery Programme with a strong demographic and health component. The statistical information generated by the survey is expected to strengthen the planning, implementation and evaluation of programmes aimed at controlling fertility, promoting family planning, and improving the health status of the people. The results of the survey have also facilitated a further assessment of the demographic situation in the country.

An innovative approach in the survey was interviewing a subsample of husbands of the women respondents. This was in recognition of the influence of husbands on the use or nonuse of family planning methods. The data from the survey on the attitudes of husbands about family planning and fertility preferences have provided insight into the factors influencing family planning practices in Ghana.

The organisation of the survey benefited from the invaluable collaboration and support of several institutions and organisations both international and local. In particular, our profound gratitude goes to the Institute for Resource Development/Macro Systems, Inc. for technical assistance, U.S.A.I.D. for funding the survey, UNFPA for additional funding for the training and fieldwork, and UNICEF for the use of vehicles for the fieldwork. We also wish to thank the Ministry of Health, the Department of Community Development, the Department of Social Welfare, the Department of Food and Nutrition, as well as all others who contributed to the success of the survey.

Dr. Emmanuel Oti Boateng
Government Statistician
(Project Director)
Statistical Service, Accra

SUMMARY

The Ghana Demographic and Health Survey (GHDS) is a nationally representative self-weighting sample survey of 4,488 female respondents aged 15-49 and a subsample of 943 co-resident husbands of the interviewed women. The survey was carried out by the Ghana Statistical Service between February and June 1988. The basic objective of the survey is to make available to planners and policymakers current information on fertility levels and trends, reproductive intentions of men and women, knowledge and use of contraception, and the current state of maternal and child health.

Survey results indicate that fertility continues to be high in Ghana. At current rates, a woman will have an average of six children by the time she reaches her forty-fifth birthday. Urban women have 1.5 fewer births than their rural counterparts. There is a gap of about 3 children between uneducated women and women with more than middle school education.

Early and nearly universal marriage among Ghanaian women appears to be one of the reasons for the high level of fertility. Survey data indicate that fewer than 1 percent of Ghanaian women aged 30 and over have never been married. The median age at first marriage has increased slightly over the past ten years, from less than 18.0 years to 18.5 years.

In addition to its health benefits for children, breastfeeding is known to offer protection against pregnancy through its influence on the length of postpartum amenorrhoea. Mothers in Ghana breastfeed for an average of 20 months and are amenorrhoeic for an average of 14 months. Mothers abstain from sex for approximately 14 months after a birth. The duration of breastfeeding and postpartum abstinence among urban and more educated mothers is substantially shorter than among rural and less educated women.

The low level of contraceptive use is another major factor contributing to high fertility. Even though three-quarters of married Ghanaian women know of some method of contraception, only 37 percent have ever used a method and only 13 percent are currently using a method. Twenty-one percent of married women have used a modern method sometime, with just 5 percent currently using a modern method. Periodic abstinence is the most commonly used method, followed by the pill. In spite of the overall high level of contraceptive knowledge, women who are not using any method attribute their nonuse to a lack of knowledge.

Almost 80 percent of husbands interviewed know of some method of contraception. About 40 percent say that they have used a method sometime, while 20 percent are currently using a method. Almost half of the husbands who are currently using a method say they are using periodic abstinence; about 20 percent are using the pill.

Despite the low level of contraceptive use, the data indicate that there is potential need for family planning. Twenty-three percent of married women want no more children, while 45 percent want to wait at least two years before having the next child. In other words, more than two-thirds of all married women are potentially in need of family planning either to limit or to space births.

Both married women and their husbands continue to desire large families although husbands in the sample have considerable higher family size preferences than married women. The mean desired family size among married women is 5.5, whilst that among husbands is 7.6.

The GDHS data indicate that out of every 1,000 live births, 77 die before reaching their first birthday and 155 die before attaining age five. While these rates indicate high levels of mortality, the rates for earlier time periods are even higher, suggesting a decline in both infant and childhood mortality during the past fifteen years. Both infant and child mortality are higher in rural areas than in urban areas. Substantial regional differences exist in mortality, with Greater Accra having the lowest infant mortality rate (58) and the Central region the highest rate (138).

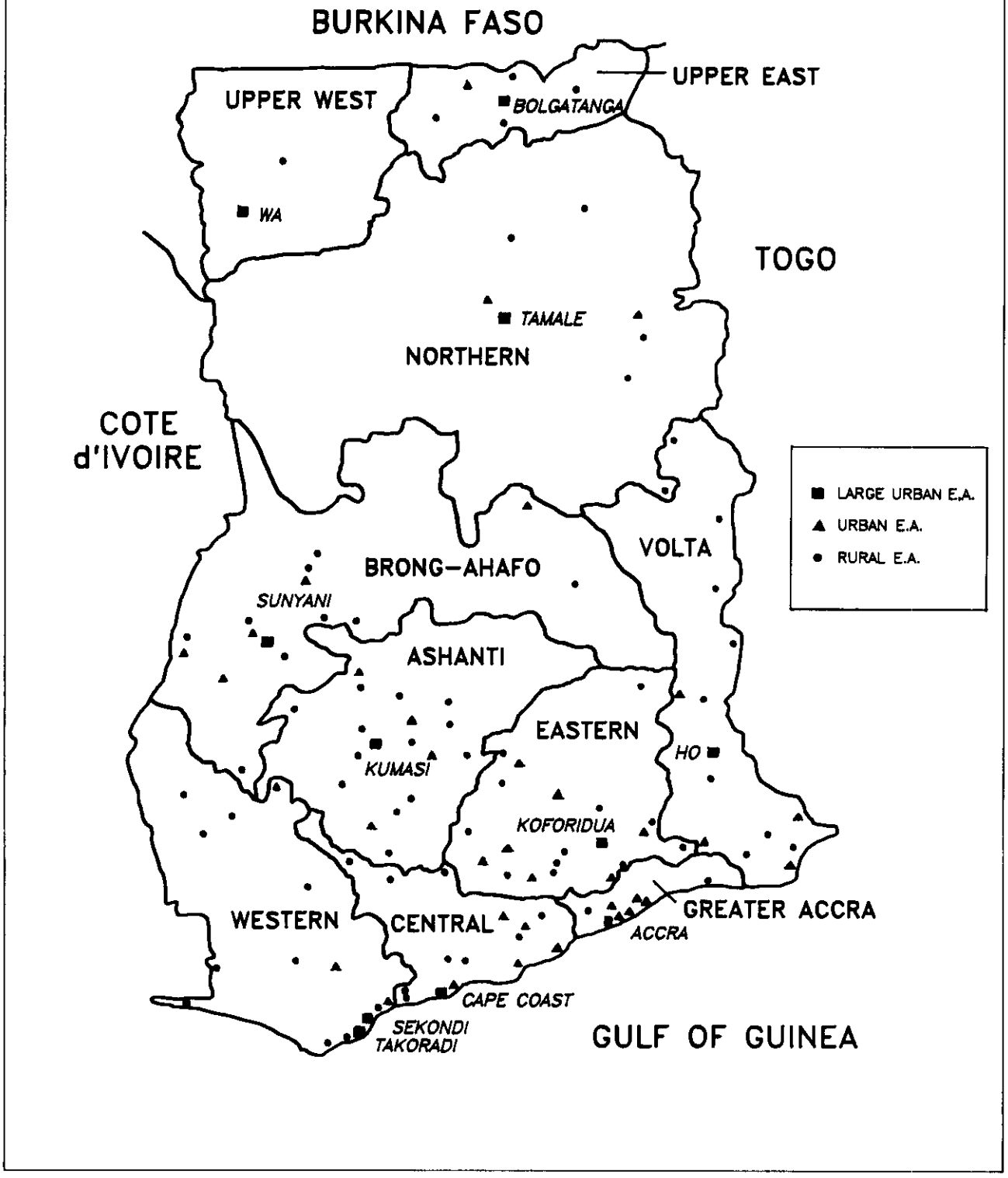
Perhaps the most striking mortality differentials are those associated with the length of the preceding birth interval. Children born within two years of a preceding birth are more than twice as likely to die during the first year of life as those born four or more years after a preceding birth.

The health of both mother and child is likely to be affected by the type of health care received during pregnancy. The GDHS data show that there is a high level of prenatal care by trained health personnel. For 82 percent of births in the five years before the survey, mothers received prenatal care from a trained doctor, nurse or trained midwife. One-third of the births were delivered by a trained nurse or midwife and 28 percent by a traditional birth attendant. Only 6 percent of births were delivered without assistance.

Nearly three-quarters of children under 5 years of age have had at least one immunisation, but only 47 percent of children age 12-23 months with health cards are fully immunised. The GDHS data indicate fairly high levels of prevalence of certain childhood diseases. Among children under five, 26 percent had diarrhoea in the two weeks before the survey, and 35 percent had fever in the four weeks before the survey.

Anthropometric measurements taken in the Ghana DHS permit an assessment of the nutritional status of children aged 3-36 months. Approximately one-third of children in this age group are classified as chronically malnourished; 8 percent are classified as acutely malnourished.

Ghana


BURKINA FASO
UPPER EAST
UPPER WEST
BOLGATANGA
WA
TOGO
TAMALE
NORTHERN
COTE
d'IVOIRE
LARGE URBAN E.A.
URBAN E.A.
RURAL E.A.
VOLTA
BRONG-AHAFO
SUNYANI
ASHANTI
EASTERN
HO
KUMASI
KOFORIDUA
GREATER ACCRA
ACCRA
WESTERN
CENTRAL
CAPE COAST
SEKONDI
TAKORADI
GULF OF GUINEA

CHAPTER 1

BACKGROUND

1.1 HISTORY, GEOGRAPHY AND ECONOMY

The Republic of Ghana, covering 238,537 square kilometres, lies along the west coast of Africa. Apart from the Atlantic Ocean that washes its 560 kilometres of coastline on the south, the country is surrounded by French-speaking countries--the Republic of Togo in the east, Burkina Faso in the north, and Cote d'Ivoire in the west. Ghana is divided into ten administrative regions made up of 110 districts which, under the present political structure, constitute the primary units of administration.

On 6th March 1957, Ghana attained political independence from Britain and on 1st July 1960, adopted a republican constitution.

Since independence, Ghana has made bold efforts at achieving rapid social and economic development. Successive governments which have administered the country have recognised that the country's population is an instrument for, as well as the beneficiary of, development and, consequently, population factors have been incorporated into all socioeconomic development plans.

The Ghanaian population is composed of varied ethnic and linguistic groups. In 1960,[1] some 17 major groups were identified based on language (Census Office, 1964). The largest ethnic group, the Akans, constitutes 44 percent of the population and is concentrated in the Ashanti, Brong-Ahafo, Central, Western and Eastern regions. The Ewes, found mainly in the Volta region, are 13 percent, with the Ga-Adangbe concentrated in the Greater Accra and Eastern regions accounting for 8 percent. Finally, in the Northern and Upper regions are the Mole-Dagbani (16.0 percent), Grussi (2 percent) and Gurma (4 percent). Other, smaller ethnic groups make up the remainder.

Christians make up over 50 percent of the population and are found mainly in the southern half of the country (Central Bureau of Statistics, 1983). Muslims and adherents of traditional religion are concentrated in the northern half of the country.

Ghana has a mixed economy consisting of a small, capital-intensive modern sector and a large, traditional agricultural sector. The modern sector focuses on mining and industrial activities. The traditional sector is composed of small farmers who make up 61 percent of the economically active adult population (Ghana Statistical Service, 1987).

The economy experienced a steady decline throughout the 1970s and the early 1980s, with per capita real income falling substantially during that period. Economic activity stagnated due to a variety of factors including poor incentives for producers, lack of raw materials, and high operating costs. The production and export of commercial crops slumped drastically. Large budgetary deficits and poor fiscal management resulted in high inflation and reduced living standards for large segments of the population. Overvalued currency and a fixed exchange rate contributed to decreasing exports and periodic shortages of foreign exchange. Faced with deteriorating economic conditions, many professionals and skilled technical workers, as well as the semi-skilled and unskilled left the country seeking employment.

Three years of severe drought and widespread bushfires in the early 1980s resulted in acute food shortages in 1983 and the first half of 1984. The expulsion of an estimated one million Ghanaians from

[1] Information on ethnic groups has not been collected since the 1960 census.

neighbouring Nigeria aggravated an already poor employment and food situation. External terms of trade worsened further with increases in crude oil prices and a decline in the price of the country's major foreign exchange earners; namely, cocoa, timber and gold. The gross national product dropped from 600 dollars per capita in 1974 to less than 200 dollars in 1981; real wages went down by 80 percent and the volume of imports fell by half. A third of export earnings were being spent on crude oil imports by 1981 with inflation at 117 percent. By 1983 the rate of inflation had reached an all-time high of 123 percent.

In an effort to halt the economic recession, the government of the Provisional National Defence Council (PNDC) launched an Economic Recovery Programme (ERP) in April 1983. Phase one of the recovery programme (1983-86) was aimed at stabilising and consolidating the economy. It succeeded in restoring growth of per capita income over three consecutive years for the first time in over a decade. The first phase also achieved a substantial reduction in the macro-economic disequilibria. The second phase of the ERP, covering the period 1987-89, has a view to stimulating growth, encouraging savings and investment, and consolidating economic gains through a programme of structural adjustment and development. To complement the efforts under the Structural Adjustment Programme (SAP), the government has initiated a "Programme of Actions to Mitigate the Social Costs of Adjustment (PAMSCAD)." The primary objective under the PAMSCAD is to identify groups whose living conditions have been adversely affected by the structural adjustment programme and earlier periods of economic decline, and to address the needs of these groups.

The implementation of the ERP has, so far, appreciably revived the economy with the Gross Domestic Product (GDP) growing at an annual average rate of 6 percent over the period 1984-88. Agricultural output between 1987 and 1988 increased from a growth rate of 0.04 percent in 1987 to more than 3 percent in 1988. Meanwhile, recovery and expansion in the industrial sector has continued with output growing at a rate of 10.3 percent in 1988 (Republic of Ghana, 1989). Domestic savings and investment have increased in both the public and private sectors, whilst the rate of inflation dropped from 40 percent in 1987 to 31 percent in 1988 (Ghana Statistical Service, 1989).

1.2 EDUCATION

The accelerated programme of education initiated during the immediate post-independence years has resulted in greater literacy. In particular, the proportion of females who have had some formal education has risen appreciably. For example, the proportion of women 15-24 who have never been to school declined from 79 percent in 1960 to 38 percent in 1984. While in 1960 only one out of twenty females 15-24 was in school, by 1984 one out of five in that age group was in school.

1.3 POPULATION AND FAMILY PLANNING PROGRAMME

According to the results of the latest population census, Ghana's population as of March 1984 was 12.3 million, which represents an increase of 44 percent over the figure recorded in the 1970 census (Census Office, 1975; Ghana Statistical Service, 1989). Over two-thirds of the population live in rural areas, while nearly one-third live in urban areas (defined as localities with 5,000 or more persons).

The vital registration system covers only about 40 percent of births and 25 percent of deaths, with the majority of the events being registered in urban areas where most registries are located. In the absence of reliable vital statistics, censuses and demographic sample surveys have provided the baseline data for estimation of vital rates. The crude birth rate is currently estimated at 44 to 48 per thousand, while the crude death rate is 16 to 17 per thousand. An intercensal growth rate of 2.6 percent per annum was recorded for the period 1970-1984.

Declining mortality and comparatively high fertility have stood out as the principal factors influencing rapid population growth in the 1970s and 1980s. Traditionally, large families are favoured. The ethnographic literature contains numerous accounts of young couples being urged to have as many

children as they can. The fate of a childless woman is reported to be a miserable one (Fortes, M. 1949; Gaisie, S.K. 1981; Goody J. 1956).

In 1969, Ghana became the first sub-Saharan African country to adopt a population policy. A major objective of the policy is to reduce population growth to a rate of 2.0 percent per annum by the year 2000. Almost at the same time, the Ghana National Family Planning Programme (GNFPP) was instituted to offer family planning services to couples desiring to limit or space births. Outlets for the supply of family planning services were opened in hospitals and clinics, most of which were government operated. Currently, the Ministry of Health (MOH) distributes information and supplies through its family health clinics and primary health care centers. Since its inception in 1970, the GNFPP has focused on delivery of family planning services to such groups as girls under 18 years who are pregnant, women with children under two years, families with histories of poor child survival and development, and women aged 30-35 with four or more children. As recently as 1986, under a contraceptive social marketing programme begun that year, pharmacies and chemical sellers were permitted to sell condoms, vaginal foaming tablets and oral contraceptives through some 3600 retail outlets (Ampofo, 1988).

Non-governmental agencies like the Planned Parenthood Association of Ghana (PPAG) and the Christian Council of Ghana (CCG) operate family planning clinics as a supplement to the efforts of the Ministry of Health. In addition, the Catholic Secretariat encourages use of the rhythm or ovulation method and private medical practitioners offer family planning services.

1.4 HEALTH PRIORITIES AND PROGRAMMES

The Government is committed to the objective of attaining health for all by the year 2000. The strategy for achieving this objective is the Primary Health Care (PHC) programme which constitutes a vital component of the country's health delivery system. To ensure that the PHC programme operates efficiently, the health service is being decentralised to the districts with reorientation and retraining of personnel in PHC programme planning, implementation, and management. Furthermore, the efficiency of traditional birth attendants (TBAs) is being improved through special training in modern midwifery practices as well as prenatal and postnatal care, health education, oral rehydration therapy, family planning, and aspects of child health. The PHC itself concentrates on six priority areas as follows:

Maternal and Child Care
Family Planning
Nutrition
Control of Diarrhoeal Diseases
Expanded Programme on Immunisation and Malaria Control

The implementation of all these aspects of the PHC programme requires multisectoral action and close collaboration among the three main health systems, i.e., the Government Health Service, private practitioners, and traditional medicine.

Maternal and child health (MCH), including the programme to combat the six major childhood diseases, has been incorporated in general medical care since the early sixties. The diseases included in a nationwide immunisation programme are diphtheria, tetanus, whooping cough, poliomyelitis, measles and tuberculosis. By adopting the WHO Expanded Programme on Immunisation (EPI) the government hopes to reduce the massive loss of children to these diseases. Under the EPI programme the country hopes to attain 80 percent immunisation coverage by the year 2000 for the target population--children under two years, pregnant mothers and puberty-aged girls (Adjei, et. al., 1988).

1.5 OBJECTIVES OF THE SURVEY

The short-term objectives of the Ghana Demographic and Health Survey (GDHS) are to provide policymakers and those implementing policy with current data on fertility levels, knowledge and use of contraception, reproductive intentions of women 15-49, and health indicators. The information will also serve as the basis for monitoring and evaluating programmes initiated by the government such as the extended programme on immunisation, child nutrition, and the family planning programme. The long-term objectives are to enhance the country's ability to undertake surveys of excellent technical quality that seek to measure changes in fertility levels, health status (particularly of children), and the extent of contraceptive knowledge and use. Finally, the results of the survey will form part of an international data base for researchers investigating topics related to the above issues.

1.6 ORGANISATION OF THE SURVEY

The Ghana Demographic and Health Survey is a stratified, self-weighting, nationally representative sample survey. The GDHS forms part of a worldwide programme to elicit data on fertility, contraceptive use, infant mortality and morbidity, and health-related issues for planning purposes. The survey which was funded mainly by the United States Agency for International Development (USAID) and the Ghana Government, was carried out by the Ghana Statistical Service between February and June 1988.

Contributions by the Ghana Government covered, among other things, the salaries of the survey personnel, the provision of offices and office equipment, as well as some of the vehicles used for the project. Funds from USAID were administered by the Institute for Resource Development/Macro Systems, Inc. (IRD), and were used for allowances of project personnel, data processing and anthropometric equipment, printing of questionnaires, publication of reports, and vehicle maintenance and fuel. Technical assistance to the survey was provided by IRD. The United Nations Fund for Population Activities (UNFPA) provided funds which were used for the training of interviewers and for fieldwork. Finally, UNICEF loaned 8 vehicles to the project for the duration of the fieldwork.

The 150 clusters from which a representative sample of women aged 15-49 was selected form a subsample of the 200 clusters used for the Ghana Living Standards Survey (GLSS). All census Enumeration Areas (EAs) were first stratified by ecological zones into 3 strata, namely Coastal Savanna, Forest, and Northern Savanna. These were further stratified into urban, semi-urban, and rural EAs. The EAs (in some cases, segments of EAs) were then selected with probability proportional to the number of households. All households in the selected EAs were subsequently listed. (For details of the sample design, see Appendix B).

Three different types of questionnaires were used for the GDHS. These were the household, individual and the husband questionnaires. The household and the individual questionnaires were adapted from the Model "B" Questionnaire for the DHS programme. The GDHS is one of the few surveys in which special effort was made to collect information from husbands of interviewed women on such topics as fertility preferences, knowledge and use of contraception, and environmental and health-related issues.

All usual members and visitors in the selected households were listed on the household questionnaire. Recorded in the household questionnaire were data on the age and sex of all listed persons in addition to information on fostering for children aged 0-14. Eligible women and eligible husbands were also identified in the household questionnaire.

The individual questionnaire was used to collect data on eligible women. Eligible women were defined as those aged 15-49 years who spent the night prior to the household interview in the selected

household, irrespective of whether they were usual members of the household or not. Items of information collected in this questionnaire are as follows:

1. Respondent's Background
2. Reproductive Behaviour
3. Knowledge and Use of Contraception
4. Health and Breastfeeding
5. Marriage
6. Fertility Preferences
7. Husband's Background and Women's Work
8. Weight and Height of Children Aged 3-36 Months.

In half of the selected clusters a husband's questionnaire was used to collect data on eligible husbands. Eligible husbands were defined as those who were co-resident with their wives and whose wives had been successfully interviewed. Data on the husband's background, contraceptive knowledge and use, as well as fertility preferences were collected.

All three questionnaires were translated into seven local languages, namely, Twi, Fante, Nzema, Ga, Ewe, Hausa and Dagbani. All the GDHS interviewers were able to conduct interviews in English and at least one local language. The questionnaires were pretested from mid-October to early November 1987. Five teams were used for the pretest fieldwork. These included 19 persons who were trained for 11 days.

For the main survey, eight days' training was organised for the 16 supervisors and editors who had earlier taken part in the pretest. This was followed by a 3-week training for interviewers. Personnel involved in the fieldwork were 40 interviewers (26 males, 14 females), 8 supervisors (6 males, 2 females), 8 editors (7 males and 1 female) and 11 drivers.[2] Fifty-six of the field staff were recruited from the Ghana Statistical Service, whilst 11 persons were recruited from the Department of Community Development and the Department of Social Welfare. Fieldwork began on 13th February 1988 and was completed on 5th June 1988.

Completed questionnaires were collected weekly from the regions by the field coordinators. Coding, data entry and machine editing went on concurrently at the Ghana Statistical Service in Accra as the fieldwork progressed. Coding and data entry were started in March 1988 and were completed by the end of June 1988. Preliminary tabulations were produced by mid-July 1988, and by August 1988 preliminary results of the survey were published.

1.7 BACKGROUND CHARACTERISTICS OF SURVEY RESPONDENTS

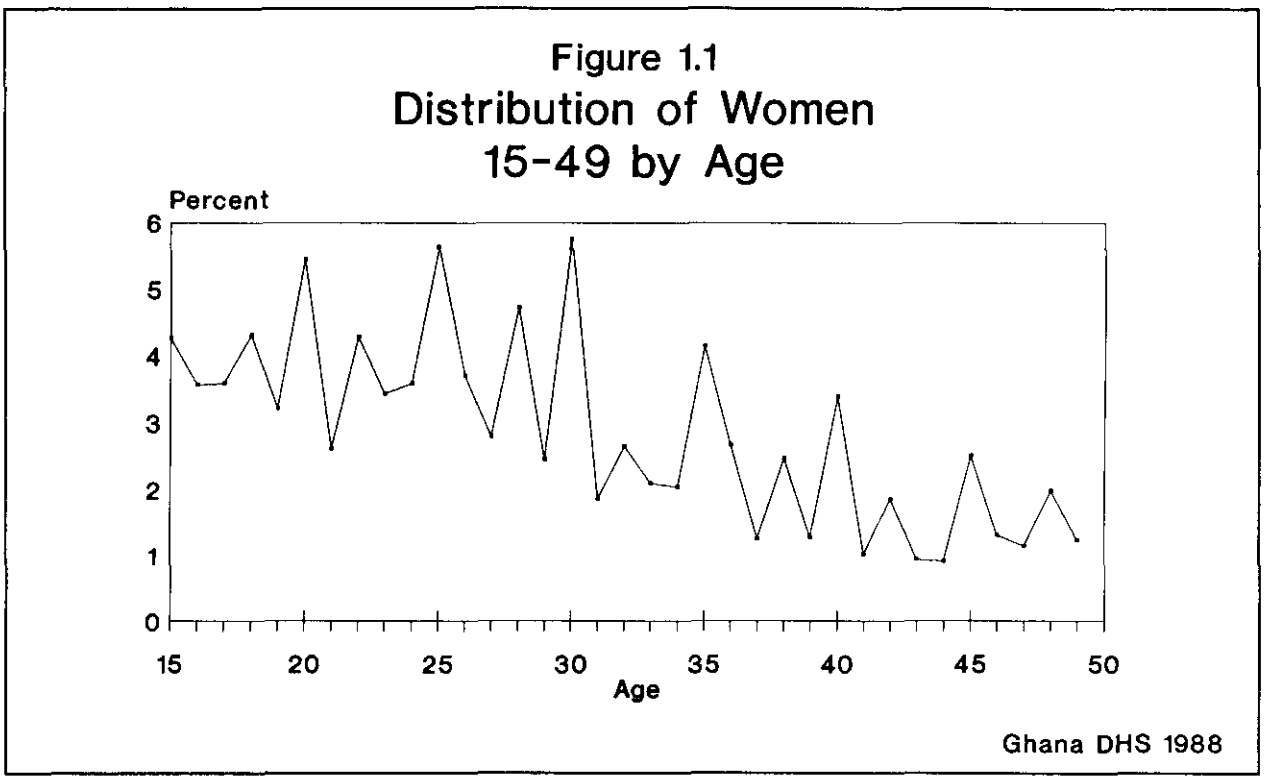
Of the 4966 households selected, 4406 were successfully interviewed. Excluding 9 percent of households that were vacant, absent, etc., the household response rate is 98 percent.

Out of 4574 eligible women in the household schedule, 4488 were interviewed successfully. The response rate at the individual level is 98 percent. Of the 997 eligible husbands, 943 were successfully interviewed, representing a response rate of 95 percent.

Age data in Ghana, as in many developing countries, are constrained by errors which result from omission of events, age misstatement, and preference for or avoidance of certain digits. As shown in

[2] Although the use of male interviewers is unusual in surveys of this type, a pilot survey for the Ghana Fertility Survey conducted in 1975 suggested that Ghanaian women have no preference for female over male interviewers (Central Bureau of Statistics, 1983).

Figure 1.1, the age distribution of the successfully interviewed women in the sample by single years of age, reveals disproportionately large numbers of women reporting ages with terminal digits of 0 and 5 and somewhat less popular digits 2 and 8. Comparatively, ages ending in digits 1, 7 and 9 are avoided.



In the individual interview, each eligible woman was asked her date of birth and age. Where the respondent could not provide her date of birth nor age, various procedures were adopted to obtain an estimate of her age. The estimation techniques employed included the use of a historical calendar of national, regional and local events and the use of demographic information, such as the number of children ever born. To limit the effects of age heaping on the preferred digits, the conventional five-year age groupings are used in the analyses of the results of the GDHS. Distribution of the sample population by age, residence, region and level of education is shown in Table 1.1, and the distribution of women of reproductive age enumerated in the 1984 Census is presented in Table 1.2.

The results in Table 1.1 indicate that the 15-19 age group comprises 19 percent of the sample, the same proportion as in each of the next two higher age groups. The proportion of the sample in the older age groups declines steadily from 14 percent in the 30-34 group to 8 percent for the 45-49 age group.

One-third of the respondents live in urban areas with the remaining two-thirds residing in rural areas. A similar urban-rural distribution was found in the 1984 national population census.

Some 18 percent of the sample population live in the Ashanti region with 16 percent and 13 percent residing in Eastern and Greater Accra regions, respectively. One out of every nine women in the sample lives in Brong Ahafo, Volta or the three northernmost regions. In addition, while one out of every 10 women lives in the Central region, one out of every 12 resides in the Western region.

Two-fifths of the women in the sample have never been to school while 16 percent have only primary education. More than a third (37 percent) have middle school education; only 8 percent have gone beyond middle school.

An overview of the sample population according to level of education is provided in Table 1.3. Overall, three out of every five women in the sample have had at least primary school education, with the majority of these attaining middle school education.

Educational differences between age groups reflect improvements in educational attainment in recent years. The proportion who have never been to school declines as younger age cohorts are considered. Nearly three-quarters (74 percent) of women aged 45-49 have never been to school. In contrast, among women aged 15-19, less than a fifth have no education. In fact, more than half (53 percent) of them are either now at the middle-school level or have completed middle school. There is, therefore, an inverse relationship between the current age of women and educational attainment.

As expected, urban respondents are better educated than their rural counterparts; 58 percent of the former have at least some middle school education compared to 37 percent for the latter. Regional differences in educational composition of women are also shown in Table 1.3. The more urban and modernised a region, the lower the proportion of women who have never been to school. For example, the proportion of women with no education is only 22 percent in Greater Accra compared to 82 percent in the combined Northern and Upper regions. Between those extremes lie the other regions; Central, Western and Brong Ahafo have proportions ranging from 43 to 48 percent; Eastern, Ashanti and Volta regions range from 28 to 38 percent.

Table 1.1 Percentage Distribution of Women by Age, Urban-Rural Residence, Region and Level of Education, GDHS, 1988

Background Characteristic	Percent	Number
AGE		
15-19	18.9	849
20-24	19.3	867
25-29	19.3	867
30-34	14.3	644
35-39	11.8	531
40-44	8.1	364
45-49	8.2	366
RESIDENCE		
Urban	33.9	1523
Rural	66.1	2965
REGION		
Western	8.7	392
Central	10.3	464
Greater Accra	13.3	598
Eastern	15.7	703
Volta	11.1	500
Ashanti	18.3	823
Brong Ahafo	11.1	500
Upper West, East and Northern	11.3	508
LEVEL OF EDUCATION		
No education	39.7	1783
Primary	16.3	731
Middle	36.5	1638
Higher	7.5	336
TOTAL	100.0	4488

Table 1.2 Percentage Distribution of Women of Reproductive Age, 1984 Census and 1988 GDHS

Age	1984 Census	1988 GDHS
15-19	21.4	18.9
20-24	20.1	19.3
25-29	18.0	19.3
30-34	13.7	14.3
35-39	10.6	11.8
40-44	8.7	8.1
45-49	7.4	8.2
TOTAL	100.0	100.0

Table 1.3 Percentage Distribution of Women by Level of Education, According to Age, Urban-Rural Residence, and Region, GDHS, 1988

Background Characteristic	Level of Education: No Education	Primary	Middle	Higher	Total	Number
AGE						
15-19	19.1	20.8	52.8	7.3	100.0	849
20-24	30.9	15.0	44.5	9.6	100.0	867
25-29	36.1	14.8	38.3	10.8	100.0	867
30-34	39.9	14.9	37.9	7.3	100.0	644
35-39	51.4	17.7	25.6	5.3	100.0	531
40-44	66.2	13.7	15.4	4.7	100.0	364
45-49	73.5	15.3	9.8	1.4	100.0	366
RESIDENCE						
Urban	26.7	15.0	43.7	14.6	100.0	1523
Rural	46.4	17.0	32.8	3.8	100.0	2965
REGION						
Western	43.6	17.1	34.7	4.6	100.0	392
Central	47.6	15.5	31.7	5.2	100.0	464
Greater Accra	21.9	17.4	41.8	18.9	100.0	598
Eastern	27.6	21.1	44.7	6.7	100.0	703
Volta	38.0	19.8	35.2	7.0	100.0	500
Ashanti	30.0	15.9	44.7	9.4	100.0	823
Brong Ahafo	42.8	13.2	41.2	2.8	100.0	500
Upper West, East and Northern	81.7	8.7	8.1	1.6	100.0	508
TOTAL	39.7	16.3	36.5	7.5	100.0	4488

CHAPTER 2

NUPTIALITY AND EXPOSURE TO THE RISK OF PREGNANCY

Variations exist in the nuptiality pattern in Ghana among the ethnic groups. At one end of the spectrum, violation of the premarital sex injunction could result in expulsion from the village as was the practice among the traditional Adangbe. However, at the other end, strong emphasis on procreation as the goal of marriage demanded that some evidence of fecundity be exhibited before the marriage contract was concluded. Generally, early marriage was encouraged by all ethnic groups, but as the cost of marriage varied widely from one group to another, differences exist in the age at marriage depending, to some extent, on the ease with which the material prerequisites of marriage could be acquired (Aryee, 1985). In urban areas, however, new forms of sexual cohabitation, such as consensual unions, have emerged, and customary practices have been modified. For example, in mate selection, the role of kinsmen has been weakened by the modernising influences of the urban environment.

These varied features of the institution of marriage in Ghana define the framework in which women can be exposed to the risk of pregnancy. The features of marriage also give indications of the regulatory mechanisms that operate to influence the level of fertility in Ghana.

For the purpose of the Ghana DHS, marriage is defined to include both formal unions and consensual (living together) arrangements.

Table 2.1 Percentage Distribution of Women by Current Marital Status, According to Age, GDHS, 1988

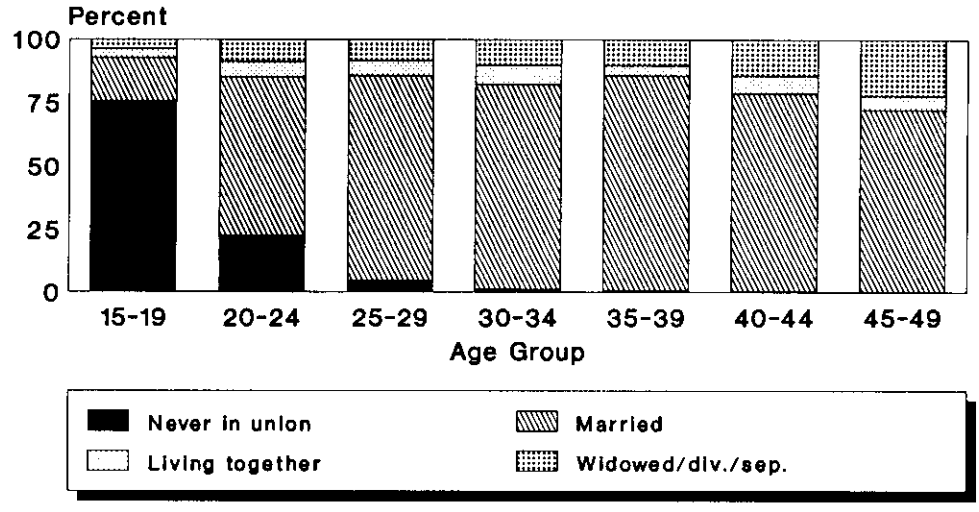
	Marital Status								
Age	Never Married	Married	Living Together	Widowed	Divorced	Not Living Together	Missing	Total	Number
AGE									
15-19	75.6	17.0	3.5	0.1	1.3	2.4	0.1	100.0	849
20-24	22.6	62.3	6.1	0.1	5.2	3.7	0.0	100.0	867
25-29	4.5	80.9	5.9	0.8	5.8	2.2	0.0	100.0	867
30-34	1.2	81.1	7.3	1.6	6.1	2.8	0.0	100.0	644
35-39	0.6	84.9	4.1	1.5	6.0	2.8	0.0	100.0	531
40-44	0.3	78.3	6.9	4.4	7.1	3.0	0.0	100.0	364
45-49	0.0	72.4	5.5	7.1	12.8	2.2	0.0	100.0	366
TOTAL	19.8	64.8	5.5	1.5	5.6	2.7	0.0	100.0	4488

2.1 CURRENT MARITAL STATUS

Table 2.1 presents the distribution of women in the sample according to their current marital status. Overall, 20 percent of the respondents have never been married, while nearly two-thirds (65 percent) are lawfully married. Six percent of the respondents reported themselves as living in an informal union. Almost 3 percent had previously lived in an informal union but are now living separately, and the remaining 7 percent are either widowed or divorced.

Nearly all women in Ghana enter into some type of union during their reproductive years, since the percentage reporting themselves as "never married" falls off from 76 percent of women aged 15-19 years to less than one-half of one percent of women aged 40-44. In fact, by age 25-29, fewer than 5 percent of women have never been married (see Figure 2.1). The proportion currently in some type of union ranges from 21 percent among women 15-19 to 89 percent of women aged 35-39.

Figure 2.1
Union Status of Women 15-49
by Age Group



Ghana DHS 1988

An interesting observation is that while the women aged 15-19 years are least likely to be in an informal union, young adult women aged 20-34 are more likely than any other age group to contract such a consensual relationship. In addition, the proportion divorced or widowed increases with age, reaching 20 percent of women aged 45-49.

2.2 POLYGYNY

Among all currently married women in the sample, a third (33 percent) are in polygynous unions (Table 2.2). This proportion is slightly lower than the 35 percent found in the Ghana Fertility Survey of 1979-80. The difference is so marginal that one cannot tell whether the difference is a reflection of a real decline in polygyny or chance fluctuation.

Younger women are less likely to be in polygynous unions than older women. As the data in Table 2.2 show, the proportion of currently married women in polygynous unions decreases from 43 percent for women aged 35-39 years to 16 percent for those aged 15-19 years, suggesting that the practice of polygyny is declining.

Modernising influences in the urban setting seem to discourage the formation of polygynous unions. Some 34 percent of currently married women in the rural area are in polygynous unions as compared to 28 percent in the urban area.

Table 2.2 Percentage of Currently Married Women in a Polygynous Union, by Age and Selected Background Characteristics, GDHS, 1988

Background Characteristic	Age							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
RESIDENCE								
Urban	18.8	20.5	20.5	26.6	41.1	36.8	38.3	28.3
Rural	15.1	27.4	31.1	37.8	43.5	44.6	39.8	34.5
REGION								
Western	-	29.5	16.9	31.6	29.8	10.0	32.0	24.7
Central	-	15.2	26.1	23.0	42.6	40.0	51.9	28.6
Greater Accra	-	19.7	17.2	29.3	44.3	37.2	27.8	27.5
Eastern	10.0	20.7	22.0	28.0	35.2	35.1	34.5	26.6
Volta	-	37.9	39.6	44.3	59.2	51.4	47.1	43.8
Ashanti	5.6	18.0	29.6	32.1	25.9	46.3	40.0	28.1
Brong Ahafo	16.0	27.7	23.7	36.0	46.3	45.2	40.9	32.2
Upper West, East and Northern	36.0	38.3	46.3	48.1	62.3	60.5	43.9	48.3
LEVEL OF EDUCATION								
No education	25.9	36.5	33.6	40.0	45.0	46.4	40.4	39.5
Primary	13.5	16.3	26.6	33.7	40.7	35.0	36.2	28.3
Middle	10.8	19.5	25.4	31.3	42.7	33.3	40.7	27.1
Higher	-	21.9	17.9	17.5	23.8	-	-	19.1
TOTAL	16.1	25.5	28.1	34.3	42.7	41.9	39.3	32.6

- Fewer than 20 cases

The practice of polygyny in Ghana shows considerable regional variation. The highest proportions of currently married women in such unions are in the three northernmost regions and the Volta region. The proportions range from 44 percent for Volta to 48 percent for the northern regions. The Western region has the lowest proportion (25 percent). The remaining regions have proportions ranging from 27-32 percent.

The data show an inverse relationship between education and polygyny, such that the higher the level of education the lower the extent of polygyny. The practice of polygyny ranges from 19 percent for women with 11 or more years of education to 40 percent for women with no education.

2.3 AGE AT FIRST UNION

In this section, we analyse information on the respondent's date of entry into first union. The survey collected information on the month and year women started living with their first husband or partner. Those who could not recall the year were asked how old they were at the time of the first marriage. The quality of data from these questions depends on how accurately the respondents place the event in time. In addition to the difficulty in correct dating of events, the formalisation of marriage itself may span a number of years. Under these circumstances, caution must be exercised in interpreting the data. In the GDHS, 29 percent of ever-married women reported both a month and year of first marriage, 55 percent gave the year only and 14 percent reported their age at the time of first marriage. Less than 2 percent of respondents had the dates of their first marriage completely imputed.

Table 2.3 Percentage Distribution of Women by Age at First Union and Median Age at First Union, According to Current Age, GDHS, 1988

Current Age	Age at First Union: Never Married	<15	15-17	18-19	20-21	22-24	25+	Total	Number	Median Age
15-19	75.6	5.8	16.0	2.6	0.0	0.0	0.0	100.0	849	-
20-24	22.6	8.7	32.3	22.4	11.0	3.1	0.0	100.0	867	18.7
25-29	4.5	12.3	30.8	23.2	14.8	11.6	2.8	100.0	867	18.5
30-34	1.2	14.0	34.3	23.3	12.6	9.9	4.7	100.0	644	18.1
35-39	0.6	10.5	38.0	23.7	13.0	7.9	6.2	100.0	531	18.1
40-44	0.3	14.8	40.4	21.4	11.5	6.0	5.5	100.0	364	17.6
45-49	0.0	13.4	39.1	20.5	9.8	7.9	9.3	100.0	366	17.8
TOTAL	19.8	10.7	31.1	18.9	10.0	6.4	3.1	100.0	4488	-

- Omitted due to censoring

Table 2.3 reveals that the median age at first union is about 18 years for women aged 20-49. In the GFS of 1979-80 the median age at first union for women aged 20-49 was also found to be 18 years (Central Bureau of Statistics, 1983). Nevertheless, the median age at marriage increases across age cohorts, from 17.7 for women currently aged 40-49 to 18.7 for women aged 20-24.

Even though entry into union before age 15 is not rare, the practice is now decreasing. Fifteen percent of women in their forties entered a union before age 15, but only 6 percent of girls currently aged 15-19 did so. Furthermore, 31 percent of women aged 15-19 years in the GFS sample had been married sometime, compared to the 25 percent in the GDHS sample. Evidence from the latter survey also indicates that, while nearly two-thirds of the cohort of women 20-29 entered a union before age 20, for the two oldest cohorts, 72 to 77 percent were in a union before age 20.

Table 2.4 compares the median age at first union for women 20-49 according to various background characteristics. Women aged 20-49 years living in urban areas are likely to enter a union about one-half year later than their counterparts in rural areas. The latter, on the average, contract a first union at age 18.

Median age at first union varies slightly from one region to another. It ranges from a low of 17.8 years for Ashanti to a high of 19.0 years for Greater Accra.

Women with higher education marry later, on the average, than less educated women. Median age at marriage rises rapidly from 17.8 years for women with no education to 22.3 years for women with eleven or more years of schooling. Thus, the expected inverse relationship between education of women and age at marriage is exhibited in the results of the survey.

2.4 BREASTFEEDING AND POSTPARTUM INSUSCEPTIBILITY

In addition to age at first union, the GDHS collected information on breastfeeding and postpartum insusceptibility, which is presented in Tables 2.5 and 2.6. Susceptibility to pregnancy after a birth can be delayed by breastfeeding, which inhibits the resumption of ovulation and menstruation, and by practising postpartum sexual abstinence.

Table 2.4 Median Age at First Union Among Women Aged 20-49 Years, by Current Age and Selected Background Characteristics, GDHS, 1988

Background Characteristic	Current Age						Women Age
	20-24	25-29	30-34	35-39	40-44	45-49	20-49
RESIDENCE							
Urban	19.6	19.6	18.4	18.2	18.1	18.2	18.7
Rural	18.4	18.2	18.0	18.1	17.3	17.6	18.1
REGION							
Western	18.7	18.5	17.5	18.4	17.0	17.5	18.2
Central	18.6	18.8	17.9	19.0	17.7	18.2	18.4
Greater Accra	20.0	19.6	19.0	18.7	18.4	17.8	19.0
Eastern	19.7	18.9	18.5	18.8	17.9	17.2	18.7
Volta	19.0	18.8	19.2	18.0	18.7	19.2	18.8
Ashanti	18.5	18.5	17.6	17.3	16.4	17.2	17.8
Brong Ahafo	18.0	18.1	17.6	17.9	18.2	18.8	18.0
Upper West, East and Northern	18.3	17.7	18.0	18.2	17.7	17.4	17.9
LEVEL OF EDUCATION							
No education	18.1	17.8	17.7	17.7	17.4	17.7	17.8
Primary	18.1	17.9	17.2	18.1	16.7	17.4	17.7
Middle	19.0	18.8	18.2	18.6	18.0	18.7	18.7
Higher	*	21.3	22.4	20.7	-	-	22.3
TOTAL	18.7	18.5	18.1	18.1	17.6	17.8	18.3

* Less than 50 percent ever married
\- Fewer than 20 cases

Respondents who gave birth in the five years preceding the survey were asked if they breastfed, the duration of breastfeeding, and the reason they stopped breastfeeding. Women were further asked how many months they were amenorrhoeic after each delivery and how long they abstained from sexual intercourse. In addition, the women were asked if they were currently breastfeeding, amenorrhoeic, and/or practicing abstinence.

Since it may be difficult for respondents to recall the duration of these events, and since it may be difficult to precisely define when weaning takes place, data in Tables 2.5 and 2.6 are current status estimates, which refer to whether or not the woman was breastfeeding and/or amenorrhoeic at the time of the survey interview, rather than her reported durations following births in the last five years. All births occurring during the three years before the survey are considered in Table 2.5.

It must be noted that Table 2.5 uses cross-sectional data, representing all women at a single point in time, rather than showing the experience of an actual cohort over time. For this reason, the proportions breastfeeding and amenorrhoeic at increasing durations do not decline in a steady fashion. For example, more mothers 10-11 months postpartum were breastfeeding at the time of the survey than were mothers of children 8-9 months old. To reduce such fluctuations, the births are grouped in 2-month intervals.

The data in Table 2.5 reveal that the duration of breastfeeding is fairly long. Nine out of 10 women with births 2-3 months before the survey were still breastfeeding and, for the period 20-21 months

after delivery, more than half (57 percent) of the women still breastfed. Indeed, 2 out of 5 women who gave birth 22-23 months before the interview were still breastfeeding.

Table 2.5 Percentage of Births Where Mothers are Still Breast-feeding, Postpartum Amenorrhoeic, Abstaining, and Insusceptible, by Number of Months Since Birth, GDHS, 1988

Months Since Birth	Percentage of Births Where Mothers Are: Breast-feeding	Amenor-rhoeic	Abstain-ing	Insuscep-tible	Number of Births*
Less than 2	92.7	95.1	96.7	96.7	123
2-3	89.9	88.5	92.1	94.2	139
4-5	92.4	77.9	73.3	88.5	131
6-7	91.9	71.8	56.4	80.5	149
8-9	91.6	69.9	48.3	79.0	143
10-11	94.4	67.1	43.4	78.3	143
12-13	87.2	59.6	41.0	70.2	188
14-15	78.2	47.4	36.1	60.2	133
16-17	64.3	33.6	31.5	46.9	143
18-19	68.1	32.6	26.1	40.6	138
20-21	56.6	20.8	24.5	35.8	106
22-23	41.2	13.1	23.5	29.4	153
24-25	19.2	8.8	15.9	17.6	182
26-27	18.0	7.2	15.1	18.0	139
28-29	11.7	5.0	9.2	13.3	120
30-31	9.2	3.8	11.5	12.3	130
32-33	7.1	3.6	10.1	11.2	169
34-35	5.9	2.9	6.6	7.4	136
Total	56.4	39.1	36.2	48.6	2565

* Includes births occurring in the period 0-35 months prior to the survey.

Postpartum protection from conception can be prolonged by breastfeeding which can lengthen the duration of amenorrhoea. The protection from conception offered by breastfeeding is affected, however, by the frequency and intensity with which the child is breastfed. As many as 88 percent of women 2-3 months postpartum were amenorrhoeic. The proportion drops quite slowly to only 67 percent for women 10-11 months postpartum.

Sexual abstinence after childbirth is practiced for a comparatively long time among women in Ghana. Less than 10 percent of women resumed intercourse 2-3 months after birth. Indeed, 8-9 months after birth slightly less than half of the women continued to abstain from sex. Only three-quarters of women resumed intercourse 22-23 months after delivery.

Column four in Table 2.5 shows the proportion of women protected from pregnancy due to either amenorrhoea or abstinence. While 97 percent of women who delivered less than 2 months prior to the survey are insusceptible, by a year after delivery, this has dropped to 70 percent, and by two years after delivery less than 20 percent are still insusceptible.

2.5 MEAN DURATION OF BREASTFEEDING AND POSTPARTUM INSUSCEPTIBILITY

Breastfeeding practices in a society are important to both health workers and demographers. To the former, breast milk is a superior source of good nutrition for a child. A decline in the lactation period could have serious implications for the nutritional status of infants. The demographer's interest stems from the suppressing effect which lactation exerts on the resumption of ovulation after childbirth. In analysing data on breastfeeding, one must be aware of two factors that can affect duration. The first relates to discontinuation of breastfeeding as a result of the child dying, while the second pertains to the intervention of the next pregnancy which, in turn, triggers hormonal action, leading to the cessation of the flow of breast milk.

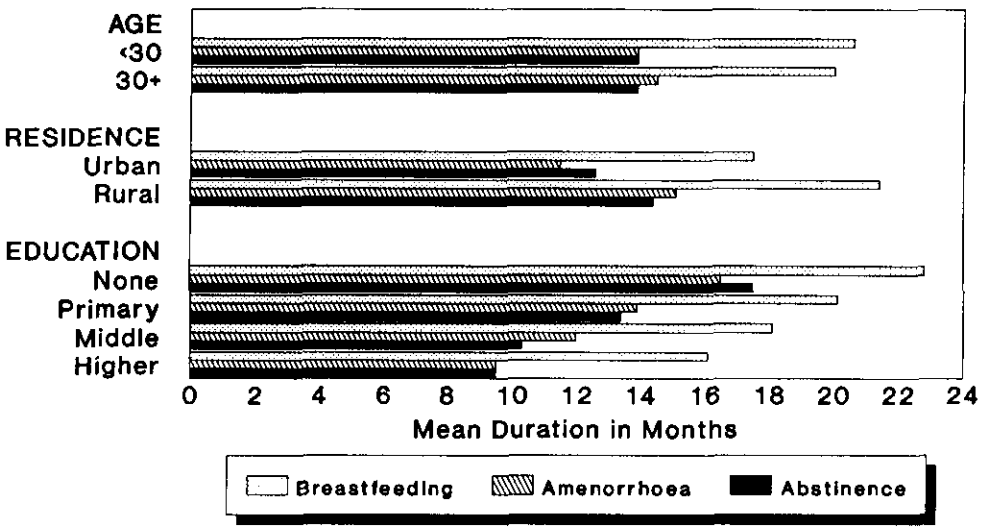
Table 2.6 presents the mean number of months of breastfeeding, postpartum amenorrhoea, postpartum abstinence, and postpartum insusceptibility by background characteristics of the mother. The mean durations were calculated by dividing the total number of women breastfeeding, amenorrhoeic or abstaining by the average number of births per month in the past 36 months. This technique is based on an epidemiological method of estimating the mean duration of a disease calculated by dividing its prevalence by its incidence.

Table 2.6 Mean Number of Months of Breastfeeding, Postpartum Amenorrhoea, Postpartum Abstinence, and Postpartum Insusceptibility, by Selected Background Characteristics GDHS, 1988

Background Characteristic	Breast-feeding	Amenor-rhoea	Absti-nence	Insuscep-tibility	Number of Births
AGE					
<30	20.6	13.8	13.5	17.9	1490
30+	20.0	14.3	13.6	18.4	1098
RESIDENCE					
Urban	17.5	11.4	12.2	15.8	713
Rural	21.4	15.0	14.1	18.9	1875
REGION					
Western	20.0	12.6	10.2	15.6	229
Central	18.9	12.8	12.4	17.2	285
Greater Accra	14.7	9.3	8.8	12.7	249
Eastern	20.2	13.2	13.6	17.8	382
Volta	20.8	14.9	15.6	19.0	314
Ashanti	19.1	14.2	9.9	16.9	457
Brong Ahafo	21.4	13.7	10.7	16.2	351
Upper West, East and Northern	26.6	20.2	26.9	27.9	321
LEVEL OF EDUCATION					
No education	22.8	16.4	17.1	21.3	1114
Primary	20.1	13.9	13.2	18.3	420
Middle	18.1	12.0	10.0	14.9	922
Higher	16.1	9.0	9.3	12.0	132
TOTAL	20.4	14.0	13.5	18.1	2588

Note: Estimates are based on births 1-36 months before the survey.

Figure 2.2
Duration of Breastfeeding, Amenorrhoea and Postpartum Abstinence



Ghana DHS 1988

On the average, women in Ghana breastfeed for 20 months. More educated women and urban women breastfeed for shorter durations than less educated and rural women. While urban women breastfeed for an average of 17.5 months, rural women breastfeed almost 4 months longer. Uneducated mothers breastfeed 7 months longer than the most educated mothers (Figure 2.2). One plausible reason for the shorter duration of breastfeeding among urban women may be their greater participation in the modern sector of the economy.

Evidence from the survey (not shown) indicates that, on the average, mothers fully breastfeed their children (i.e., give them breast milk and water only) for a period of five months. Mothers give supplementary food to their children during the remaining period of breastfeeding.

In the Ghana Fertility Survey, the mean duration of full breastfeeding for mothers whose penultimate child survived for at least 12 months was found to be 5.2 months, while the mean length of the entire duration of breastfeeding was given as 18 months.

Prolonged breastfeeding is, therefore, as common now as it was a decade ago. As part of an international child survival campaign, the health authorities in Ghana are educating and encouraging expectant and lactating mothers to feed their children at the breast instead of giving them formula food, since breast milk is nutritionally ideal, hygienic and, importantly, provides some immunity against disease during the first months of life. Studies in some developing countries suggest that mortality rates are higher for artificially fed infants than for breastfed infants (Knodel, J., 1982).

It has been noted that, in the absence of breastfeeding, postpartum amenorrhoea generally lasts only for about two months, while it averages one to two years when breastfeeding is prolonged and intensive (Page et al, 1982). The mean duration of amenorrhoea in the GDHS is 14 months. The relationship between the duration of breastfeeding and menstruation is not consistent among different subgroups of the population. For example, apart from the three combined 3 regions of the north which

have the longest mean duration of breastfeeding (27 months) and the longest period of amenorrhoea (20 months) and the Greater Accra region which has the shortest mean duration of breastfeeding (15 months) and the shortest period of amenorrhoea (9 months), the relationship between breastfeeding and menstruation is not consistent for the rest of the regions. For instance, the Ashanti region, which ranks sixth in duration of breastfeeding (19 months) ranks third (14 months) in the return of menstruation.

The mean duration of breastfeeding, amenorrhoea and postpartum insusceptibility progressively declines as the level of education rises. Women with no education have the longest mean duration of breastfeeding (23 months), amenorrhoea (16 months), abstinence (17 months) and postpartum insusceptibility (21 months). This declines with increasing education, with the most educated women breastfeeding an average of 16 months, amenorrhoeic 9 months, abstaining 9 months, and insusceptible 12 months.

Women in the Northern, Upper East, and Upper West regions abstain the longest from sexual intercourse (27 months), while women in the predominantly urban region of Greater Accra abstain the shortest (9 months). The remainder of the regions range from 11 to 16 months with Volta, Eastern and Central regions at the upper end of the range and Brong Ahafo, Ashanti, and Western at the lower end. The mean duration of abstinence for the entire country is 14 months. As regards postpartum insusceptibility, again, the Northern, Upper West, and Upper East regions record the longest period of insusceptibility (28 months), with the Greater Accra region recording the shortest period (13 months). Between these extremes lie the rest of the regions, with durations ranging 16 to 19 months. The Volta, Eastern, and Central regions occupy the upper portion of the range, with Ashanti and Brong Ahafo regions at the lower end. For the entire country, the mean duration of postpartum insusceptibility is 18 months.

CHAPTER 3

FERTILITY

The first comprehensive national data obtained on fertility and mortality was collected in the 1979 Ghana Fertility Survey (GFS). The Ghana DHS is the second major national survey conducted in Ghana. One of the objectives of the GDHS is to update knowledge on fertility levels and trends.

Two types of fertility data were collected in the survey. First, each woman was asked questions about the number of sons and daughters living with her, the number living elsewhere and the number that had died. Second, a complete live birth history was collected from each respondent including the sex and date of birth of each child, its survival status and, if dead, age at death and, if alive, whether the child was living with the mother. In dealing with birth history data, it is important to consider the accuracy of reporting. The omission of births is often evident, especially among older women, as is misstatement of dates of births and deliberate concealment of children not currently surviving. Age misstatement by mothers can also affect the accuracy of the fertility data. These factors are known to influence fertility data collected in any setting, but are thought to be particularly problematic in less developed countries.

In this chapter, the discussion of fertility behaviour considers current and cumulative fertility by background characteristics, current pregnancies, fertility trends, children ever born, and age at first birth.

3.1 CURRENT AND CUMULATIVE FERTILITY BY BACKGROUND CHARACTERISTICS

Table 3.1 shows the fertility behaviour of women for the period 0-4 years prior to the survey and for the calendar periods 1982-84 and 1985-88, as well as the number of children ever born to women who are in the latter part of the reproductive period (aged 40-49). For the period 0-4 years prior to the survey, the total fertility rate (TFR) for women aged 15-44 is 6.1. This is the number of children that a woman would bear during her reproductive years if she were to experience the age-specific fertility rates observed during the last five years. For the period 1982-84, the TFR is 6.3, for 1985-88 it is 6.1. The TFR (15-44) for the five years preceding the GFS (approximately 1975-79) was 6.3.

Total fertility rates calculated for the age range 15-49 are also shown. It should be noted that the TFR which includes women currently aged 45-49 uses data which are progressively truncated as one moves backward in time. The TFR for women 15-49 for the five years preceding the GDHS is 6.4; for the two calendar periods, it is 6.6 during the earlier period and 6.4 during the later period. The TFR (15-49) recorded for the five years prior to the GFS was 6.5. A comparison of the total number of children ever born among women aged 40-49 with total fertility in the last five years suggests that, at current rates, Ghanaian women will have slightly fewer children at the end of their reproductive lives than women currently in the 40-49 age group (see Figure 3.1).

There is a large difference in fertility between urban and rural women. The total fertility rate for rural women is more than 1.5 child higher (6.6) than for urban women in the last five years (5.1). Approximately the same urban-rural difference is maintained in the two calendar periods shown.

Regional differentials in fertility levels show that, in the last five years, women in Greater Accra experienced the lowest level of fertility at 4.6, followed by Eastern and Ashanti regions which have TFRs under 6.0. In the remaining regions, the TFR ranges from 6.1 to slightly under 7.0.

Table 3.1 Total Fertility Rate (TFR) for Calendar Year Periods and for Five Years Preceding the Survey, and Mean Number of Children Ever Born to Women 40-49 Years of Age, by Selected Background Characteristics, GDHS, 1988

Background Characteristic	Total Fertility Rate* Calendar Years 85-88	Calendar Years 82-84	0-4 Years Prior to the Survey	Mean Number of Children Ever Born (Women Age 40-49)
RESIDENCE				
Urban	5.13	5.20	5.05	6.15
Rural	6.63	6.90	6.64	7.31
REGION				
Western	5.91	7.15	6.10	6.67
Central	6.57	6.59	6.58	7.17
Greater Accra	4.54	5.08	4.64	6.20
Eastern	5.77	6.14	5.72	7.38
Volta	6.82	6.12	6.66	6.62
Ashanti	5.96	5.89	5.90	7.07
Brong Ahafo	7.11	7.02	6.86	7.11
Upper West, East and Northern	6.60	7.39	6.80	6.88
LEVEL OF EDUCATION				
No education	6.74	7.10	6.77	7.06
Primary	6.10	6.27	6.09	7.17
Middle	5.93	5.94	5.87	6.54
Higher	3.61	3.55	3.55	3.91
TOTAL 15-44	6.11	6.33	6.10	6.92
TOTAL 15-49	6.41	6.60	6.43	-

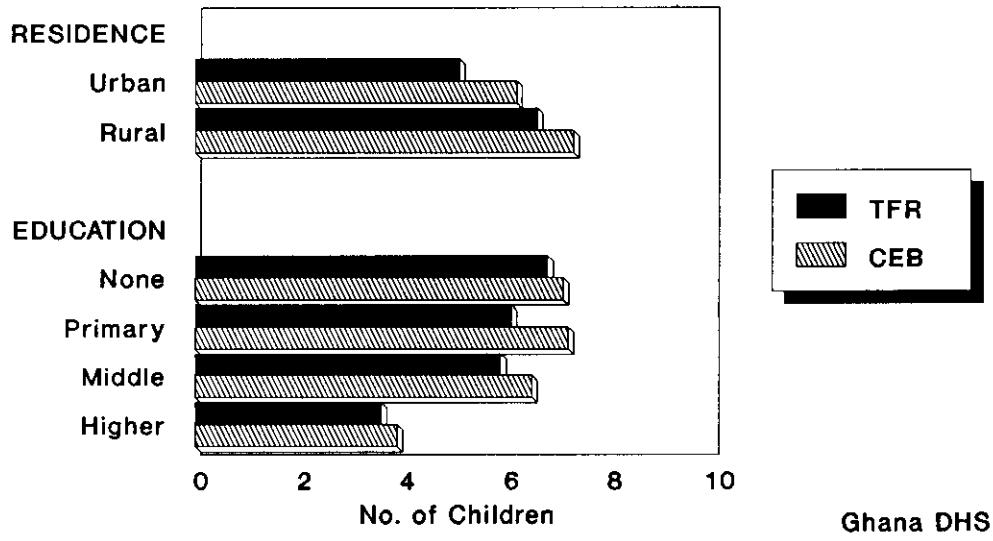
* Calculated for women 15-44 years of age

Differences in fertility levels by education are striking. The total fertility rate in the five years prior to the survey declines from almost 6.8 among women with no education to 3.6 among women with more than middle school education. While women with primary and middle school education have lower fertility than women with no education, the most significant difference is between women with higher education and all other women. The rate for these women is about 40 percent (or about 2 children) less than that of other women. A similar pattern of differentials by education was found in the Ghana Fertility Survey. Results from that survey showed only a small difference in fertility between women with no education and primary education, a small difference for those with middle school education, and a substantial difference (more than 2 births) for women with higher education. It should be noted that the proportion of women with more than middle school education has nearly doubled in the period from the GFS to the GDHS, although they still comprise only a small fraction of all women of reproductive age (8 percent in 1988).

Table 3.2 gives another indicator of the level of current fertility--the proportion of women pregnant at the time of the survey. Current pregnancy as a measure for estimating current fertility is highly subject to underreporting, especially when women are in the early months of pregnancy.

However, underreporting is likely to be similar among women at all ages; hence, it is not likely to distort variations between ages but can affect the overall estimate of current pregnancies. The table shows that among all women aged 15-49, almost 10 percent reported a current pregnancy. The proportion pregnant is approximately 4 percent among women 15-19, rises to more than 13 percent among women in their twenties, declines slightly to 12 percent among women in their thirties and then drops dramatically among women in their forties.

Figure 3.1
Total Fertility Rate 0-4 Years Before Survey and Children Ever Born to Women 40-49



3.2 FERTILITY TRENDS

With the collection of a full birth history in the GDHS, it is possible to examine fertility trends for various periods in the past. Birth history data from surveys often suffer from the omission of births, especially births among older women, births which took place in the distant past, and the births of children who have died. Further, errors in the dates of births of both women and children may affect the accuracy of fertility estimates and distort trends in fertility.[1] One common pattern of birth misplacement is the tendency for women to transfer births during the last five years to a period further in the past (usually the period 5-9 years prior to the survey). This pattern (the "Potter effect") is often accompanied by a tendency for women to place births which occurred ten or more years before the survey into the same

[1]Seventy-five percent of births in the GDHS had both a year and month of birth recorded, and more than 99 percent had at least a calendar year recorded. There is some evidence that interviewers calculated the date of birth from the age given by the mother in a substantial number of cases, but it is not possible to distinguish these cases precisely from those in which the birth date was provided entirely by the mother. The percentage of births with complete dates reported declines as one moves backward in time--from 86 percent of births in the last 5 years to 64 percent of births occurring 15 or more years before the survey. About 49 percent of respondents provided their own birth dates in the form of both month and year and 97 percent provided at least a calendar year. Again, however, some calendar years recorded in the questionnaires may have been calculated by the interviewers from the ages provided by the respondents.

intermediate period. This type of error in the dating of births can give the misleading impression that a decline in fertility has occurred in the period immediately preceding the survey.

Age-specific fertility rates for five-year periods preceding the GDHS are shown in Table 3.3. The rates are progressively truncated as periods further in the past are examined. Nevertheless, a fairly complete picture of fertility up to age 34 can be gathered for the twenty years preceding the GDHS. Overall, the data suggest that a small decline in fertility has occurred during the course of the last twenty years. In the 15-19 age group, fertility appears to have declined fairly steadily at the rate of about 7-8 percent in each five-year period over the last 25 years. Among women currently in their twenties, smaller declines are recorded, amounting to between 1 and 5 percent in each five-year period, with the exception of the period between 20-24 and 15-19 years prior to the survey, in which fertility appears to have been stable or to have increased slightly. Among women currently in their thirties, slightly larger declines are recorded in the period between 5-9 and 0-4 years prior to the survey. There is some evidence among the group currently aged 30-34 that a transference of births into the period 5-9 years before the survey has occurred. The fact that relatively large decreases in fertility rates are apparent in the most recent 5-year period in comparison to earlier periods may be evidence of either a recent fertility decline or evidence that births have been transferred out of the most recent period into an earlier period.

Table 3.2 Percentage of All Women Who are Currently Pregnant by Age, GDHS, 1988

Age	Women Who Are Pregnant	Total Number
15-19	4.1	849
20-24	13.4	867
25-29	13.1	867
30-34	12.3	644
35-39	12.2	531
40-44	6.3	364
45-49	3.8	366
TOTAL	9.9	4488

Table 3.3 Age-Period Fertility Rate (Per 1000 Women) by Age of Woman at Birth of Child, GDHS, 1988

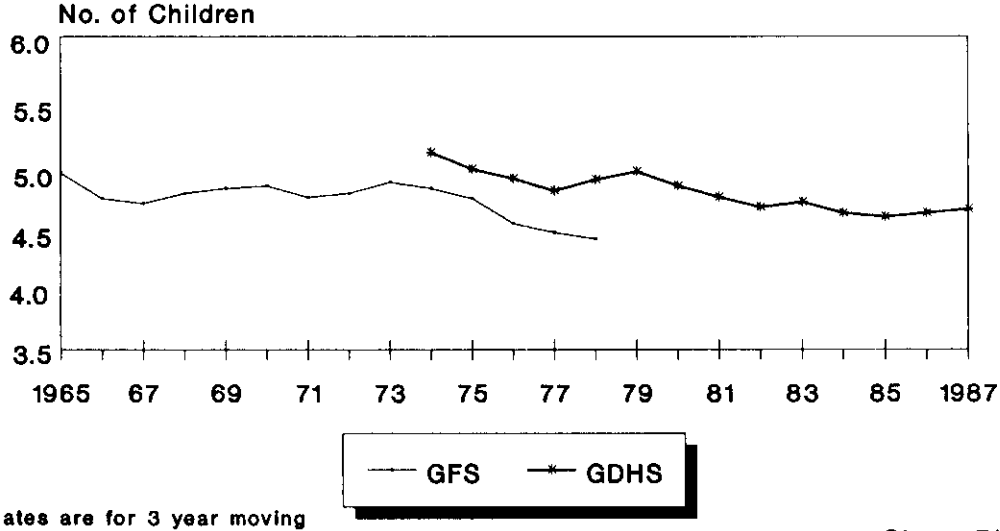
Mother's Age at Birth	Years Preceding Survey						
	0-4	5-9	10-14	15-19	20-24	25-29	30-34
15-19	124	130	141	154	166	179	(159)
20-24	258	269	283	299	297	(305)	-
25-29	278	292	294	301	(323)	-	-
30-34	248	271	266	(265)	-	-	-
35-39	195	218	(241)	-	-	-	-
40-44	117	(145)	-	-	-	-	-
45-49	(60)	-	-	-	-	-	-

Note: Rates in parentheses are partially truncated.

Further evidence on this point is provided by Figure 3.2, which compares data from the GDHS with data from the GFS. In this figure, age-specific fertility rates are cumulated from age 15 to age 34 for single calendar years. Three-year moving averages are presented. The GDHS data suggest that some births were shifted to the years 1979 and 1980, approximately 8-9 years before the survey. In addition to being consistent with the pattern described above, field experience from the GDHS suggests that these years were used as reference points for dating births, as Ghana experienced dramatic political and economic changes in those years. As shown in the figure, the GFS recorded a small fertility decline in the

five-year period preceding the survey. A detailed data-quality analysis of the GFS data suggested that no severe omission of births had occurred, but that mortality (and thus, the number of children who had died) was underestimated (Owusu, 1984). GDHS mortality estimates for the same period (the early to mid-seventies) confirm that mortality in the GFS was probably underestimated. This underestimation of mortality may be a factor in the higher fertility rates recorded in the GDHS for this period.

Figure 3.2
Cumulated Age-Specific Fertility Rates for Women 15-34, GFS and GDHS 1965-1987



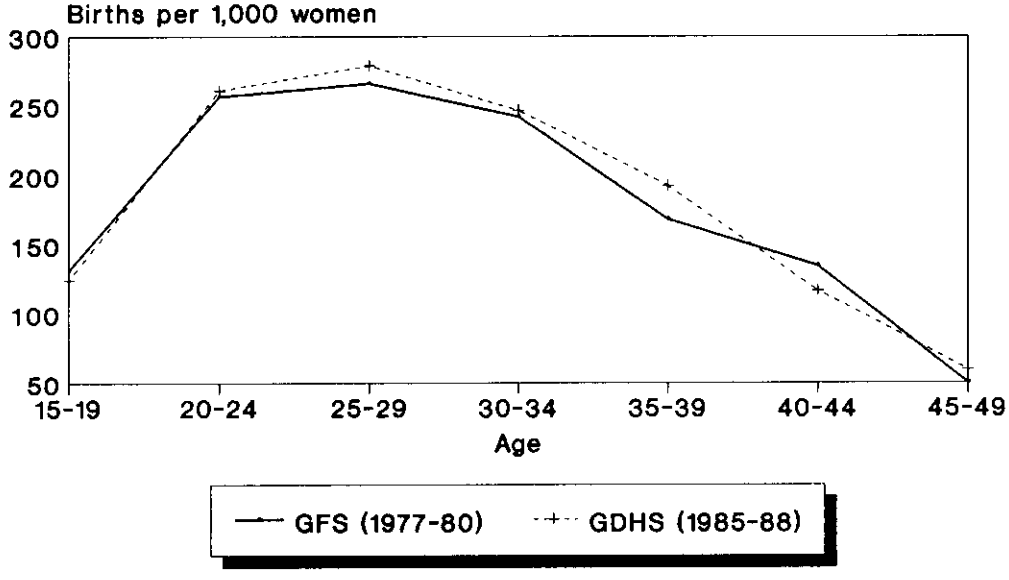
Note: Rates are for 3 year moving averages, except 1978 and 1987.

Ghana DHS 1988

Another analysis of GFS fertility data concluded that, in spite of reporting errors which might lead to a spurious decline in fertility, the beginning of a long-term decline in fertility was suggested consistently by the data (Shah and Singh, 1985). Nevertheless, in addition to the undercount of deceased children in the GFS, there are a number of additional factors which could contribute to the inconsistency between the two sets of data. First, a large-scale out-migration of young males accompanied by a severe economic crisis took place in Ghana during the mid to late seventies and early eighties. The exact magnitude of the migration is not known, but may have been large enough to depress fertility temporarily. In late 1983 and early 1984, many of these migrants returned to Ghana. It was also around this time that the economic recovery programme was launched by the government and the economic situation began to improve.

It is difficult to assess the impact of these changes on fertility behaviour but, overall, the data suggest that, even if a short-term fertility decline occurred in Ghana during the mid to late seventies, the decline has not continued into the eighties (see Figure 3.3). In fact, the low level of use of modern contraceptives, together with the relatively improved economic situation, may have led to a short-term increase in fertility, since traditional restraints on high fertility, such as breastfeeding and postpartum abstinence, often decrease with modernisation. The fact that the duration of breastfeeding does **not** appear to have decreased in this period may have contributed to the stability of fertility in recent years. Furthermore, the very small increase in the use of contraception in the years since the GFS (see chapter 4) and the stability in age at first marriage are not consistent with a large decline in fertility. A more

Figure 3.3
Age-Specific Fertility Rates, GFS and GDHS



complete explanation of fertility trends in Ghana must be suspended until a detailed analysis of available sources of fertility data is undertaken.

3.3 CHILDREN EVER BORN

Table 3.4 presents the distribution of children ever born by age of the mother, for all women and for currently married women. The mean number of children ever born among all women is 3.2. The number of children ever born increases with age, from 0.2 for women aged 15-19 to 1.3 and 2.7 for age groups 20-24 and 25-29, respectively. The mean number of children ever born rises sharply to 4.2 at age 30-34 and reaches the highest level of 7.3 at age 45-49. This picture indicates that completed family size is quite high in Ghana. A similar pattern was observed in the 1979 GFS, where fertility rose from a very low level of 0.2 for age group 15-19 to a completed family size of 6.7 for age group 45-49.

Since voluntary childlessness is rare in Ghana, the data presented in Table 3.4 suggest that the level of primary sterility is quite low, with 77 percent of all women of reproductive age having at least one child. Childlessness declines rapidly with age. As many as 81 percent of women in age group 15-19 have never had a child, while this percentage is 28 for those aged 20-24 and declines sharply to 8 percent for those aged 25-29, and 2 percent for women 40-49. Among women aged 45-49, 22 percent have 10 or more children; this percentage is 10 for women 40-44.

The mean number of children ever born among currently married women (4.0) is higher than that for all women (3.2). The proportion of currently married women that have never had a child is much lower (7 percent) than among all women (23 percent). The mean number of children ever born is higher for married women than for all women at every age, especially at the younger ages. This pattern implies that most childbearing in Ghana takes place within marriage, or at least after the first marriage.

Table 3.4 Percentage Distribution of Children Ever Born (CEB) to All Women and to Currently Married Women, According to Age, GDHS, 1988

Age	Children Ever Born											Total	Number	Mean CEB
	0	1	2	3	4	5	6	7	8	9	10+			
All Women														
15-19	80.7	17.2	2.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	849	0.2
20-24	27.9	34.8	24.7	9.6	2.7	0.3	0.0	0.0	0.0	0.0	0.0	100.0	867	1.3
25-29	8.4	14.2	23.9	26.4	16.0	7.7	2.5	0.7	0.0	0.0	0.1	100.0	867	2.7
30-34	2.2	5.3	11.6	16.5	20.0	21.3	12.9	7.6	1.2	0.6	0.8	100.0	644	4.2
35-39	1.7	3.2	4.0	10.0	11.1	18.8	20.0	14.3	9.0	5.1	2.8	100.0	531	5.5
40-44	1.6	2.2	4.7	3.3	8.5	9.3	15.7	15.1	16.2	13.2	10.2	100.0	364	6.6
45-49	1.6	2.2	5.2	3.0	6.6	5.7	10.1	13.7	18.3	11.7	21.9	100.0	366	7.3
All Ages	23.1	14.2	12.7	11.0	9.0	8.1	6.8	5.3	4.1	2.7	3.1	100.0	4488	3.2
Currently Married Women														
15-19	38.5	52.3	8.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	174	0.7
20-24	13.7	37.3	32.4	12.6	3.5	0.5	0.0	0.0	0.0	0.0	0.0	100.0	593	1.6
25-29	5.3	12.9	24.5	27.5	17.6	8.5	2.8	0.8	0.0	0.0	0.1	100.0	752	2.8
30-34	1.8	4.0	10.9	15.8	21.6	21.6	13.7	7.7	1.4	0.5	0.9	100.0	569	4.3
35-39	0.8	2.7	3.6	9.7	11.2	19.0	20.7	14.2	9.3	5.5	3.2	100.0	473	5.6
40-44	1.0	1.9	4.8	2.9	7.1	9.0	16.5	14.2	17.1	14.2	11.3	100.0	310	6.8
45-49	1.8	2.1	5.6	3.2	4.9	4.6	9.8	11.9	18.6	11.9	25.6	100.0	285	7.4
All Ages	6.7	14.5	15.9	13.8	11.6	10.2	8.7	6.2	5.0	3.4	4.1	100.0	3156	4.0

3.4 CHILDREN EVER BORN AND AGE AT FIRST MARRIAGE

Table 3.5 shows the mean number of children ever born among ever-married women, according to the age of the woman at first marriage and the duration since her first marriage. In Ghana, where the use of contraceptives is relatively low, the proportion of time a woman spends exposed to the risk of pregnancy determines in great part the number of children she will have. Thus, the earlier a woman marries, the more children she would be expected to have.

Table 3.5 Mean Number of Children Ever Born to Ever-Married Women, by Age at First Marriage and Years Since First Marriage, GDHS, 1988

Years Since First Marriage	Age at First Marriage						
	<15	15-17	18-19	20-21	22-24	25+	Total
0-4	0.9	0.9	1.0	1.1	1.1	1.5	1.0
5-9	2.2	2.4	2.4	2.4	2.5	2.5	2.4
10-14	3.4	3.9	3.8	4.0	3.9	3.6	3.8
15-19	5.1	5.3	5.2	4.8	5.5	4.6	5.2
20-24	6.2	6.7	5.9	6.7	6.5	5.8	6.4
25-29	7.2	7.4	6.7	7.4	7.2	-	7.2
30+	8.0	8.3	6.3	-	-	-	8.0
TOTAL	4.8	4.3	3.6	3.3	3.0	3.1	3.9

The data in Table 3.5 do not show much evidence that age at marriage influences fertility levels. With the exception of women who marry at age 25 or older, the mean number of children born in the first 20 years of marriage does not vary significantly between women who married at different ages. The longer period of exposure of women who married early, however, results in a slightly greater number of children ever born by the end of the reproductive years. There is also some evidence in the table that women who marry later have higher fertility in the first few years of marriage than women who marry earlier. For example, the mean number of children ever born in the first five years of marriage is slightly less than one among women who marry before age 18; it is approximately one for those who marry between the ages of 18 and 19, somewhat more than one among those who marry at age 20-24 and 1.5 among those marrying at age 25 or older.

3.5 AGE AT FIRST BIRTH

The age at which women have their first child is an important indicator because it is related to several aspects of fertility. First, delayed childbirth has been an important factor in fertility decline in some countries. Second, women who start childbearing early are often found to have higher lifetime fertility than those who start childbearing late and, finally, childbearing among teenagers is considered undesirable, as it is often associated with social and economic problems for both mother and child. It should be noted that, in Ghana, research suggests that, although a small percentage of females have their first birth while not yet married, these women often postpone further childbearing until later years when they have completed their education (see, for example, Bleek, 1976).

The data presented in Table 3.6 give the distribution of women by age at first birth according to current age. The prevalence of very early childbearing has declined over time. While 36 percent of women currently aged 45-49 had their first birth before the age of 18, only 23 percent of those currently

Table 3.6 Percentage Distribution of Women by Age at First Birth, and Median Age at First Birth, According to Current Age, GDHS, 1988

Current Age	Age at First Birth: No Birth	<15	15-17	18-19	20-21	22-24	25+	Total	Number	Median
15-19	80.7	1.1	12.6	5.7	-	-	-	100.0	849	-
20-24	27.9	2.8	20.6	27.2	17.1	4.4	-	100.0	867	19.9
25-29	8.4	4.8	22.3	22.6	22.6	14.5	4.7	100.0	867	20.0
30-34	2.2	6.4	28.0	23.4	17.7	15.4	7.0	100.0	644	19.2
35-39	1.7	4.7	28.4	22.6	17.5	15.6	9.4	100.0	531	19.5
40-44	1.6	7.1	33.8	21.7	17.0	11.0	7.7	100.0	364	18.8
45-49	1.6	5.7	30.6	21.0	15.3	12.3	13.4	100.0	366	19.3
TOTAL	23.1	4.2	23.3	20.2	14.9	9.6	4.7	100.0	4488	-

- Omitted due to censoring

aged 20-24 did so. The onset of childbearing is concentrated in the age group 15-19 with the overall median between 19 and 20 years. By age 21, 63 percent of the women had given birth to their first child. The trend across age cohorts is somewhat erratic, but suggests a small increase from the oldest to the youngest cohorts.

3.6 AGE AT FIRST BIRTH BY BACKGROUND CHARACTERISTICS

Table 3.7 shows the median age at first birth among women aged 20-49 years by current age and background characteristics. Variations in the age at first birth by place of residence and level of educational attainment are evident. Women residing in rural areas begin childbearing about a year before their counterparts in urban areas. This difference increases from the oldest to the youngest age groups. The urban-rural difference is about 0.5 years among women aged 45-49, slightly less than 1 year among women aged 30-34 and 1.5 years among women aged 20-24. The urban-rural difference in age at first birth can be attributed to many factors, including early marriage, a high economic value placed on children (as part of rural labour), and inaccessibility of family planning facilities in rural communities.

At the regional level, Greater Accra (the most urbanised region) has the latest age at first birth (20.6 years). Apart from Greater Accra, there is no significant variation in median age at first birth among the regions.

There is an inverse relationship between age at first birth and level of education. The median age at first birth among women with higher education is difficult to assess, because there are few women in this category and because not enough women in the age group 20-24 have had a birth to enable calculation of the median. Nevertheless, women with higher education appear to have a median age at first birth of around 24 years, followed by women with middle school education at 19.9 years and the remaining women at approximately 19 years.

Table 3.7 Median Age at First Birth Among Women Aged 20-49 Years, by Current Age and Selected Background Characteristics, GDHS, 1988

Background Characteristic	Current Age						Total (Ages 20-49)
	20-24	25-29	30-34	35-39	40-44	45-49	
RESIDENCE							
Urban	21.1	21.2	19.9	20.0	19.3	19.6	20.3
Rural	19.6	19.6	19.0	19.3	18.5	19.1	19.3
REGION							
Western	20.2	20.1	19.3	19.0	19.0	17.8	19.5
Central	19.9	19.7	18.8	19.7	18.3	19.5	19.4
Greater Accra	21.2	21.6	20.8	20.4	19.4	19.6	20.6
Eastern	19.6	20.0	19.0	18.9	19.3	17.8	19.3
Volta	19.6	20.1	19.9	19.1	19.0	20.9	19.9
Ashanti	20.5	20.2	18.8	19.5	17.9	19.2	19.5
Brong Ahafo	19.5	19.9	19.4	18.9	19.0	20.5	19.5
Upper West, East and Northern	19.8	19.3	19.1	19.9	19.0	19.0	19.4
LEVEL OF EDUCATION							
No education	19.3	19.4	19.0	19.1	18.9	19.2	19.2
Primary	18.9	19.6	18.6	19.3	17.9	18.7	19.0
Middle	20.1	20.3	19.1	20.0	19.0	19.6	19.9
Higher	-	23.1	23.5	24.0	*	*	23.7
TOTAL	19.9	20.0	19.2	19.5	18.8	19.3	19.6

* Fewer than 20 cases
- Less than 50 percent have had a birth

CHAPTER 4

FERTILITY REGULATION

This chapter focuses on family planning in Ghana. It appraises the respondents' knowledge of methods, sources of supply and the perceived problems (if any) for different contraceptive methods. It also considers current and past practice, and knowledge of the ovulatory method. Special consideration is given to nonuse and intention to use family planning in the future. Also, information was collected on the availability of services and exposure to media coverage of family planning.

The idea of the use of contraception as a measure for spacing and controlling the number of children a couple may have is not new to the Ghanaian community. Traditional methods have been used throughout the country from time immemorial. These methods include periodic abstinence, absence from the husband for a period of time, and withdrawal. That these methods proved ineffective is reflected in the rapid growth of the population (Republic of Ghana, 1969). The view that the rapid growth of population in Ghana is due to natural increase rather than migration is supported by research (e.g., Gaisie, 1984) and is reflected in the 1969 Ghana population policy. The realisation of the need to curb rapid population growth, which is viewed as a threat to all developmental efforts by both individuals and government, made it necessary to adopt much more effective and reliable control measures. Approaches to the control of population growth, either through activities of voluntary organisations or central government policies, are directed towards the control of fertility rather than migration.

The first attempt in this direction was in 1961, when the Christian Council of Ghana set up a Family Advice Centre with the objective of advising married couples on family planning and responsible parenthood. The second organised effort towards fertility control was made in 1967, when the Planned Parenthood Association of Ghana (PPAG) was set up with branches at various centres throughout the country. The PPAG is a voluntary organisation with the objectives of educating the public on the possibilities and the benefits of family planning and offering modern family planning services (Central Bureau of Statistics, 1983). The most comprehensive and positive move on the part of the Government of Ghana to control population growth was in 1969, when the first Ghana Population policy was launched. The policy was aimed at encouraging people to plan their families and to control family sizes through the reduction of births. In order to realize these objectives, a secretariat was established and given the responsibility to manage family planning logistics, clinics, public education, and field activities.

The Ghana Government, private organisations, and individual efforts aimed at controlling fertility tend to emphasize the use of modern birth control techniques. These methods have been in limited use since their introduction, but there has been no comprehensive evaluation apart from the Ghana Fertility Survey. The 1988 GDHS, therefore, is intended, among other things, to serve as a source of information for ascertaining the impact of modern contraceptive methods. Findings from this chapter are of practical importance to planners and policymakers in connection with programmes related to contraception as a measure to control fertility in Ghana.

Questions on contraception were intended to elicit information related to four main areas: knowledge, use, source of method, and problems associated with use of contraception. Spontaneous knowledge of methods was ascertained first by asking the question, "There are various ways or methods a couple can use to delay or avoid a pregnancy. Which of these ways or methods have you heard about?" Methods which were named spontaneously by respondents were recorded. Then, knowledge of methods which were not spontaneously given by the respondents was obtained by reading a sentence describing the method and subsequently asking if the respondent had heard of the method described. Then, for each method they reported they had heard of, women were asked whether they had ever used that method. In

addition, a question was asked about where the respondent would obtain the method if she wanted to use it, and the main problem she perceived with using the method.

4.1 KNOWLEDGE OF METHODS AND SOURCE

Table 4.1 gives the percentage distribution of all women and currently married women by knowledge and source of contraceptive method. Knowledge about contraceptive methods is fairly high among women in Ghana. More than three-quarters of the female population interviewed claimed to know some method of contraception, 76 percent of all women and 79 percent of currently married women (see Figure 4.1). Knowledge of modern methods is also high, 74 percent for all women and 77 percent for currently married women. Furthermore, currently married women showed greater knowledge of sources of contraception than all women.

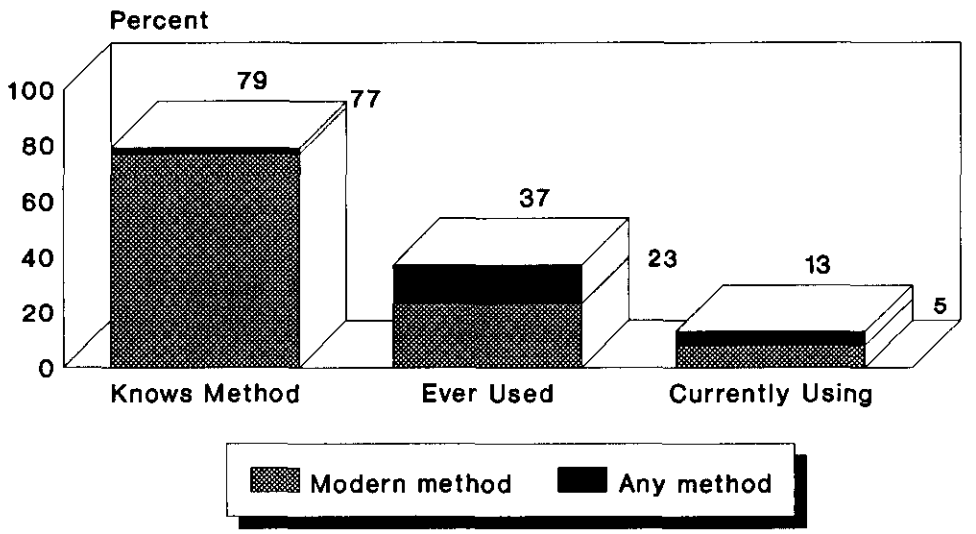
Table 4.1 Percentage of All Women and Currently Married Women Knowing Any Contraceptive Method and Knowing a Source (For Information or Services), by Specific Method, GDHS, 1988

	Know Method		Know Source	
Method	All Women	Currently Married Women	All Women	Currently Married Women
Any Method	76.2	79.4	69.8	73.4
Any Modern Method	73.8	76.5	66.4	69.6
Pill	59.7	63.9	49.1	53.3
IUD	36.7	39.6	29.5	32.3
Injection	42.6	46.5	36.2	39.9
Vaginal Methods	36.6	38.0	31.9	33.1
Condom	48.5	49.5	38.3	39.3
Female Sterilisation	54.1	57.3	48.8	52.0
Male Sterilisation	10.7	10.7	9.0	9.2
Any Traditional Method	49.2	51.9	35.1	37.1
Periodic Abstinence	39.0	41.0	35.1	37.1
Withdrawal	31.0	32.6	-	-
Other	8.6	9.4	-	-
Number	4488	3156	4488	3156

Considering specific methods, the pill is the most well-known method among all women and married women, followed by female sterilisation. The pill is known by 60 percent of all women and 64 percent of married women, while female sterilisation is known by 54 percent of all women and 57 percent of married women. Knowledge of traditional methods is also high, 49 percent among all women and 52 percent among married women. More than a third of women know about each of the other methods, except male sterilisation, which was known by less than 11 percent.

Comparing the evidence from the 1988 GDHS with the GFS data of 1979, it is observed that knowledge of contraceptive methods among currently married women is increasing. In 1979, 69 percent of currently married women knew of one or more methods; this rose to 79 percent in 1988.

Figure 4.1
Family Planning Knowledge and Use,
Women in Union 15-49



Ghana DHS 1988

4.2 KNOWLEDGE OF MODERN METHODS AND SOURCE BY BACKGROUND CHARACTERISTICS

Table 4.2 shows the percentage distribution of currently married women knowing at least one modern method and a source by selected background characteristics. More than 76 percent of all currently married women know at least one method of modern contraception. Apart from women aged 45-49, who show a relatively low level of knowledge (67 percent), the other age groups are all substantially higher without much variation between them; however, the level of knowledge about both methods and sources of modern contraceptives appears to be most common among currently married women aged 20-39.

The variation in knowledge of method and source of modern contraception between the urban and rural sectors is significant. For urban women, knowledge about method and source are 88 percent and 82 percent, respectively, while, for rural women, these percentages are 71 and 64.

With respect to regional variations, apart from the Upper East, Upper West, and Northern regions, where only 40 percent know a method and 32 percent know a source, more than 70 percent of married women know a method and more than two-thirds know a source in each of the regions. The very low level of education among the women in the three northernmost regions may be a factor in the low level of knowledge of methods there. Women in Greater Accra have the highest level of knowledge for both method (94 percent) and source (84 percent). This could be explained by the fact that Greater Accra is the most urbanised region and women there have better access to publicity and greater availability of family planning services.

Significant differentials are observed amongst the women with respect to educational levels attained. Knowledge of both method and source are positively related to level of education. Women with no education have the least knowledge of both method (60 percent) and source (52 percent) and these

Table 4.2 Percentage of Currently Married Women Knowing at Least One Modern Method, and Knowing a Source for a Modern Method by Selected Background Characteristics, GDHS, 1988

Background Characteristic	Know Method	Know Source	Number of Women
AGE			
15-19	71.3	62.1	174
20-24	77.6	71.7	593
25-29	80.7	75.1	752
30-34	77.0	71.0	569
35-39	76.5	68.7	473
40-44	74.8	66.5	310
45-49	66.7	57.5	285
RESIDENCE			
Urban	88.0	82.2	961
Rural	71.4	64.1	2195
REGION			
Western	84.2	82.1	279
Central	74.5	67.8	329
Greater Accra	93.6	83.9	360
Eastern	86.6	80.4	448
Volta	77.5	73.6	356
Ashanti	85.3	74.8	552
Brong Ahafo	71.6	67.1	401
Upper West, East and Northern	40.4	32.3	431
LEVEL OF EDUCATION			
No education	60.3	52.0	1467
Primary	84.2	75.4	512
Middle	92.5	87.8	999
Higher	97.8	96.1	178
TOTAL	76.5	69.6	3156

percentages rise progressively to 98 percent and 96 percent, respectively, for women with higher education.

Large urban-rural, education, and regional differentials in knowledge of methods among currently married women were also found in the GFS. The magnitude of these differentials does not seem to have lessened in the years since the GFS.

4.3 ACCEPTABILITY OF METHOD

Table 4.3 gives the distribution of the responses given by women who know a particular method according to the main problem perceived in using the method. Evidence from this table may be useful in identifying obstacles affecting the use of specific methods with practical implications for future educational and publicity campaigns. Field experience from the GDHS suggests that the findings from this question must be handled with caution, due to the possibility that respondents often appeared confused by it but may have felt compelled to supply an answer.

Table 4.3 Percentage Distribution of Women Who Have Ever Heard of a Contraceptive Method by Main Problem Perceived in Using the Method, According to Specific Method, GDHS, 1988

Main Problem Perceived	Pill	IUD	Injection	Vaginal Methods	Condom	Female Sterili-sation	Male Sterili-sation	Periodic Absti-nence	Withdrawal
No problem	22.5	17.2	25.1	35.7	27.3	27.3	23.7	63.3	38.3
Not effective	5.0	2.2	1.6	4.8	7.4	0.4	0.2	3.1	7.8
Partner disapproves	0.5	0.1	0.3	0.4	0.7	0.2	0.4	2.2	2.8
Health concerns	22.4	22.0	7.9	6.8	3.0	12.2	5.0	1.0	4.8
Difficult to get	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Costs too much	0.1	0.2	0.2	0.4	0.3	0.3	0.4	0.0	0.0
Inconvenient to use	1.5	2.0	1.0	3.5	5.4	1.3	0.6	2.2	5.4
Other	0.4	0.2	0.1	0.0	0.1	0.9	0.8	0.2	0.3
Don't know	47.4	55.6	63.4	48.3	55.5	57.0	68.0	27.4	39.7
Missing	0.2	0.2	0.4	0.2	0.3	0.3	0.8	0.5	0.9
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2681	1647	1910	1643	2175	2428	482	1750	1390

The table shows that the response "don't know" is the most common for all the methods, with the exception of periodic abstinence. After "don't know," "no problem" is the next most common response for all the methods, except the IUD. Apart from these two responses, what appears to be the most highlighted problem associated with use is health concerns, although a few women also mentioned ineffectiveness and inconvenience of use. Other reasons, such as cost, partner's approval and accessibility, do not appear to be important problems associated with the use of known methods.

Periodic abstinence, which has been commonly practiced and needs no education or publicity, appears, in the opinion of the respondents, to have the fewest problems, with 63 percent claiming that there is no problem associated with its use. Withdrawal appears to be the most adjudged ineffective of all the methods, with almost 8 percent citing this as the main problem with using the method. Relative to the modern methods, partner's disapproval with the traditional methods appears higher, with 2 percent for periodic abstinence and 3 percent for withdrawal.

Among modern methods, the most recurring problem mentioned is health concerns, which was mentioned by 22 percent for the pill, 22 percent for the IUD and 12 percent for female sterilisation. Field experience suggests that, for the pill, complaints are associated with abnormal fatness, dizziness and nausea. For the IUD, some respondents reported excessive bleeding, and complications associated with it. With the injection, respondents complain that it suppresses ovulation, and may result in infecundity. Female sterilisation is reported to be associated with weaker health, and the suppression of sexual interest. Respondents also expressed reluctance to use an irreversible method, especially given the possibility of dissolution of the present marriage or the death of children.

In summary, most respondents who know a method are either not aware of any problems associated with its use or believe the method can be used without problems. Of those who named a problem, most mentioned health concerns.

4.4 KNOWLEDGE OF SUPPLY SOURCES

The distribution of women knowing a contraceptive method by the supply source they would use if they wanted to use the method is given in Table 4.4. For the IUD, injection, and female and male sterilisation, the majority of women named government hospitals. Government hospitals and health centers were also named by about a third of the women as sources for the pill. Respondents indicate that pharmacy and chemical shops are also important supply sources for the pill, vaginal methods, and condom. PPAG clinics were identified by 10-15 percent of respondents as supply sources for the pill, IUD, injection, and vaginal methods. For periodic abstinence, friends and relatives are the most named source of information. It is worth noting that responses of "don't know" a supply source are quite high for all the methods.

Table 4.4 Percentage Distribution of Women Knowing a Contraceptive Method by Supply Source Named, According to Specific Method, GDHS, 1988

Source	Pill	IUD	Injection	Vaginal Methods	Condom	Female Sterilisation	Male Sterilisation	Periodic Abstinence
Government hospital	24.1	54.2	60.6	14.4	11.2	84.0	77.8	10.4
Government health center	7.0	6.4	9.0	3.5	2.5	1.5	1.0	3.2
PPAG clinic	15.1	14.8	11.2	11.7	8.0	2.4	3.1	9.4
Private maternity home	0.5	0.2	0.4	0.2	0.1	0.0	0.0	0.5
Field worker	0.8	0.2	0.4	0.4	0.2	0.1	0.0	0.7
Private doctor/clinic	0.4	0.7	1.3	0.4	0.3	0.4	0.6	0.6
Government maternity home	0.3	0.4	0.2	0.1	0.0	0.0	0.0	0.5
Pharmacy/chemical seller	31.3	2.7	1.2	52.5	53.4	0.4	0.4	0.1
Christian Council	0.0	0.1	0.1	0.0	0.0	0.0	0.0	1.0
Friends/relatives	1.7	0.5	0.4	2.3	0.8	0.5	0.4	40.6
Other	0.4	0.0	0.1	1.2	1.8	0.4	0.0	8.9
Nowhere	0.4	0.4	0.5	0.5	0.5	0.3	0.4	14.0
Don't know	17.8	19.6	14.7	12.7	20.7	9.6	15.6	9.9
Missing	0.1	0.1	0.2	0.2	0.2	0.2	0.6	0.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

4.5 EVER USE OF CONTRACEPTION

Table 4.5 presents summary data on all women and currently married women who have used any contraceptive method by age of the women. The table shows that only a third of all the women in the sample have ever used any contraceptive method. Also, only 21 percent indicated that they have ever used any modern method. Even the proportion that have ever used a traditional method is low; namely, 23 percent for any traditional method, 18 percent for periodic abstinence and 8 percent for withdrawal. The pill, which is the most popular modern method, has been used by 13 percent, followed by vaginal methods (8 percent), condom (5 percent), IUD (1 percent) and, lastly, injection and female sterilisation. Ever-use of contraceptives rises with age from 13 percent for ages 15-19 to more than 40 percent between ages 25 and 39, and declines thereafter. Female sterilisation, however, is most used by women aged 40 and older.

Table 4.5 Percentage of All Women and Currently Married Women Who Have Ever Used a Contraceptive Method, by Specific Method and Age, GDHS, 1988

Age	Any Method	Any Modern Method	Pill	IUD	Injection	Vaginal Methods	Condom	Female Sterilisation	Any Traditional Method	Periodic Abstinence	Withdrawal	Other	Number
						All Women							
15-19	12.6	6.1	3.2	0.0	0.1	2.7	1.6	0.0	9.9	6.5	3.8	1.4	849
20-24	35.4	19.5	9.9	0.3	0.2	9.1	5.3	0.0	26.2	20.1	11.0	3.2	867
25-29	42.7	26.1	15.5	0.7	0.8	12.5	6.9	0.0	30.7	24.9	8.9	3.2	867
30-34	42.4	28.0	18.8	1.9	0.8	10.9	6.4	1.1	26.7	21.7	8.7	3.6	644
35-39	40.9	24.9	18.6	1.9	1.7	7.3	4.5	0.9	26.0	20.3	8.5	3.6	531
40-44	37.9	26.6	18.1	3.6	2.7	7.1	3.0	3.8	23.1	18.7	8.0	3.0	364
45-49	29.8	16.9	10.9	2.2	1.6	2.2	1.9	3.0	18.3	16.9	4.9	0.3	366
TOTAL	33.9	20.5	12.8	1.2	0.9	7.9	4.5	0.8	23.1	18.3	7.8	2.7	4488
						Currently Married Women							
15-19	21.8	12.1	6.3	0.0	0.0	5.2	3.4	0.0	17.2	9.2	8.6	2.9	174
20-24	32.5	18.2	10.3	0.3	0.2	8.9	4.4	0.0	23.6	17.0	9.3	3.5	593
25-29	41.0	24.2	15.4	0.7	0.8	10.2	5.9	0.0	29.9	24.1	8.4	3.1	752
30-34	41.5	27.6	19.2	1.4	0.7	10.7	6.3	1.1	26.2	21.3	8.3	3.2	569
35-39	39.7	23.7	18.0	1.9	1.9	7.2	3.6	1.1	25.4	19.9	8.2	3.8	473
40-44	39.4	27.1	19.0	3.5	2.9	7.1	2.3	4.2	24.2	19.7	8.4	2.9	310
45-49	29.1	16.5	10.5	2.5	1.4	2.1	1.8	2.5	18.6	16.8	6.3	0.4	285
TOTAL	37.0	22.5	14.9	1.3	1.0	8.3	4.5	1.0	25.1	19.7	8.3	3.0	3156

Table 4.6 Percentage Distribution of All Women and Currently Married Women, by Contraceptive Method Currently Used, According to Age, GDHS, 1988

Age	Any Method	Any Modern Method	Pill	IUD	Injection	Diaphragm/ Jelly	Foaming Tablets	Condom	Female Sterili-sation	Any Tradi-tional Method	Periodic Absti-nence	With-drawal	Other	Not Using	Total	Number
							All Women									
15-19	5.8	1.3	0.6	0.0	0.0	0.1	0.5	0.1	0.5	4.5	3.1	0.8	0.6	94.2	100.0	849
20-24	13.5	4.0	1.6	0.2	0.0	0.5	1.0	0.7	1.0	9.5	7.3	1.3	0.9	86.5	100.0	867
25-29	14.1	4.6	1.8	0.2	0.3	0.2	1.3	0.7	1.3	9.5	8.1	0.7	0.7	85.9	100.0	867
30-34	15.1	7.0	2.8	0.8	0.0	0.6	1.7	0.0	1.7	8.1	6.8	0.5	0.8	84.9	100.0	644
35-39	14.5	5.8	1.9	1.3	0.4	0.2	0.9	0.2	0.9	8.7	7.0	0.9	0.8	85.5	100.0	531
40-44	16.5	8.2	2.2	1.1	0.5	0.0	0.5	0.0	0.5	8.2	6.9	1.1	0.3	83.5	100.0	364
45-49	7.9	4.9	0.5	0.5	0.5	0.3	0.0	0.0	0.0	3.0	2.5	0.5	0.0	92.1	100.0	366
TOTAL	12.3	4.7	1.6	0.5	0.2	0.3	0.9	0.3	0.9	7.6	6.1	0.8	0.6	87.7	100.0	4488
							Currently Married Women									
15-19	4.6	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.6	0.6	1.1	95.4	100.0	174
20-24	11.1	3.4	1.2	0.2	0.0	0.3	0.8	0.8	0.8	7.8	5.4	1.2	1.2	88.9	100.0	593
25-29	13.2	4.3	1.9	0.3	0.4	0.1	1.2	0.4	1.2	8.9	7.8	0.8	0.3	86.8	100.0	752
30-34	14.4	6.9	2.8	0.5	0.0	0.7	1.8	0.0	1.8	7.6	6.5	0.5	0.5	85.6	100.0	569
35-39	15.2	5.9	1.7	1.3	0.4	0.2	1.1	0.2	1.1	9.3	7.4	1.1	0.8	84.8	100.0	473
40-44	18.4	9.0	2.3	1.3	0.6	0.0	0.6	0.0	0.6	9.4	7.7	1.3	0.3	81.6	100.0	310
45-49	7.7	4.2	0.7	0.4	0.4	0.4	0.0	0.0	0.0	3.5	2.8	0.7	0.0	92.3	100.0	285
TOTAL	12.9	5.2	1.8	0.5	0.3	0.3	1.0	0.3	1.0	7.7	6.2	0.9	0.6	87.1	100.0	3156

Among currently married women, a pattern similar to that observed among all women emerges. However, currently married women show a slightly higher level of ever-use. Ever-use is lowest among married women aged 15-19 years, increases with age to the highest level among women aged 25-44 years, then decreases for married women 45-49 years. A higher level of ever-use within the middle-age range may be an indication of married women's deliberate effort to space children. The slightly higher level of ever-use among currently married women, as compared to all women, is expected since married women are more likely to be exposed to the risk of pregnancy than their unmarried counterparts.

4.6 CURRENT USE OF CONTRACEPTION

The level of current use of contraceptive methods is the most reliable measure to appraise the impact of a family planning programme. Further, it can be used to estimate the reduction in fertility attributable to contraception.

Table 4.6 presents data on the proportion of all women and currently married women who are using contraception by age. Among currently married women, slightly less than 13 percent are currently using any method and 5 percent are using any modern method. Traditional methods appear more popular among current users than modern methods. The proportion using any traditional method is close to 8 percent. Periodic abstinence is the most commonly used method overall. Among the modern methods, the pill is the most commonly used, followed by female sterilisation and foaming tablets. The proportion of currently married women using other modern methods is less than 1 percent.

Current use of contraception among currently married women is lowest among women aged 15-19 years (5 percent), increases to a peak of 18 percent for women aged 40-44, then declines sharply to 8 percent among women aged 45-49 years. The comparatively low level of use among younger and older women may indicate, for the younger women, the eagerness to have children as they are newly married and, for the older age group, the belief that they are no longer capable of bearing children. The relatively higher proportion of users between ages 35 and 44 suggests a conscious effort of some married women to space or avoid further births.

Table 4.7 Percentage of Currently Married Women Currently Using Contraception by Method, 1979 and 1988

Method	GFS-1979*	GDHS-1988
Pill	2.4	1.8
IUD	0.3	0.5
Condom	0.6	0.3
Withdrawal	0.2	0.9
Abstinence	3.8	6.2
Female Sterilisation	0.5	1.0
Injection	0.1	0.3
Vaginal Methods	1.6	1.3
Other Methods	0.0	0.6
TOTAL	9.5	12.9

* Appiah, 1985.

Compared with the findings of the 1979 GFS, the proportion of currently married women using a contraceptive method has shown a slight increase, rising from 9.5 percent in 1979 to 12.9 percent in 1988 (Table 4.7). It should be noted that in the GFS, prolonged abstinence and rhythm (or periodic abstinence) were recorded separately, while, in the GDHS, prolonged abstinence was not asked about specifically. The results of the GDHS suggest, however, that women using prolonged abstinence to avoid pregnancy generally were recorded as using periodic abstinence. For purposes of comparison, the proportions using prolonged abstinence and rhythm in the GFS are added together. In both 1979 and 1988, abstinence was the contraceptive method used most often, with the proportion doubling since 1979. Among modern methods, the pill was the most frequently used method in both 1979 and 1988; however, the proportion of women using the pill declined from 2.4 percent in 1979 to 1.8 percent in 1988. At the same time, there was a slight increase in the use of injection, female sterilisation, withdrawal, and the IUD.

4.7 CURRENT USE BY BACKGROUND CHARACTERISTICS

Table 4.8 examines current use of contraception among currently married women according to method and selected background characteristics. The relationship between place of residence and contraceptive use is strong. Comparing urban and rural dwellers, a greater proportion of married women in the urban areas are currently using a method of contraception than their rural counterparts. Specifically, the proportion using any method is almost 20 percent among urban women and about half that among rural women. The use of both traditional and modern methods is higher among urban women. Eleven percent of urban women are using a traditional method, while 6 percent of rural women are using these methods. The pill is the most popular modern method among both urban and rural women. Overall, periodic abstinence is the most commonly used method among urban and rural currently married women--9 percent of urban women and 5 percent of rural women.

Regional variation in the current use of contraceptives among currently married women is considerable. Greater Accra shows the highest proportion of usage for any method (27 percent) and for any modern method (11 percent). The overall level of use is lowest in the Western region (8 percent). Current use in the rest of the regions varies between 10 and 15 percent. However, there is an interesting variation among the regions with respect to the use of modern versus traditional methods. While the Western region shows the lowest level of overall use, almost 40 percent of use is attributable to modern methods. In comparison, the overall level of use is almost 11 percent in the three northernmost regions, but only 7 percent of users use modern methods.

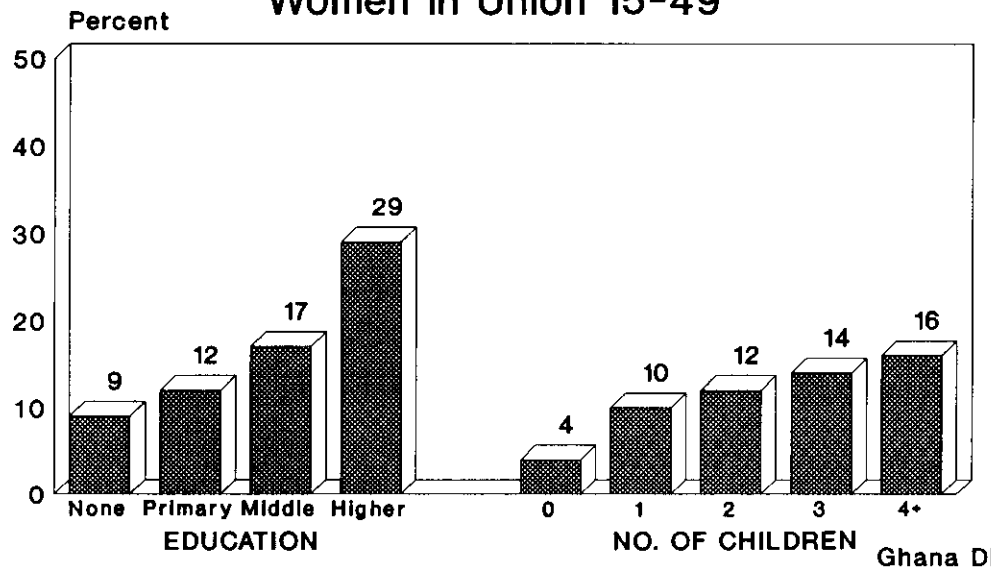
With respect to the specific modern methods, the pill appears to be the most commonly used modern method in all the regions with the exception of Greater Accra, where the IUD is more common, and the Central region, where the proportion using female sterilisation exceeds the proportion using the pill. The use of traditional methods also varies by region. Greater Accra shows the highest proportion of women using a traditional method (17 percent), followed by Volta (11 percent) and Northern, Upper East, and Upper West regions (10 percent). The other regions show lower levels of use of traditional methods.

There is a positive relationship between the level of educational attainment and current use of contraception among currently married women (see Figure 4.2). This relationship is maintained for both modern and traditional methods. It is interesting to note that higher proportions of women with primary and middle education use the pill than those with higher education. The higher education group is more likely than other groups to be using the IUD, condom and foaming tablets, as well as periodic abstinence. Women in the two lower education groups are more likely to use female sterilisation than other women. This difference is probably a reflection of the differential age distribution between the two groups (i.e., less educated women are likely to be older than more educated women).

Table 4.8 Percentage Distribution of Currently Married Women by Contraceptive Method Currently Used, According to Selected Background Characteristics, GDHS, 1988

Background Characteristic	Any Method	Any Modern Method	Pill	IUD	Injection	Dia-phragm/ Jelly	Foaming Tablets	Condom	Female Sterili-sation	Any Tradi-tional Method	Periodic Absti-nence	With-drawal	Other	Not Using	Total	Num-ber
RESIDENCE																
Urban	19.6	8.1	2.7	1.6	0.3	0.4	1.6	0.6	0.9	11.4	8.6	1.6	1.2	80.4	100.0	961
Rural	9.9	3.9	1.5	0.1	0.2	0.2	0.7	0.1	1.0	6.1	5.1	0.6	0.3	90.1	100.0	2195
REGION																
Western	8.2	3.2	1.8	0.0	0.0	0.0	0.7	0.4	0.4	5.0	3.6	0.7	0.7	91.8	100.0	279
Central	9.7	4.9	1.2	0.3	0.3	0.6	0.9	0.0	1.5	4.9	4.0	0.9	0.0	90.3	100.0	329
Greater Accra	27.2	10.6	2.2	3.1	0.0	0.0	2.8	0.8	1.7	16.7	10.8	3.6	2.2	72.8	100.0	360
Eastern	11.4	5.8	2.7	0.2	0.2	0.7	0.2	0.4	1.3	5.6	4.5	0.7	0.4	88.6	100.0	448
Volta	14.6	3.9	1.7	0.0	0.6	0.3	1.1	0.0	0.3	10.7	9.0	1.7	0.0	85.4	100.0	356
Ashanti	10.1	6.5	2.2	0.2	0.7	0.4	1.3	0.5	1.3	3.6	2.7	0.0	0.9	89.9	100.0	552
Brong Ahafo	12.0	5.2	2.5	0.5	0.0	0.2	1.0	0.0	1.0	6.7	6.2	0.2	0.2	88.0	100.0	401
Upper West, East and Northern	10.7	0.7	0.2	0.2	0.0	0.0	0.0	0.0	0.2	10.0	9.7	0.0	0.2	89.3	100.0	431
LEVEL OF EDUCATION																
No education	8.5	3.2	1.0	0.3	0.0	0.3	0.4	0.0	1.2	5.3	4.9	0.2	0.2	91.5	100.0	1467
Primary	12.1	6.1	2.5	0.6	1.2	0.2	0.2	0.2	1.2	6.1	3.9	1.4	0.8	87.9	100.0	512
Middle	16.8	6.7	2.8	0.6	0.1	0.4	1.7	0.5	0.6	10.1	7.7	1.3	1.1	83.2	100.0	999
Higher	28.7	10.1	1.7	1.7	0.6	0.0	3.9	1.7	0.6	18.5	15.2	2.8	0.6	71.3	100.0	178
NO. OF LIVING CHILDREN																
None	3.8	1.9	0.8	0.0	0.0	0.0	0.0	0.8	0.4	1.9	0.8	0.4	0.8	96.2	100.0	261
1	10.1	3.5	1.5	0.2	0.0	0.2	0.7	0.7	0.2	6.6	4.8	0.9	0.9	89.9	100.0	546
2	11.7	3.0	1.2	0.0	0.0	0.0	0.9	0.3	0.5	8.7	7.7	0.3	0.7	88.3	100.0	572
3	14.3	5.1	1.5	0.6	0.4	0.4	1.5	0.0	0.6	9.1	7.9	1.3	0.0	85.7	100.0	470
4+	15.8	7.5	2.6	1.0	0.5	0.5	1.1	0.1	1.8	8.3	6.7	1.1	0.6	84.2	100.0	1307
TOTAL	12.9	5.2	1.8	0.5	0.3	0.3	1.0	0.3	1.0	7.7	6.2	0.9	0.6	87.1	100.0	3156

Figure 4.2
Current Use of Family Planning by Education and Number of Living Children, Women in Union 15-49



There are indications that the number of surviving children influences current use of contraceptives among currently married women. It can be seen from Table 4.8 that there is a progressive increase in the proportion of women currently using contraceptives as parity increases. This reflects the desire of women with lower parity to have more children, while those with higher parity resort to measures to reduce the frequency of conception by spacing births or stopping childbearing altogether.

4.8 NUMBER OF CHILDREN AT FIRST USE

Table 4.9 examines the percentage distribution of ever-married women by number of living children at the time of first use of contraception according to current age. The number of living children at the time of first use of contraception is useful as a measure of the willingness to postpone the first birth and of a deliberate effort at spacing further births. The table indicates a shift over time toward beginning the use of family planning earlier in the family building process. For example, while more than 17 percent of ever-married women currently aged 20-24 adopted family planning measures before the birth of their first child, only 2 percent of those aged 40-44 did so.

4.9 KNOWLEDGE OF THE FERTILE PERIOD

All respondents in the GDHS were asked a question intended to ascertain their knowledge of the basic reproductive physiology of women. This background knowledge is necessary for the successful practice of periodic abstinence as a fertility control measure. The specific question asked of the respondents was, "When during her monthly cycle do you think a woman has the greatest chance of becoming pregnant?"

Evidence from Table 4.10 indicates that, of all the women interviewed, about half claim to have no knowledge of the ovulatory cycle. Only 27 percent of women responded correctly overall. Among the women who have ever used periodic abstinence, 50 percent responded correctly. It must be noted,

however, that this was one of the questions that respondents found most difficult to answer and their responses were sometimes difficult to categorize. Thus, for example, some of the women who responded "after her period has ended" may, in fact, understand the ovulatory cycle but weren't able to communicate this to the interviewer.

Table 4.9 Percentage Distribution of Ever-Married Women by Number of Living Children at Time of First Use of Contraception, According to Current Age, GDHS, 1988

	Number of Living Children at Time of First Use								
Age	Never Used	No Living Children	1	2	3	4+	Missing	Total	Number
15-19	79.1	16.5	4.4	0.0	0.0	0.0	0.0	100.0	206
20-24	66.3	17.1	12.1	3.6	0.7	0.0	0.1	100.0	671
25-29	57.4	13.0	15.9	8.5	3.9	1.2	0.1	100.0	828
30-34	57.9	7.4	11.0	9.6	6.0	7.9	0.3	100.0	636
35-39	59.1	4.4	9.3	6.4	6.6	14.2	0.0	100.0	528
40-44	62.3	2.2	5.8	4.4	5.5	19.8	0.0	100.0	363
45-49	70.2	1.1	6.6	2.5	3.8	15.6	0.3	100.0	366
TOTAL	62.4	9.4	10.7	5.9	4.0	7.3	0.1	100.0	3598

Table 4.10 Percentage Distribution of All Women and Women Who Have Ever Used Periodic Abstinence by Knowledge of the Fertile Period During the Ovulatory Cycle, GDHS, 1988

Fertile Period	All Women	Ever Used Periodic Abstinence
During her period	0.5	0.5
After period has ended	21.3	33.7
Middle of the cycle	26.6	50.4
Before period begins	2.5	4.6
At any time	2.3	1.3
Other	0.1	0.0
Don't know	46.6	9.4
Missing	0.1	0.1
TOTAL	100.0	100.0
Number	4488	823

4.10 SOURCE OF SUPPLY OF CONTRACEPTION

Table 4.11 and Figure 4.3 examine the supply source for contraceptive methods among current users. The methods are grouped into supply (pill, condom, vaginal methods, injection) and clinic methods (IUD, female sterilisation). Results are also shown separately for users of the pill, foaming tablets, female sterilisation and periodic abstinence. The private sector is the major source of supply methods, with the PPAG clinics supplying 20 percent of users, and pharmacy and chemical shops supplying about 33 percent. A surprising finding is that 20 percent of users of supply methods named friends or relatives as their most recent source of supply methods. Since rural users are somewhat more likely to name this source than urban users, and since supply outlets such as pharmacies are more accessible in urban areas, this result suggests that some respondents may have named as their source a person who purchased the method for them (e.g., her husband) rather than the place where the method was purchased. Relative to the private sector, the government sector, comprising hospitals and health centres is not a major source of the supply methods. Together, government hospitals and health centres were named as a source of supply methods by about 19 percent of users.

Table 4.11 Percentage Distribution of Current Users by Most Recent Source of Supply or Information, According to Specific Method, GDHS, 1988

Source	Total Supply Methods[1]	Pill	Foaming Tablet	Total Clinic Methods	Female Sterilisation[2]	Total Modern Methods[3]	Periodic Abstinence
Did not visit source	0.0	0.0	0.0	0.0	0.0	0.0	13.8
Government hospital	11.9	21.9	0.0	74.6	81.1	29.5	4.4
Government health center	6.6	5.5	7.1	1.7	0.0	5.2	1.8
PPAG clinic	19.9	23.3	14.3	11.9	2.7	17.6	5.1
Field worker	1.3	2.7	0.0	0.0	0.0	1.0	0.4
Private doctor/clinic	1.3	2.7	0.0	3.4	2.7	1.9	2.6
Government maternity home	0.0	0.0	0.0	0.0	0.0	0.0	1.5
Pharmacy/chemical seller	32.5	30.1	38.1	0.0	0.0	23.3	0.0
Christian Council	0.7	1.4	0.0	0.0	0.0	0.5	1.5
Friends/relatives/school	19.9	11.0	35.7	0.0	0.0	14.3	62.8
Other	3.3	0.0	4.8	3.4	5.4	3.3	6.2
Inconsistent	1.3	0.0	0.0	3.4	5.4	1.9	0.0
Missing	1.3	1.4	0.0	1.7	2.7	1.4	0.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	151	73	42	59	37	210	274

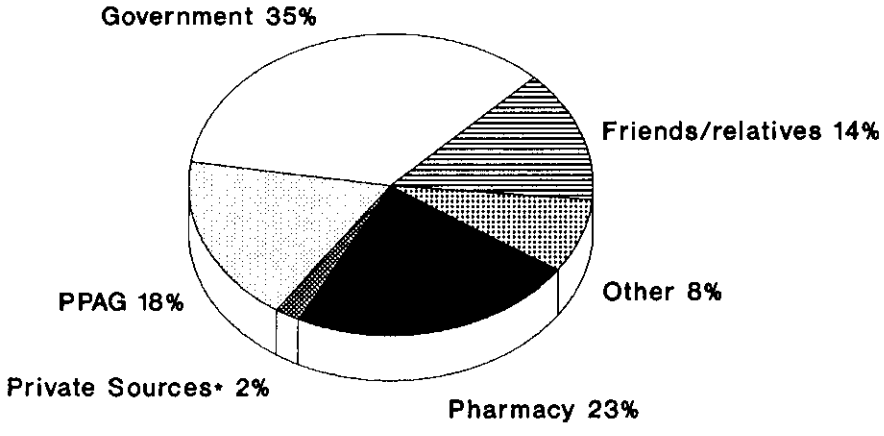
[1] Supply methods include pill, condom, vaginal methods, injection
[2] Clinic methods include female sterilisation and IUD
[3] Modern methods include supply and clinic methods

Government hospitals appear to be the most important source for clinic methods followed by PPAG clinics. About three-quarters of users of clinic methods, primarily users of female sterilisation, named a government hospital as their source. Finally, respondents indicated that friends and relatives are their most important source of information or advice about periodic abstinence.

4.11 ATTITUDE TOWARD BECOMING PREGNANT

Data presented in Table 4.12 show the attitude toward becoming pregnant in the next few weeks among married, sexually active, non-pregnant women who are not using contraception according to

Figure 4.3
Source of Family Planning Supply, Current Users of Modern Methods



* Includes private doctors, clinics and Christian Council

Ghana DHS 1988

number of living children. The responses are grouped into three categories: "happy," "unhappy," and "would not matter." On the whole, 50 percent of the respondents indicated they would be unhappy if they became pregnant, while 45 percent said they would be happy and 5 percent said it would not matter. Considering the responses by number of living children, there is an inverse relationship between the number of living children and being happy about becoming pregnant in a few weeks' time. The highest proportion of women who said they would be happy if they became pregnant is found among those with no children. This percentage declines as the number of living children increases.

Table 4.12 Percentage Distribution of Non-Pregnant Women Who Are Sexually Active and Who Are Not Using Any Contraceptive Method by Attitude Towards Becoming Pregnant in the Next Few Weeks, According to Number of Living Children, GDHS, 1988

Number of Living Children	Attitude Towards Becoming Pregnant					
	Happy	Unhappy	Would Not Matter	Missing	Total	Number
None	61.7	35.7	2.2	0.4	100.0	457
1	56.7	40.2	2.5	0.6	100.0	356
2	51.0	45.3	3.4	0.3	100.0	296
3	39.2	53.9	5.7	1.2	100.0	245
4+	27.7	64.4	6.8	1.2	100.0	763
TOTAL	44.5	50.2	4.5	0.8	100.0	2117

4.12 REASONS FOR NONUSE

In an effort to ascertain why women who are nonusers of contraception and who would be unhappy if they became pregnant were not using, these women were asked their main reason for not using. The responses to this question are shown in Table 4.13, according to age.

Table 4.13 Percentage Distribution of Non-Pregnant Women Who Are Sexually Active and Who Are Not Using Any Contraceptive Method and Who Would be Unhappy if They Became Pregnant by Main Reason for Nonuse, According to Age, GDHS, 1988

Reason for Nonuse	Age <30	Age 30+	Total
Lack of knowledge	29.0	18.3	23.7
Opposed to family planning	3.9	3.2	3.6
Husband disapproves	2.8	4.7	3.8
Others disapprove	0.7	0.6	0.7
Health concerns	7.1	11.9	9.5
Access/availability	2.2	1.5	1.9
Costs too much	1.9	2.3	2.1
Inconvenient to use	2.2	0.9	1.6
Infrequent sex	12.7	7.2	10.0
Fatalistic	0.2	0.8	0.5
Religion	2.4	4.2	3.3
Postpartum/Breastfeeding	8.2	5.9	7.1
Menopausal/Subfecund	0.2	18.0	9.0
Other	12.2	13.8	13.0
Don't know	13.1	6.6	9.9
Missing	0.9	0.2	0.6
TOTAL	100.0	100.0	100.0
Number	534	529	1063

Note: Women who have never had sexual intercourse and women who have not resumed sexual relations since the last birth are excluded.

Generally speaking, the main reason given for not using contraception is lack of knowledge (24 percent), followed by other unspecified reasons (13 percent). Additional reasons worth noting include infrequent sex (10 percent) and health concerns (10 percent). The "don't know" category is also significant (10 percent).

Variations in reasons for nonuse are evident between women grouped into two age categories, below 30 years and 30 years and above. Women less than 30 years of age are more likely than older women to state infrequent sex, postpartum/breastfeeding, and "don't know," while older women are more likely to cite menopause, health concerns, and husband disapproval.

4.13 FUTURE USE

In Ghana, where the level of use of contraception among married women is relatively low, an indication of intention to use contraception in the future provides a useful indicator for planners and policymakers in assessing future demand for services. It must, however, be noted that not only may declared intentions differ from actual behavior, but also that indecision may influence responses to questions probing into the future. Table 4.14 indicates the intention for future use of contraception among currently married women who are not currently using any contraceptive method, with respect to number of living children. On the whole, the inclination towards use of contraception in the future is very low. More than half of all women do not intend to use in the future, irrespective of parity. A smaller proportion said they intended to use within the next 12 months (20 percent), while 14 percent said they would use later.

Table 4.14 Percentage Distribution of Currently Married Women Who Are Not Currently Using Any Contraceptive Method by Intention to Use in the Future, According to Number of Living Children, GDHS, 1988

Intention to Use In the Future	Number of living children					
	None	1	2	3	4+	Total
Intends to use:						
In next 12 months	1.7	12.3	18.6	19.8	26.7	20.0
Later	13.6	15.4	15.6	15.9	11.4	13.7
Unsure about timing	1.1	4.0	2.0	4.6	4.2	3.6
Unsure about use	9.1	6.7	6.9	5.5	4.6	5.8
Does not intend to use	74.4	61.3	56.4	53.7	52.9	56.5
Missing	0.0	0.2	0.6	0.5	0.3	0.3
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0
Number	176	494	495	415	1170	2750

Those unsure of future use and those with no intention to use comprise 62 percent of women. It is worth noting that the highest proportions who do not intend to use are found primarily among women with no children or with low parity.

4.14 PREFERRED METHOD

Table 4.15 examines method preferences among currently married women who are not using a contraceptive method but who intend to use in the future, according to intention to use in the next 12 months or later. This information should be interpreted with caution, since there are two conditions implied: intention to use and method preferred if the intention is followed.

Among those who indicated an intention to use in the next 12 months, the pill, injection and periodic abstinence are preferred, while about 24 percent said they did not know which method they

would choose. Among those who intend to use later, the pill still appears to be the most popular method and there is an indication that more women in this group intend to choose female sterilisation.

Table 4.15 Percentage Distribution of Currently Married Women Who Are Not Using a Contraceptive Method but Who Intend to Use in the Future by Preferred Method, According to Whether They Intend to Use in the Next 12 Months or Later, GDHS, 1988

Preferred Method	Intend to Use in Next 12 Months	Intend to Use Later	Total
Pill	24.0	24.5	24.2
IUD	2.2	2.9	2.5
Injection	23.8	14.6	20.1
Diaphragm/Jelly	2.0	1.1	1.6
Foaming Tablets	2.0	2.4	2.2
Condom	0.7	0.8	0.8
Female Sterilisation	6.7	15.7	10.4
Male Sterilisation	0.0	0.3	0.1
Periodic Abstinence	9.6	6.9	8.5
Withdrawal	0.5	0.5	0.5
Other	4.7	7.2	5.7
Don't know	23.6	23.1	23.4
TOTAL	100.0	100.0	100.0
Number	550	376	926

4.15 ACCEPTABILITY OF MEDIA MESSAGES ON FAMILY PLANNING

Both the National Family Planning Programme and non-governmental organisations are engaged in the propagation and dissemination of family planning information. Publicity measures include programmes on radio, television, newspapers, posters and other adult education programmes. On the whole, it appears that radio is the most wide-reaching media and, as such, a question aimed at ascertaining the acceptability of disseminating family planning messages on the radio was asked of all respondents. Table 4.16 presents the proportion of women who said it was acceptable to have family planning messages on the radio, by age and background characteristics.

Generally, the majority of women claim that it is acceptable to use the radio for family planning messages. The youngest and oldest women are somewhat less likely than women in the middle age groups to find radio messages acceptable. Acceptability is higher for urban dwellers (83 percent) than their rural counterparts (70 percent). At the various age levels the same urban-rural disparity is maintained. Substantial variations are observed regionally with Greater Accra showing the highest level of approval (93 percent) and the Northern, Upper East and Upper West regions showing least approval (45 percent). The level of acceptability is between 66 and 86 percent for the rest of the regions. There is an increase in the level of acceptability as the respondent's level of education increases.

Table 4.16 Percentage of All Women Who Believe That it is Acceptable to Have Messages About Family Planning on the Radio, by Age and Selected Background Characteristics, GDHS, 1988

Background Characteristic	Age							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
RESIDENCE								
Urban	70.3	85.5	88.2	87.2	90.2	86.0	78.3	82.9
Rural	62.8	73.2	72.8	75.7	72.8	68.1	61.8	70.3
REGION								
Western	61.3	73.6	76.1	87.5	78.8	67.6	69.0	73.0
Central	64.5	89.1	92.4	93.2	93.7	85.7	84.6	86.2
Greater Accra	85.3	95.0	99.1	94.3	97.2	91.8	93.0	93.3
Eastern	80.3	83.7	86.9	90.5	95.2	88.6	75.3	85.1
Volta	69.9	78.9	73.8	78.6	77.2	65.0	64.9	73.6
Ashanti	52.2	69.3	67.2	73.0	74.7	71.8	60.3	66.0
Brong Ahafo	61.6	83.5	78.9	79.1	67.2	80.6	31.0	73.2
Upper West, East and Northern	34.8	42.4	45.5	48.2	47.2	45.8	50.9	44.9
LEVEL OF EDUCATION								
No education	45.1	59.0	62.3	63.4	68.5	68.0	62.5	62.1
Primary	64.4	78.5	78.1	85.4	88.3	80.0	76.8	77.2
Middle	71.0	86.8	87.0	91.0	87.5	94.6	83.3	83.4
Higher	85.5	92.8	93.6	93.6	100.0	-	-	92.0
TOTAL	65.7	77.5	77.5	79.3	78.5	74.5	67.2	74.6

- Fewer than 25 women

4.16 ATTITUDE TOWARD FAMILY PLANNING

Results presented earlier in this chapter show that knowledge about contraception in Ghana is quite high against a rather low level of use. In low-use countries widespread disapproval of contraception may act as a major barrier to the adoption of methods. Accordingly, respondents in the GDHS were asked a question aimed at ascertaining approval of a couple's using family planning methods, and a question on the wife's views of her husband's attitude toward use. Caution is needed in the interpretation of these findings, since the wife's perception of her husband's attitude may be incorrect. (See Chapter 7 for results on this issue from the husband's survey). This notwithstanding, the findings may give an indication of the climate of opinion and may be used as the basis for planning further educational and promotional activities on family planning.

Table 4.17 examines currently married women knowing a contraceptive method, by the husband's and wife's attitudes toward the use of family planning. The information is based on responses of the wife only. Overall, a substantial proportion (74 percent) of the women approve of a couple's using contraception. Ten percent of women approve, but believe that their husband disapproves, 49 percent approve and indicate that their husband approves and 14 percent approve but indicate that they do not know whether their husband approves or disapproves. Sixteen percent of women disapprove of family planning and say that their husband also disapproves, 3 percent say that their husband approves and 7 percent of women disapprove and do not know their husband's opinion.

Table 4.17 Percentage Distribution of Currently Married Women Knowing a Contraceptive Method by the Husband's and Wife's Attitudes Toward the Use of Family Planning, GDHS, 1988

Wife's Attitude	Husband's attitude*				
	Dis-approves	Approves	Don't Know	Missing	Total
Disapproves	15.8	2.6	7.0	0.1	25.5
Approves	10.4	49.3	14.4	0.2	74.3
Missing	0.0	0.1	0.0	0.0	0.2
TOTAL	26.2	52.1	21.5	0.2	100.0
Number	658	1305	538	6	2507

* As perceived by wife

4.17 ATTITUDE TOWARD FAMILY PLANNING BY BACKGROUND CHARACTERISTICS

Table 4.18 examines the proportion of currently married women knowing a contraceptive method who approve of family planning and who say their husband approves of family planning, by background characteristics. Evidence of differentials will be a useful guide in the interpretation of GDHS data on adoption and use of family planning. For instance, differences between age groups may reflect generational change, with younger women being more responsive to new ideas. On the other hand, there may be a countervailing life-cycle effect. Older women have larger families and, thus, may feel a greater need for contraception than younger women. This need may bring a shift toward a more positive attitude.

The table suggests that a higher proportion of women approve of couples using family planning than their husbands. However, about 22 percent of the women do not know whether their husband approves or disapproves, and evidence from the husband's survey indicates that about the same percentage of husbands as wives approve (see Table 7.16). The proportion of women who approve of family planning rises with age to a peak in the early to mid-thirties and then declines. More urban than rural women approve of family planning, and the level of approval rises with education.

Women in Northern, Upper East and Upper West regions show the least approval of family planning while women in Greater Accra region rank highest.

4.18 DISCUSSION OF FAMILY PLANNING

Table 4.19 summarises data on currently married women knowing a contraceptive method by the number of times they have discussed family planning with their husband by age (see Chapter 7 for a discussion of husbands' answers to the same questions). Fifty-eight percent of women indicated that they have never discussed family planning with their husband and 20 percent indicate that they have discussed it only once or twice. Thus, three-quarters of married women either never, or rarely, discuss family planning with their husband. Twenty-three percent of the women have discussed it more often with their husbands. It is significant to note that the highest proportions who have never discussed family planning with their husband belong to the youngest and oldest age groups.

Table 4.18 Percentage of Currently Married Women Knowing a Contraceptive Method Who Approve of Family Planning and Who Say their Husband Approves of Family Planning, by Selected Background Characteristics, GDHS, 1988

Background Characteristic	Woman Approves	Woman Says Husband Approves	Woman Doesn't Know Husband's Opinion	Number
AGE				
15-19	61.8	36.6	32.8	131
20-24	71.6	52.1	21.0	476
25-29	75.5	52.9	21.6	624
30-34	80.6	57.8	21.0	453
35-39	76.0	54.6	19.8	379
40-44	76.0	50.0	18.3	246
45-49	65.7	43.9	22.7	198
RESIDENCE				
Urban	82.9	57.7	20.8	859
Rural	69.8	49.1	21.8	1648
REGION				
Western	64.5	43.8	17.4	242
Central	75.5	46.7	21.8	257
Greater Accra	90.2	60.8	20.5	337
Eastern	78.7	56.8	22.4	389
Volta	76.8	57.0	22.9	284
Ashanti	72.5	55.1	17.6	472
Brong Ahafo	74.7	63.3	17.6	289
Upper West, East and Northern	53.6	20.3	35.9	237
LEVEL OF EDUCATION				
No education	65.2	41.2	26.5	957
Primary	73.3	48.7	21.9	439
Middle	82.6	61.9	17.5	936
Higher	82.3	67.4	13.7	175
TOTAL	74.3	52.1	21.5	2507

Table 4.19 Percentage Distribution of Currently Married Women Knowing a Contraceptive Method by Number of Times Discussed Family Planning with Husband, According to Current Age, GDHS, 1988

	Number of Times Discussed FP					
Age	Never	Once or Twice	More Often	Missing	Total	Number
15-19	71.8	11.5	16.0	0.8	100.0	131
20-24	59.9	22.1	17.9	0.2	100.0	476
25-29	58.5	21.2	20.2	0.2	100.0	624
30-34	49.2	23.4	27.4	0.0	100.0	453
35-39	54.4	18.5	27.2	0.0	100.0	379
40-44	56.9	13.8	28.9	0.4	100.0	246
45-49	69.7	13.6	16.7	0.0	100.0	198
TOTAL	57.9	19.5	22.5	0.2	100.0	2507

CHAPTER 5

FERTILITY PREFERENCES

A major reason for the establishment of the Ghana National Family Planning Programme was to enable couples to bear the number of children they desire, with the births spaced according to their preferences (Republic of Ghana, 1969). In this chapter, data on the desire for additional children, preferred and ideal birth intervals, ideal family size and the potential need for family planning will be examined.

Data on the desire for additional children were based on responses of currently married women. Currently married women who were not pregnant were asked the question, "Would you like to have a (another) child or would you prefer not to have any (more) children?" If a currently married woman was pregnant, the question was rephrased to read, "After the child you are expecting, would you like to.... " The rewording was to ensure that pregnant women did not think that they were being asked about the child they were then expecting.

Women who wanted additional children were subsequently asked about their preferred interval before the next birth. All women, irrespective of marital status, were asked a question on their desired total family size. Those with no living child were asked, "If you could choose exactly the number of children to have in your whole life how many would that be?" The question was modified for those with a living child to read, " If you could go back to the time you did not have any children and could choose exactly...."

Data on fertility preferences are generally more difficult to interpret than objective phenomena, such as actual fertility or contraceptive use. For instance, a woman's fertility preferences might change over time or her ability to implement her preferences might be curtailed if her partner objects to her using contraception to achieve her fertility desires. Such phenomena may not be captured in a standardized questionnaire. There is, therefore, the need to be cautious in the interpretation of the data on fertility preferences.

5.1 DESIRE FOR CHILDREN

Table 5.1 and Figure 5.1 show the percentage distribution of currently married women by desire for children in the future, according to the number of living children they already have. On the average, one out of every five currently married women in the sample wants to have a child within two years. Forty-five percent express the wish to postpone the next birth for two or more years. On the other hand, some 23 percent of the women do not want any more children, whilst 5 percent are undecided and 4 percent cannot tell when they want the next child.

Among women with no living children, half of them want a child in less than two years, and 18 percent believe they are infecund. However, while 11 percent of the group would want to postpone birth for two or more years, some 16 percent are undecided about when they want to have their first child.

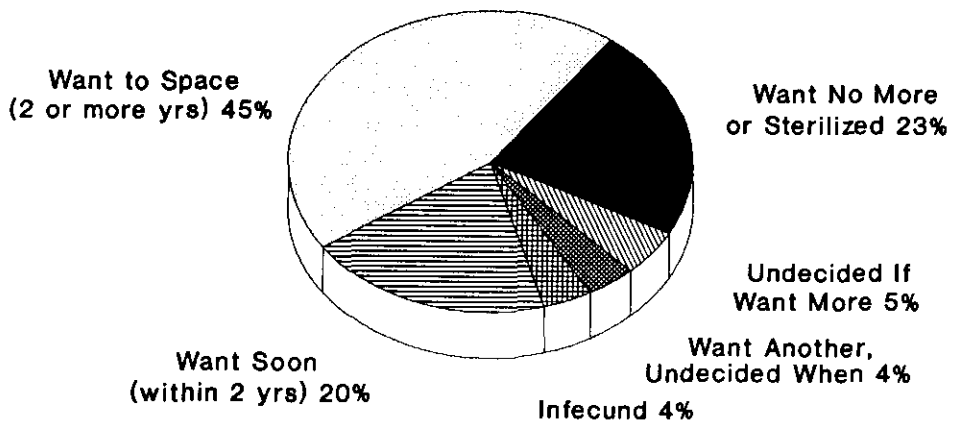
The desire to have a child within two years declines as the number of surviving children increases. For example, while a little more than a quarter (27 percent) of women with one living child want to give birth to another child soon (that is, in under two years) only one-fifth of those with 3 living children and only 7 percent of women with 6 or more children express a similar desire. Furthermore, among childless women, as already noted, 11 percent want to postpone the first birth as compared to women with one child, some 63 percent of whom want to delay the second birth.

Table 5.1 Percentage Distribution of Currently Married Women by Desire for Children, According to Number of Living Children, GDHS, 1988

Desire for Children	Number of Living Children[1]							
	0	1	2	3	4	5	6+	Total
Want another:								
Soon[2]	50.0	26.6	21.7	20.1	16.0	12.8	7.3	19.5
Later[3]	11.3	63.0	61.9	57.7	48.4	34.0	15.5	44.9
Unsure when	16.1	6.0	4.4	2.7	1.6	1.8	2.5	4.1
Undecided	3.8	1.6	3.0	4.6	7.8	6.9	8.1	5.1
Want no more	0.5	0.7	6.8	13.3	25.1	39.4	62.3	22.8
Declared infecund	17.7	1.8	2.1	1.7	1.1	5.1	4.2	3.5
Missing	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	186	549	562	482	450	335	592	3156

[1] Including current pregnancy
[2] Wants next birth within 2 years
[3] Wants to delay next birth 2 or more years

Figure 5.1
Fertility Preferences,
Women in Union 15-49



Ghana DHS 1988

It is interesting to note that, while women with one to four living children are most likely to want to wait two or more years before having the next child, those with five or more living children at the time of the survey are most likely to report that they want no more children. The proportion expressing a desire to have no more children begins to rise when the woman has two living children. The proportion nearly doubles for each succeeding birth up to 4 children; it then increases less sharply with the fifth, only to go up one and one-half times for women with six surviving children.

The results reveal that there is a potential demand for contraception for birth spacing, especially among women with one to three children. One-quarter to three-fifths of mothers with four or more living children report that they do not want any more children, and are, therefore, potential users of contraception for limiting births.

Table 5.2 shows that the pattern of fertility preferences by age of the woman closely follows that of the parity-specific pattern noted earlier in Table 5.1 This is consistent with expectation, since age and parity are closely related. The desire to postpone the next birth is highest among women aged 20-24 years--69 percent of them express the wish to delay the next birth by two or more years. They are closely followed by the 15-19 age group.

Table 5.2 Percentage Distribution of Currently Married Women by Desire for Children, According to Age, GDHS, 1988

Desire for Children	Age							
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Wants another:								
Soon[1]	16.1	19.4	23.7	20.2	20.1	16.1	12.3	19.5
Later[2]	67.2	69.0	57.8	45.9	27.9	14.8	6.0	44.9
Unsure when	8.0	4.0	2.1	4.0	4.9	5.2	4.6	4.1
Undecided	5.2	2.2	3.5	4.4	8.9	10.0	5.3	5.1
Wants no more	0.6	3.9	11.2	23.7	35.3	49.4	55.4	22.8
Declared infecund	2.3	1.3	1.7	1.8	3.0	4.5	16.5	3.5
Missing	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	174.0	593.0	752.0	569.0	473.0	310.0	285.0	3156.0

[1] Wants next birth within 2 years.
[2] Wants to delay next birth 2 or more years.

The proportion of currently married women wanting no more children increases from less than one percent for women aged 15-19 to 55 percent for women aged 45 and older. Also, the fact that not more than 24 percent of women in any age group want children soon gives an indication of the need for reliable methods of contraception.

In Table 5.3, the percentage of currently married women who want no more children is shown for each parity by selected background characteristics.

Table 5.3 Percentage of Currently Married Women Who Want No More Children (including sterilised) by Number of Living Children and Selected Background Characteristics, GDHS, 1988

Background Characteristic	Number of Living Children							
	0	1	2	3	4	5	6+	Total
RESIDENCE								
Urban	0.0	1.1	12.1	18.1	39.8	57.4	67.3	28.0
Rural	0.8	0.5	4.4	11.2	18.9	31.6	60.5	20.6
REGION								
Western	-	0.0	7.8	7.1	6.8	31.3	56.0	16.8
Central	-	1.6	6.0	10.4	26.3	42.9	57.4	22.5
Greater Accra	0.0	1.5	13.2	30.0	60.4	77.4	79.0	36.1
Eastern	-	1.3	6.0	16.4	33.8	59.5	68.1	28.8
Volta	-	0.0	9.6	20.3	35.6	47.5	77.3	29.5
Ashanti	2.6	1.0	4.8	12.3	20.0	37.3	66.2	24.3
Brong Ahafo	0.0	0.0	6.7	7.1	18.2	31.8	53.5	18.0
Upper West, East and Northern	0.0	0.0	1.3	0.0	7.0	10.0	31.0	7.0
LEVEL OF EDUCATION								
No education	1.2	1.0	2.4	7.3	15.9	27.1	59.0	22.4
Primary	0.0	0.0	6.3	17.6	31.9	55.3	63.2	26.6
Middle	0.0	0.5	8.4	15.9	32.0	52.0	73.2	21.7
Higher	-	1.9	18.4	28.6	-	-	-	22.5
TOTAL	0.5	0.7	6.8	13.3	25.1	39.4	62.3	22.8

- Fewer than 25 cases

Overall, urban women are more likely to want to stop childbearing than their rural counterparts. Large differences exist at each parity level, with the proportions being consistently higher in urban areas.

A currently married woman in the Greater Accra region is more likely to want to cease childbearing than her counterpart in other regions. On the other hand, women in Upper West, Upper East and Northern regions are least likely to make a voluntary decision to stop childbearing. Among women with 3 children, 30 percent in Greater Accra express a desire to cease childbearing, but it would require 6 or more living children for the same proportion of women in Upper West, Upper East and Northern regions to express a similar fertility desire.

An inverse relationship between education and wanting more children is indicated in this table. With two living children, only 2 percent of uneducated women want to stop having children, compared to 18 percent of women with 11 or more years of schooling. The proportions increase as the number of living children increases.

5.2 NEED FOR FAMILY PLANNING

Table 5.4 permits the examination of womens' need for family planning in order to space or limit future births, according to their intention to use contraception.

Table 5.4 Percentage of Currently Married Women Who Are in Need of Family Planning and the Percentage Who Are in Need But Who Intend to Use Contraception in the Future, by Selected Background Characteristics, GDHS, 1988

Background Characteristic	In Need of Family Planning[1]			In Need and Intend to Use Contraception			
	Want No More	Want to Postpone/ Undecided[2]	Total	Want No More	Want to Postpone/ Undecided[2]	Total	Number
RESIDENCE							
Urban	20.1	41.0	61.1	9.8	16.5	26.3	961
Rural	17.4	50.6	68.0	9.0	16.6	25.6	2195
REGION							
Western	13.3	53.0	66.3	7.2	17.6	24.7	279
Central	18.2	52.9	71.1	10.6	13.1	23.7	329
Greater Accra	22.8	29.4	52.2	10.3	15.6	25.8	360
Eastern	24.3	44.2	68.5	13.8	25.0	38.8	448
Volta	23.6	46.1	69.7	12.4	11.2	23.6	356
Ashanti	21.4	50.0	71.4	10.9	16.1	27.0	552
Brong Ahafo	15.0	52.1	67.1	7.2	21.2	28.4	401
Upper West, East and Northern	5.8	53.4	59.2	0.9	11.4	12.3	431
LEVEL OF EDUCATION							
No education	19.3	47.6	66.9	8.0	10.6	18.6	1467
Primary	20.5	45.5	66.0	10.4	18.0	28.3	512
Middle	16.2	50.8	67.0	10.4	24.2	34.6	999
Higher	14.0	37.6	51.7	9.0	19.1	28.1	178
TOTAL	18.2	47.7	65.9	9.2	16.6	25.8	3156

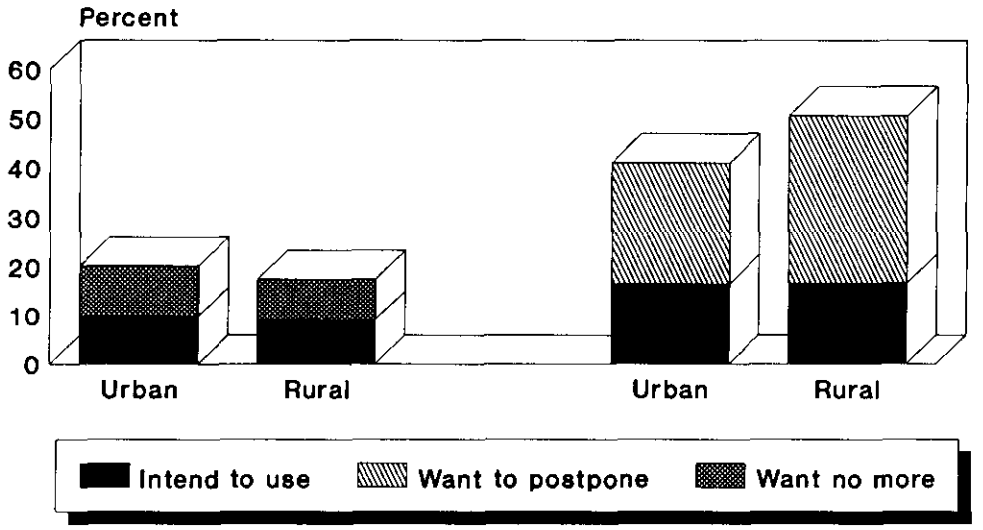
[1] Includes women who are not contracepting and who want no more births or want to postpone the next birth for 2 or more years.
[2] Includes women who are undecided about whether to have another birth or about the timing for the next birth.

Eighteen percent of women in union want no more children and are not using contraception. These women are defined as "in need" of family planning. Only about half of them (9 percent) intend to use a method in the future. Similarly, 48 percent of the currently married women want to postpone the next birth or are uncertain about having another child, and are not using contraception. These women are in need of family planning for spacing purposes. Of these women, only a third intend to use a method in the future. Overall, 66 percent of currently married women have an unmet need for contraception, but only one-third of them intend to use a method in the future.

Among currently married women, a higher proportion in rural areas than in urban areas want no more children or want to postpone the next birth and are not using contraception. As regards intention to use in the future, about the same proportion (26 percent) of currently married women in both urban and

rural areas indicated their intention to use family planning to either postpone or regulate their future fertility (Figure 5.2). Women with higher education are less likely than other women to be in need of family planning. Of those in need, women with the highest education are the most likely to plan to use a method in the future.

Figure 5.2
Future Need for Family Planning,
Women in Union Not Using Contraception



Ghana DHS 1988

The regional distribution shows that between 52 and 71 percent of married women are in need of family planning and are not using contraception. Upper East, Upper West and Northern regions have the lowest proportion in need who intend to use, while Eastern region has the highest.

5.3 IDEAL FAMILY SIZE

Respondents were asked to consider a hypothetical situation independent of their current family size and to declare the number of children they would choose to have if they could start their reproductive years again.

About 13 percent of all women in the sample either did not know or gave non-numeric answers to the question on desired family size. The most common non-numeric response was "Up to God." Nine percent of women in the sample gave this reply.

Childlessness is deplored in Ghanaian society, which is confirmed by the fact that only one in 1000 women desired no children, and these were mainly women with either no children or one child.

Table 5.5 shows that a third of the women in the sample would prefer to have 4 children and 21 percent preferred to have 6 children. The mean ideal number of children is 5.3, which is lower than actual current fertility. The implication here is that, on average, women are having more children than they want. Indeed, the evidence from the table suggests that there is some unwanted fertility. Among

women with 6 or more children, only one-quarter report an ideal family size of 6 children, while as many as a third report lower ideal numbers of children.

Table 5.5 Percentage Distribution of All Women by Ideal Number of Children and Mean Ideal Number of Children for All Women and Currently Married Women, According to Number of Living Children, GDHS, 1988

Ideal Number of Children	Number of Living Children[1]							Total
	0	1	2	3	4	5	6+	
0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1
1	0.2	0.5	0.3	0.2	0.2	0.0	0.5	0.3
2	6.8	3.5	2.7	1.3	1.8	3.1	1.1	3.3
3	11.2	12.5	6.0	4.4	3.6	2.1	3.5	7.1
4	34.9	40.0	39.5	35.6	23.6	24.4	22.1	32.5
5	11.3	8.8	12.1	11.8	7.9	7.1	6.1	9.5
6	15.5	16.9	17.8	25.6	32.3	23.4	25.0	21.2
7	1.1	1.1	0.5	1.3	1.4	2.4	4.1	1.6
8+	6.0	7.7	11.4	10.0	14.5	18.6	18.9	11.5
Have not thought of it	2.8	0.9	1.3	0.7	1.6	2.9	2.7	1.9
Up to God	7.3	6.8	6.3	6.5	10.5	13.4	13.6	8.8
As many as can care for	1.0	0.7	1.0	1.1	0.8	0.8	1.1	0.9
Don't know	1.4	0.4	0.8	1.5	1.6	1.8	1.4	1.2
Missing	0.4	0.1	0.3	0.0	0.2	0.0	0.2	0.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1018.0	752.0	630.0	550.0	496.0	381.0	661.0	4488.0
Mean Ideal Number[2]								
All Women	4.6	4.8	5.2	5.4	5.7	6.0	6.1	5.3
Number	887	685	569	496	423	309	536	3905
Currently Married Women	5.3	5.0	5.2	5.4	5.8	6.0	6.1	5.5
Number	162	498	511	433	380	271	481	2736

[1] Including current pregnancy.
[2] Excludes women who gave non-numeric responses.

Among all women in the survey, the mean ideal family size increases from 4.6 children for childless women to 6.1 children desired by women with 6 or more children. When only currently married women are considered, the mean ideal family size increases from 5.3 children for childless women to 6.1 children for those with 6 or more children surviving. The overall ideal family size for currently married women is 5.5 children. This is only 4 percent larger than for all women in the sample. In the Ghana Fertility Survey of 1979/80, the mean ideal family size of women currently in union was found to be 6.1 children.

There are a variety of reasons why women with larger families declare a higher ideal family size. First, women with large families may genuinely desire more children than women with smaller families. Secondly, women with more children are likely to be older than women with fewer children. Their ideal family sizes may, therefore, reflect more traditional views. Finally, women may tend to rationalize the births they already have and, consequently, are unlikely to state a number that is less than their achieved family size. It is not easy distinguishing among the factors that influence the ideal family size of high-parity women.

Evidence in Table 5.6 clearly shows that older women do, indeed, prefer larger families than younger women. The ideal number of children increases from 4.7 for women aged 15-19 years to 6.5 for women aged 45-49. It can be inferred from this that if young women have only the number of children they want, fertility rates in the future can be expected to decline.

Table 5.6 Mean Ideal Number of Children for All Women by Age and Selected Background Characteristics, GDHS, 1988

Background Characteristic	Age							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
RESIDENCE								
Urban	4.4	4.4	4.5	4.9	4.9	5.4	5.8	4.7
Rural	4.9	5.0	5.5	5.8	6.1	6.4	6.9	5.6
REGION								
Western	5.0	4.8	5.1	5.5	5.3	-	6.0	5.3
Central	4.6	4.6	4.9	5.2	5.5	5.5	-	5.0
Greater Accra	4.0	4.1	4.5	4.9	5.0	5.4	5.9	4.6
Eastern	4.6	4.4	4.8	5.1	5.1	5.3	5.9	4.9
Volta	4.1	4.5	4.5	5.0	5.4	6.5	6.1	4.8
Ashanti	4.8	4.8	4.7	5.0	5.2	5.1	6.4	5.0
Brong Ahafo	5.2	4.8	5.3	5.7	5.5	6.2	-	5.4
Upper West, East and Northern	6.2	6.8	8.7	8.5	9.5	8.8	10.3	8.2
LEVEL OF EDUCATION								
No education	6.0	5.6	6.4	6.4	6.4	6.6	6.9	6.4
Primary	4.6	4.8	5.0	5.5	5.4	5.5	6.2	5.1
Middle	4.4	4.4	4.6	4.9	5.0	5.1	5.3	4.6
Higher	4.2	3.8	3.9	3.9	4.2	-	-	4.0
TOTAL	4.7	4.7	5.2	5.5	5.7	6.0	6.5	5.3

- Fewer than 25 cases

As expected, not only is the mean ideal family size larger for rural women than for urban women, it is also larger for uneducated women compared to educated women. Differences in ideal family size by education level may be attributed partly to the fact that women with low levels of education tend to be older and of higher parity. But it is interesting to note that, within all levels of education, ideal family size increases with age.

Differentials by region reveal that Greater Accra has the smallest ideal family size (4.6 children), with Upper West, Upper East and Northern regions having the largest ideal family size (8.2 children).

5.4 FERTILITY PLANNING

Table 5.7 presents information on whether births in the last 12 months were planned, wanted later, or not wanted at all. Caution should be used regarding the data in this table, because the possibility exists that women with unplanned births will tend to rationalize such births. Overall, two-thirds of births in the last 12 months were wanted, while 30 percent were wanted later and 4 percent were unwanted. First and second order births were more likely to have been planned (71 percent) than third or higher

order births (62 percent). Conversely, less than 1 percent of lower order births were unwanted, compared with 6 percent of higher order births. DHS surveys in Burundi and Mali found that, of births in th 12 months preceding the surveys, unwanted births constituted 5.5 percent and 3.5 percent, respectively (Traore et al, 1989; Segamba L., et al, 1988).

Table 5.7 Percentage of Women Who Had a Birth in the Last 12 Months by Fertility Planning Status and Birth Order, GHDS, 1988

Planning Status	Birth Order * 1-2	3+	Total
Wanted child then	71.1	62.3	65.6
Wanted child later	28.3	31.1	30.0
Child not wanted	0.6	6.3	4.2
Not classifiable	0.0	0.4	0.2
TOTAL	100.0	100.0	100.0
Number	336	570	906

* Includes current pregnancy

CHAPTER 6

MORTALITY AND HEALTH

This chapter presents estimates of infant and child mortality and selected indicators of maternal and child health. Current mortality estimates are important for the construction of population projections. Mortality and other health indicators are also useful for identifying sectors of the population at high risk, as well as for evaluating health programmes.

Information on trends and differentials in mortality is presented first. This is followed by a presentation of selected maternal and child health indicators, such as prenatal care, assistance during delivery and childhood immunisations. Finally, the nutritional status of Ghanaian children aged 3-36 months is described through the use of anthropometric measurements.

6.1 MORTALITY DATA

All female respondents in the GDHS were asked to provide a complete birth history, including the sex, date of birth, survival status, and current age or age at death of each live birth. The data obtained from the birth histories are used to calculate directly infant and childhood mortality rates.

Mortality rates are presented for three age intervals and three time periods. The infant mortality rate (${}_1q_0$) is the probability of dying between birth and exact age one. Childhood mortality (${}_4q_1$) is the probability of dying between exact age one and exact age five, and under five mortality (${}_5q_0$) is the probability of dying between birth and exact age five. Each of these rates is presented for three, five-year time periods: 1973-77, 1978-82, and 1983-87. The 1983-87 rate includes information from the months in 1988 which preceded the interview (between 2 and 5 months for individual respondents).

The reliability of mortality estimates calculated from retrospective birth histories depends upon the completeness with which deaths of children are reported and the extent to which birth dates and ages at death are accurately reported. While a complete evaluation of the quality of the mortality data from the GDHS has not been attempted here, some basic quality checks of the data are presented below.

Underreporting of infant deaths is usually most severe for deaths which occur very early in infancy. The problem is rooted in cultural tradition. In Ghana, infants are traditionally considered "visitors" until they have survived some minimum period of time. Consequently, society imposes restrictions on discussion of children who die very early in infancy.

A standard procedure for testing for underreporting of early infant deaths involves forming the ratio of deaths in the first week of life to deaths in the first month. These ratios are shown in Table 6.1. While the expected value of this ratio is not known, it is known that mortality declines throughout infancy, that the value of the ratio would be expected to increase as the overall level of mortality decreases and that a ratio of less than 0.25 would indicate severe underreporting of early infant deaths.

As shown in Table 6.1, the ratio of deaths in the first week to all deaths in the first month is greater than 0.70 in all periods for both sexes combined, suggesting that early infant deaths are not severely underreported. In addition, the data do not indicate systematic underreporting of deaths of one sex compared to the other.

Another indication of underreporting of early infant deaths would be a low rate of neonatal mortality relative to infant mortality. Table 6.1 shows neonatal mortality as a proportion of total infant mortality. These proportions range from 0.57 to 0.63 for the three periods under consideration and are

within the range of values calculated with WFS data for countries at similar levels of infant mortality (Rutstein, 1984).

Table 6.1 Indices for Detecting Underreporting of Infant Deaths, GDHS, 1988

Index	1983-87*	1978-82	1973-77
Deaths first week/ Deaths first month			
Total	.77	.70	.75
Male	.77	.65	.83
Female	.77	.77	.65
Neonatal Mortality/ Infant Mortality	.57	.60	.63

* Includes deaths and exposure during 1988 up to the month preceding the interview

In the GDHS, if a child death was reported to have occurred within a month of birth, the age at death was to be elicited in days and recorded in days. If the child died within 24 months, the age at death would be recorded in units of months. If the child was 2 years old or older at death, age at death in years was recorded. In general, this protocol was followed well, with one notable exception. There were many child deaths apparently occurring during the 12-23 month age segment whose ages at death were recorded as "one year." Table 6.2 shows the distribution of deaths between 6 and 24 months of age and the unit of age used to record the age at death. The distribution of deaths around 12 months suggests that the bulk of deaths reported at "one year" indeed occurred during the 12-23 age segment and probably should not be considered as infant deaths. There is, however, a slight deficit of deaths at 10 and 11 months, suggesting that a small number of deaths recorded at "1 year" or 12 months of age, in fact, occurred earlier. If so, the infant mortality rates presented below would be biased slightly downwards and childhood rates slightly upwards. There appears no striking trend in the extent of this problem across calendar time. It may be noted that, although the problem may not cause serious problems in the estimation of conventional demographic parameters, the age pattern of mortality in the second year of life cannot be recovered without enormous guesswork.

Unreported age at death is also a potential problem. In the GDHS data, however, of 2436 deaths reported by the respondents, there are only 3 cases in which age at death was not given, of which only 1 occurred to a child born in the 15 years prior to the survey. For purposes of this report, the missing data have been imputed using a hot-deck procedure.[1]

6.2 MORTALITY TRENDS

Infant and childhood mortaltiy rates for three five-year periods prior to the survey are shown in Table 6.3 and Figure 6.1. These rates demonstrate a clear and marked decline in infant and childhood mortality in Ghana since the mid-1970s. For example, the infant mortality rate, estimated at around 100 deaths per 1000 births in 1973-77, has declined by approximately 22 percent to 77 deaths per 1000 births in the most recent five-year period.

Mortality during childhood has also declined during the period under consideration. The probability of dying between birth and age five ($_5q_0$) has dropped from 187 in 1973-77 to 155 in 1983-88. The apparent slight increase in $_4q_1$ and $_5q_0$ from 1978-82 to 1983-87 is probably due to the more severe heaping of age at death on 12 months in the recent period, which would cause some deaths to be attributed to childhood when they actually occurred during infancy. Thus, the decline in infant mortality may be somewhat overstated, and the decline in childhood mortality may be understated.

[1] The procedure assigns the child an age at death which is the same as the last death in the data file of the same birth order.

Table 6.2 Distribution of Child Deaths Occurring Between 6 and 24 Months of Age by Calendar Period and Age at Death When Reported in Months and Years, GDHS, 1988

Age at Death	1983-87*		1978-82		1973-77	
	Mos.	Yrs.	Mos.	Yrs.	Mos.	Yrs.
6	15	-	14	-	9	-
7	7	-	14	-	7	-
8	22	-	11	-	8	-
9	17	-	10	-	6	-
10	5	-	5	-	3	-
11	4	-	2	-	3	-
12 (1 yr.)	8	(79)	3	(57)	6	(56)
13	0	-	0	-	0	-
14	1	-	1	-	0	-
15	1	-	2	-	3	-
16	4	-	0	-	0	-
17	2	-	2	-	0	-
18	6	-	12	-	9	-
19	0	-	1	-	0	-
20	2	-	0	-	3	-
21	0	-	0	-	2	-
22	0	-	0	-	0	-
23	1	-	0	-	0	-
24 (2 yrs.)	1	103	1	(71)	0	(57)

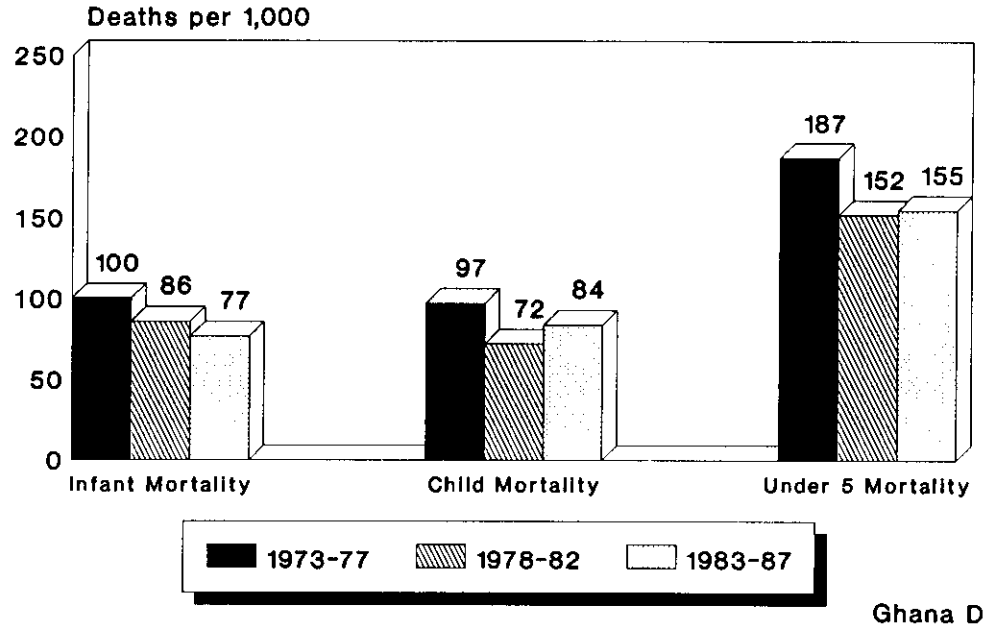
* Includes deaths during 1988 up to the month preceding the interview

Table 6.3 Infant and Childhoood Mortality for Calendar Periods, GDHS, 1988

Period	Infant ($_1q_0$)	Childhood ($_4q_1$)	Both ($_5q_0$)
1983-1987*	77.2	84.0	154.7
1978-1982	86.4	72.3	152.4
1973-1977	99.6	97.3	187.2

* Includes exposure during 1988 up to the month preceding the interview.

Figure 6.1
Trends in Infant and Child Mortality



The Ghana Fertility Survey (GFS), conducted in 1979-80, reported an infant mortality rate of 71 and an under-five mortality rate ($_5q_0$) of 121 for the five years preceding the survey (approximately 1975-80). Based on a data-quality analysis of the GFS, however, these rates were judged to be an underestimate of true mortality levels during that period (Owusu, 1984). As shown in Table 6.3, GDHS estimates of mortality from approximately the same period (1978-82) are significantly higher than the GFS estimates.

6.3 MORTALITY DIFFERENTIALS

In this section, we present infant and childhood mortality rates according to the socioeconomic background of the mother and various demographic characteristics of children and mothers. The rates are calculated for the ten-year period from 1978-1987[2] in order to ensure that there are enough cases to calculate rates for sub-groups.

In Table 6.4, infant and childhood mortality rates are shown by urban-rural residence, the mother's level of education, and region. Both infant and child mortality are higher in rural than in urban areas. During the 1978-87 period, approximately 67 in 1000 children in urban areas and 87 in 1000 children in rural areas died before reaching their first birthday. The under-five mortality rate is about 24 percent higher in rural than in urban areas.

Regional differences in mortality rates are also quite significant. The infant mortality rate ranges from 58 in Greater Accra to 138 in the Central region. Upper West, Upper East and Northern regions also have a high infant mortality rate at 103. In the remaining regions, infant mortality is in the 65-75 range. While the infant mortality rate is highest in the Central region, the childhood mortality rate in this region

[2] These rates include deaths and exposure in 1988 up to the month preceding the interview.

Table 6.4 Infant and Childhood Mortality by Socioeconomic Characteristics, GDHS, 1988

Background Characteristic	Infant ($_1q_0$) 1978-87	Childhood ($_4q_1$) 1978-87	Both ($_5q_0$) 1978-87
RESIDENCE			
Urban	66.9	68.8	131.1
Rural	86.8	82.9	162.5
LEVEL OF EDUCATION			
No education	87.7	95.2	174.6
Primary	84.8	68.5	147.6
Middle	69.7	64.0	129.2
Higher	79.1	22.2	99.5
REGION			
Western	76.9	80.4	151.2
Central	138.3	81.9	208.8
Greater Accra	57.7	48.9	103.8
Eastern	70.1	73.2	138.1
Volta	73.5	63.8	132.7
Ashanti	69.8	80.0	144.2
Brong Ahafo	65.0	61.6	122.6
Upper West, East and Northern	103.1	132.3	221.8
TOTAL	81.3	78.9	153.8

* Note: Rates include exposure during 1988 up to the month preceding the interview.

is similar to that found in most of the other regions, with the exception of Greater Accra, which has a much lower rate, and Upper West, Upper East and Northern regions, which have a very high rate.

This pattern of regional differences in infant and child mortality is consistent with the pattern found in an analysis of GFS data in which the infant mortality rate for the Western and Central regions combined was approximately twice as high as that found in all of the other regions, except Northern and Upper regions (Adansi-Pipim, 1985). The high level of infant mortality in the Western/Central region was attributed to an unusually high neonatal mortality rate. The GDHS data suggest that infant mortality in the Central region alone is uniquely high, while mortality in the Western region is closer to that found in the Volta and Eastern regions. As will be shown later in this chapter, the incidence of diarrhoea and, especially, fever among children under age five is relatively high in the Central region, compared to other regions.

The education of the mother is strongly associated with a child's chances of survival. Infant mortality generally declines with increasing education of the mother. Differences in infant mortality according to mother's education are not as large, however, as the differences in child mortality. The probability of dying between age one and age five is more than four times greater for children of mothers with no education than for children whose mothers have more than middle school education. The children of mothers with primary school education are 40 percent less likely to die between age one and five than children of uneducated mothers.

Table 6.5 presents mortality rates according to demographic characteristics of mothers and children. As expected, male infant mortality is higher than female infant mortality but mortality rates after the first year are approximately equal for both sexes.

Table 6.5 Infant and Childhood Mortality by Demographic Characteristics, GDHS, 1988

Background Characteristic	Infant ($_1q_0$) 1978-87	Childhood ($_4q_1$) 1978-87	Both ($_5q_0$) 1978-87
SEX OF CHILD			
Male	88.8	78.3	160.2
Female	73.5	79.4	147.1
MOTHER'S AGE AT BIRTH			
Less than 20	97.0	94.5	182.3
20-29	73.1	80.1	147.3
30-39	82.8	65.7	143.0
40-49	118.6	89.2	197.2
BIRTH ORDER			
First	86.3	81.8	161.1
2-3	67.9	84.7	146.8
4-6	82.6	79.8	155.9
7+	101.8	57.9	153.8
PREVIOUS BIRTH INTERVAL			
<2 years	114.6	87.2	191.7
2-3 years	67.7	79.7	141.9
4 years or more	51.5	58.9	107.4

* Note: Rates include exposure during 1988 up to the month preceding the interview.

The relationship between mother's age at the time of the birth and mortality is curvilinear. Children of teenage mothers have higher infant and child mortality than children of mothers in their twenties and thirties. The probability of dying increases for children of mothers more than 40 years old.

Birth order differences in infant mortality are as expected. The infant mortality rate for first births is somewhat higher than that of second through sixth order births, and seventh and higher order births have dramatically higher rates of infant mortality than lower order births.

Perhaps the most striking mortality differentials are those correlated with the length of the preceding birth interval. Children born within 2 years of a preceding birth are more than twice as likely to die during the first year of life as children born 4 or more years after a preceding birth. Higher mortality risks for children born following short intervals continue after the first year of life; the childhood mortality rate is 1.5 times higher for children born within 2 years of a preceding birth compared to those born 4 or more years after the preceding birth.

Another perspective on mortality during childhood in Ghana is offered by the data presented in Table 6.6. This table presents the mean number of children ever born and, of those ever born, the mean number surviving and dead at the time of the interview, by age of the mother. The proportion dead among those ever born increases with the age of the mother, as expected. Women aged 15-49 at the time of the survey had given birth to an average of 3.2 children. Of these, 2.6 children were surviving and approximately 0.5 (17 percent) were dead.

Table 6.6 Mean Number of Children Ever Born, Surviving, and Dead, and Proportion of Children Dead Among Ever Born by Age of Mother, GDHS, 1988

Age of Mother	Mean Number of Children			Proportion Dead Among Children Ever Born
	Ever Born	Surviving	Dead	
15-19	0.22	0.20	0.01	0.07
20-24	1.25	1.08	0.17	0.14
25-29	2.65	2.26	0.39	0.15
30-34	4.18	3.50	0.68	0.16
35-39	5.47	4.57	0.90	0.16
40-44	6.58	5.39	1.19	0.18
45-49	7.25	5.65	1.60	0.22
TOTAL	3.17	2.62	0.54	0.17

6.4 PRENATAL CARE AND DELIVERY ASSISTANCE

Maternal and child health care is one of the priority areas addressed by the Primary Health Care (PHC) system in Ghana. As part of the PHC system the Ministry of Health has, in recent years, administered a programme in which traditional birth attendants are trained in pre- and postnatal care, as well as in child health care and family planning (Adjei, et. al., 1988).

In the GDHS, women who had given birth in the five years prior to the survey were asked a series of questions concerning the type of health care they received prior to each birth during this period. Respondents were asked whether or not they had seen anyone for a check on the pregnancy. If they reported that they had seen someone, then they were asked who had provided the care. Women were also asked who assisted with the delivery of each birth. For both prenatal care and assistance at delivery, interviewers were instructed to record the most qualified person in cases in which more than one type of person provided care.

Since neonatal tetanus is known to be an important cause of infant death in many developing countries, female respondents in the GDHS were also asked whether they had received an injection during pregnancy to prevent the baby from getting tetanus after birth. There are several possible sources of bias in the data on tetanus toxoid injections. Health guidelines in Ghana identify women aged 12-44 as a target population for tetanus toxoid injections. It is suggested that women receive 5 doses of the tetanus toxoid during the childbearing years. The GDHS questionnaire collects information only on the presence or absence of at least one tetanus injection during each pregnancy in the last five years. On one hand, women may not recall accurately whether or not they had a particular injection. As a result, the proportion of births which are fully protected against tetanus may be underestimated. On the other hand,

women may incorrectly report other types of injections as tetanus injections, which would cause the level of coverage to be overestimated. It is impossible to evaluate the extent to which each of these biases exist in the data. As such, the information on tetanus immunisations should be regarded as an approximate indicator of the overall level of coverage.

Table 6.7 shows the percentage distribution of births in the last five years by the type of prenatal care received by the mother and the percentage of births for which the mother received a tetanus toxoid injection during pregnancy. The overall level of prenatal care by trained health personnel is quite high. For about 82 percent of births, the mother received prenatal care from a doctor, trained nurse or trained midwife. Approximately 13 percent of children were born without their mothers receiving any prenatal care. Regionally, births to mothers living in Upper West, Upper East and Northern regions are much less likely to receive prenatal care than births to mothers in other regions.

Table 6.7 Percentage Distribution of Births in the Last 5 Years by Type of Prenatal Care for the Mother and Percentage of Births Whose Mother Received a Tetanus Toxoid Injection, According to Selected Background Characteristics, GDHS, 1988

Background Characteristic	Type of Prenatal Care							Percentage Receiving Tetanus Toxoid Injection	Number of Births*
	None	Doctor	Trained Nurse/ Midwife	Trad. Birth Atten-dant	Other	Missing	Total		
AGE OF MOTHER									
<30	10.0	25.9	59.1	3.4	0.5	1.2	100.0	70.4	2201
30+	15.5	29.9	49.4	3.3	0.6	1.3	100.0	68.7	1888
RESIDENCE									
Urban	3.5	35.9	57.7	1.7	0.1	1.0	100.0	81.3	1110
Rural	15.9	24.7	53.4	4.0	0.7	1.4	100.0	65.3	2979
REGION									
Western	5.3	33.3	56.1	4.2	0.0	1.1	100.0	82.2	360
Central	14.2	33.6	44.6	5.2	1.7	0.6	100.0	72.4	464
Greater Accra	6.0	44.1	47.1	1.5	0.3	1.0	100.0	77.4	399
Eastern	3.0	34.0	54.1	6.9	1.2	0.7	100.0	71.6	591
Volta	13.6	22.4	57.7	2.6	0.0	3.6	100.0	63.1	499
Ashanti	4.7	30.8	60.7	2.0	0.6	1.3	100.0	71.9	704
Brong Ahafo	10.6	23.4	64.0	1.5	0.2	0.4	100.0	77.7	530
Upper West, East and Northern	42.1	5.4	48.2	3.0	0.0	1.5	100.0	45.9	542
LEVEL OF EDUCATION									
No education	21.2	21.6	50.9	4.2	0.6	1.5	100.0	59.8	1830
Primary	9.2	30.0	54.9	3.9	0.6	1.4	100.0	71.6	661
Middle	4.4	31.8	60.2	2.3	0.4	0.9	100.0	79.5	1398
Higher	0.5	49.0	48.0	1.0	0.0	1.5	100.0	84.0	200
TOTAL	12.5	27.8	54.6	3.4	0.5	1.3	100.0	69.6	4089

* Includes births 1-59 months prior to the survey.

The level of tetanus toxoid coverage also appears to be high. Seventy percent of births in the last five years are reported by mothers as having been preceded by the injection. There are some differences in the level of coverage, however. Urban women are more likely to have a tetanus injection than rural women. Fewer than half of births to mothers in Upper West, Upper East, and Northern regions were protected from tetanus, compared to more than 60 percent in each of the other regions. The proportion of births reportedly immunised against tetanus also increases with the education of the mother.

Table 6.8 shows the percentage distribution of births in the last five years by the type of assistance the mother had during delivery. About one-third of births are delivered by trained nurses or midwives. Twenty-eight percent are delivered by traditional birth attendants and 24 percent by relatives. Only about 7 percent of births are delivered by doctors, and 6 percent of births are reported to have been delivered without any assistance. Children born to urban mothers are more likely to be delivered by doctors or trained nurses, while rural children are more often delivered by traditional birth attendants or relatives. The proportion of births delivered by doctors or trained nurses/midwives is only 13 percent in Upper West, Upper East and Northern regions, but reaches 51 percent in Ashanti region and 72 percent in Greater Accra.

Table 6.8 Percentage Distribution of Births in the Last 5 Years by Type of Assistance During Delivery, According to Selected Background Characteristics, GDHS, 1988

Background Characteristics	Type of Assistance During Delivery								Number of Births*
	None	Doctor	Trained nurse/ Midwife	Trad. Birth Atten-dant	Relative	Other	Missing	Total	
AGE OF MOTHER									
<30	3.9	6.0	35.8	29.0	22.9	1.3	1.1	100.0	2201
30+	8.3	7.8	30.5	25.7	24.6	1.7	1.4	100.0	1888
RESIDENCE									
Urban	4.1	12.1	58.2	13.2	10.6	0.8	1.0	100.0	1110
Rural	6.5	4.8	24.1	32.8	28.6	1.8	1.3	100.0	2979
REGION									
Western	3.3	5.8	34.2	48.6	6.4	0.6	1.1	100.0	360
Central	3.7	7.1	23.7	37.9	23.9	3.0	0.6	100.0	464
Greater Accra	5.3	15.8	55.9	12.0	9.5	0.5	1.0	100.0	399
Eastern	4.1	5.1	34.2	35.9	18.8	1.5	0.5	100.0	591
Volta	8.2	4.0	28.5	14.6	38.5	2.6	3.6	100.0	499
Ashanti	5.8	10.1	41.1	14.9	24.9	2.1	1.1	100.0	704
Brong Ahafo	5.1	6.6	39.8	22.1	24.9	1.1	0.4	100.0	530
Upper West, East and Northern	10.7	0.9	11.8	40.0	34.7	0.2	1.7	100.0	542
LEVEL OF EDUCATION									
No education	8.5	3.8	22.1	31.0	31.1	1.9	1.5	100.0	1830
Primary	5.9	4.8	32.5	32.1	21.8	1.7	1.2	100.0	661
Middle	3.0	10.2	44.4	22.9	17.5	1.1	0.9	100.0	1398
Higher	2.0	17.0	62.0	11.5	6.0	0.5	1.0	100.0	200
TOTAL	5.9	6.8	33.4	27.5	23.7	1.5	1.2	100.0	4089

* Includes births 1-59 months before the survey

6.5 CHILDHOOD IMMUNISATIONS

The immunisation of children against vaccine-preventable diseases has been identified as one of the priority areas of the Primary Health Care programme. The Ministry of Health recommends that vaccines be given according to the following schedule: BCG at birth or soon after, DPT 1 and Polio 1 at 6 weeks, DPT 2 and Polio 2 at 10 weeks, DPT 3 and Polio 3 at 14 weeks, and measles at 9 months. When vaccinations are given, they are normally recorded on a health card which is given to the mother. The mother is expected to keep the card and bring it with her each time her child is vaccinated so that a complete record of immunisations is kept for each child.

The GDHS included a series of questions intended to provide data on immunisation coverage. Respondents were asked whether or not each surviving child born in the last five years had a health card. If the mother reported that the child had a health card, the interviewer asked to see it and recorded the dates of all immunisations appearing on the card. If the mother reported that the child did not have a health card or was not able to produce it, she was asked whether or not the child had ever had a vaccination to prevent him from getting diseases. The immunisation information is presented in Tables 6.9 and 6.10.

Column one of Table 6.9 shows the percentage of all children under age five for whom health cards were seen by the interviewer, according to the age of the child. One-third of children under age five had health cards. The proportion having health cards increases with the age of the child up to 23 months and then declines for children aged 24-59 months. This decrease may be partly due to mothers losing health cards of older children and partly due to an increase in immunisation coverage in recent years. Most of the children with health cards had at least one immunisation recorded (column 2). Of the children without health cards, approximately 40 percent were reported by their mothers as having received at least one immunisation. Assuming that mothers accurately reported the immunisation status of children without health cards, we may sum the proportions ever immunised in columns two and three of Table 6.9 and estimate that 72 percent of children under age five have had at least one immunisation.

Table 6.9 also shows, for children with health cards, the proportion recorded as having received each specific immunisation. More than three-quarters of children in all age groups have received BCG vaccine (against tuberculosis). The proportions receiving the first dose of DPT and Polio are also quite high, but decline with each successive dose. Measles vaccinations are recommended to be given at about 9 months of age and, consequently, the proportions having this vaccination up to age 11 months are quite low. From age one year onwards, however, measles vaccinations are recorded for 65-75 percent of children with health cards.

Table 6.10 focuses on children aged 12-23 months, because children in this age group should have received all of their vaccinations. Only 40 percent of children aged 12-23 months had health cards available. This proportion is higher for children living in urban areas and increases as the mother's education increases. There are large differences between the regions. Fewer than 40 percent of children in Western, Central, Eastern, Ashanti, Brong Ahafo, and Upper West, Upper East, Northern regions had health cards. In contrast, about half of those in the Volta region and more than three-quarters of those in Greater Accra had cards.

Among children with health cards, most have received BCG vaccine and the first doses of DPT and polio vaccine. The proportions are generally lower for subsequent doses of DPT and polio, and for measles. Forty-seven percent of children in this age group have been fully immunised (see Figure 6.2). Children of urban mothers are more likely than children of rural mothers to have received all vaccinations. Also, while almost 80 percent of children 12-23 months with health cards whose mothers have higher education are fully immunised, less than 40 percent of children whose mothers have a primary education or less have received all of the recommended vaccinations.

Table 6.9 Among All Children Under 5 Years of Age, the Percentage with Health Cards, the Percentage Who Are Immunised as Recorded on a Health Card or as Reported by the Mother and, Among Children With Health Cards, the Percentage for Whom BCG, DPT, Polio and Measles Immunisations Are Recorded on the Health Card, by Age, GDHS, 1988

Age	Among All Children Under 5 Years, the Percentage:[1]			Among Children Under 5 Years With Health Cards, the Percentage Who Have Received:									
	With Health Cards	Immunised as Recorded on a Health Card	Immunised as Reported by the Mother	BCG	DPT 1	DPT 2	DPT 3+	Polio 1	Polio 2	Polio 3+	Measles	All Immuni-sations[2]	Number of Children
Under 6 Months	28.4	24.4	13.0	78.3	65.2	30.4	16.3	81.5	41.3	19.6	2.2	1.1	324
6-11 Months	38.7	36.6	23.5	88.7	85.0	60.0	43.1	91.2	63.7	43.1	33.1	21.2	413
12-17 Months	38.8	38.8	36.2	90.7	92.6	74.1	56.2	95.7	74.1	54.9	65.4	42.6	417
18-23 Months	41.9	41.1	36.4	88.2	93.5	73.9	64.7	96.1	72.5	62.7	74.5	51.6	365
24-59 Months	30.3	29.7	48.5	83.9	91.8	75.8	59.5	90.4	74.0	54.7	75.2	44.3	2127
TOTAL	33.2	32.2	39.9	85.6	89.2	69.8	54.3	91.3	70.0	51.6	62.7	38.6	3646

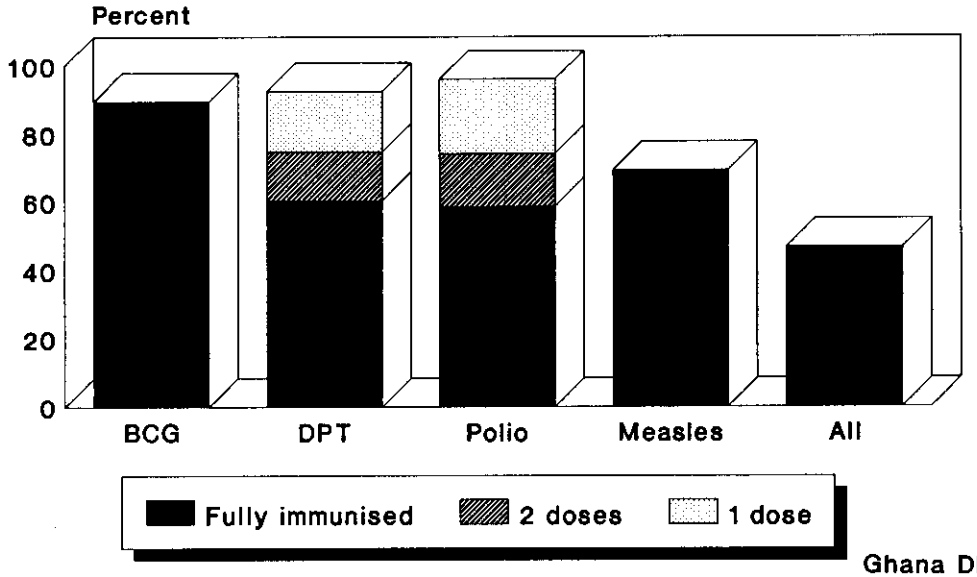
[1] Includes children aged 1-59 months
[2] Includes children who are fully immunised (i.e., those who have received BCG, three doses of DPT, 3 doses of polio, and measles vaccine)

Table 6.10 Among All Children 12-23 Months, the Percentage with Health Cards, the Percentage Who Are Immunised as Recorded on a Health Card or as Reported by the Mother and, Among Children With Health Cards, the Percentage for Whom BCG, DPT, Polio and Measles Immunisations Are Recorded on the Health Card, by Background Characteristics, GDHS, 1988

Background Characteristics	Among All Children Aged 12-23 Months, the Percentage:			Among Children Aged 12-23 Months With Health Cards, the Percentage Who Have Received:									
	With Health Cards	Immunised as Recorded on a Health Card	Immunised as Reported by the Mother	BCG	DPT 1	DPT 2	DPT 3+	Polio 1	Polio 2	Polio	Measles	All Immuni-sations	Number of Children
SEX OF CHILD													
Male	38.2	37.9	37.2	90.2	89.5	72.5	56.9	96.1	73.2	54.9	68.6	41.8	401
Female	42.5	42.0	35.4	88.9	96.3	75.3	63.6	95.7	73.5	62.3	71.0	51.2	381
RESIDENCE													
Urban	58.1	58.1	29.0	92.1	92.1	82.5	73.0	96.8	81.7	72.2	74.6	60.3	217
Rural	33.5	32.9	39.1	87.8	93.7	69.3	51.9	95.2	67.7	49.7	66.7	37.6	565
REGION													
Western	29.3	26.7	50.7	63.6	86.4	68.2	63.6	86.4	68.2	54.5	50.0	31.8	75
Central	33.3	33.3	38.5	93.8	90.6	87.5	81.3	96.9	84.4	71.9	75.0	65.6	96
Greater Accra	77.2	77.2	17.7	96.7	95.1	83.6	73.8	98.4	83.6	70.5	78.7	60.7	79
Eastern	37.3	37.3	36.4	84.1	90.9	54.5	31.8	95.5	47.7	36.4	52.3	22.7	118
Volta	51.7	51.7	24.7	95.7	91.3	71.7	54.3	95.7	73.9	56.5	63.0	41.3	89
Ashanti	38.8	38.0	36.4	80.0	96.0	74.0	54.0	94.0	72.0	52.0	80.0	44.0	129
Brong Ahafo	34.0	34.0	48.0	97.1	94.1	76.5	67.6	97.1	82.4	67.6	70.6	52.9	100
Upper West, East and Northern	27.1	27.1	36.5	96.2	96.2	73.1	61.5	100.0	73.1	61.5	80.8	50.0	96
LEVEL OF EDUCATION													
No education	32.3	31.7	35.1	86.8	87.7	61.3	45.3	93.4	58.5	42.5	61.3	34.9	328
Primary	38.9	38.9	37.3	85.7	98.0	63.3	44.9	93.9	63.3	38.8	65.3	30.6	126
Middle	46.7	46.4	38.1	92.6	94.1	83.8	72.1	97.8	84.6	72.8	73.5	55.9	291
Higher	64.9	64.9	29.7	91.7	100.0	95.8	91.7	100.0	95.8	91.7	95.8	79.2	37
TOTAL	40.3	39.9	36.3	89.5	93.0	74.0	60.3	95.9	73.3	58.7	69.8	46.7	782

* Includes children who are fully immunised (i.e., those who have received BCG, 3 doses of DPT, 3 doses of polio, and measles vaccine)

Figure 6.2
Immunisation Coverage Among
Children 12-23 Months with Health Cards



Ghana DHS 1988

6.6 DIARRHOEA PREVALENCE AND TREATMENT

Diarrhoeal disease is an important determinant of infant and child morbidity and mortality in many developing countries. In Ghana, diarrhoeal disease is the second most common health problem treated in out-patient clinics (Adjei, et. al., 1988). Diarrhoea can cause severe dehydration which, if left untreated, eventually will lead to death. Dehydration caused by diarrhoea can be effectively treated with oral rehydration therapy (ORT). This can take the form of either prepackaged oral rehydration salts (ORS) or can be a homemade solution of salt, sugar and water. The Ministry of Health in Ghana administers a Control of Diarrhoeal Diseases Programme (CDD) and several other institutions in Ghana distribute ORS packets and promote the use of ORT.

In the GDHS, mothers of children under the age of five were asked if their children had had an episode of diarrhoea in the last 24 hours. If the response was negative, the mother was asked if the child had had diarrhoea in the last two weeks. For any child who had had diarrhoea in the last 24 hours or in the last two weeks, the mother was asked whether the child was treated and, if so, what treatment was given. There is no attempt here to estimate diarrhoeal incidence (i.e., the number of new cases of the disease occurring in a specified time period), since no information is collected in the GDHS on the start date of a diarrhoea episode or its duration. The questions in the GDHS can be used to estimate a point prevalence measure, the percentage of children under age five whose mothers report that they have had diarrhoea in the 24 hours preceding the interview, and a period prevalence measure, the percentage with diarrhoea in the two weeks preceding the interview.

The collection of information on diarrhoeal disease in young children is difficult. First, the prevalence of diarrhoea is known to vary seasonally. Second, although local terms for diarrhoea were used in the questionnaires, where appropriate, and interviewers were instructed how to define diarrhoea for mothers who were unclear as to the meaning of the questions, the questions are probably subject to differential interpretation. Thus, the information on diarrhoeal disease prevalence should be interpreted with caution.

Table 6.11 shows the percentage of children under five years of age reported to have had diarrhoea in the past 24 hours and the past two weeks, by selected background characteristics. Overall, 14 percent of children under age five are reported to have had diarrhoea in the last 24 hours and 26 percent had diarrhoea in the last two weeks. There is a curvilinear relationship of the prevalence of diarrhoea to age of the child. Children under six months of age are least likely to have had diarrhoea. The proportion increases up to age 12-17 months and then declines. The shape of the relationship is probably due to the fact that 1) children acquire some immunity to the disease as they grow older, 2) the youngest children are likely to be fully breastfed and, thus, are less exposed to contaminants spread by eating utensils, and 3) younger children are less mobile than older children so they are less exposed to unsanitary environments (e.g., dirt floors, infected children in the household).

The proportion of children with diarrhoea varies little according to sex of the child or region, except in the Western region where diarrhoeal prevalence is lower than in the other regions. There is no real difference between children living in urban areas and those living in rural areas. Diarrhoea prevalence is approximately the same for children of mothers with no education, primary education and middle school education, but is lower for children whose mothers have higher education.

Table 6.11 Among Children Under 5 Years of Age, the Percentage Reported by the Mother to Have Had Diarrhoea in the Past 24 Hours and the Past Two Weeks, by Selected Background Characteristics, GDHS, 1988

Background Characteristics	Percentage of All Children Under 5 Reported by the Mother as Having Diarrhoea: Past 24 Hours	Past Two Weeks*	Number of Children
AGE			
Under 6 months	9.3	18.2	324
6-11 months	20.1	38.5	413
12-17 months	22.1	42.9	417
18-23 months	20.8	42.2	365
24-59 months	9.9	19.2	2127
SEX OF CHILD			
Male	14.6	27.0	1825
Female	12.4	26.1	1821
RESIDENCE			
Urban	12.9	27.0	1006
Rural	13.7	26.1	2640
REGION			
Western	9.8	18.8	325
Central	13.8	31.1	383
Greater Accra	15.2	28.8	368
Eastern	12.1	26.7	544
Volta	13.6	24.0	450
Ashanti	14.8	29.3	629
Brong Ahafo	12.2	24.7	485
Upper West, East, and Northern	15.4	25.3	462
LEVEL OF EDUCATION			
No education	13.7	24.8	1614
Primary	13.7	27.7	591
Middle	13.7	28.8	1259
Higher	8.8	18.1	182
TOTAL	13.5	26.3	3646

* Includes those with diarrhoea in the last 24 hours

The treatment received by children with diarrhoea in the last two weeks is shown in Table 6.12. More than 40 percent of children with diarrhoea were taken to a medical facility (private doctor, hospital, clinic) for treatment. Children living in urban areas are more likely to consult a medical facility than rural children. Children living in Brong Ahafo and Upper West, Upper East and Northern regions are less likely than other children to be taken to a medical facility for treatment of diarrhoea.

Approximately one-third of children with diarrhoea in the last two weeks were treated with oral rehydration therapy (ORT)--34 percent were given a solution made from a commercially produced packet of salts (ORS) and 6 percent were given a homemade solution of sugar, salt, and water. A significant proportion of children were treated with traditional medicine. The use of traditional medicine is more

Table 6.12 Among Children Under 5 Years of Age Who Had Diarrhoea in the Past Two Weeks, the Percentage Consulting a Medical Facility and the Percentage Receiving Different Treatments as Reported by the Mother, by Selected Background Characteristics, GDHS, 1988

Background Characteristic	Percentage of Children With Diarrhoea Consulting a Medical Facility	Percentage of Children With Diarrhoea Treated by:[1]				Percentage of Children With Diarrhoea Who Had No Treatment or Medical Consultation	Number of Children
		ORS Packets	Home Solution	Trad. Medicine	Other Treatment[2]		
AGE OF CHILD							
1-5 months	37.3	20.3	1.7	25.4	35.6	28.8	59
6-11 months	44.7	40.9	3.1	20.1	52.8	10.1	159
12-17 months	43.0	35.2	5.6	26.8	51.4	8.4	179
18-23 months	55.2	37.7	6.5	22.1	45.5	9.1	154
24-59 months	38.9	30.3	8.1	23.7	46.7	12.0	409
SEX OF CHILD							
Male	40.8	34.3	7.1	22.2	47.1	12.1	495
Female	45.6	32.7	5.2	24.9	48.4	11.0	465
RESIDENCE							
Urban	52.6	44.1	8.8	16.2	47.8	9.6	272
Rural	39.4	29.4	5.1	26.5	47.7	12.4	688
REGION							
Western	54.1	45.9	1.6	31.1	67.2	3.3	61
Central	49.6	25.2	2.5	33.6	40.3	3.4	119
Greater Accra	53.8	38.7	4.7	15.1	46.2	7.5	106
Eastern	42.8	30.3	2.8	29.7	42.1	9.0	145
Volta	48.1	39.8	5.6	27.8	50.9	7.4	108
Ashanti	40.2	40.2	15.8	20.7	50.5	10.9	184
Brong Ahafo	38.3	34.2	7.5	18.3	48.3	18.3	120
Upper West, East and Northern	26.5	17.9	1.7	15.4	45.3	29.1	117
LEVEL OF EDUCATION							
No education	36.2	26.7	4.2	23.9	46.4	16.0	401
Primary	42.7	34.1	4.9	26.2	47.6	9.1	164
Middle	50.6	40.1	8.6	22.7	48.6	8.0	362
Higher	48.5	42.4	9.1	15.2	54.5	9.1	33
TOTAL	43.1	33.5	6.1	23.5	47.7	11.6	960

Note: Children less than one month of age are excluded.

[1] Women were able to specify more than one treatment so the percentages of children receiving various treatments may not add to 100.

[2] Includes tablets, injection, syrups, and change in diet (increasing or decreasing food or fluids)

prevalent in rural than in urban areas and among less educated mothers. Approximately 48 percent of children were also reported to have been given "other treatment." This includes tablets, injection, syrups and changes in diet, such as increasing or decreasing the amount of fluids or foods the child is given.

Twelve percent of children with diarrhoea in the last two weeks received no treatment. There are large regional differences in this percentage. In Upper West, Upper East and Northern regions, 30 percent of children with diarrhoea were not taken to a medical facility or treated for the disease. In contrast, fewer than 10 percent of children with diarrhoea living in Western, Central, Greater Accra,

Eastern and Volta regions were not treated or seen by a medical professional. Very young children (under 6 months) are the least likely to be treated for an episode of diarrhoea.

To ascertain the level of knowledge about oral rehydration therapy (ORT) as a treatment for diarrhoea, the GDHS asked all mothers with children under five years of age if they had ever heard of a special product called "oral rehydration packet which can be used for the treatment of diarrhoea." The percentage of mothers of children under age five who know about the packets of salts (ORS) is shown in Table 6.13 by mother's level of education, urban-rural residence, and region. Knowledge of ORT clearly increases with education. While only two-fifths of women with no education said they had heard of the ORS packets, more than three-fifths of those with primary or middle school education and four-fifths of women with higher education knew about the packets. The pattern of increasing knowledge of ORT with increasing education occurs in all regions and in both rural and urban areas.

Table 6.13 Among Mothers of Children Under 5 Years of Age, the Percentage Who Know About ORT by Education and Selected Background Characteristics, GDHS, 1988

Background Characteristic	Level of Education				
	No Education	Primary	Middle	Higher	Total
RESIDENCE					
Urban	57.9	64.3	70.7	91.4	68.2
Rural	40.1	59.3	63.0	78.9	51.6
REGION					
Western	51.8	60.0	57.3	-	55.7
Central	43.1	52.9	55.1	-	50.5
Greater Accra	62.3	72.0	79.6	92.9	75.9
Eastern	44.8	54.9	63.2	-	57.0
Volta	62.0	72.1	81.7	-	72.2
Ashanti	40.8	47.9	62.2	82.1	54.0
Brong Ahafo	47.6	68.9	64.0	-	57.9
Upper West, East and Northern	28.1	61.5	65.0	-	33.0
TOTAL	43.6	60.7	65.8	86.2	56.3

- Less than 25 cases

6.7 PREVALENCE AND TREATMENT OF FEVER AND RESPIRATORY ILLNESS

Mothers were also asked in the GDHS whether each child under the age of five had had fever in the four weeks preceding the survey and whether each child had suffered from severe cough or difficult or rapid breathing in the last four weeks. The questions on fever are intended primarily to identify children with malaria, but they may also identify children suffering from other diseases. The questions on cough and rapid breathing are intended to measure the incidence of respiratory infection. Women were also asked several questions concerning the type of professional assistance sought and the kind of treatment provided.

Table 6.14 Among Children Under 5 Years of Age, the Percentage Who Are Reported by the Mother as Having Had Fever in the Past Four Weeks, and, Among Children Who Had Fever in the Past Four Weeks, the Percentage Consulting a Medical Facility and the Percentage Receiving Various Treatments, by Selected Background Characteristics, GDHS, 1988

Background Characteristic	Percentage of Children With Fever	Percentage of Children With Fever Consulting a Medical Facility	Percentage of Children With Fever Treated by:[1]				Percentage of Children With Fever Who Had No Treatment or Medical Consultation	Number of Children
			Anti-malarial	Anti-biotics	Trad. Medi-cine	Other Medi-cine[2]		
AGE OF CHILD								
1-5 months	17.3	50.0	16.1	3.6	23.2	44.6	12.5	324
6-11 months	41.4	57.9	19.3	5.3	18.7	55.6	2.9	413
12-17 months	39.3	53.7	25.6	9.8	18.9	59.8	3.0	417
18-23 months	49.0	64.2	25.1	6.7	14.0	54.7	1.7	365
24-59 months	33.8	55.2	26.7	9.9	18.7	55.2	3.8	2127
SEX OF CHILD								
Male	36.3	55.1	24.1	7.5	18.7	52.5	4.4	1825
Female	34.3	57.8	25.8	9.6	17.8	58.2	2.9	1821
RESIDENCE								
Urban	32.2	71.3	22.5	7.4	13.3	58.3	1.5	1006
Rural	36.5	51.3	25.7	8.9	19.9	54.3	4.4	2640
REGION								
Western	39.4	60.2	11.7	2.3	14.8	82.0	1.6	325
Central	54.6	49.3	15.8	3.8	21.1	50.2	1.0	383
Greater Accra	31.3	79.1	28.7	6.1	13.9	59.1	0.0	368
Eastern	44.7	58.0	16.0	1.6	20.6	49.4	0.8	544
Volta	36.7	47.9	35.2	3.6	22.4	59.4	3.6	450
Ashanti	28.9	64.8	47.3	19.8	11.0	48.9	5.5	629
Brong Ahafo	22.9	57.7	16.2	29.7	18.9	58.6	2.7	485
Upper West, East and Northern	29.2	39.3	28.9	9.6	20.7	45.9	16.3	462
LEVEL OF EDUCATION								
No education	33.5	45.3	23.7	9.1	19.2	55.1	6.5	1614
Primary	39.1	61.9	26.8	7.4	23.4	49.4	2.6	591
Middle	36.5	63.9	24.3	7.8	15.2	58.3	1.3	1259
Higher	30.8	78.6	33.9	14.3	12.5	57.1	0.0	182
TOTAL	35.3	56.4	24.9	8.5	18.2	55.3	3.6	3646

Note: Children less than one month of age are excluded.
[1] Women were able to specify more than one treatment so the percentages of children receiving various treatments may not add to 100.
[2] Includes liquids or syrups, aspirin, injection, and other treatments mentioned by the mother

Table 6.14 shows that approximately 35 percent of children under the age of five are reported by their mothers as having had fever in the four weeks preceding the interview. There are large regional differences in this percentage. As might be expected, the prevalence of fever is highest in the wetter southern parts of Ghana, including Central, Eastern, Western, Volta, and Greater Accra regions. The prevalence of fever is lower (less than 30 percent) in the drier northern half of the country.

Table 6.15 Among Children Under 5 Years of Age, the Percentage Who Are Reported by the Mother as Having Suffered from Severe Cough with Difficult or Rapid Breathing in the Past Four Weeks, and, Among Children Who Suffered from Severe Cough with Difficult Breathing, the Percentage Consulting a Medical Facility and the Percentage Receiving Various Treatments, Selected Background Characteristics, GDHS, 1988

Background Characteristic	Percentage of Children With Cough or Difficult Breathing	Percentage With Cough or Difficult Breathing Consulting a Medical Facility	Percentage of Children With Cough or Difficult Breathing Treated by:[1]				Percentage of Children With Cough or D.B. Who Had No Treatment or Medical Consultation	Number of Children
			Anti-biotics	Liquid or Syrup	Trad. Medi-cine	Other Medi-cine[2]		
AGE OF CHILD								
1-5 months	21.0	39.7	7.4	33.8	16.2	14.7	25.0	324
6-11 months	31.0	58.6	10.9	44.5	14.1	25.0	4.7	413
12-17 months	20.4	49.4	8.2	34.1	23.5	20.0	15.3	417
18-23 months	24.4	61.8	11.2	40.4	14.6	23.6	12.4	365
24-59 months	16.9	44.3	16.4	37.6	20.3	23.1	13.1	2127
SEX OF CHILD								
Male	20.2	47.4	11.7	39.0	19.5	20.9	14.6	1825
Female	19.8	50.8	14.4	37.8	17.5	23.9	11.1	1821
RESIDENCE								
Urban	18.1	61.0	12.1	48.9	12.6	19.8	9.9	1006
Rural	20.7	45.2	13.3	34.9	20.5	23.2	13.9	2640
REGION								
Western	22.5	56.2	2.7	69.9	17.8	32.9	8.2	325
Central	24.0	50.0	4.3	35.9	30.4	15.2	8.7	383
Greater Accra	13.3	75.5	14.3	30.6	10.2	28.6	6.1	368
Eastern	20.4	51.4	9.0	24.3	22.5	10.8	9.0	544
Volta	13.1	55.9	15.3	50.8	30.5	18.6	11.9	450
Ashanti	27.2	44.4	19.9	39.2	9.9	22.8	13.5	629
Brong Ahafo	19.4	52.1	18.1	40.4	13.8	41.5	8.5	485
Upper West, East and Northern	17.3	23.7	15.0	23.7	20.0	12.5	36.2	462
LEVEL OF EDUCATION								
No education	18.4	42.1	11.4	33.0	20.2	25.6	16.8	1614
Primary	21.0	55.6	20.2	44.4	23.4	21.8	6.5	591
Middle	21.4	51.1	11.5	40.0	15.2	20.0	11.9	1259
Higher	20.9	68.4	13.2	50.0	13.2	15.8	10.5	182
TOTAL	20.0	49.1	13.0	38.4	18.5	22.4	12.9	3646

Note: Children less than one month of age are excluded.

[1] Women were able to specify more than one treatment so the percentages of children receiving various treatments may not add to 100

[2] Includes aspirin, injection, and other treatments mentioned by the mother

More than half of children with fever in the four weeks preceding the interview were taken to a medical facility (private doctor, hospital, or clinic). Urban children are significantly more likely to be taken to a medical facility than rural children, and the proportion of children taken to a facility increases with the education of the mother. About one in four children with fever was treated with an antimalarial, whilst about 18 percent were treated with traditional medicine. About 4 percent of children received no treatment.

Table 6.15 shows the percentage of children who suffered from severe cough or difficult or rapid breathing in the four weeks preceding the interview and the treatments they were given. Overall, 20

percent of children experienced one or more of these symptoms; of these, nearly half were taken to a medical facility. As in the case of fever, the percentage of children taken to a medical facility is greater in urban areas and among children of educated mothers.

6.8 NUTRITIONAL STATUS OF CHILDREN

An important component of the GDHS is the collection of anthropometric data on children which is used to assess nutritional status. Measures of nutritional status are among the most important indicators of the health of a population of children. In the GDHS, children aged 3-36 months of interviewed mothers were weighed and measured after the completion of the woman's individual interview.

The validity of the anthropometric indices calculated from these data depends heavily on the accuracy of the height, weight and age data collected. Thus, thorough training of measurers is of primary importance. Supervisors and field editors for the GDHS were designated as measurers. Interviewers were trained to act as assistants in situations where two measurers were not available. The procedures used were those recommended by the United Nations (United Nations, 1986). Before going to the field, measurers were required to reach the level of accuracy recommended by the United Nations in carrying out the measurements. The children were weighed using hanging spring scales and measured with portable measuring boards.

The results presented below are based on 1841 children aged 3-36 months. Of the 2205 living children aged 3-36 months identified during the individual interviews, 1986 (90 percent) were successfully weighed and measured. Of those who were not measured, most were sick or were away from the household at the time their mothers were interviewed. Thirteen cases (0.7 percent) have been eliminated from the analysis because one or more of the anthropometric indices were improbably high or low. These most likely represent measurement, recording, or data entry errors.

As noted above, anthropometric data are highly dependent on accurate reporting of age. Age data in months are required and, in the case of GDHS, are calculated from the birth date provided by the mother. A healthy child can be misclassified as severely malnourished if his reported age is greater by just a few months than his true age. Thus, children with missing data on date of birth (which have been imputed for other analyses in this report) are not included here. One hundred thirty-two cases (7 percent) were eliminated because an exact date of birth for the child was not recorded.[3]

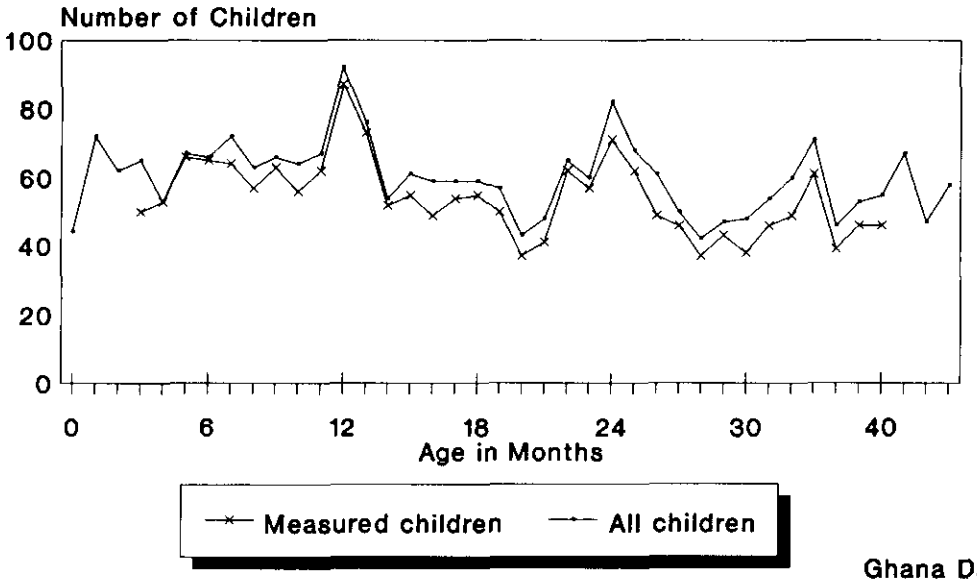
It is also important to examine the extent of misreporting of age for children whose mothers reported exact birth dates. Figure 6.3 shows the frequency of reported ages (children with exact birth dates) for all living children aged 3-36 months and for the children who were successfully weighed and measured. The graph shows evidence of some heaping at age 12 months; less severe heaping is evident at ages 24 and 33 months. The age distribution of those successfully weighed and measured is not significantly different from that of all children, except for those 3 month of age, a disproportionate number of which were not measured. The effect of age misreporting on the anthropometric analysis is difficult to judge. If mothers are about as likely to overestimate as to underestimate their children's ages, the aggregate effect on the anthropometric indices may be slight. Nevertheless, the results should be viewed with some caution.

For comparative purposes, the nutritional status data in this report are evaluated using the U.S. National Center for Health Statistics/Centers for Disease Control (NCHS/CDC) International Reference

---

[3] The anthropometric indices have been calculated both with (using imputed dates) and without the children whose exact birth dates were reported. Overall, in no case does the inclusion of the 133 children with imputed dates of birth alter the percentage falling in each standard deviation category (for each of the three indices) by more than 1 percentage point.

Figure 6.3
Age Distribution of Measured Children and All Children



Population, as recommended by the World Health Organization. The nutritional status of children is evaluated by calculating the extent to which they deviate from the population of healthy, well-nourished children defined by the NCHS/CDC reference. Four standard indices of nutritional status have been calculated and are presented below:

- Height-for-age
- Weight-for-height
- Height-for-age by weight-for-height
- Weight-for-age.

Each of these indices provides somewhat different information about the nutritional status of a population. Height-for-age is a measure of linear growth. Children who are chronically undernourished are generally short for their age. A child whose height-for-age is 2 or more standard deviations below the median of the reference population is considered "stunted," or chronically malnourished, a condition which is typically associated with adverse environmental conditions over a long period. The weight-for-height index measures acute undernourishment. A child whose weight-for-height falls 2 or more standard deviations below the reference median is classified as "wasted," or acutely undernourished. This condition is usually associated with short-term undernourishment as a result of disease (e.g., diarrhoea) or variations in food supply. Note that the weight-for-height index does not include an age component and is, thus, free of bias due to age misreporting.

Height-for-age by weight-for-height is a cross-tabulation (known as the Waterlow table) which identifies the proportion of children who are most severely undernourished, i.e., those who are both stunted and wasted. It also gives an indication of the degree of hidden undernutrition by showing the proportion of children who are stunted but not wasted. Children who are stunted but not wasted will seem to be healthy but will seem younger than their true age. Finally, weight-for-age is an index which is most useful for monitoring the growth of individual children in clinics as the complicated procedure of length measurement is not required to derive the index. It is a useful summary index but has the

disadvantage of not differentiating between chronic and acute malnutrition. It is included here mainly for comparison with clinical data. Caution must be used, however, as the GDHS data are nationally representative, while clinic-based data are not.

Table 6.16 Percentage Distribution of Children Aged 3-36 Months by Standard Deviation Category of Height-for-Age, Using the NCHS/CDC/WHO International Standard (Children With Exact Dates of Birth), According to Selected Background Characteristics, GDHS, 1988

Background Characteristic	Standard Deviations From the Reference Median						Total	Number of Children Aged 3-36 Months
	-3.00 or More	-2.00 to -2.99	-1.00 to -1.99	-0.99 to +0.99	+1.00 to +1.99	+2.00 or More		
REFERENCE	0.1	2.2	13.6	68.2	13.6	2.3	100.0	-
SEX								
Male	10.4	19.8	31.0	34.0	3.3	1.5	100.0	927
Female	10.0	19.8	30.2	35.9	3.2	1.0	100.0	914
AGE								
3-11 months	1.7	8.8	25.2	55.2	6.2	3.0	100.0	536
12-23 months	10.4	22.8	32.9	31.4	1.9	0.6	100.0	672
24-36 months	17.1	26.1	32.7	21.5	2.2	0.5	100.0	633
PREVIOUS BIRTH INTERVAL								
First birth	9.1	20.1	31.6	35.8	2.4	1.1	100.0	374
<2 years	14.0	21.4	25.8	34.9	3.5	0.4	100.0	229
2-3 years	10.2	20.1	32.8	32.9	2.5	1.5	100.0	915
4 or more years	8.7	17.6	26.6	39.6	6.2	1.2	100.0	323
TYPE OF BIRTH								
Single birth	9.9	19.3	31.0	35.2	3.3	1.3	100.0	1766
Multiple birth	17.3	32.0	21.3	28.0	1.3	0.0	100.0	75
RESIDENCE								
Urban	8.5	17.1	29.6	39.8	3.8	1.2	100.0	520
Rural	10.8	20.9	31.0	33.0	3.0	1.3	100.0	1321
REGION								
Western	9.0	21.3	31.5	34.3	1.7	2.2	100.0	178
Central	14.9	25.5	22.9	34.6	1.6	0.5	100.0	188
Greater Accra	7.2	14.9	32.8	39.5	4.1	1.5	100.0	195
Eastern	12.0	18.2	31.2	35.6	2.7	0.3	100.0	292
Volta	7.8	17.7	33.7	36.2	2.1	2.5	100.0	243
Ashanti	8.3	18.4	26.7	40.2	4.5	1.9	100.0	266
Brong Ahafo	6.7	20.1	34.0	33.2	4.9	1.1	100.0	268
Upper West, East and Northern	16.6	24.2	30.8	24.6	3.8	0.0	100.0	211
LEVEL OF EDUCATION								
No education	11.8	20.7	30.9	31.9	3.5	1.2	100.0	752
Primary	11.3	20.6	29.4	33.9	2.9	1.9	100.0	310
Middle	8.7	19.5	30.5	37.0	3.2	1.0	100.0	681
Higher	4.1	12.2	32.7	46.9	3.1	1.0	100.0	98
TOTAL	10.2	19.8	30.6	34.9	3.3	1.2	100.0	1841

Height-for-Age

Table 6.16 shows the percentage of children aged 3-36 months who fall in each standard deviation category of height-for-age. Thirty percent of children in this age group fall two or more standard deviations below the reference median and would be considered chronically undernourished. In the reference population, only 2.3 percent of children fall this far below the median. About 69 percent of children in Ghana fall within two standard deviations of the reference median and the remaining 1 percent fall two or more standard deviations above. This distribution is shown in comparison to the reference in Figure 6.4.

Table 6.16 also shows that certain characteristics of children are associated with undernourishment. For example, whilst 35 percent of children born less than 2 years after a previous birth are chronically undernourished, only 30 percent of those born 2-3 years and 26 percent of those born 4 or more years after a previous birth are classified as undernourished, according to this index. Children of mothers with higher education (see Figure 6.5) and children who live in urban areas are less likely to be undernourished than other children. Finally, there are large differences by region. The proportion of children falling two or more standard deviations below the reference median ranges from 22 percent in Greater Accra to 40 percent in Central region and 41 percent in Upper West, Upper East and Northern regions.

Weight-for-height

Weight-for-height is a measure of recent nutritional status. Diarrhoeal disease, infection and seasonal fluctuations in food supply contribute to the level of wasting or acute undernutrition in the population. Children who are between 2 and 3 standard deviations below the reference median are considered thin for their height or moderately wasted. Those who fall 3 or more standard deviations below the median are classified as severely wasted. Since the child's age is not used in the calculation of this index, it is free from bias due to age misreporting.

Table 6.17 presents the weight-for-height distribution of Ghanaian children compared to the reference population. About 8 percent of children are moderately wasted in comparison to 2.2 percent in the reference population. Fewer than 1 percent of children are classified as severely wasted. More than half of the children fall within one standard deviation of the median. The distribution of weight-for-height compared to the reference is shown in Figure 6.6.

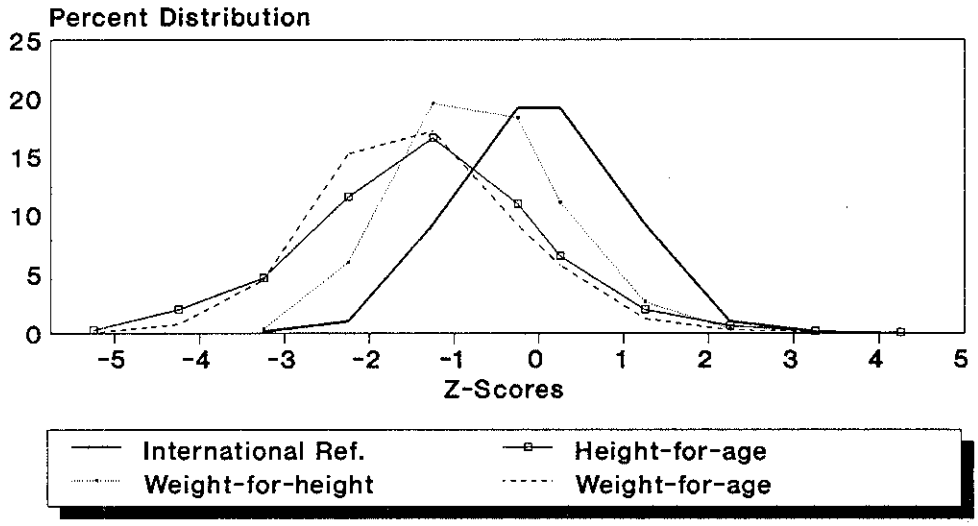
The percentage wasted does not vary significantly by sex of the child, length of the previous birth interval or urban-rural residence. Regional differences are not large, except in the cases of Greater Accra and Eastern region, where less than 6 percent of children are classified as moderately or severely wasted. Wasting varies from 9 to 12 percent in the remaining regions. Children who had an episode of diarrhoea in the two weeks preceding the survey and multiple births are more likely than others to be wasted.

Weight-for-Age

Table 6.18 presents data on weight-for-age. It does not provide any information in addition to the height-for-age and weight-for-height indices discussed above. In addition, the weight-for-age index does not distinguish between chronic and acute undernutrition. Nevertheless, it is widely used in nutrition programmes to monitor the growth of children on a longitudinal basis and is included here for the purposes of comparison with clinical data and with surveys in which only weight data are collected.

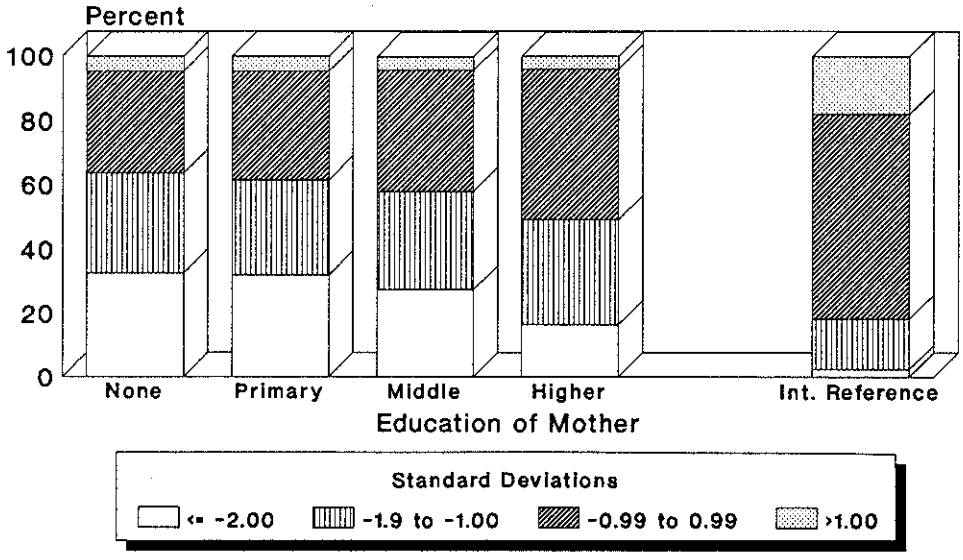
Approximately 31 percent of children aged 3-36 months fall two or more standard deviations below the median of the reference population. Differences between groups of children are much the same as in the weight-for-height data.

Figure 6.4
Nutritional Status of Children 3-36 Months Compared to the International Reference



Ghana DHS 1988

Figure 6.5
Height of Children 3-36 Months By Education of Mother, Compared to International Reference



Ghana DHS 1988

Table 6.17 Percentage Distribion of Children Aged 3-36 Months by Standard Deviation Category of Weight-for-Height, Using the NCHS/CDC/WHO International Standard (Children With Exact Dates of Birth), According to Selected Background Characteristics, GDHS, 1988

Background Characteristic	Standard Deviations From the Reference Median						Total	Number of Children Aged 3-36 Months
	-3.00 or More	-2.00 to -2.99	-1.00 to -1.99	-0.99 to +0.99	+1.00 to +1.99	+2.00 or More		
REFERENCE	0.1	2.2	13.6	68.2	13.6	2.3	100.0	-
SEX								
Male	0.6	8.4	30.7	56.1	3.7	0.4	100.0	927
Female	0.3	6.6	30.7	58.4	3.4	0.5	100.0	914
AGE								
3-11 months	0.4	5.4	23.1	63.1	6.7	1.3	100.0	536
12-23 months	0.9	14.1	39.6	43.8	1.5	0.1	100.0	672
24-36 months	0.2	2.2	27.8	66.7	3.0	0.2	100.0	633
PREVIOUS BIRTH INTERVAL								
First birth	0.0	7.8	33.4	54.3	4.0	0.5	100.0	374
<2 years	0.4	8.7	32.8	55.9	1.7	0.4	100.0	229
2-3 years	0.5	7.4	29.6	58.1	3.9	0.3	100.0	915
4 or more years	0.9	6.5	29.4	59.1	3.1	0.9	100.0	323
TYPE OF BIRTH								
Single birth	0.5	7.1	30.7	57.6	3.6	0.5	100.0	1766
Multiple birth	1.3	17.3	30.7	48.0	2.7	0.0	100.0	75
DIARRHOEA LAST 2 WEEKS								
Diarrhoea	0.8	9.2	35.2	52.0	2.2	0.6	100.0	631
No diarrhoea	0.3	6.6	28.4	60.0	4.2	0.4	100.0	1210
RESIDENCE								
Urban	0.8	6.3	31.2	56.9	4.2	0.6	100.0	520
Rural	0.4	7.9	30.6	57.4	3.3	0.5	100.0	1321
REGION								
Western	0.0	11.2	28.1	57.3	2.8	0.6	100.0	178
Central	2.1	9.0	36.7	47.9	4.3	0.0	100.0	188
Greater Accra	0.5	4.1	28.2	61.5	5.1	0.5	100.0	195
Eastern	0.3	4.8	34.6	56.5	2.7	1.0	100.0	292
Volta	0.4	6.2	28.8	63.4	1.2	0.0	100.0	243
Ashanti	0.0	9.0	30.5	55.6	4.9	0.0	100.0	266
Brong Ahafo	0.0	7.5	27.2	62.3	2.2	0.7	100.0	268
Upper West, East and Northern	0.9	9.5	31.8	51.2	5.7	0.9	100.0	211
LEVEL OF EDUCATION								
No education	0.7	7.2	31.8	54.5	4.9	0.9	100.0	752
Primary	0.3	6.8	30.6	59.0	2.6	0.6	100.0	310
Middle	0.4	8.8	28.9	59.6	2.2	0.0	100.0	681
Higher	0.0	3.1	35.7	56.1	5.1	0.0	100.0	98
TOTAL	0.5	7.5	30.7	57.3	3.5	0.5	100.0	1841

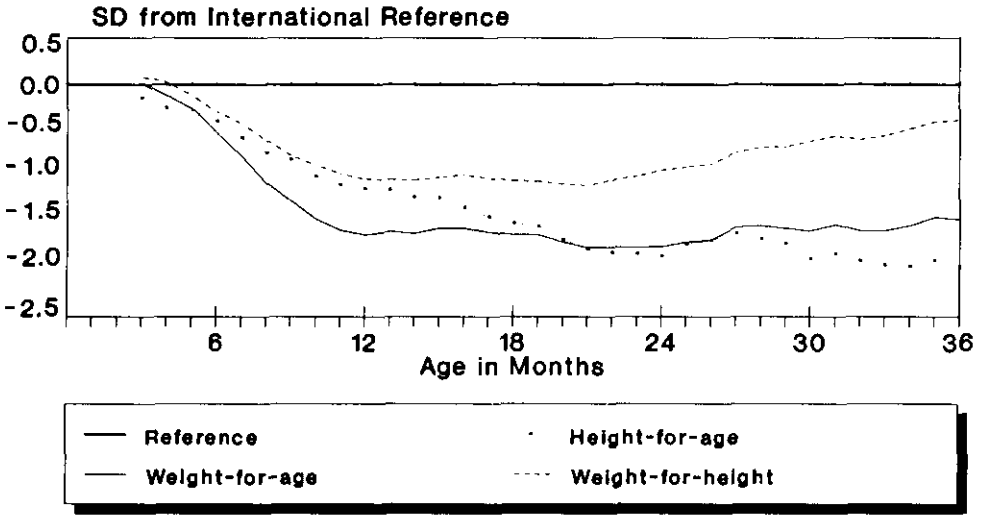
Table 6.18 Percentage Distribution of Children Aged 3-36 Months by Standard Deviation Category of Weight-for-Age, Using the NCHS/CDC/WHO International Standard (Children With Exact dates of Birth), According to Selected Background Characteristics, GDHS, 1988

Background Characteristic	Standard Deviations From the Reference Median						Total	Number of Children Aged 3-36 Months
	-3.00 or More	-2.00 to -2.99	-1.00 to -1.99	-0.99 to +0.99	+1.00 to +1.99	+2.00 or More		
REFERENCE	0.1	2.2	13.6	68.2	13.6	2.3	100.0	-
SEX								
Male	7.9	22.4	34.8	32.5	2.0	0.3	100.0	927
Female	6.3	24.8	34.4	30.9	2.7	0.9	100.0	914
AGE								
3-11 months	2.1	13.8	27.2	48.5	6.9	1.5	100.0	536
12-23 months	9.4	29.0	37.6	23.2	0.3	0.4	100.0	672
24-36 months	9.0	26.2	37.6	26.4	0.8	0.0	100.0	633
PREVIOUS BIRTH INTERVAL								
First birth	8.6	22.7	34.8	31.6	2.1	0.3	100.0	374
<2 years	7.9	27.9	33.6	29.3	1.3	0.0	100.0	229
2-3 years	7.0	23.5	36.1	30.2	2.5	0.8	100.0	915
4 or more years	5.3	22.0	31.0	37.8	3.1	0.9	100.0	323
TYPE OF BIRTH								
Single birth	6.6	23.2	35.1	32.0	2.4	0.6	100.0	1766
Multiple birth	18.7	33.3	22.7	24.0	1.3	0.0	100.0	75
DIARRHOEA LAST 2 WEEKS								
Diarrhoea	8.2	26.6	34.2	28.7	1.9	0.3	100.0	631
No diarrhoea	6.5	22.1	34.8	33.2	2.6	0.7	100.0	1210
RESIDENCE								
Urban	6.2	19.4	34.0	36.7	3.3	0.4	100.0	520
Rural	7.5	25.3	34.8	29.7	2.0	0.7	100.0	1321
REGION								
Western	9.0	23.0	36.0	28.7	1.7	1.7	100.0	178
Central	10.1	27.1	32.4	29.8	0.5	0.0	100.0	188
Greater Accra	3.1	19.0	34.4	40.5	2.6	0.5	100.0	195
Eastern	8.6	20.9	34.2	33.6	2.7	0.0	100.0	292
Volta	3.7	25.9	36.6	31.3	1.2	1.2	100.0	243
Ashanti	7.1	23.3	33.8	29.7	5.3	0.8	100.0	266
Brong Ahafo	5.2	22.0	38.8	31.3	1.9	0.7	100.0	268
Upper West, East and Northern	10.9	28.9	29.4	28.4	2.4	0.0	100.0	211
LEVEL OF EDUCATION								
No education	8.6	23.5	33.6	30.7	2.7	0.8	100.0	752
Primary	7.4	23.2	35.5	31.3	1.6	1.0	100.0	310
Middle	6.2	24.5	34.8	32.0	2.2	0.3	100.0	681
Higher	1.0	19.4	37.8	37.8	4.1	0.0	100.0	98
TOTAL	7.1	23.6	34.6	31.7	2.4	0.6	100.0	1841

Age Pattern of Anthropometric Indices

In Figure 6.6 the mean number of standard deviations from the reference median (Z-score) of each of the anthropometric indices is plotted against age. The means have been smoothed using a 5-point moving average. The figure is intended to show the way in which undernutrition varies with children's age. At age three months, each of the indices is very close to the reference. By the age of 12 months, however, the mean of the weight-for-height index is about one standard deviation below the median, whilst the height-for-age index is more than one standard deviation and the weight-for-age index is more than one and one-half standard deviations below the reference. At about age 12 months, the weight-for-age index levels off, whilst the height-for-age index continues to decline. As a result, the weight-for-height index starts to rise relative to the reference. This pattern suggests that, up to the age of about 12 months, children are not putting on weight and are not growing at the same rate as the international reference. Thereafter, weight gain seems to approximate that of the international reference and actually surpasses it after 24 months, leading to some catch-up growth. Height gain lags behind the reference at all ages up to 36 months, although the magnitude of the lag is greatest in the first 18 months. At about age 18 months, weight starts to catch up with height. By the time children have reached 36 months of age, they are an average of 2 standard deviations below the reference median in terms of height-for-age, but only one-half standard deviation below the reference in terms of weight-for-height. As a result, some undernutrition is hidden, i.e., children do not look thin for their height yet their growth is stunted.

Figure 6.6
Nutritional Status of Children
3-36 Months Compared to
International Reference

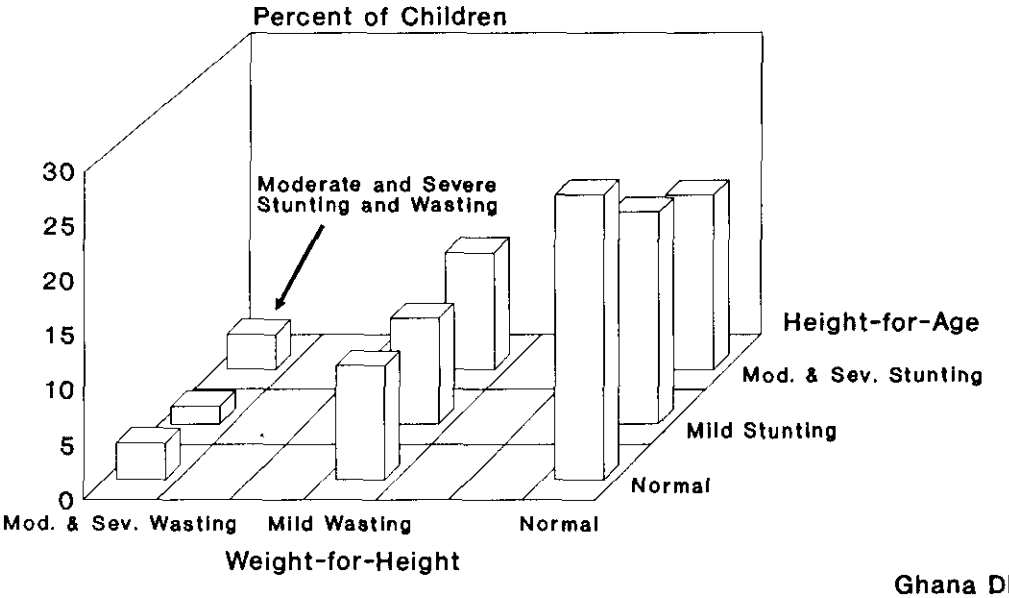


Ghana DHS 1988

Height-for-Age by Weight-for-Height

Figure 6.7 shows the results of the cross-tabulation of height-for-age and weight-for-height. The figure shows that approximately 3 percent of children aged 3-36 months are both stunted and wasted. These are the most undernourished children in the population. The figure also shows the prevalence of hidden undernutrition. About 16 percent of children are normal in terms of weight-for-height but are severely or moderately stunted or short for their age.

Figure 6.7
Cross-tabulation of Weight-for-Height and Height-for-Age



Ghana DHS 1988

CHAPTER 7

HUSBAND'S SURVEY

In addition to the household and individual female interviews, the GDHS also included a survey of husbands. The GDHS husband's questionnaire was designed to provide information on key fertility and family planning issues, including contraceptive knowledge and use, fertility, and fertility preferences. The information obtained from the husband's questionnaire is intended to be useful for the planning and administration of family planning programmes, which often lack reliable information on men.

In this chapter, we present the results obtained from the husband's survey regarding marriage, fertility, contraception and fertility preferences. In addition, we match husbands and wives and present information on the resulting sample of married couples.

7.1 CHARACTERISTICS OF THE SAMPLE

Half of the GDHS sample clusters were selected for inclusion in the husband's sample (see Appendix B for details). Within a selected cluster, a husband was eligible for interview if 1) his wife (or one of his wives) was successfully interviewed and 2) he was listed as a usual member of the household in which his wife or wives were interviewed. Of 943 husbands successfully interviewed, 879 have one wife in the sample, 61 have two wives and 3 have three wives interviewed.[1] Thus, when husbands are matched to their wives, the resulting sample is composed of 1010 married couples.

Table 7.1 presents the percentage distribution of husbands in the sample by age, residence, region, and level of education. Approximately one-half of the respondents are 40 years of age or older, one-third are 30 to 39, and 17 percent are less than 30 years of age. Since 48 percent of married women in the GDHS are less than 30 years of age, it is apparent that husbands are, on average, much older than their wives. Three-quarters of the husbands reside in rural areas and one-quarter reside in urban areas. Approximately 38 percent of husbands have no education and 16 percent have higher than middle school education. In comparison, 47 percent of married women have no education and only 6 percent have more than middle school education.

The majority of husbands in the sample are employed in agriculture (64 percent). Approximately 19 percent work in production (e.g., electricians, transport equipment operators, construction workers, machinists). Most of those remaining are employed in professional and technical occupations.

The regional distribution of husbands is also shown in Table 7.1. The small number of husbands in some of the regions suggests that results tabulated by region should be viewed with caution. The distribution of husbands by region is somewhat different from that of married women. The differences may be expected due to the relatively large sampling variability in the husband's sample, which is the result of small sample size. It should also be noted that, since the husband's sample is composed of **co-resident** husbands, regional differences between the two samples may be partly attributed to regional differences in co-residence patterns.

---

[1] Due to the way in which husbands were selected for interview, some husbands in the sample have additional wives who were not interviewed (because they do not live in the same household). Thus, the sample of husbands is composed of co-resident husbands; similarly, the sample of married couples is composed of co-resident couples.

Table 7.1 Percentage Distribution of Husbands by Background Characteristics, GDHS, 1988

Background Characteristic	Percent	Number
AGE		
<30	17.3	163
30-39	32.4	306
40-49	27.9	263
50+	22.4	211
NUMBER OF LIVING CHILDREN		
0-2 Children	28.2	266
3-4 Children	26.2	247
5+ Children	45.6	430
RESIDENCE		
Urban	24.0	226
Rural	76.0	717
REGION		
Western	9.4	89
Central	11.7	110
Greater Accra	11.5	108
Eastern	12.6	119
Volta	9.7	91
Ashanti	13.9	131
Brong Ahafo	13.0	123
Upper West, East and Northern	18.2	172
LEVEL OF EDUCATION		
No education	38.4	362
Primary	10.0	94
Middle	35.8	338
Higher	15.8	149
OCCUPATION		
Professional, technical	7.6	72
Administrative, manag.	0.8	8
Clerical	2.4	23
Sales	2.0	19
Service	3.9	37
Agriculture	64.4	607
Production	18.5	174
TOTAL	100.0	943

Table 7.2 presents the distribution of husbands by level of education and various background characteristics. Younger husbands and those living in urban areas have a higher level of education than those who are older and those who live in rural areas. Education by region shows that husbands living in the Greater Accra and Eastern regions tend to be the most highly educated, while those living in Upper West, Upper East and Northern regions have the least education, with almost 80 percent never having attended school. Husbands working in professional, technical and administrative occupations are the most educated, whilst more than half of those working in agriculture have no education.

Table 7.2 Percentage Distribution of Husbands by Level of Education, According to Age, Urban-Rural Residence, and Region, GDHS, 1988

Background Characteristic	Level of Education: No Education	Primary/ Middle	Higher	Total	Number
AGE					
<30	19.0	62.0	19.0	100.0	163
30-39	26.1	52.6	21.2	100.0	306
40-49	39.5	45.6	14.8	100.0	263
50+	69.7	23.7	6.6	100.0	211
RESIDENCE					
Urban	23.0	46.5	30.5	100.0	226
Rural	43.2	45.6	11.2	100.0	717
REGION					
Western	27.0	61.8	11.2	100.0	89
Central	38.2	50.0	11.8	100.0	110
Greater Accra	15.7	57.4	26.9	100.0	108
Eastern	20.2	56.3	23.5	100.0	119
Volta	25.3	59.3	15.4	100.0	91
Ashanti	29.0	55.0	16.0	100.0	131
Brong Ahafo	46.3	33.3	20.3	100.0	123
Upper West, East and Northern	79.7	15.1	5.2	100.0	172
OCCUPATION					
Professional, technical	4.2	18.1	77.8	100.0	72
Administrative, manag.	0.0	25.0	75.0	100.0	8
Clerical	0.0	43.5	56.5	100.0	23
Sales	21.1	52.6	26.3	100.0	19
Service	18.9	70.3	10.8	100.0	37
Agriculture	50.9	42.8	6.3	100.0	607
Production	22.4	62.6	14.9	100.0	174
Not Stated	0.0	66.7	33.3	100.0	3
TOTAL	38.4	45.8	15.8	100.0	943

7.2 MARRIAGE

The men in the GDHS sample are all currently married. Thus, it is not possible to investigate marital status or age at marriage with this sample. Information was collected, however, on the number of wives each respondent had at the time of the survey. Table 7.3 presents the percentage of husbands in a polygamous union by age and background characteristics. The proportion of husbands in a polygamous union increases from 10 percent among those less than age 30 to 39 percent among those age 50 or over. Polygamous unions are more common at every age in rural areas and among husbands with no education. The overall percentages by region indicate that Upper West, Upper East and Northern regions are distinguished by a high percentage of polygamous unions.

The percentage distribution of husbands by the number of wives they have, shown in Table 7.4, demonstrates that most men in polygamous unions have two wives and only a small minority have three or more.

Table 7.3 Percentage of Husbands in a Polygamous Union, by Age and Selected Background Characteristics, GDHS, 1988

Background Characteristic	Current Age <30	30-39	40-49	50+	Total
RESIDENCE					
Urban	7.7	12.5	22.7	37.7	21.2
Rural	10.9	23.5	31.9	39.9	26.9
REGION					
Western	9.1	25.0	19.0	-	18.0
Central	14.3	18.2	23.1	-	21.8
Greater Accra	-	11.1	11.5	41.4	19.4
Eastern	4.5	17.1	31.7	23.8	21.0
Volta	14.3	26.7	38.5	-	27.5
Ashanti	-	19.4	26.0	26.9	20.6
Brong Ahafo	22.7	20.9	26.7	32.1	25.2
Upper West, East and Northern	-	27.8	46.5	64.3	41.9
LEVEL OF EDUCATION					
No education	12.9	23.7	36.5	44.9	35.1
Primary/Middle	9.9	21.1	28.3	32.0	21.8
Higher	9.7	16.9	12.8	-	13.4
TOTAL	10.4	20.9	29.3	39.3	25.6

- Fewer than 20 cases

Table 7.4 Percentage Distribution of Husbands by Number of Wives, According to Age, GDHS, 1988

Age	Number of Wives 1	2	3+	Total	Number
<30	89.6	9.8	0.6	100.0	163
30-39	79.1	19.6	1.3	100.0	306
40-49	70.7	25.5	3.8	100.0	263
50+	60.7	30.8	8.5	100.0	211
TOTAL	74.4	22.1	3.5	100.0	943

All of the husbands in the sample were asked to provide their date of birth and age. After matching husbands with wives, the age difference between spouses was calculated and is shown in Table 7.5. As expected, the majority of wives are younger than their husbands. The age differences do not vary much by the wife's age, except that wives aged 35 and older are more likely to have husbands younger than themselves. On average, first wives are almost 8 years younger than their husbands and second or

higher order wives are 16 years younger than their husbands. A distribution of age differences, using data from the GFS, is almost identical to the one shown in Table 7.5, suggesting that age differences have not changed over time (Central Bureau of Statistics, 1983).

Table 7.5 Percentage Distribution of the Age Difference Between Spouses and Mean Age Difference Between Spouses in the Sample of Married Couples, According to Wife's Age, GDHS, 1988

	Husband's Age - Wife's Age (years)						Mean Age Difference (yrs)			
	Negative	0-4	5-9	10-14	15+	Total	1st wives	2nd+ wives	Total	Number
AGE OF WIFE										
15-19	0.0	25.6	32.6	14.0	27.9	100.0	9.3	19.5	11.2	43
20-24	2.0	32.9	36.8	11.2	17.1	100.0	7.2	15.3	8.3	152
25-29	2.8	31.5	31.9	17.1	16.7	100.0	6.9	16.4	8.4	251
30-34	3.2	25.9	25.4	24.9	20.6	100.0	8.6	15.6	9.6	189
35-39	7.7	17.3	31.6	17.3	26.2	100.0	8.1	16.0	10.1	169
40-44	7.9	17.8	28.7	21.8	23.8	100.0	9.0	18.7	9.8	101
45-49	17.0	12.3	30.2	17.0	23.6	100.0	8.1	16.6	9.0	106
TOTAL	5.5	24.7	30.9	18.0	21.0	100.0	7.9	16.3	9.2	1010

7.3 FERTILITY

All husbands interviewed in the GDHS were asked how many children they had at the time of the survey. The question excluded adopted or fostered children and children who died. As shown in Table 7.6, the percentage of husbands with no children or one child declines rapidly with age. Among those under age 30, 49 percent have less than two children. This declines to 15 percent among those aged 30-39. More than one-third of husbands age 50 or over have 10 or more children; the mean number of living children for this age group is 8.5.

Table 7.6 Percentage Distribution of Husbands by Number of Living Children, According to Age and Mean Number of Living Children by Age, GDHS, 1988

	Number of Living Children													Mean Number of Living Children
Age	0	1	2	3	4	5	6	7	8	9	10+	Total	Number	
<30	16.6	31.9	26.4	16.0	7.4	1.2	0.0	0.0	0.6	0.0	0.0	100.0	163	1.7
30-39	4.2	11.1	20.3	19.3	20.3	10.8	5.9	3.6	1.3	1.0	2.3	100.0	306	3.5
40-49	2.3	3.4	5.3	8.7	14.4	13.7	14.1	13.3	6.8	7.6	10.3	100.0	263	5.9
50+	0.0	0.5	2.4	6.2	6.6	10.4	12.3	7.6	8.5	8.1	37.4	100.0	211	8.5
TOTAL	4.9	10.2	13.1	12.8	13.4	9.9	8.6	6.6	4.3	4.2	12.0	100.0	943	5.0

An interesting comparison may be made here between the mean number of living children reported by women and by husbands. In the age group 40-44, women report having an average of 5.4 living children (see Table 6.6), whilst husbands in the same age group report 5.1 living children (not shown). In the age group 45-49, the difference is much greater, with women reporting 5.7 children and husbands reporting 6.7 children (not shown). Among husbands age 50 and over, the mean number of living children is 8.5. This pattern of differences suggests that, whilst women cease to bear children by the age of 45 or so, men continue to have children well beyond that age.

7.4 CONTRACEPTIVE KNOWLEDGE AND USE

Respondents to the husband's questionnaire were asked questions about contraceptive knowledge and use which were almost identical to those asked of female respondents. The wording of some of the questions was changed slightly, however, to accommodate male respondents. For example, husbands were asked whether they had ever used a particular method **with a wife or partner**. In addition, the question on current use of contraception was phrased so that husbands could declare current use of more than one method.

Most of the husbands in the sample have some knowledge of contraception (Table 7.7). Seventy-nine percent have heard of some method of contraception and 76 percent have heard of a modern method (see Figure 7.1). The pill is the most widely known method among husbands (as well as married women), followed by the condom and female sterilisation. The least well-known, modern method is male sterilisation.

In Table 7.8, we present the level of knowledge of contraception in the sample of married couples. The percentage of couples in which both partners know a particular method is, for most methods, significantly lower than the overall proportion of husbands or of married women who know the method. For example, 63 percent of husbands and 64 percent of married women have heard of the pill, but in only 44 percent of married couples do **both** partners know about the pill. These results suggest a low level of shared knowledge of family planning between marriage partners in Ghana. The extent to which couples discuss family planning is examined in Section 7.9.

Slightly more than 4 in 10 husbands said that they had used a method of family planning sometime, but less than 3 in 10 had ever used a modern method. Overall, about one-quarter of husbands had used periodic abstinence and 14 percent had used withdrawal. The pill, condom and vaginal methods were used by 12-13 percent of husbands; the remaining methods had been used by fewer than 2 percent of the men interviewed. More husbands than married women had used family planning (41 vs. 37 percent). The difference is due mainly to greater use of the condom, withdrawal and vaginal methods among husbands.

Almost 20 percent of husbands are currently using a method of family planning (compared to 13 percent of married women). Almost half of current users are using periodic abstinence, 20 percent are using the pill, 16 percent use withdrawal and, of the remaining, most either have a wife or partner who is sterilised or they are using foaming tablets.[2]

[2] Note that the sum of the proportions using each method does not equal the overall percentage using any method. This is because about 3 percent of husbands mentioned current use of more than one method. Thus, they are counted as current users of each of the methods they mentioned, but are counted only once in the calculation of the proportion using any method.

Table 7.7 Percentage of Husbands Who Know a Contraceptive Method, Who Know a Source for a Method, Who Have Ever Used a Method, and Who Are Currently Using a Method, by Method, GDHS, 1988

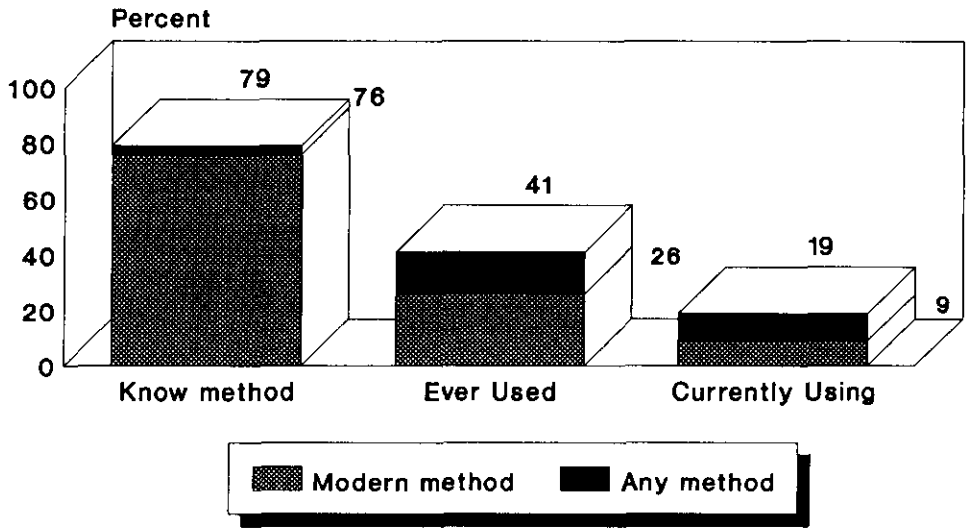
Method	Percent Who: Know Method	Know Source[1]	Ever Used	Are Currently Using
Any Method	79.0	73.4	41.0	19.6
Any Modern Method[2]	76.4	70.1	26.4	9.3
Pill	63.0	55.0	13.1	4.2
IUD	38.5	32.7	1.6	0.6
Injection	39.8	35.5	0.5	0.1
Diaphragm/Jelly				0.3
Foaming Tablets				1.3
(Combined) D/J/F[3]	40.7	37.2	13.0	
Condom	59.5	52.9	11.9	2.1
Female Sterilisation	58.1	53.3	1.3	1.2
Male Sterilisation	17.6	16.3	0.0	0.0
Any Traditional Method	55.5	-	30.0	11.6
Periodic Abstinence	44.9	41.5	23.9	9.2
Withdrawal	40.7	-	14.1	3.1
Other methods	4.5	-	1.6	0.4

[1] For periodic abstinence, this refers to a source of information or instruction.
[2] Modern methods include pill, IUD, injection, vaginal methods, condom and sterilisation.
[3] Diaphragm/jelly and foaming tablets.

Current use of contraception among husbands, according to background characteristics is shown in Table 7.9. The use of family planning declines with age. Approximately three times as many husbands under age 40 are using a modern method as husbands age 50 or over. Urban residents are almost twice as likely to be using a modern method as rural residents. Use of family planning increases with the husband's level of education. Twenty percent of husbands with higher than middle school education are currently using a modern method of family planning, and an additional 20 percent are using a traditional method. In comparison, only 1 percent of husbands with no education use a modern method and an additional 6 percent use a traditional method. Fertility desires are also strongly related to contraceptive use among husbands. Fifteen percent of husbands who say they want no more children are using a modern method, whilst only 3 percent of those who want more soon are using.

The use of modern contraception among husbands is most common in Greater Accra and least common in Upper West, Upper East and Northern regions. The percentage using a modern method also varies by region, with more than 70 percent of users in Ashanti and Central regions using a modern method, compared to only 10 percent in Upper West, Upper East and Northern regions.

Figure 7.1
Family Planning Knowledge and Use Among Husbands



Ghana DHS 1988

Table 7.8 Knowledge of Contraception Among Married Couples, by Method, GDHS, 1988

Method	Both Know Method	Husband Knows, Wife Does Not	Wife Knows, Husband Does Not	Neither Knows	Total
Pill	44.1	17.4	14.2	24.4	100.0
IUD	24.4	13.0	13.1	49.6	100.0
Injection	23.4	15.8	20.6	40.2	100.0
Vaginal Methods	23.6	16.0	8.4	52.0	100.0
Condom	34.8	23.5	7.6	34.2	100.0
Female Sterilisation	40.1	17.0	13.0	29.9	100.0
Male Sterilisation	4.0	13.4	6.3	76.3	100.0
Periodic Abstinence	27.7	16.3	12.1	43.9	100.0
Withdrawal	20.9	19.3	8.9	50.9	100.0
Other	1.2	3.2	6.5	89.1	100.0
Any Modern Method*	60.5	13.3	10.6	15.6	100.0
Any Method	66.2	11.8	8.8	13.2	100.0

* Modern methods include pill, IUD, injection, vaginal methods, condom and sterilisation.

Table 7.9 Percentage of Husbands Who Are Currently Using Any Method and Any Modern Method of Contraception, by Background Characteristics, GDHS, 1988

Background Characteristic	Percent Currently Using: Any Method	Any Modern Method[1]	Number
AGE			
<30	23.9	12.3	163
30-39	21.9	12.1	306
40-49	19.8	8.4	263
50+	12.8	4.3	211
NUMBER OF LIVING CHILDREN			
0-2 Children	15.8	8.3	266
3-4 Children	23.1	10.9	247
5+ Children	20.0	9.1	430
RESIDENCE			
Urban	28.8	14.2	226
Rural	16.7	7.8	717
REGION			
Western	12.4	3.4	89
Central	17.3	12.7	110
Greater Accra	38.0	17.6	108
Eastern	20.2	10.1	119
Volta	28.6	11.0	91
Ashanti	12.2	9.9	131
Brong Ahafo	22.0	12.2	123
Upper West, East and Northern	12.2	1.2	172
LEVEL OF EDUCATION			
No education	7.5	1.1	362
Primary + Middle	22.9	12.5	432
Higher	39.6	20.1	149
FERTILITY DESIRES			
Want no more	29.3	14.9	181
Want more later[2]	25.2	12.5	385
Want more soon[3]	5.6	2.8	213
Want more, undecided when	7.8	2.0	102
Don't know/missing	24.2	8.1	62
TOTAL	19.6	9.3	943

[1] Modern methods include pill, IUD, injection, diaphragm/jelly, condom, foaming tablets, sterilisation.
[2] Wants another child two or more years from now
[3] Wants another child within two years from now

7.5 PROBLEMS WITH METHODS

For each method a respondent had heard of, he was asked to name the main problem, if any, with using the method. As shown in Table 7.10, a large percentage of husbands claimed not to know of any problem with most of the methods or believed that there were no problems with using the methods. The percentage not knowing of any problem with a specific method ranges from 24 percent for periodic abstinence to 64 percent for injection. The percentage who said that there were no problems with using a method ranges from 18 percent for the IUD to 63 percent for periodic abstinence. For the pill, IUD, and female and male sterilisation, most of those who mentioned a problem cited health concerns. The most common problem cited with the condom and withdrawal was that they were ineffective. Whilst the majority of husbands knowing about periodic abstinence said that there was no problem with using the method, it was identified as being either ineffective or inconvenient by about 12 percent.

Table 7.10 Percentage Distribution of Husbands Who Have Ever Heard of a Method by Main Problem Perceived in Using the Method, According to Specific Method, GDHS, 1988

Problem With Method	Pill	IUD	Injec-tion	Vagi-nal Methods	Con-dom	Female Sterili-sation	Male Sterili-sation	Periodic Absti-nence	With-drawal
None	25.3	17.6	25.6	39.1	32.1	27.7	28.3	62.6	34.4
Not effective	5.2	2.5	1.9	6.0	12.3	0.7	1.2	5.7	15.6
Partner disapproves	0.8	0.3	0.3	0.5	0.9	0.2	0.0	1.2	4.7
Health concerns	15.2	18.7	6.1	6.8	1.8	13.5	8.4	0.0	7.0
Difficult to get	0.7	0.3	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Costs too much	0.0	0.3	0.5	0.3	0.0	0.5	0.0	0.0	0.0
Inconvenient to use	2.7	1.9	0.8	4.9	8.6	2.4	1.2	5.9	5.7
Other	0.8	0.0	0.3	0.0	0.0	0.5	2.4	0.5	0.5
Don't know	49.3	58.4	64.3	41.9	43.3	53.5	58.4	23.6	31.0
Missing	0.0	0.0	0.3	0.5	0.5	0.9	0.0	0.5	1.0
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	594	363	375	384	561	548	166	423	384

7.6 SOURCE FOR METHOD

Husbands who know a method were asked where they would go to obtain the method if they wanted to use it. As shown in Table 7.11, the source most commonly named for the IUD, injection and sterilisation is government hospitals. More than half of husbands who knew about vaginal methods and condoms and one-third of those who knew about the pill said they would obtain them from a pharmacy or chemical seller. A significant percentage of husbands also named PPAG clinics as sources for the pill, IUD, injection, vaginal methods and as a source of advice or information about periodic abstinence. Finally, about 41 percent of husbands who knew about periodic abstinence said that they would go to friends or relatives for advice on this method.

7.7 NUMBER OF CHILDREN AT FIRST USE

Table 7.12 shows the percentage distribution of husbands by the number of children they had at the time they first used a method of contraception. The results demonstrate a tendency for contraceptive use to begin earlier for younger men. While 19 percent of husbands less than age 30 first used contraception before their first child was born, fewer than 2 percent of husbands 50 or more years old did so. Among husbands age 40-49, 15 percent, or more than one-third of those who had ever used a contraceptive method, began using after they had four or more children. In contrast, among husbands age 30-39 who had ever used contraception, 61 percent first used before their second child.

Table 7.11 Percentage Distribution of Husbands Knowing a Contraceptive Method by Supply Source Named, According to Specific Method, GDHS, 1988

Source Named	Pill	IUD	Injec-tion	Vagi-nal Methods	Con-dom	Female Sterili-sation	Male Sterili-sation	Periodic Absti-nence
Nowhere	0.5	0.8	1.3	0.5	0.7	0.2	1.2	10.2
Government hospital	31.3	59.0	65.9	18.8	16.4	84.1	84.3	11.6
Government health center	5.6	4.7	7.7	4.2	3.6	1.8	1.2	4.0
PPAG clinic	15.0	16.3	11.5	13.0	9.1	4.0	6.0	12.5
Private maternity home	0.2	0.3	0.3	0.0	0.4	0.0	0.0	0.0
Field worker	0.0	0.0	0.5	0.3	0.7	0.2	0.0	0.7
Private doctor/clinic	0.8	0.6	0.8	0.8	0.4	0.4	0.0	1.2
Government maternity home	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pharmacy/chemical seller	32.7	2.8	1.1	52.9	56.7	0.2	0.0	0.2
Christian council	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
Friends/relatives	1.2	0.6	0.3	1.0	0.9	0.9	0.0	40.7
Other	0.0	0.0	0.0	0.0	0.2	0.0	0.0	9.5
Don't know	12.6	15.2	10.7	8.3	10.7	7.7	7.2	7.1
Missing	0.0	0.0	0.0	0.3	0.4	0.5	0.0	0.5
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	594	363	375	384	561	548	166	423

Table 7.12 Percentage Distribution of Husbands by Number of Living Children at Time of First Use of Contraception, According to Age, GDHS, 1988

		No. of Living Children at First Use							
Age	Never used	0	1	2	3	4+	Missing	Total	Number
<30	55.8	19.0	16.0	5.5	1.8	1.8	0.0	100.0	163
30-39	52.3	14.7	14.1	8.2	5.2	5.2	0.3	100.0	306
40-49	57.8	6.5	8.0	4.9	7.6	15.2	0.0	100.0	263
50+	72.5	1.9	6.2	2.4	2.4	13.7	0.9	100.0	211
TOTAL	59.0	10.3	10.9	5.5	4.7	9.3	0.3	100.0	943

7.8 INTENTION TO USE

Husbands who were not currently using a method of family planning were asked whether they intended to use a method in the future and, if so, when. The responses to these questions are summarised in Table 7.13 by number of living children. The majority of husbands not currently using a method said that they did not intend to use in the future, regardless of the number of children they have. Overall, about 36 percent of husbands said that they intend to use in the future; 17 percent intend to use in the next 12 months, whilst the remainder intend to use later or weren't sure when they would use. The proportion who intend to use in the next 12 months increases with the number of living children, from 2 percent among those with no living children to 21 percent among those with 6 or more children.

Table 7.13 Percentage Distribution of Husbands Who Are Not Currently Using Any Contraceptive Method by Intention to Use in the Future, According to Number of Living Children, GDHS, 1988

Intention to Use	Number of Living Children							
	0	1	2	3	4	5	6+	Total
Intend to use:								
In the next 12 months	2.3	10.6	12.5	15.8	21.1	22.4	21.3	17.3
Later	18.6	23.5	15.6	23.2	14.7	11.8	7.8	14.4
Unsure when	0.0	3.5	3.1	2.1	5.3	3.9	5.6	4.1
Unsure about using	4.7	4.7	5.2	4.2	3.2	11.8	6.0	5.7
Do not intend to use	74.4	57.6	63.5	54.7	55.8	50.0	59.0	58.4
Missing	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	43	85	96	95	95	76	268	758

Table 7.14 Percentage Distribution of Husbands Who Are Not Currently Using a Contraceptive Method But Who Intend to Use in the Future by Preferred Method, According to Whether They Intend to Use in the Next 12 Months or Later, GDHS, 1988

Preferred Method	Intend to Use:		
	Next 12 Months	Later	Total
Pill	9.9	18.3	13.7
IUD	2.3	1.8	2.1
Injections	17.6	14.7	16.2
Diaphragm/Jelly	3.8	2.8	3.3
Condom	8.4	2.8	5.8
Female sterilisation	9.9	13.8	11.7
Male sterilisation	0.0	2.8	1.3
Periodic abstinence	10.7	8.3	9.6
Withdrawal	0.8	0.0	0.4
Foaming tablets	6.1	2.8	4.6
Other	9.2	6.4	7.9
Unsure	21.4	25.7	23.3
TOTAL	100.0	100.0	100.0
Number	131	109	240

Husbands who said that they intended to use a family planning method in the future were asked which method they would prefer to use. Table 7.14 shows that more than 20 percent were unsure which method they would choose. The most preferred methods were injection and the pill, followed by female sterilisation and periodic abstinence.

Husbands who said that they did not intend to use a contraceptive method in the future were asked why not. The most common reason, given by 67 percent of the husbands, was that they wanted (more) children. Approximately 11 percent said that they did not intend to use for religious reasons.

Table 7.15 Percentage of Husbands Who Believe That It Is Acceptable to Have Messages About Family Planning on the Radio, by Age and Selected Background Characteristics, GDHS, 1988

Background Characteristic	Age				Total
	<30	30-39	40-49	50+	
RESIDENCE					
Urban	92.3	90.3	92.0	81.1	88.9
Rural	88.3	82.9	84.0	74.7	82.4
LEVEL OF EDUCATION					
No education	67.7	68.8	76.0	70.1	71.3
Primary/Middle	93.1	87.6	93.3	90.0	90.7
Higher	96.8	96.9	92.3	-	95.3
TOTAL	89.0	84.6	86.3	76.3	84.0
	< 40		40+		
REGION					
Western	78.0		76.9		77.5
Central	98.5		97.8		98.2
Greater Accra	100.0		89.1		94.4
Eastern	94.7		87.1		90.8
Volta	94.1		82.5		89.0
Ashanti	72.7		88.2		81.7
Brong Ahafo	89.2		67.2		78.9
Upper West, East and Northern	65.8		72.7		69.8
TOTAL	86.1		81.9		84.0

- Fewer than 20 cases

7.9 ATTITUDE TOWARD FAMILY PLANNING

All respondents in the husband's survey were asked questions which were intended to measure their attitude toward family planning and the extent to which they discuss it with their wives and partners. Table 7.15 shows the percentage of husbands who believe that it is acceptable to provide family planning information on radio or television. The overall level of approval is quite high at 84 percent. Approval declines with age, from 89 percent for husbands under age 30 to 76 percent for husbands age 50 or over.

Approval of family planning information on radio or television is greater among urban husbands and among those with at least a primary school education.

Husbands were also asked whether they approve, in general, of couples using a method to avoid pregnancy. As shown in Table 7.16, the level of general approval for family planning is lower than the level of approval for providing information on radio or television, 77 vs. 84 percent. Again, the level of approval is greater among urban husbands and those with some education.

Table 7.16 Percentage of Husbands Knowing a Method Who Approve of Family Planning by Age, According to Selected Background Characteristics, GDHS, 1988

Background Characteristic	Age				Total
	<30	30-39	40-49	50+	
RESIDENCE					
Urban	91.7	85.5	82.6	76.3	83.5
Rural	75.2	76.7	78.3	67.7	75.2
LEVEL OF EDUCATION					
No education	82.4	64.0	65.6	66.7	67.0
Primary/Middle	73.1	78.6	84.5	74.4	78.5
Higher	90.3	92.1	89.5	-	89.7
TOTAL	78.0	79.1	79.7	70.1	77.4

	<40	40+	
REGION			
Western	69.8	52.9	62.3
Central	85.0	80.0	83.3
Greater Accra	81.1	93.9	87.3
Eastern	85.5	86.3	85.8
Volta	90.5	88.9	89.9
Ashanti	60.9	67.2	64.5
Brong Ahafo	90.6	76.5	85.1
Upper West, East and Northern	61.7	66.7	64.4
TOTAL	78.7	76.0	77.4

Discussion of family planning between husband and wife is thought to be instrumental in the decision to take joint action to control fertility. As shown in Table 7.17 and Figure 7.2, more than half of the husbands in the GDHS who knew at least one contraceptive method have never talked with their wives about family planning, about 19 percent have talked about it once or twice in the past year, and 27 percent say they have discussed family planning three or more times. The percentage who have talked with their spouses about family planning is lowest among husbands age 50 or over.

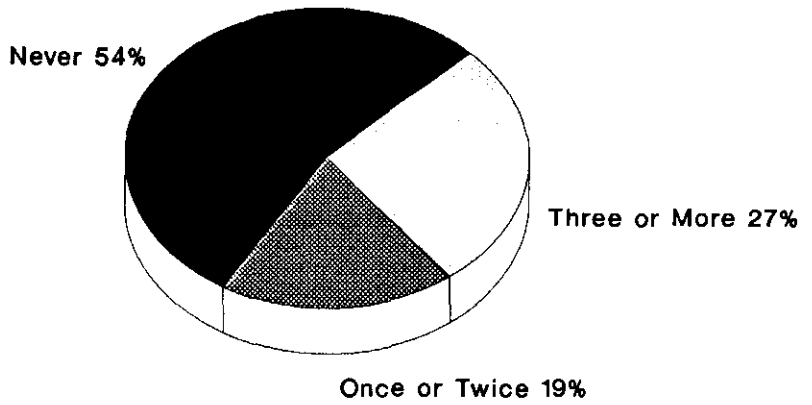
The low level of communication about family planning among married couples is further illustrated in Table 7.18. This table compares the husband's own report of his attitude toward family planning with his wife's perception of this attitude. Of all husbands who reported that they approved of family planning, 18 percent of their wives believed that their husband disapproved and 23 percent did not

know. Of husbands who disapproved of family planning, almost 18 percent of their wives believed they approved and 21 percent did not know.

Table 7.17 Percentage Distribution of Husbands Knowing a Contraceptive Method by Number of Times Discussed Family Planning With Wife, According to Age, GDHS, 1988

	No. of Times Discussed Family Planning With Wife					
Age	Never	Once or Twice	Three or More	Missing	Total	Number
<30	51.1	24.1	24.8	0.0	100.0	141
30-39	54.3	18.2	27.5	0.0	100.0	258
40-49	48.1	19.3	32.5	0.0	100.0	212
50+	67.9	14.2	17.2	0.7	100.0	134
TOTAL	54.4	18.9	26.6	0.1	100.0	745

Figure 7.2
Number of Times In the Past Year That Husband Discussed Family Planning With His Wife



Ghana DHS 1988

Table 7.18 Among Married Couples, Husband's Approval of Family Planning and Wife's Perception of Husband's Approval, GDHS, 1988

Percentage of Wives Who:	Among Husbands Who:* Approve of Family Planning	Disapprove of Family Planning
Believe husband approves	58.5	17.7
Believe husband disapproves	18.3	61.2
Don't know	23.2	21.1
TOTAL	100.0	100.0
Number	687	322

* One husband with missing response excluded.

7.10 FERTILITY PREFERENCES

Fertility preferences in the GDHS husband's survey were investigated by asking husbands if they would like to have another child and, if so, when. In addition, they were asked a question identical to the one in the woman's questionnaire intended to determine their ideal family size.

Table 7.19 shows the percentage distribution of husbands by their desire for children, according to the number of living children they had at the time of the survey. The percentage wanting no more children increases as the number of living children increases. Less than 4 percent of those with 3 children or less say that they want no more, while almost 40 percent of those with 6 or more children say they want no more. The percentage wanting to delay the birth of their next child for 2 or more years encompasses more than 50 percent of those with 1 to 3 children. The proportion who want another child but are not sure when, or are not sure if they want another child, is substantial, reaching 17 percent of husbands overall. Those who want no more children are more likely to live in urban areas and to have some education (Table 7.20).

The fertility desires of marriage partners in the sample of couples are presented in Table 7.21 according to the number of living children of the husband and of the wife. The proportion of couples in which both partners want no more children, as well as the proportion in which one or both partners is undecided, increases as the number of living children increases. The level of agreement between partners, with respect to fertility desires, tends to decrease as the number of living children increases. For example, among couples in which the husband has between 4 and 6 living children, 65 percent of the couples are in agreement about their fertility desires; in 50 percent of couples, both partners want no more children and in 15 percent both partners want no more children. Among couples in which the husband has 10 or more children, only 55 percent of couples are in agreement. It should also be noted that the percentage of couples in which the husband wants to have more children, whilst the wife does not, is usually higher than the percentage in which the wife wants more but the husband does not.

Table 7.19 Percentage Distribution of Husbands by Desire For Children, According to Number of Living Children, GDHS, 1988

Desire for More Children	Number of Living Children							
	0	1	2	3	4	5	6+	Total
Want another:								
Soon[1]	50.0	27.1	33.1	25.6	20.6	17.2	14.8	22.6
Later[2]	19.6	59.4	53.2	58.7	47.6	34.4	26.7	40.8
Not sure when	19.6	12.5	9.7	11.6	11.1	8.6	9.8	10.8
Not sure	8.7	1.0	2.4	0.8	4.0	15.1	9.5	6.4
Want no more	2.2	0.0	1.6	3.3	16.7	24.7	38.6	19.2
Missing	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	46	96	124	121	126	93	337	943

[1] Want another child within two years from now
[2] Want another child two or more years from now

Table 7.20 Percentage of Husbands Who Want No More Children by Number of Living Children and Selected Background Characteristics, GDHS, 1988

Background Characteristic	Number of Living Children							
	0	1	2	3	4	5	6+	Total
RESIDENCE								
Urban	-	0.0	0.0	15.4	26.5	25.0	46.2	25.2
Rural	2.6	0.0	2.2	0.0	13.0	24.6	36.2	17.3
LEVEL OF EDUCATION								
No education	-	0.0	2.2	0.0	4.9	16.7	28.0	15.2
Primary/Middle	0.0	0.0	1.7	1.6	21.7	24.4	45.0	20.4
Higher	-	0.0	0.0	11.5	24.0	60.0	-	25.5
TOTAL	2.2	0.0	1.6	3.3	16.7	24.7	38.6	19.2

- Fewer than 20 cases

Responses to the question on ideal family size are summarised in Table 7.22. The overall mean ideal number of children among husbands is 7.6. The mean increases with the number of living children; those with 1 living child state a mean ideal family size of 5.8, whilst the mean for those with 6 or more children is 9.7. The husbands also show a preference for families of size 4 and 6; comparatively few stated a preference for 3 or 5 children. Non-numeric responses were given by about 15 percent of the respondents, the most common response being that the number of children is "up to God."

Table 7.21 Percentage Distribution of Couples by Desire For More Children, According to Number of Living Children, GDHS, 1988

Number of Living Children	Desire for More Children: Both Want More	Husband Wants, Wife Infecund	Husband Wants, Wife Does Not	Wife Wants, Husband Does not	Both Want No More	One or Both Undecided/ Missing	Total	Total Number
HUSBAND								
None	66.0	14.9	6.4	2.1	0.0	10.7	100.0	47
1-3	87.0	2.3	5.4	0.3	1.1	4.0	100.0	353
4-6	49.7	1.3	13.2	6.6	15.4	13.8	100.0	318
7-9	38.0	1.3	12.7	8.9	21.5	17.7	100.0	158
10+	32.1	3.0	11.9	9.7	23.1	20.2	100.0	134
WIFE								
None	69.0	15.5	0.0	3.5	0.0	12.1	100.0	58
1-3	84.1	1.6	3.9	3.4	1.4	5.7	100.0	440
4-6	45.5	1.6	15.1	7.3	16.1	14.6	100.0	385
7+	11.0	2.4	19.7	3.9	39.4	23.6	100.0	127
TOTAL	59.3	2.5	9.9	5.0	11.7	11.7	100.0	1010

Table 7.22 Percentage Distribution of Husbands by Ideal Number of Children and Mean Ideal Number of Children, According to Number of Living Children, GDHS, 1988

Ideal Number of Children	Number of Living Children: 0	1	2	3	4	5	6+	Total
1	0.0	1.0	0.0	0.8	0.0	0.0	0.0	0.2
2	4.3	4.2	2.4	0.8	1.6	0.0	0.6	1.5
3	2.2	8.3	4.8	2.5	4.8	3.2	1.5	3.4
4	19.6	20.8	23.4	19.8	16.7	15.1	12.8	17.0
5	8.7	16.7	9.7	14.9	7.1	5.4	5.0	8.6
6	26.1	17.7	21.0	32.2	26.2	19.4	12.2	19.7
7	0.0	4.2	2.4	3.3	3.2	4.3	0.6	2.2
8+	28.3	16.7	20.2	15.7	29.4	26.9	41.5	29.2
Have not thought of it	0.0	1.0	1.6	0.0	1.6	2.2	2.4	1.6
Up to God	8.7	6.3	11.3	5.8	7.1	9.7	17.5	11.5
As many as can care for	0.0	0.0	0.0	0.0	0.0	3.2	1.8	1.0
Don't know	0.0	0.0	0.0	2.5	0.0	1.1	1.2	0.8
Missing	2.2	3.1	3.2	1.7	2.4	9.7	3.0	3.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	46	96	124	121	126	93	337	943
Mean	6.5	5.8	6.6	6.3	6.9	7.5	9.7	7.6
Base*	41	86	104	109	112	69	250	771

* Means are based on numeric answers only.

Table 7.22 also suggests that the level of excess or unwanted fertility among husbands is quite low. Very few husbands stated a desired family size lower than their current family size. For example, among those with 4 living children, only 6 percent expressed a preference for fewer than 4 children while 66 percent said that their ideal family size was 5 or more children.

The results in Table 7.22 also indicate that husbands in the sample have considerably higher family size preferences than married women. Whilst the mean ideal family size for married women is 5.5, for husbands it is 7.6, or more than two children greater. It should be noted that husbands were asked about the number of children they would like to have had during their lives if they could go back to the time before they had any children. Since about 1 in 4 husbands are in a polygamous marriage and some husbands who currently have one wife will marry a second or third during their lives, the opportunity for husbands to have many children is greater.

A comparison of the mean ideal number of children of husbands with that of their wives is shown in Table 7.23. Most wives whose ideal family size is less than 6 children have husbands who want more children than they do. For example, among wives whose ideal family size is less than 4 children, 16 percent of their husbands also desire less than 4, but 81 percent desire more than four. Similarly, among wives who desire 4 children, 27 percent of their husbands also want 4, but 57 percent desire more than four. The responses given by the husbands of women whose ideal family size is 6 or more are about evenly distributed above and below their wives' responses. For example, among wives whose ideal family size is 6, about 30 percent of their husbands want fewer than 6 children, 33 percent want more than 6 and 26 percent want 6 children.

Table 7.23 Percentage Distribution of Wives by Husband's Ideal Number of Children, According to Wife's Ideal Number of Children, GDHS, 1988

Wife's Ideal Number of Children	Percent of Husbands Whose Ideal Number of Children is:										Number of Wives
	<4	4	5	6	7	8	9	10+	Non-numeric	Total	
<4	16.4	31.3	7.5	25.4	3.0	4.5	1.5	7.5	3.0	100.0	67
4	7.8	27.0	10.4	25.7	1.7	7.0	0.4	12.2	7.8	100.0	230
5	3.3	20.0	7.8	20.0	1.1	11.1	0.0	16.7	20.0	100.0	90
6	3.9	18.1	7.7	25.8	2.7	9.6	1.2	19.2	11.9	100.0	260
7	0.0	14.3	10.7	10.7	3.6	3.6	0.0	32.1	25.0	100.0	28
8	0.0	7.4	14.8	9.3	1.9	11.1	1.9	40.7	13.0	100.0	54
9	0.0	16.7	0.0	8.3	16.7	0.0	0.0	50.0	8.3	100.0	12
10+	3.9	5.4	3.9	8.5	0.8	3.1	1.6	55.8	17.1	100.0	129
Non-numeric	2.1	6.4	7.1	17.1	1.4	7.9	2.1	22.1	33.6	100.0	140

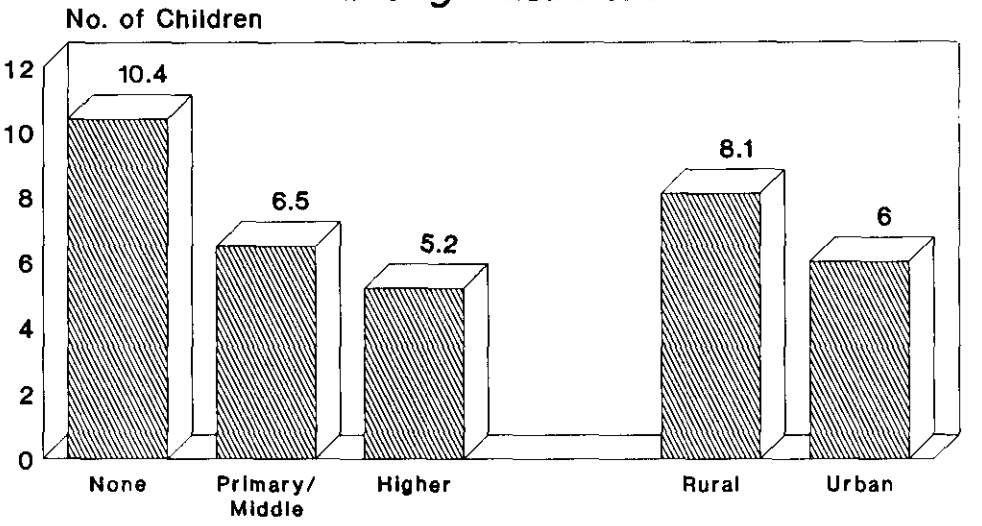
Table 7.24 presents the mean ideal number of children for husbands by age and selected background characteristics. There is a clear relationship between desired family size and age; as age increases, the number of children desired increases. Between husbands under age 30 and those 50 or over, there is a difference of 4 children in the ideal family size (6.0 vs. 10.0). In addition, rural husbands desire more children than urban husbands at all ages, and uneducated husbands want more children than educated husbands (Figure 7.3). The means according to region (which are tabulated using only two age groups due to cell-size considerations) indicate that ideal family size preferences are unusually high in Upper West, Upper East and Northern regions (12.2 children). Ideal family size is close to 8 in Brong Ahafo and Volta region and is less than 6 in the remaining regions.

Table 7.24 Mean Ideal Number of Children by Age and Selected Background Characteristics, GDHS, 1988

Background Characteristic	Age				Total
	<30	30-39	40-49	50+	
RESIDENCE					
Urban	5.4	5.2	6.2	7.8	6.0
Rural	6.2	7.2	8.9	10.7	8.1
LEVEL OF EDUCATION					
No education	7.4	9.7	10.8	11.4	10.4
Primary/Middle	5.9	6.1	7.2	8.0	6.5
Higher	5.2	5.1	5.2	-	5.2
TOTAL	6.0	6.7	8.2	10.0	7.6

	<40	40+	
REGION			
Western	5.5	8.3	6.6
Central	6.0	7.4	6.5
Greater Accra	5.2	7.0	5.9
Eastern	5.2	7.2	6.2
Volta	6.7	9.5	7.9
Ashanti	5.7	7.3	6.7
Brong Ahafo	6.8	9.4	7.9
Upper West, East and Northern	10.7	13.5	12.2
TOTAL	6.5	8.9	7.6

Figure 7.3
Mean Ideal Number of Children Among Husbands



Ghana DHS 1988

REFERENCES

Adansi-Pipim, G.. 1985. "Levels, Trends and Determinants of Infant and Child Mortality." In *Demographic Patterns in Ghana: Evidence from the Ghana Fertility Survey 1979/80,* ed. S. Singh, J.Y. Owusu, and I.H. Shah. Voorburg, Netherlands: International Statistical Institute.

Adjei, S., Owusu, G., Adamafio, J., and Akyeah, S. 1988. *Primary Health Care Review.* Accra, Ghana: Ministry of Health.

Ampofo, D.A. 1988. *Maternal-Child Health and Family Planning in Ghana.* Legon, Ghana: Population Impact Project, University of Ghana.

Appiah, R. 1985. "Knowledge and Use of Contraception." In *Demographic Patterns in Ghana: Evidence from the Ghana Fertility Survey 1979/80,* ed. S. Singh, J.Y. Owusu, and I.H. Shah. Voorburg, Netherlands: International Statistical Institute.

Aryee, A.F. 1985. "Nuptiality Patterns in Ghana." In *Demographic Patterns in Ghana: Evidence from the Ghana Fertility Survey 1979/80,* ed. S. Singh, J.Y. Owusu, and I.H. Shah. Voorburg, Netherlands: International Statistical Institute.

Central Bureau of Statistics. Census Office. 1964. *1960 Population Census of Ghana, Special Report E: Tribes in Ghana.* Accra, Ghana.

Central Bureau of Statistics. 1983. *Ghana Fertility Survey 1979/80, First Report.* Accra, Ghana.

Census Office. 1975. *1970 Population Census of Ghana, Vol. III. Demographic Characteristics.* Accra, Ghana.

Gaisie, S.K. 1984. *The Proximate Determinants of Fertility in Ghana.* WFS Scientific Reports No. 53. Voorburg, Netherlands: International Statistical Institute.

Ghana Statistical Service. 1987. *Demographic and Economic Characteristics: Total Country.* Accra, Ghana.

Ghana Statistical Service and Institute for Research Development/Westinghouse. 1988. *Ghana Demographic and Health Survey 1988: Preliminary Report.* Columbia, Maryland: Institute for Resource Development/Westinghouse.

Ghana Statistical Service. 1989. *Quarterly Digest of Statistics.* Vol. III. No. 1, Accra, Ghana.

Knodel, J. 1982. "Breastfeeding." In *International Encyclopedia of Population,* Vol.1. New York: The Free Press.

Owusu, J.Y. 1984. *Evaluation of the Ghana Fertility Survey 1979/80.* WFS Scientific Reports No. 69. Voorburg, Netherlands: International Statistical Institute.

Page, H.J., Lesthaeghe, R.J., and Shah, I.H. 1982. *Illustrative Analysis: Breastfeeding in Pakistan.* WFS Scientific Reports No. 37. Voorburg, Netherlands: International Statistical Institute.

Radcliffe-Brown, A.R. and Forde, C.D., eds. 1950. *African Systems of Kinship and Marriage.* London: Oxford University Press.

Republic of Ghana. 1969. *Population Planning for National Progress and Prosperity: Ghana Population Policy*. Accra, Ghana.

Republic of Ghana. 1989. *Towards a New Dynamism*. Report prepared by the Government of Ghana for the 5th Meeting of the Consultative Group for Ghana, Paris, February 28 - March 1, 1989.

Rutstein, S.O. 1984. *Infant and Child Mortality: Levels, Trends, and Demographic Differentials*. Rev.ed. WFS Comparative Studies No. 43. Voorburg, Netherlands: International Statistical Institute.

Segamba, L., Ndikumasabo, V., Makinson, C., and Ayad, M. 1988. *Enqûete Demographique et de Santé au Burundi 1987*. Columbia, Maryland: Ministère de l'Intérieur, Département de la Population and Institute for Resource Development/Westinghouse.

Singh, S. and Shah, I.H. 1985. "Levels, Trends, and Differentials in Fertility." In *Demographic Patterns in Ghana: Evidence from the Ghana Fertility Survey 1979/80*, ed. S. Singh, J.Y. Owusu, and I.H. Shah. Voorburg, Netherlands: International Statistical Institute.

Traoré, B., Konaté, M., and Stanton, C. 1989. *Enqûete Démographique et de Santé au Mali 1987*. Columbia, Maryland: Centre d'Etudes et de Recherches sur la Population pour le Développement, Institut du Sahel and Institute for Resource Development/Westinghouse.

United Nations. Department of Technical Co-operation for Development and Statistical Office. 1986. *How to Weigh and Measure Children: Assessing the Nutritional Status of Young Children in Household Surveys*. New York: United Nations (National Household Survey Capability Programme).

APPENDIX A

SURVEY PERSONNEL

APPENDIX A
SURVEY PERSONNEL

Ghana Statistical Service

Dr. Oti Boateng, National Survey Coordinator
Miss Rebecca Appiah, Survey Director (April, 1987 - November, 1988)
Mr. Sam Quashie, Field Coordinator
Miss Edith Ameka, Field Coordinator
Mr. C.W. Botchway, Accountant

Ministry of Health, Department of Nutrition

Mrs. Florence Addo, Nutrition Specialist

Institute for Resource Development/Macro Systems, Inc.

Dr. Ann Blanc, Country Monitor
Mr. Trevor Croft, Data Processing Specialist
Dr. Chris Scott, Sampling Specialist

Field Supervisors

H.O. Adams
A.S.K. Asibu
Maria Quartey
Beatrice Saforo
J.R. Evans
Berko Asante
H.K. Asante
N.B. Mensah

Field Editors

L. Gyan-Taylor
Kofi Mensah
Emmanuel Abrahams
Morgan Aryeetey
Ann Amey
Philip Darkwah
Edmund Lamptey
T.W Taana (CD)

Interviewers

J.K. Solomon (CD)	Thomas Ofosu (CD)	Ernest Afful	Josephine Nartey
C.Y. Van Lare	Patience Yeboah (SW)	Alfred Afrawuah (CD)	A.P. Fofie (CD)
Peter Dodoo	Adamu Abdul Rahman	Evans Amenu	Dieudonnee Ankamah
K.A. Adzei (CD)	Augustina Ayeh	Daniel Agyemfra	B.A. Abugri
Dan Quartey	Grace Kofie	Daniel Aryee	Iddrisu A. Rahman (SW)
Joseph Dowuona	Aurelia Hotor	Paul Mettle	Hajara Yakubu (CD)
Samuel Hagan	Rosepearl Amarfio	Charles Darko	Augusta Agbezin
Robert Mensah	Lucy Parry	P.K. Boateng (CD)	Mercy Hammond
J.M. Tetteh	Rose Aryeh	F. Sunquah (CD)	Edith Cudjoe
Cornelius Malm	Eric Brown	J.K. Addey	Josephine Annan

CD = Department of Community Development SW = Department of Social Welfare

Office Coders

Beatrice Okang
Lydia Lartey
Mabel Quartey

Data Processing

David Quarshie
Eric Ogbey
Queenly Quartey
Mary Colley
Sophia Nyan

Drivers

Stephen Kumordji
Stephen Esun
Stephen Manful
A.Y. Nkrumah
Lionel L. Lartey
Samuel Incoom
Mathias Fianu
Sampson Yibor
Isaac K.M. Arthur
Stephen Motteh
S.Y. Botchway

APPENDIX B

SAMPLE DESIGN AND IMPLEMENTATION

APPENDIX B

SAMPLE DESIGN AND IMPLEMENTATION

B.1 DESCRIPTION OF SAMPLE DESIGN

The sample for the GDHS was designed to be a nationally representative, stratified, self-weighting probability sample of women aged 15-49, with a target of 4500 completed interviews. In addition, the design called for the selection of a subsample of husbands of interviewed women with a target of 1000 completed interviews.

One hundred fifty census enumeration areas (EAs) were selected for the GDHS sample. These are a subsample of the 200 EAs selected for the Ghana Living Standards Survey (GLSS), with probability proportional to the number of 1984 census households.

The GLSS sample is stratified using 9 geographical strata. These are based first on 3 ecological zones (coastal, forest, savannah), and then, within each zone, on size of locality (rural, semiurban, urban). The GLSS sample consists of 72 urban EAs and 128 rural EAs. In order to achieve an optimum sample take of about 40 interviewed women per EA in rural (including semiurban) areas and about 20 per EA in urban areas while maintaining a self-weighting sample, all of the urban EAs from the GLSS sample and 78 rural EAs were selected for the GDHS sample. Subsampling of the EAs for the GDHS was done independently in each of the 9 strata with equal probability within strata.

A household listing operation covering all of the GLSS EAs was undertaken May through July 1987. The GDHS households were selected systematically from the household listings provided by the GLSS. The GDHS households were selected after eliminating from the lists those previously selected by the GLSS.[1] Within the selected households, all women aged 15-49 who spent the previous night in the household were eligible for the individual interview.

Half of the 150 GDHS EAs were designated for the husband's interview. After a random start, every other EA in the list of GDHS EAs was selected. Co-resident spouses of successfully interviewed women were eligible for the husband's interview.

B.2 SAMPLING PROBABILITIES

With a target of 4500 completed women's interviews and assuming an 80 percent overall response rate in order to allow for nonresponse and listing undercoverage, 5625 women needed to be selected. Taking the 1984 census population of women aged 15-49 and assuming a growth rate of 2.6 percent annually, the overall sampling fraction was calculated as:

$$f = 5625/3152613 = 1/560.46$$

At the **first stage**, the GLSS sample of EAs or primary sampling units (PSUs) was selected with probability proportional to size, where size was the number of census households, M_i. The sampling interval was obtained by summing M_i over all the EAs in Ghana and dividing by 200, the number of EAs to be selected. This gives an interval of 12224 and the first stage selection probability for the i-th EA is:

[1] The GLSS interviews (two for each household) are long and demanding for respondents. It therefore seemed preferable to keep the two household samples separate in order to avoid respondent fatigue and possible high rates of refusal in households falling in both samples.

$$p_{1i} = M_i / 12224$$

At the **second stage**, the GLSS PSUs are subsampled in order to obtain the PSUs for the GDHS. The subsampling probability, p_{2i}, for the urban PSUs is simply 1, whilst the average subsampling probability of PSUs for the rural and semiurban strata is 78/128 = .6094.

At the **third stage**, households are selected and, within each household, all eligible women are interviewed. Thus, the overall selection probability for women is:

$$f = p_{1i} p_{2i} p_{3i}$$

and the selection probability for households is:

$$p_{3i} = f/(p_{1i} p_{2i}).$$

This probability was calculated for each selected PSU and the number of households to be selected was computed as $p_{3i}m_i$, where m_i was the number of households listed. These households were selected systematically from the household listings after elimination of the households used for the GLSS.

A.3 SAMPLE IMPLEMENTATION

Table A.1 provides a summary of the sample implementation. Of the 4966 households selected, 4406 were successfully interviewed. The household response rate is 98 percent. This rate represents the proportion of households successfully interviewed of those eligible. Thus, it excludes from the denominator vacant and destroyed dwellings, addresses found not to be dwellings and households which were absent the night before the interview. The household response rate is slightly higher in the urban than in the rural areas and varies somewhat between regions. The response rate for Volta region is low due to the small number of completed household interviews in three clusters. Local conflict caused many households in these clusters to be absent when GDHS interviewers were in the area.

Of all eligible women, 98 percent were successfully interviewed. Only 13 women (0.3 percent) refused to be interviewed, 25 were not at home, and 7 interviews were only partly completed. The average number of eligible women per household was 1.04. This number is slightly higher in rural than in urban areas and varies by region, being highest in Volta region (1.16) and lowest in Western region (0.93).

Of all eligible husbands, approximately 95 percent were successfully interviewed. The percentage of interviews completed for husbands is lower than for women, because, although there were no refusals among husbands, approximately 2 percent were not at home and 3 percent were not interviewed for other reasons. The percent completed is slightly higher in rural than in urban areas.

Table B.1 Percentage Distribution of Households and Eligible Women in the GDHS Sample by Results of the Interview and Response Rates, According to Residence and Region, GDHS, 1988

Result of Interview	Residence		Region								
	Urban	Rural	Western	Central	Greater Accra	Eastern	Volta	Ashanti	Brong Ahafo	Upper West, East and Northern	Total
SELECTED HOUSEHOLDS											
Completed	91.2	87.5	84.5	90.8	91.1	88.6	82.0	90.3	93.1	87.9	88.7
Household present but no competent respondent at home	0.2	0.9	0.2	0.0	0.0	2.0	3.1	0.0	0.0	0.2	0.7
Refused	0.2	0.2	0.0	0.4	0.5	0.0	0.6	0.0	0.0	0.0	0.2
Dwelling not found	0.5	1.5	4.1	0.6	0.2	2.2	1.3	0.0	0.0	1.6	1.2
Household absent the night before the interview[1]	1.7	2.4	2.4	4.6	0.6	1.4	2.8	1.1	0.6	5.1	2.2
Dwelling vacant/address not a dwelling[1]	4.1	4.9	5.1	0.2	5.7	3.2	7.2	8.1	4.7	1.2	4.6
Dwelling destroyed[1]	0.3	0.4	1.0	0.0	0.0	0.3	0.4	0.2	0.2	1.2	0.4
Other[1]	1.7	2.3	2.8	3.5	2.1	2.4	2.8	0.2	1.5	2.8	2.1
TOTAL PERCENT	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1675	3291	509	541	672	716	543	876	538	571	4966
ELIGIBLE WOMEN											
Completed	98.1	98.1	98.0	99.2	97.6	97.0	97.3	98.7	99.4	98.3	98.1
Not at home	0.5	0.6	1.3	0.2	0.7	0.6	0.8	0.1	0.0	1.2	0.6
Refused	0.4	0.2	0.2	0.0	0.3	0.6	0.4	0.4	0.2	0.0	0.3
Partly completed	0.1	0.2	0.0	0.0	0.2	0.3	0.6	0.0	0.2	0.0	0.2
Other	0.9	0.9	0.5	0.6	1.3	1.7	1.0	0.8	0.2	0.6	0.9
TOTAL PERCENT	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1552	3022	400	468	613	725	514	834	503	517	4574
ELIGIBLE HUSBANDS[2]											
Completed	92.2	95.4	96.7	100.0	91.5	90.8	90.1	96.3	92.5	97.7	94.6
Not at home	2.5	2.4	3.3	0.0	1.7	6.1	4.0	0.7	3.0	1.1	2.4
Other	5.3	2.3	0.0	0.0	6.8	3.1	5.9	2.9	4.5	1.1	3.0
TOTAL PERCENT	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	245	752	92	110	118	131	101	136	133	176	997
Household Response Rate	99.0	97.2	95.1	99.0	99.4	95.5	94.3	100.0	100.0	98.1	97.8
Eligible Woman Response Rate	98.1	98.1	98.0	99.2	97.6	97.0	97.3	98.7	99.4	98.3	98.1
Overall Response Rate	95.3	96.1	90.5	94.5	94.8	90.3	88.9	98.5	97.8	93.5	93.8
Average No. of Eligible Women per Household	1.02	1.05	0.93	0.95	1.00	1.14	1.16	1.05	1.00	1.03	1.04

[1] Excluded from calculation of Household Response Rate
[2] There were 0 refusals and 0 questionnaires partly completed in the husband's survey.

APPENDIX C

SAMPLING ERRORS

APPENDIX C

SAMPLING ERRORS

The results from sample surveys are affected by two types of errors: nonsampling error and sampling error. The former is due to mistakes in implementing the field activities, such as failing to locate and interview the correct household, errors in asking questions, data entry errors, etc. While numerous steps were taken to minimize this sort of error in the GDHS, nonsampling errors are impossible to avoid entirely, and are difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of women selected in the GDHS is only one of many samples of the same size that could have been drawn from the population using the same design. Each sample would have yielded slightly different results from the sample actually selected. The variability observed among all possible samples constitutes sampling error, which can be estimated from survey results (though not measured exactly).

Sampling error is usually measured in terms of the "standard error" (SE) of a particular statistic (mean, percentage, etc.), which is the square root of the variance of the statistic across all possible samples of equal size and design. The standard error can be used to calculate confidence intervals within which one can be reasonably sure the true value of the variable for the whole population falls. For example, for any given statistic calculated from a sample survey, the value of that same statistic as measured in 95 percent of all possible samples of identical size and design will fall within a range of plus or minus two times the standard error of that statistic.

If simple random sampling had been used to select women for the GDHS, it would have been possible to use straightforward formulas for calculating sampling errors. However, the GDHS sample design used three stages and clusters of households, and it was necessary to use more complex formulas. Therefore, the computer package CLUSTERS, developed for the World Fertility Survey, was used to compute sampling errors.

CLUSTERS treats any percentage or average as a ratio estimate, r = y/x, where both x and y are considered to be random variables. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$\text{var}(r) = \frac{1-f}{x^2} \sum_{h=1}^{H} \left[\frac{m_h}{m_h - 1} \left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h} \right) \right]$$

in which, $z_{hi} = y_{hi} - rx_{hi}$, and $z_h = y_h - rx_h$,

where
- h represents the stratum and varies from 1 to H,
- m_h is the total number of PSUs selected in the h-th stratum,
- y_{hi} is the sum of the values of variable y in PSU i in the h-th stratum,
- x_{hi} is the sum of the number of cases (women) in PSU i in the h-th stratum,
- f is the overall sampling fraction.

In addition to the standard errors, CLUSTERS computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error

that would result if a simple random sample had been used. A DEFT value of 1 indicates that the sample design is as efficient as a simple random sample; a value greater than 1 indicates that the increase in the sampling error is due to the use of a more complex and less statistically efficient design.

Sampling errors are presented for selected variables and sub-populations of women in Tables C.2-C.5. In Tables C.6-C.9, sampling errors for husbands are shown. In addition to the standard error and value of DEFT for each variable, the tables include the number of cases on which the statistic is based, the relative error (the standard error divided by the value of the statistic) and the 95 percent confidence limits. The confidence limits may be interpreted by using the following example: the overall estimate of the mean number of children ever born (CEB) is 3.168 and its standard error is .045. To obtain the 95 confidence interval, twice the standard error is added to and subtracted from the estimate of CEB, $3.168 \pm .090$. Thus, there is a 95 percent probability that the true value of CEB lies between 3.078 and 3.258.

Table C.1 List of selected variables with sampling errors, GDHS, 1988

	WOMEN		
RESI	Urban	Proportion	All women
EDUC	Higher education	Proportion	All women
CUNION	Currently in union	Proportion	All women
MBEF20	Married before age 20	Proportion	Women aged 20+
POLYG	In polygamous union	Proportion	In union
CEB	Children ever born	Mean	All women
CEB40	Children ever born	Mean	Women aged 40-49
CSUR	Children surviving	Mean	All women
CDED	Children dead	Mean	All women
PREG	Currently pregnant	Proportion	All women
KNW	Knows a method	Proportion	In union
KNWMOD	Knows a modern method	Proportion	In union
EVUS	Ever used any method	Proportion	In union
CURUSE	Currently using any method	Proportion	In union
CURUSM	Currently using modern method	Proportion	In union
WANTNM	Wants no more children	Proportion	In union
WANT2	Wants to delay next birth 2+ yrs.	Proportion	In union
IDEAL	Ideal family size	Mean	All women
BF	Duration of breastfeeding	Mean	Births 1-36 months prior to survey
AMEN	Duration of amenorrhea	Mean	Births 1-36 months prior to survey
ABST	Duration of abstinence	Mean	Births 1-36 months prior to survey
TETANU	Birth with mother having tetanus injection	Proportion	Births in last 5 years
ATTE	Doctor's attention at birth	Proportion	Births in last 5 years
WCARD	Had health card	Proportion	Children aged 12-23 months
FULLIM	Received all immunisations	Proportion	Children aged 12-23 months
DIAR	Had diarrhoea last two weeks	Proportion	Children aged 1-59 months
MTREAT	Consulted medical facility	Proportion	Children with diarrhoea
FEVER	Had fever last four weeks	Proportion	Children aged 1-59 months
TREATF	Consulted medical facility	Proportion	Children with fever
COUGH	Had severe cough or difficult breathing last four weeks	Proportion	Children aged 1-59 months
TREATC	Consulted medical facility	Proportion	Children with cough
HAGE	Height-for-age < = -2 standard deviations below reference	Proportion	Children aged 3-36 months
WAGE	Weight-for-age < = -2 standard deviations below reference	Proportion	Children aged 3-36 months
WHEIGH	Weight-for-Height < = -2 standard deviations below reference	Proportion	Children aged 3-36 months
	HUSBANDS		
RESI	Urban	Proportion	All husbands
EDUC	Higher education	Proportion	All husbands
POLYG	In polygamous union	Proportion	All husbands
CSUR	Children surviving	Mean	All husbands
KNW	Knows a method	Proportion	All husbands
KNWMOD	Knows a modern method	Proportion	All husbands
EVUS	Ever used any method	Proportion	All husbands
CURUSE	Currently using any method	Proportion	All husbands
CURUSM	Currently using modern method	Proportion	All husbands
WANTNM	Wants no more children	Proportion	All husbands
WANT2	Wants to delay next birth 2+ yrs.	Proportion	All husbands
IDEAL	Ideal family size	Mean	All husbands

Table C.2 Sampling Errors for the Total Population, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.339	.009	4488	1.239	.026	.322	.357
EDUC	.075	.007	4488	1.865	.098	.060	.090
CUNION	.703	.010	4488	1.502	.015	.683	.724
MBEF20	.691	.010	3639	1.261	.014	.672	.710
POLYG	.326	.013	3156	1.600	.041	.299	.353
CEB	3.168	.045	4488	1.024	.014	3.078	3.257
CEB40	6.916	.100	730	.975	.014	6.717	7.116
CSUR	2.625	.036	4488	.986	.014	2.554	2.696
CDED	.543	.018	4488	1.237	.033	.507	.579
PREG	.099	.005	4488	1.191	.054	.089	.110
KNW	.794	.018	3156	2.483	.022	.759	.830
KNWMOD	.765	.019	3156	2.572	.025	.726	.803
EVUS	.370	.015	3156	1.762	.041	.340	.400
CURUSE	.129	.007	3156	1.157	.054	.115	.142
CURUSM	.052	.005	3156	1.207	.092	.042	.061
WANTNM	.228	.010	3156	1.359	.044	.208	.249
WANT2	.449	.011	3156	1.208	.024	.428	.470
IDEAL	5.264	.078	3905	2.144	.015	5.107	5.420
BF	20.351	.403	2588	1.213	.020	19.545	21.157
AMEN	14.036	.436	2588	1.317	.031	13.164	14.907
ABST	13.549	.483	2588	1.399	.036	12.583	14.514
TETANU	.696	.017	4089	1.906	.024	.662	.730
ATTE	.068	.006	4089	1.211	.085	.056	.080
WCARD	.403	.026	782	1.432	.064	.351	.454
FULLIM	.467	.035	315	1.196	.074	.397	.536
DIAR	.263	.010	3646	1.353	.039	.243	.284
MTREAT	.431	.025	960	1.502	.058	.381	.482
FEVER	.353	.012	3646	1.387	.033	.330	.377
TREATF	.564	.024	1288	1.584	.042	.517	.611
COUGH	.200	.010	3646	1.333	.049	.180	.219
TREATC	.491	.024	729	1.175	.048	.444	.538
HAGE	.300	.012	1841	1.084	.039	.276	.323
WAGE	.307	.012	1841	1.043	.038	.284	.331
WHEIGH	.080	.007	1841	1.051	.085	.066	.093

Table C.3.1 Sampling Errors for the Urban Population, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
EDUC	.146	.015	1523	1.675	.104	.116	.177
CUNION	.631	.015	1523	1.229	.024	.601	.661
MBEF20	.630	.015	1193	1.043	.023	.600	.659
POLYG	.283	.014	961	.967	.050	.255	.311
CEB	2.685	.077	1523	1.093	.029	2.531	2.839
CEB40	6.153	.188	249	1.049	.031	5.777	6.528
CSUR	2.281	.062	1523	1.038	.027	2.156	2.406
CDED	.404	.025	1523	1.176	.062	.354	.454
PREG	.079	.008	1523	1.103	.096	.064	.095
KNW	.894	.012	961	1.204	.013	.870	.918
KNWMOD	.880	.013	961	1.266	.015	.854	.907
EVUS	.485	.020	961	1.222	.041	.445	.524
CURUSE	.196	.007	961	.540	.035	.182	.209
CURUSM	.081	.005	961	.598	.065	.071	.092
WANTNM	.280	.014	961	.974	.050	.252	.308
WANT2	.393	.015	961	.951	.038	.363	.423
IDEAL	4.712	.084	1377	1.677	.018	4.544	4.880
BF	17.520	.655	713	1.027	.037	16.211	18.830
AMEN	11.411	.603	713	.999	.053	10.204	12.618
ABST	12.168	.672	713	1.033	.055	10.824	13.512
TETANU	.813	.016	1110	1.159	.020	.780	.845
ATTE	.121	.013	1110	1.058	.104	.096	.146
WCARD	.581	.037	217	1.089	.064	.506	.655
FULLIM	.603	.053	126	1.174	.088	.497	.710
DIAR	.270	.018	1006	1.238	.067	.234	.307
MTREAT	.526	.035	272	1.110	.066	.456	.595
FEVER	.322	.021	1006	1.285	.064	.281	.363
TREATF	.713	.030	324	1.125	.042	.653	.773
COUGH	.181	.015	1006	1.110	.082	.151	.211
TREATC	.610	.033	182	.861	.053	.545	.675
HAGE	.256	.019	520	.998	.076	.217	.294
WAGE	.256	.021	520	1.067	.082	.214	.298
WHEIGH	.071	.010	520	.897	.146	.050	.092

Table C.3.2 Sampling Errors for the Rural Population, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
EDUC	.038	.008	2965	2.133	.197	.023	.053
CUNION	.740	.013	2965	1.605	.017	.714	.766
MBEF20	.721	.012	2446	1.344	.017	.697	.746
POLYG	.345	.018	2195	1.761	.052	.309	.381
CEB	3.416	.053	2965	.970	.015	3.310	3.521
CEB40	7.312	.114	481	.945	.016	7.083	7.541
CSUR	2.801	.042	2965	.953	.015	2.716	2.886
CDED	.614	.023	2965	1.230	.038	.567	.661
PREG	.110	.007	2965	1.211	.063	.096	.124
KNW	.751	.024	2195	2.635	.032	.702	.799
KNWMOD	.714	.026	2195	2.720	.037	.661	.766
EVUS	.320	.019	2195	1.929	.060	.281	.358
CURUSE	.099	.009	2195	1.473	.095	.081	.118
CURUSM	.039	.006	2195	1.531	.163	.026	.051
WANTMM	.206	.013	2195	1.489	.062	.180	.232
WANT2	.473	.013	2195	1.264	.028	.446	.500
IDEAL	5.564	.110	2528	2.279	.020	5.344	5.785
BF	21.427	.484	1875	1.251	.023	20.459	22.395
AMEN	15.034	.550	1875	1.403	.037	13.933	16.134
ABST	14.074	.606	1875	1.492	.043	12.862	15.285
TETANU	.653	.022	2979	2.010	.033	.609	.696
ATTE	.048	.006	2979	1.342	.133	.036	.061
WCARD	.335	.031	565	1.526	.093	.273	.396
FULLIM	.376	.048	189	1.307	.127	.281	.471
DIAR	.261	.012	2640	1.395	.047	.236	.285
MTREAT	.394	.031	688	1.604	.080	.331	.457
FEVER	.365	.015	2640	1.445	.040	.336	.394
TREATF	.513	.029	964	1.639	.056	.456	.571
COUGH	.207	.012	2640	1.408	.059	.183	.232
TREATC	.452	.029	547	1.255	.065	.393	.510
HAGE	.317	.015	1321	1.132	.047	.288	.347
WAGE	.328	.014	1321	1.059	.043	.299	.356
WHEIGH	.083	.009	1321	1.101	.103	.066	.100

Table C.4.1 Sampling Errors for Women Aged 15-24, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.369	.014	1716	1.216	.038	.341	.398
EDUC	.084	.010	1716	1.513	.120	.064	.105
CUNION	.447	.014	1716	1.203	.032	.418	.476
MBEF20	.633	.017	867	1.036	.027	.599	.667
POLYG	.233	.018	767	1.154	.076	.198	.269
CEB	.740	.026	1716	1.120	.036	.687	.792
CEB40	-	-	-	-	-	-	-
CSUR	.645	.024	1716	1.146	.037	.597	.692
CDED	.095	.008	1716	.958	.086	.079	.111
PREG	.088	.008	1716	1.125	.087	.073	.103
KNW	.791	.023	767	1.554	.029	.746	.837
KNWMOD	.761	.025	767	1.650	.033	.711	.812
EVUS	.301	.019	767	1.165	.064	.263	.340
CURUSE	.096	.011	767	1.056	.117	.074	.119
CURUSM	.031	.007	767	1.161	.233	.017	.046
WANTNM	.031	.006	767	.946	.190	.019	.043
WANT2	.686	.018	767	1.094	.027	.649	.722
IDEAL	4.717	.071	1520	1.447	.015	4.575	4.859
BF	21.143	.699	756	1.124	.033	19.745	22.541
AMEN	13.810	.749	756	1.198	.054	12.311	15.308
ABST	15.190	.783	756	1.193	.052	13.624	16.757
TETANU	.712	.021	1034	1.269	.029	.670	.753
ATTE	.065	.009	1034	1.036	.142	.046	.083
WCARD	.446	.036	240	1.084	.080	.374	.517
FULLIM	.477	.055	107	1.091	.116	.366	.587
DIAR	.289	.016	928	1.062	.056	.256	.321
MTREAT	.478	.036	268	1.130	.075	.406	.549
FEVER	.334	.020	928	1.219	.059	.294	.374
TREATF	.597	.025	310	.845	.041	.547	.646
COUGH	.214	.016	928	1.097	.074	.183	.246
TREATC	.513	.042	199	1.137	.082	.429	.596
HAGE	.297	.021	543	1.058	.072	.254	.339
WAGE	.331	.021	543	.995	.063	.290	.373
WHEIGH	.081	.012	543	.932	.143	.058	.104

Table C.4.2 Sampling Errors for Women Aged 25-34, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.308	.012	1511	1.026	.040	.284	.333
EDUC	.093	.009	1511	1.237	.099	.075	.112
CUNION	.874	.010	1511	1.137	.011	.855	.894
MBEF20	.686	.013	1511	1.128	.020	.659	.713
POLYG	.307	.016	1321	1.226	.051	.276	.338
CEB	3.305	.056	1511	1.178	.017	3.194	3.417
CEB40	-	-	-	-	-	-	-
CSUR	2.792	.049	1511	1.194	.017	2.695	2.890
CDED	.513	.025	1511	1.172	.048	.464	.562
PREG	.128	.009	1511	1.067	.072	.109	.146
KNW	.815	.022	1321	2.068	.027	.771	.859
KNWMOD	.791	.021	1321	1.892	.027	.749	.833
EVUS	.412	.020	1321	1.483	.049	.372	.452
CURUSE	.137	.010	1321	1.056	.073	.117	.157
CURUSM	.054	.006	1321	1.027	.119	.041	.066
WANTNM	.166	.012	1321	1.176	.073	.142	.190
WANT2	.527	.015	1321	1.099	.029	.497	.557
IDEAL	5.290	.088	1357	1.443	.017	5.114	5.465
BF	19.736	.567	1244	1.205	.029	18.602	20.870
AMEN	13.746	.530	1244	1.131	.039	12.687	14.805
ABST	12.125	.546	1244	1.151	.045	11.033	13.218
TETANU	.696	.017	2011	1.337	.025	.661	.730
ATTE	.064	.006	2011	.958	.101	.051	.076
WCARD	.391	.031	361	1.184	.079	.329	.452
FULLIM	.461	.045	141	1.057	.098	.371	.551
DIAR	.272	.013	1799	1.219	.049	.245	.299
MTREAT	.409	.029	489	1.239	.072	.350	.468
FEVER	.377	.013	1799	1.063	.035	.350	.403
TREATF	.569	.029	678	1.416	.051	.511	.628
COUGH	.205	.013	1799	1.222	.063	.179	.231
TREATC	.482	.032	369	1.100	.066	.419	.546
HAGE	.292	.018	890	1.156	.061	.257	.328
WAGE	.284	.015	890	.938	.052	.255	.314
WHEIGH	.069	.008	890	.992	.124	.052	.086

Table C.4.3 Sampling Errors for Women Aged 35-49, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.335	.014	1261	1.028	.041	.308	.363
EDUC	.040	.008	1261	1.502	.208	.023	.056
CUNION	.847	.011	1261	1.070	.013	.825	.869
MBEF20	.738	.012	1261	1.005	.017	.713	.762
POLYG	.416	.020	1068	1.320	.048	.376	.456
CEB	6.307	.082	1261	1.101	.013	6.143	6.471
CEB40	6.916	.100	730	.975	.014	6.717	7.116
CSUR	5.119	.075	1261	1.182	.015	4.968	5.270
CDED	1.188	.046	1261	1.228	.038	1.097	1.279
PREG	.081	.008	1261	1.014	.096	.065	.096
KNW	.771	.016	1068	1.252	.021	.738	.803
KNWMOD	.734	.020	1068	1.483	.027	.694	.774
EVUS	.368	.018	1068	1.215	.049	.332	.404
CURUSE	.141	.012	1068	1.081	.082	.118	.164
CURUSM	.064	.008	1068	1.058	.124	.048	.079
WANTNM	.448	.021	1068	1.355	.046	.406	.489
WANT2	.183	.015	1068	1.302	.084	.152	.213
IDEAL	6.038	.118	1028	1.455	.020	5.802	6.274
BF	20.633	.689	588	.972	.033	19.255	22.010
AMEN	14.939	.772	588	1.105	.052	13.394	16.484
ABST	14.449	.813	588	1.076	.056	12.822	16.076
TETANU	.681	.029	1044	1.640	.043	.623	.739
ATTE	.080	.015	1044	1.408	.184	.050	.109
WCARD	.370	.041	181	1.119	.112	.288	.453
FULLIM	.463	.066	67	1.029	.142	.332	.594
DIAR	.221	.017	919	1.199	.077	.187	.255
MTREAT	.424	.046	203	1.315	.108	.332	.515
FEVER	.326	.020	919	1.180	.060	.287	.366
TREATF	.517	.039	300	1.260	.076	.438	.595
COUGH	.175	.016	919	1.134	.089	.144	.207
TREATC	.484	.045	161	1.049	.092	.395	.574
HAGE	.321	.024	408	1.021	.075	.273	.369
WAGE	.326	.022	408	.928	.067	.282	.370
WHEIGH	.103	.016	408	1.053	.153	.071	.134

Table C.5.1 Sampling Errors for Western Region, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.255	.017	392	.786	.068	.220	.290
EDUC	.046	.019	392	1.748	.403	.009	.083
CUNION	.712	.019	392	.833	.027	.674	.750
MBEF20	.697	.017	317	.677	.025	.662	.732
POLYG	.247	.053	279	2.058	.215	.141	.354
CEB	3.148	.104	392	.720	.033	2.940	3.356
CEB40	6.667	.191	63	.559	.029	6.286	7.048
CSUR	2.602	.081	392	.674	.031	2.441	2.763
CDED	.546	.044	392	.948	.081	.457	.635
PREG	.084	.017	392	1.200	.200	.050	.118
KNW	.867	.026	279	1.271	.030	.816	.919
KNWMOD	.842	.029	279	1.338	.035	.784	.901
EVUS	.308	.032	279	1.173	.105	.243	.373
CURUSE	.082	.011	279	.646	.129	.061	.104
CURUSM	.032	.007	279	.704	.231	.017	.047
WANTNM	.168	.011	279	.485	.065	.147	.190
WANT2	.448	.021	279	.704	.047	.406	.490
IDEAL	5.261	.111	330	1.015	.021	5.039	5.482
BF	19.965	1.113	229	1.000	.056	17.738	22.192
AMEN	12.576	.808	229	.741	.064	10.961	14.192
ABST	10.218	1.463	229	1.369	.143	7.292	13.144
TETANU	.822	.030	360	1.175	.036	.763	.881
ATTE	.058	.012	360	.759	.200	.035	.082
WCARD	.293	.086	75	1.576	.292	.122	.465
FULLIM	.318	.108	22	1.068	.341	.101	.535
DIAR	.188	.019	325	.799	.100	.150	.225
MTREAT	.541	.070	61	1.015	.130	.400	.682
FEVER	.394	.032	325	1.113	.080	.331	.457
TREATF	.602	.082	128	1.714	.136	.438	.765
COUGH	.225	.019	325	.785	.087	.186	.264
TREATC	.562	.066	73	1.112	.118	.429	.694
HAGE	.303	.020	178	.576	.066	.264	.343
WAGE	.320	.042	178	1.126	.130	.237	.404
WHEIGH	.112	.031	178	1.288	.280	.049	.175

Table C.5.2 Sampling Errors for Central Region, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.278	.029	464	1.396	.105	.220	.336
EDUC	.052	.013	464	1.277	.254	.025	.078
CUNION	.709	.026	464	1.226	.037	.657	.761
MBEF20	.729	.026	388	1.171	.036	.677	.782
POLYG	.286	.046	329	1.861	.162	.193	.379
CEB	3.534	.136	464	.981	.038	3.263	3.806
CEB40	7.173	.246	81	.808	.034	6.681	7.665
CSUR	2.761	.116	464	1.047	.042	2.529	2.993
CDED	.774	.054	464	.994	.069	.666	.881
PREG	.116	.015	464	.984	.126	.087	.146
KNW	.781	.031	329	1.359	.040	.719	.843
KNWMOD	.745	.020	329	.824	.027	.705	.784
EVUS	.271	.047	329	1.896	.172	.177	.364
CURUSE	.097	.023	329	1.409	.237	.051	.143
CURUSM	.049	.013	329	1.100	.269	.023	.075
WANTNM	.225	.034	329	1.479	.152	.157	.293
WANT2	.435	.033	329	1.189	.075	.370	.500
IDEAL	5.024	.081	381	1.079	.016	4.862	5.185
BF	18.947	1.031	464	1.003	.054	16.885	21.010
AMEN	12.758	.944	464	.941	.074	10.870	14.645
ABST	12.379	.701	464	.660	.057	10.977	13.781
TETANU	.724	.024	464	.875	.033	.676	.772
ATTE	.071	.011	464	.797	.155	.049	.093
WCARD	.333	.045	464	.885	.136	.243	.424
FULLIM	.656	.130	464	1.419	.198	.397	.916
DIAR	.311	.028	464	1.193	.091	.254	.367
MTREAT	.496	.051	464	1.041	.103	.394	.598
FEVER	.546	.042	464	1.594	.078	.461	.630
TREATF	.493	.039	464	1.014	.079	.415	.571
COUGH	.240	.017	464	.709	.071	.206	.274
TREATC	.500	.031	464	.571	.061	.439	.561
HAGE	.404	.046	464	1.264	.113	.312	.496
WAGE	.372	.035	464	.915	.093	.303	.441
WHEIGH	.112	.016	464	.631	.141	.080	.143

Table C.5.3 Sampling Errors for Greater Accra, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.886	.010	598	.754	.011	.867	.906
EDUC	.189	.027	598	1.696	.144	.135	.243
CUNION	.602	.026	598	1.314	.044	.549	.655
MBEF20	.584	.019	462	.823	.032	.547	.622
POLYG	.275	.026	360	1.088	.093	.224	.326
CEB	2.492	.103	598	.924	.041	2.286	2.697
CEB40	6.196	.400	92	1.347	.065	5.395	6.996
CSUR	2.147	.084	598	.890	.039	1.979	2.316
CDED	.344	.030	598	.904	.086	.285	.404
PREG	.057	.010	598	1.099	.183	.036	.078
KNW	.936	.013	360	1.043	.014	.909	.963
KNWMOD	.936	.013	360	1.043	.014	.909	.963
EVUS	.592	.030	360	1.141	.050	.532	.651
CURUSE	.272	.019	360	.789	.068	.235	.309
CURUSM	.106	.017	360	1.071	.164	.071	.140
WANTNM	.361	.026	360	1.006	.071	.310	.412
WANT2	.314	.023	360	.927	.072	.268	.359
IDEAL	4.579	.152	563	1.819	.033	4.275	4.883
BF	14.747	.999	249	.926	.068	12.749	16.745
AMEN	9.253	.905	249	.923	.098	7.442	11.064
ABST	8.819	.787	249	.787	.089	7.244	10.394
TETANU	.774	.011	399	.467	.014	.752	.797
ATTE	.158	.018	399	.847	.116	.121	.194
WCARD	.772	.057	79	1.202	.074	.659	.886
FULLIM	.607	.057	61	.904	.093	.493	.720
DIAR	.288	.043	368	1.733	.149	.202	.374
MTREAT	.538	.043	106	.900	.080	.451	.624
FEVER	.313	.026	368	1.016	.082	.261	.364
TREATF	.791	.060	115	1.587	.076	.671	.912
COUGH	.133	.022	368	1.083	.166	.089	.177
TREATC	.755	.061	49	.961	.081	.633	.877
HAGE	.221	.038	195	1.222	.173	.144	.297
WAGE	.221	.033	195	1.068	.151	.154	.287
WHEIGH	.046	.010	195	.674	.220	.026	.066

Table C.5.4 Sampling Errors for Eastern Region, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.253	.015	703	.919	.060	.223	.283
EDUC	.067	.012	703	1.261	.178	.043	.091
CUNION	.637	.017	703	.928	.026	.604	.671
MBEF20	.642	.021	561	1.031	.033	.600	.683
POLYG	.266	.035	448	1.692	.133	.195	.336
CEB	3.124	.105	703	.919	.034	2.914	3.333
CEB40	7.376	.255	117	.909	.035	6.865	7.887
CSUR	2.647	.097	703	1.017	.037	2.453	2.841
CDED	.477	.028	703	.802	.059	.420	.533
PREG	.098	.014	703	1.203	.138	.071	.125
KNW	.868	.017	448	1.056	.019	.835	.902
KNWMOD	.866	.017	448	1.053	.020	.832	.900
EVUS	.404	.043	448	1.850	.106	.318	.490
CURUSE	.114	.023	448	1.520	.201	.068	.160
CURUSM	.058	.018	448	1.647	.314	.022	.094
WANTNM	.288	.028	448	1.307	.097	.232	.344
WANT2	.453	.041	448	1.738	.090	.371	.535
IDEAL	4.862	.117	645	1.960	.024	4.627	5.097
BF	20.168	1.019	382	1.148	.051	18.131	22.205
AMEN	13.194	1.044	382	1.212	.079	11.106	15.281
ABST	13.571	1.048	382	1.173	.077	11.475	15.666
TETANU	.716	.040	591	1.773	.055	.636	.795
ATTE	.051	.014	591	1.246	.278	.023	.079
WCARD	.373	.054	118	1.220	.146	.264	.482
FULLIM	.227	.062	44	.983	.273	.103	.352
DIAR	.267	.024	544	1.240	.089	.219	.314
MTREAT	.428	.069	145	1.612	.160	.290	.565
FEVER	.447	.027	544	1.180	.060	.393	.500
TREATF	.580	.049	243	1.480	.084	.483	.678
COUGH	.204	.028	544	1.470	.137	.148	.260
TREATC	.514	.063	111	1.282	.122	.389	.639
HAGE	.301	.036	292	1.308	.118	.230	.373
WAGE	.295	.037	292	1.373	.126	.221	.369
WHEIGH	.051	.012	292	.914	.229	.028	.075

Table C.5.5 Sampling Errors for Volta Region, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.214	.012	500	.673	.058	.189	.239
EDUC	.070	.024	500	2.118	.346	.022	.118
CUNION	.712	.025	500	1.239	.035	.662	.762
MBEF20	.627	.030	397	1.226	.048	.568	.687
POLYG	.438	.028	356	1.058	.064	.382	.494
CEB	3.032	.169	500	1.336	.056	2.693	3.371
CEB40	6.623	.271	77	.826	.041	6.082	7.165
CSUR	2.600	.134	500	1.245	.051	2.332	2.868
CDED	.432	.048	500	1.349	.112	.335	.529
PREG	.082	.012	500	.942	.141	.059	.105
KNW	.798	.033	356	1.560	.042	.731	.864
KNWMOD	.775	.033	356	1.473	.042	.710	.841
EVUS	.449	.044	356	1.656	.097	.362	.537
CURUSE	.146	.017	356	.919	.118	.112	.181
CURUSM	.039	.010	356	.930	.244	.020	.059
WANTNM	.295	.029	356	1.208	.099	.236	.353
WANT2	.416	.031	356	1.194	.075	.353	.478
IDEAL	4.846	.164	423	1.756	.034	4.518	5.175
BF	20.752	.773	314	.850	.037	19.206	22.297
AMEN	14.904	.886	314	.922	.059	13.133	16.676
ABST	15.592	1.004	314	1.017	.064	13.584	17.601
TETANU	.631	.033	499	1.236	.052	.565	.697
ATTE	.040	.008	499	.856	.196	.024	.056
WCARD	.517	.080	89	1.465	.155	.356	.678
FULLIM	.413	.116	46	1.572	.281	.181	.645
DIAR	.240	.027	450	1.255	.112	.186	.294
MTREAT	.481	.067	108	1.308	.140	.347	.616
FEVER	.367	.035	450	1.448	.096	.297	.437
TREATF	.479	.043	165	1.061	.090	.392	.565
COUGH	.131	.026	450	1.453	.198	.079	.183
TREATC	.559	.088	59	1.199	.156	.384	.734
HAGE	.255	.027	243	.950	.107	.201	.310
WAGE	.296	.025	243	.813	.083	.247	.345
WHEIGH	.066	.012	243	.757	.184	.042	.090

Table C.5.6 Sampling Errors for Ashanti Region, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.355	.025	823	1.468	.069	.306	.404
EDUC	.094	.025	823	2.419	.263	.044	.143
CUNION	.671	.023	823	1.399	.034	.625	.717
MBEF20	.733	.029	645	1.671	.040	.675	.792
POLYG	.281	.016	552	.847	.058	.248	.313
CEB	3.141	.123	823	1.161	.039	2.895	3.387
CEB40	7.075	.268	134	1.157	.038	6.538	7.611
CSUR	2.637	.088	823	.980	.033	2.462	2.812
CDED	.504	.058	823	1.779	.115	.389	.620
PREG	.104	.010	823	.953	.097	.084	.125
KNW	.855	.012	552	.787	.014	.831	.879
KNWMOD	.853	.012	552	.786	.014	.830	.877
EVUS	.346	.027	552	1.332	.078	.292	.400
CURUSE	.101	.013	552	1.035	.131	.075	.128
CURUSM	.065	.010	552	.938	.151	.045	.085
WANTNM	.243	.014	552	.759	.057	.215	.270
WANT2	.422	.014	552	.644	.032	.395	.449
IDEAL	5.015	.127	775	1.866	.025	4.761	5.270
BF	19.142	.747	457	1.004	.039	17.648	20.637
AMEN	14.179	.416	457	.555	.029	13.347	15.012
ABST	9.926	.672	457	.907	.068	8.582	11.269
TETANU	.719	.035	704	1.659	.048	.649	.788
ATTE	.101	.016	704	1.098	.155	.070	.132
WCARD	.388	.070	129	1.581	.180	.248	.527
FULLIM	.440	.080	50	1.079	.181	.281	.599
DIAR	.293	.023	629	1.215	.078	.247	.338
MTREAT	.402	.053	184	1.404	.133	.295	.509
FEVER	.289	.024	629	1.207	.083	.242	.337
TREATF	.648	.038	182	.997	.059	.572	.725
COUGH	.272	.033	629	1.676	.120	.206	.337
TREATC	.444	.025	171	.591	.056	.395	.494
HAGE	.267	.028	266	.972	.103	.212	.322
WAGE	.305	.023	266	.785	.075	.259	.350
WHEIGH	.090	.020	266	1.167	.225	.050	.131

Table C.5.7 Sampling Errors for Brong Ahafo Region, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.238	.022	500	1.177	.094	.193	.283
EDUC	.028	.009	500	1.284	.339	.009	.047
CUNION	.802	.036	500	2.013	.045	.730	.874
MBEF20	.724	.031	427	1.441	.043	.661	.786
POLYG	.322	.017	401	.739	.054	.287	.356
CEB	3.334	.108	500	.869	.032	3.118	3.550
CEB40	7.108	.259	65	.802	.036	6.590	7.626
CSUR	2.848	.110	500	1.039	.039	2.629	3.067
CDED	.486	.046	500	1.115	.095	.394	.578
PREG	.120	.015	500	1.028	.125	.090	.150
KNW	.721	.106	401	4.727	.147	.509	.933
KNWMOD	.716	.108	401	4.796	.151	.499	.932
EVUS	.344	.065	401	2.739	.189	.214	.474
CURUSE	.120	.023	401	1.395	.189	.074	.165
CURUSM	.052	.016	401	1.474	.313	.020	.085
WANTNM	.180	.038	401	1.970	.211	.104	.255
WANT2	.501	.018	401	.708	.035	.466	.537
IDEAL	5.362	.353	431	3.173	.066	4.655	6.069
BF	21.436	.771	351	.880	.036	19.895	22.977
AMEN	13.744	1.286	351	1.503	.094	11.172	16.315
ABST	10.667	1.576	351	1.893	.148	7.514	13.819
TETANU	.777	.049	530	2.118	.063	.680	.875
ATTE	.066	.028	530	2.111	.430	.009	.123
WCARD	.340	.100	100	2.025	.293	.141	.539
FULLIM	.529	.089	34	.984	.169	.351	.708
DIAR	.247	.025	485	1.259	.102	.197	.298
MTREAT	.383	.050	120	1.139	.132	.282	.484
FEVER	.229	.034	485	1.654	.149	.161	.297
TREATF	.577	.105	111	2.115	.182	.367	.786
COUGH	.194	.021	485	1.032	.108	.152	.236
TREATC	.521	.085	94	1.448	.164	.351	.692
HAGE	.269	.032	268	1.212	.119	.205	.333
WAGE	.272	.035	268	1.220	.127	.203	.342
WHEIGH	.075	.025	268	1.557	.334	.025	.124

Table C.5.8 Sampling Errors for Upper West, East and Northern Regions, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.134	.028	508	1.835	.207	.078	.189
EDUC	.016	.012	508	2.251	.790	-.009	.041
CUNION	.848	.038	508	2.359	.044	.773	.924
MBEF20	.792	.027	442	1.374	.034	.739	.845
POLYG	.483	.046	431	1.898	.095	.391	.574
CEB	3.717	.096	508	.776	.026	3.524	3.909
CEB40	6.881	.187	101	.766	.027	6.508	7.255
CSUR	2.835	.054	508	.563	.019	2.727	2.942
CDED	.882	.074	508	1.368	.084	.734	1.029
PREG	.136	.025	508	1.657	.186	.085	.186
KNW	.550	.043	431	1.812	.079	.463	.637
KNWMOD	.404	.049	431	2.085	.122	.305	.502
EVUS	.255	.037	431	1.783	.147	.180	.330
CURUSE	.107	.022	431	1.447	.202	.064	.150
CURUSM	.007	.004	431	1.026	.591	.000	.015
WANTNM	.070	.019	431	1.554	.274	.031	.108
WANT2	.582	.028	431	1.196	.049	.525	.639
IDEAL	8.244	.416	357	2.296	.050	7.411	9.076
BF	26.579	1.463	321	1.505	.055	23.653	29.506
AMEN	20.187	1.812	321	1.768	.090	16.562	23.812
ABST	26.916	1.213	321	1.174	.045	24.490	29.342
TETANU	.459	.069	542	2.750	.150	.322	.597
ATTE	.009	.003	542	.614	.323	.003	.015
WCARD	.271	.059	96	1.265	.219	.152	.389
FULLIM	.500	.130	26	1.280	.261	.239	.761
DIAR	.253	.039	462	1.815	.155	.175	.332
MTREAT	.265	.086	117	1.925	.323	.094	.436
FEVER	.292	.039	462	1.678	.134	.214	.371
TREATF	.393	.119	135	2.524	.303	.155	.631
COUGH	.173	.028	462	1.485	.163	.117	.229
TREATC	.237	.076	80	1.586	.319	.086	.389
HAGE	.408	.036	211	1.046	.089	.335	.480
WAGE	.398	.027	211	.798	.069	.343	.453
WHEIGH	.104	.020	211	.896	.188	.065	.144

Table C.6 Sampling Errors for Total Population of Husbands, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.240	.018	943.0	1.319	.077	.203	.276
EDUC	.158	.017	943.0	1.422	.107	.124	.192
POLYG	.256	.017	943.0	1.214	.068	.221	.290
CSUR	4.970	.136	943.0	1.127	.027	4.698	5.243
KNW	.790	.027	943.0	2.056	.035	.735	.845
KNWMOD	.764	.023	943.0	1.695	.031	.717	.810
EVUS	.410	.030	943.0	1.870	.073	.350	.470
CURUSE	.196	.021	943.0	1.599	.105	.155	.238
CURUSM	.093	.011	943.0	1.213	.123	.070	.116
WANTNM	.192	.016	943.0	1.272	.085	.159	.225
WANT2	.408	.016	943.0	.968	.038	.377	.439
IDEAL	7.589	.244	771.0	1.271	.032	7.101	8.077

Table C.7.1 Sampling Errors for Husbands - Urban, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
EDUC	.305	.043	226.0	1.398	.141	.219	.391
POLYG	.212	.034	226.0	1.247	.160	.144	.280
CSUR	5.049	.237	226.0	.967	.047	4.574	5.523
KNW	.885	.026	226.0	1.227	.029	.833	.937
KNWMOD	.881	.028	226.0	1.307	.032	.824	.937
EVUS	.588	.037	226.0	1.132	.063	.514	.663
CURUSE	.288	.031	226.0	1.017	.107	.226	.349
CURUSM	.142	.026	226.0	1.098	.180	.091	.193
WANTNM	.252	.033	226.0	1.126	.129	.187	.317
WANT2	.292	.034	226.0	1.116	.116	.224	.360
IDEAL	6.011	.221	184.0	.767	.037	5.569	6.452

Table C.7.2 Sampling Errors for Husbands - Rural, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
EDUC	.112	.017	717.0	1.415	.149	.078	.145
POLYG	.269	.020	717.0	1.195	.074	.230	.309
CSUR	4.946	.162	717.0	1.170	.033	4.621	5.271
KNW	.760	.034	717.0	2.118	.044	.693	.828
KNWMOD	.727	.028	717.0	1.696	.039	.670	.783
EVUS	.354	.036	717.0	1.996	.101	.283	.426
CURUSE	.167	.024	717.0	1.742	.145	.119	.216
CURUSM	.078	.013	717.0	1.254	.161	.053	.103
WANTNM	.173	.018	717.0	1.293	.106	.136	.209
WANT2	.445	.018	717.0	.945	.039	.410	.480
IDEAL	8.083	.288	587.0	1.242	.036	7.507	8.660

Table C.8.1 Sampling Errors for Husbands Aged 15-39, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.209	.023	469.0	1.198	.108	.164	.254
EDUC	.205	.022	469.0	1.162	.106	.161	.248
POLYG	.173	.019	469.0	1.089	.110	.135	.211
CSUR	2.891	.101	469.0	1.014	.035	2.690	3.092
KNW	.851	.026	469.0	1.603	.031	.798	.904
KNWMOD	.840	.025	469.0	1.498	.030	.789	.891
EVUS	.465	.036	469.0	1.558	.077	.393	.537
CURUSE	.226	.025	469.0	1.310	.112	.175	.277
CURUSM	.122	.017	469.0	1.106	.137	.088	.155
WANTNM	.096	.014	469.0	1.024	.145	.068	.124
WANT2	.546	.025	469.0	1.084	.046	.496	.596
IDEAL	6.486	.319	416.0	1.636	.049	5.848	7.123

Table C.8.2 Sampling Errors for Husbands Aged 40+, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.270	.025	474.0	1.229	.093	.220	.320
EDUC	.112	.017	474.0	1.186	.154	.077	.146
POLYG	.338	.025	474.0	1.140	.073	.288	.387
CSUR	7.027	.246	474.0	1.418	.035	6.534	7.520
KNW	.730	.033	474.0	1.594	.045	.665	.795
KNWMOD	.688	.029	474.0	1.363	.042	.630	.746
EVUS	.357	.030	474.0	1.383	.085	.296	.417
CURUSE	.167	.026	474.0	1.501	.154	.115	.218
CURUSM	.065	.014	474.0	1.190	.207	.038	.092
WANTNM	.287	.028	474.0	1.339	.097	.231	.343
WANT2	.272	.017	474.0	.841	.063	.238	.307
IDEAL	8.882	.333	355.0	.990	.038	8.215	9.548

Table C.9.1 Sampling Errors for Husbands - Western Region, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.112	.043	89.0	1.275	.382	.027	.198
EDUC	.112	.057	89.0	1.696	.508	.000	.227
POLYG	.180	.065	89.0	1.596	.363	.049	.310
CSUR	4.416	.256	89.0	.683	.058	3.905	4.927
KNW	.865	.040	89.0	1.109	.047	.784	.946
KNWMOD	.820	.050	89.0	1.223	.061	.720	.920
EVUS	.281	.029	89.0	.601	.102	.223	.338
CURUSE	.124	.017	89.0	.473	.134	.090	.157
CURUSM	.034	.019	89.0	1.012	.578	.000	.073
WANTNM	.124	.042	89.0	1.195	.339	.040	.207
WANT2	.438	.045	89.0	.858	.104	.347	.529
IDEAL	6.608	.076	74.0	.240	.011	6.457	6.759

Table C.9.2 Sampling Errors for Husbands - Central Region, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.027	.029	110.0	1.866	1.068	.000	.086
EDUC	.118	.035	110.0	1.121	.293	.049	.188
POLYG	.218	.043	110.0	1.094	.198	.132	.305
CSUR	4.900	.472	110.0	1.386	.096	3.956	5.844
KNW	.818	.036	110.0	.972	.044	.746	.890
KNWMOD	.800	.045	110.0	1.175	.056	.710	.890
EVUS	.382	.077	110.0	1.650	.201	.228	.535
CURUSE	.173	.030	110.0	.816	.171	.114	.232
CURUSM	.127	.018	110.0	.570	.143	.091	.164
WANTNM	.264	.040	110.0	.950	.152	.183	.344
WANT2	.391	.046	110.0	.977	.117	.300	.482
IDEAL	6.463	.374	95.0	1.000	.058	5.716	7.211

Table C.9.3 Sampling Errors for Husbands - Greater Accra, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.750	.040	108.0	.945	.053	.671	.829
EDUC	.269	.060	108.0	1.407	.225	.148	.389
POLYG	.194	.038	108.0	1.000	.197	.118	.271
CSUR	5.278	.552	108.0	1.371	.105	4.173	6.382
KNW	.944	.018	108.0	.831	.019	.908	.981
KNWMOD	.944	.018	108.0	.831	.019	.908	.981
EVUS	.713	.053	108.0	1.213	.074	.607	.819
CURUSE	.380	.044	108.0	.939	.116	.292	.468
CURUSM	.176	.052	108.0	1.418	.297	.072	.280
WANTNM	.324	.043	108.0	.956	.133	.238	.411
WANT2	.333	.035	108.0	.766	.105	.263	.403
IDEAL	5.933	.320	89.0	.856	.054	5.293	6.572

Table C.9.4 Sampling Errors for Husbands - Eastern Region, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.277	.040	119.0	.975	.145	.197	.358
EDUC	.235	.065	119.0	1.672	.277	.105	.366
POLYG	.210	.044	119.0	1.161	.207	.123	.297
CSUR	4.857	.465	119.0	1.546	.096	3.928	5.787
KNW	.891	.027	119.0	.940	.030	.837	.945
KNWMOD	.874	.027	119.0	.900	.031	.819	.929
EVUS	.454	.025	119.0	.543	.055	.404	.504
CURUSE	.202	.032	119.0	.871	.160	.137	.266
CURUSM	.101	.027	119.0	.985	.271	.046	.155
WANTNM	.261	.040	119.0	.996	.154	.180	.341
WANT2	.395	.048	119.0	1.057	.120	.300	.490
IDEAL	6.175	.260	103.0	.743	.042	5.655	6.694

Table C.9.5 Sampling Errors for Husbands - Volta Region, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.154	.095	91.0	2.487	.615	.000	.343
EDUC	.154	.046	91.0	1.202	.297	.062	.245
POLYG	.275	.077	91.0	1.631	.279	.121	.428
CSUR	4.560	.374	91.0	1.077	.082	3.812	5.308
KNW	.758	.071	91.0	1.575	.094	.616	.900
KNWMOD	.736	.070	91.0	1.505	.095	.596	.876
EVUS	.484	.086	91.0	1.637	.178	.311	.656
CURUSE	.286	.052	91.0	1.086	.181	.182	.389
CURUSM	.110	.037	91.0	1.136	.341	.035	.185
WANTNM	.143	.041	91.0	1.116	.288	.061	.225
WANT2	.495	.085	91.0	1.606	.171	.325	.664
IDEAL	7.880	.601	75.0	.957	.076	6.679	9.081

Table C.9.6 Sampling Errors for Husbands - Ashanti Region, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.290	.049	131.0	1.219	.167	.193	.387
EDUC	.160	.035	131.0	1.102	.221	.089	.231
POLYG	.206	.012	131.0	.344	.059	.182	.230
CSUR	5.435	.308	131.0	.879	.057	4.819	6.052
KNW	.840	.036	131.0	1.125	.043	.767	.912
KNWMOD	.840	.036	131.0	1.125	.043	.767	.912
EVUS	.397	.049	131.0	1.144	.124	.299	.495
CURUSE	.122	.020	131.0	.709	.167	.081	.163
CURUSM	.099	.021	131.0	.800	.211	.057	.141
WANTNM	.206	.047	131.0	1.320	.227	.112	.300
WANT2	.267	.027	131.0	.706	.103	.212	.322
IDEAL	6.670	.523	112.0	1.018	.078	5.623	7.717

Table C.9.7 Sampling Errors for Husbands - Brong Ahafo Region

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.195	.054	123.0	1.509	.277	.087	.303
EDUC	.203	.066	123.0	1.815	.325	.071	.336
POLYG	.252	.023	123.0	.588	.092	.206	.298
CSUR	4.667	.279	123.0	.888	.060	4.108	5.225
KNW	.707	.131	123.0	3.178	.185	.445	.969
KNWMOD	.691	.110	123.0	2.636	.160	.470	.912
EVUS	.382	.148	123.0	3.367	.388	.086	.678
CURUSE	.220	.113	123.0	3.009	.514	.000	.445
CURUSM	.122	.055	123.0	1.869	.454	.011	.233
WANTNM	.146	.052	123.0	1.622	.355	.043	.250
WANT2	.439	.046	123.0	1.014	.104	.348	.530
IDEAL	7.873	1.071	110.0	2.077	.136	5.731	10.014

Table B.9.8 Sampling Errors for Husbands - Upper West, East and Northern Regions, GDHS, 1988

Variable	Value	Standard Error	Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
RESI	.134	.015	172.0	.583	.113	.103	.164
EDUC	.052	.025	172.0	1.491	.485	.002	.103
POLYG	.419	.044	172.0	1.163	.105	.331	.506
CSUR	5.267	.230	172.0	.764	.044	4.808	5.727
KNW	.605	.069	172.0	1.844	.114	.467	.743
KNWMOD	.529	.044	172.0	1.163	.084	.440	.618
EVUS	.267	.069	172.0	2.040	.258	.129	.406
CURUSE	.122	.058	172.0	2.330	.478	.005	.239
CURUSM	.012	.012	172.0	1.435	1.011	.000	.035
WANTNM	.099	.027	172.0	1.164	.269	.046	.152
WANT2	.500	.025	172.0	.663	.051	.449	.551
IDEAL	12.212	.522	113.0	.765	.043	11.169	13.256

APPENDIX D

QUESTIONNAIRES

ENGLISH

REPUBLIC OF GHANA

GHANA DEMOGRAPHIC AND HEALTH SURVEY

HOUSEHOLD AND INDIVIDUAL QUESTIONNAIRE

STATISTICAL SERVICE
P. O. BOX 1098
ACCRA.

1988

GHANA DEMOGRAPHIC AND HEALTH SURVEY
HOUSEHOLD SCHEDULE

GHANA STATISTICAL SERVICE

IDENTIFICATION	
PLACE NAME _____	
CLUSTER NUMBER.....	☐☐☐☐
HOUSEHOLD NUMBER.....	☐☐
NAME OF HOUSEHOLD HEAD_____	

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	MONTH ☐☐ YEAR ☐☐
INTERVIEWER'S NAME	_____	_____	_____	☐☐
RESULT**	_____	_____	_____	☐
NEXT VISIT: DATE TIME	_____ _____	_____ _____		TOTAL NUMBER OF VISITS ☐

**RESULT CODES:
1 COMPLETED
2 HOUSEHOLD PRESENT BUT NO COMPETENT RESP. AT HOME
3 HOUSEHOLD ABSENT NIGHT BEFORE INTERVIEW
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER _____
(SPECIFY)

TOTAL IN HOUSEHOLD ☐☐

TOTAL ELIGIBLE WOMEN ☐☐

	FIELD EDITED BY	OFFICE EDITED BY	KEYED BY	KEYED BY
NAME DATE	_____ _____	_____ _____	_____ _____	☐☐

HOUSEHOLD SCHEDULE

Now we would like some information about the people who usually live in your household or who are staying with you now.

NO.	USUAL RESIDENTS AND VISITORS	RESIDENCE		SEX	AGE	FOSTERING	ELIGIBILITY	WOMAN SUCCESS-FULLY INTER-VIEWED?	HUSBAND'S ELIGIBILITY
	Please give me the names of the persons who usually live in your household or are staying with you now, starting with the head of the household.	Does (NAME) usually live here?	Did (NAME) sleep here last night?	Is (NAME) male or female?	How old is he/she?	ONLY FOR CHILDREN UNDER 15 YEARS OLD: Do any of his/her parents usually live in this household?	CIRCLE LINE NUMBER OF WOMEN ELIGIBLE FOR INDIVIDUAL INTERVIEW	TICK IF YES	CIRCLE LINE NUMBER OF HUSBANDS ELIGIBLE FOR INTERVIEW
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		YES NO	YES NO	M F	IN YEARS	YES NO			
01		1 2	1 2	1 2		1 2	01		01
02		1 2	1 2	1 2		1 2	02		02
03		1 2	1 2	1 2		1 2	03		03
04		1 2	1 2	1 2		1 2	04		04
05		1 2	1 2	1 2		1 2	05		05
06		1 2	1 2	1 2		1 2	06		06
07		1 2	1 2	1 2		1 2	07		07
08		1 2	1 2	1 2		1 2	08		08
09		1 2	1 2	1 2		1 2	09		09

TICK HERE IF CONTINUATION SHEET USED ☐ TOTAL NUMBER OF ELIGIBLE WOMEN ☐☐ TOTAL NUMBER OF ELIGIBLE HUSBANDS ☐☐

Just to make sure that I have a complete listing:

1) Are there any other persons such as small children or infants that we have not listed? YES ☐ → ENTER EACH IN TABLE NO ☐

2) In addition, are there any other people who may not be members of your family, such as domestic servants, lodgers or friends who usually live here? YES ☐ → ENTER EACH IN TABLE NO ☐

3) Do you have any guests or temporary visitors staying here, or anyone else who slept here last night? YES ☐ → ENTER EACH IN TABLE NO ☐

GHANA DEMOGRAPHIC AND HEALTH SURVEY
INDIVIDUAL QUESTIONNAIRE

GHANA STATISTICAL SERVICE

IDENTIFICATION	
PLACE NAME _____	
CLUSTER NUMBER.....	☐☐☐☐
HOUSEHOLD NUMBER.....	☐☐
LINE NUMBER OF WOMAN.....	☐☐
NAME OF WOMAN_____	

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	MONTH ☐☐ YEAR ☐☐
INTERVIEWER'S NAME	_____	_____	_____	☐☐
RESULT**	_____	_____	_____	☐
NEXT VISIT: DATE	_____	_____		TOTAL NUMBER OF VISITS ☐
TIME	_____	_____		

**RESULT CODES:
1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 OTHER _____
(SPECIFY)

	FIELD EDITED BY	OFFICE EDITED BY	KEYED BY	KEYED BY
NAME	_____	_____	_____	☐☐
DATE	_____	_____	_____	

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
101	RECORD NUMBER OF PEOPLE LISTED IN THE HOUSEHOLD SCHEDULE.	NUMBER OF PEOPLE..... ☐☐	
102	RECORD NUMBER OF CHILDREN AGED 5 AND UNDER LISTED IN THE HOUSEHOLD SCHEDULE WHO NORMALLY LIVE IN THE HOUSEHOLD.	NUMBER OF CHILDREN AGED 5 AND UNDER..... ☐☐	
103	RECORD THE TIME.	HOUR..... ☐☐ MINUTES..... ☐☐	
104	First I would like to ask some questions about you and your household. For most of the time until you were 12 years old, did you live in a village, in a town, or in a city?	VILLAGE.....1 TOWN.....2 CITY.....3	
105	How long have you been living continuously in _____ (NAME OF VILLAGE, TOWN, CITY)?	ALWAYS.....95 VISITOR.....96 YEARS..... ☐☐	→107
106	Just before you moved here, did you live in a village, in a town, or in a city?	VILLAGE.....1 TOWN.....2 CITY.....3	
107	In what month and year were you born?	MONTH..... ☐☐ DK MONTH.....98 YEAR..... ☐☐ DK YEAR.....98	
108	How old were you at your last birthday? COMPARE AND CORRECT 107 AND/OR 108 IF INCONSISTENT.	AGE IN COMPLETED YEARS..... ☐☐	
109	Have you ever attended school?	YES.....1 NO.....2	→113

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
110	What was the highest level of school you attended: primary, middle, secondary, or postsecondary?	PRIMARY.....1 MIDDLE.....2 POSTMIDDLE.....3 SECONDARY.....4 POSTSECONDARY.....5	
111	What was the highest (GRADE, FORM, YEAR) you completed at that level?	GRADE..... ☐	
112	CHECK 110: PRIMARY ☐ ↓ MIDDLE OR HIGHER ☐ → 114		
113	Can you read a letter or newspaper easily, with difficulty, or not at all?	EASILY.....1 WITH DIFFICULTY.....2 NOT AT ALL.....3	
114	Do you usually listen to a radio at least once a week?	YES.....1 NO.....2	
115	What is the major source of drinking water for members of your household?	STAND PIPE OR RUNNING WATER IN HOUSE.....1 STAND PIPE NOT IN HOUSE.....2 RAINWATER.....3 WELL.....4 BOREHOLE.....5 STREAM,LAKE,DUGOUT,RIVER.....6 OTHER _____ .7 (SPECIFY)	
116	What is the major source of water for household use other than drinking (e.g., handwashing, cooking) for members of your household?	STAND PIPE OR RUNNING WATER IN HOUSE.....1 STAND PIPE NOT IN HOUSE.....2 RAINWATER.....3 WELL.....4 BOREHOLE.....5 STREAM,LAKE,DUGOUT,RIVER.....6 OTHER _____ .7 (SPECIFY)	
117	What kind of toilet facility does your household have?	WATER CLOSET.....1 PAN.....2 PIT.....3 KPIV.....4 OTHER _____ .5 (SPECIFY) NO FACILITIES/BUSH.....6 → 120	
118	At what age do children in this household use the same toilet facility as adults?	YEARS..... ☐☐ NO CHILDREN.....96	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
120	Does your household have: Electricity? A radio that is working? A television? A refrigerator?	YES NO ELECTRICITY.....1 2 RADIO.....1 2 TELEVISION.....1 2 REFRIGERATOR.....1 2	
121	Does any member of your household own: A bicycle? A motorcycle? A car or truck? A tractor?	YES NO BICYCLE.....1 2 MOTORCYCLE.....1 2 CAR.....1 2 TRACTOR.....1 2	
122	MAIN MATERIAL USED FOR ROOF (INTERVIEWER: RECORD OBSERVATION.)	ALUMINUM,ASBESTOS OR GALVANIZED IRON SHEETS.....1 CONCRETE.....2 THATCH/GRASS.....3 OTHER _____.4 (SPECIFY)	
123	MAIN MATERIAL USED FOR OUTER WALLS (INTERVIEWER RECORD OBSERVATION)	CEMENT BLOCKS.....1 LANDCRETE.....2 BURNT BRICKS.....3 SWISH, MUD, EARTH.....4 OTHER_____5 (SPECIFY)	
124	MAIN MATERIAL USED FOR FLOOR (INTERVIEWER RECORD OBSERVATION)	EARTH/MUD.....1 CEMENT.....2 TERAZZO,TILES.....3 OTHER_____4 (SPECIFY)	
130	What is your religion?	CATHOLIC.....1 OTHER CHRISTIAN.....2 MOSLEM.....3 TRADITIONAL.....4 NO RELIGION.....5 OTHER_____6 (SPECIFY)	
140	What is your ethnic group?	_____ _____	
150	Do you belong to any associations or organizations such as a: Financial association? Professional or occupational association? Religious organization? Social association? Any other association or organization?	YES NO FINANCIAL..... 1 2 OCCUPATIONAL..... 1 2 RELIGIOUS..... 1 2 SOCIAL..... 1 2 OTHER..... 1 2 ---------- (SPECIFY)	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES.....1 NO.....2	→206
202	Do you have any sons or daughters you have given birth to who are now living with you?	YES.....1 NO.....2	→204
203	How many sons live with you? And how many daughters live with you? IF NONE ENTER '00'.	SONS AT HOME..... DAUGHTERS AT HOME.....	
204	Do you have any sons or daughters you have given birth to who are alive but do not live with you?	YES.....1 NO.....2	→206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE ENTER '00'.	SONS ELSEWHERE..... DAUGHTERS ELSEWHERE.....	
206	Have you ever given birth to a boy or a girl who was born alive but later died? IF NO, PROBE: Any (other) boy or girl who cried or showed any sign of life but only survived a few hours or days?	YES.....1 NO.....2	→208
207	How many boys have died? And how many girls have died? IF NONE ENTER '00'.	BOYS DEAD..... GIRLS DEAD.....	
208	SUM ANSWERS TO 203, 205, 207, AND ENTER TOTAL. IF NONE ENTER '00'.	TOTAL.....	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL ____ live births during your life. Is that correct? YES ☐ ↓ NO ☐ → PROBE AND CORRECT 201-209 AS NECESSARY		
210	CHECK 208: ONE OR MORE BIRTHS ☐ ↓ NO BIRTHS ☐		→220

211 Now I would like to talk to you about all of your births, whether still alive or not, starting with the first one you had. (RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS ON SEPARATE LINES AND MARK WITH A BRACKET.)

212 What name was given to your (first, next) baby?	213 Is (NAME) a boy or a girl?	214 In what month and year was (NAME) born? PROBE: What is his/her birthday? OR: In what season?	215 Is (NAME) still alive?	216 IF DEAD: How old was (NAME) when he/she died? RECORD DAYS IF LESS THAN ONE MONTH, MONTHS IF LESS THAN TWO YEARS, OR YEARS.	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	218 IF ALIVE: Is he/she living with you?
01 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
02 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
03 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
04 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
05 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
06 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2
07 (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2

212 What name was given to your next baby?	213 Is (NAME) a boy or a girl?	214 In what month and year was (NAME) born? PROBE: What is his/her birthday? OR: In what season?	215 Is (NAME) still alive?	216 IF DEAD: How old was (NAME) when he/she died? RECORD DAYS IF LESS THAN ONE MONTH, MONTHS IF LESS THAN TWO YEARS, OR YEARS.	217 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	218 IF ALIVE: Is he/she living with you?
08 (NAME)	BOY GIRL 1 2	MONTH... YEAR....	YES NO 1 2 (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES NO 1 2
09 (NAME)	BOY GIRL 1 2	MONTH... YEAR....	YES NO 1 2 (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES NO 1 2
10 (NAME)	BOY GIRL 1 2	MONTH... YEAR....	YES NO 1 2 (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES NO 1 2
11 (NAME)	BOY GIRL 1 2	MONTH... YEAR....	YES NO 1 2 (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES NO 1 2
12 (NAME)	BOY GIRL 1 2	MONTH... YEAR....	YES NO 1 2 (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES NO 1 2
13 (NAME)	BOY GIRL 1 2	MONTH... YEAR....	YES NO 1 2 (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES NO 1 2
14 (NAME)	BOY GIRL 1 2	MONTH... YEAR....	YES NO 1 2 (GO TO 217)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO 219)	AGE IN YEARS..	YES NO 1 2

219 COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK:

NUMBERS ARE SAME ☐ ↓

NUMBERS ARE DIFFERENT ☐→ (PROBE AND RECONCILE)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
220	Are you pregnant now?	YES.....1 NO.....2 UNSURE.....8	→225
221	For how many months have you been pregnant?	MONTHS..... ☐☐	
222	Since you have been pregnant, have you been given any injection to prevent the baby from getting tetanus, that is, convulsions after birth?	YES.....1 NO.....2 DK.....8	
223	Have you seen anyone for a check on this pregnancy?	YES.....1 NO.....2	→226
224	Whom did you see? PROBE FOR TYPE OF PERSON AND RECORD MOST QUALIFIED.	DOCTOR.....1 TRAINED NURSE/MIDWIFE.....2 TRADITIONAL BIRTH ATTENDANT.....3 OTHER _____ (SPECIFY) 4	→226
225	How long ago did your last menstrual period start?	DAYS AGO.....1 ☐☐ WEEKS AGO.....2 ☐☐ MONTHS AGO.....3 ☐☐ YEARS AGO.....4 ☐☐ BEFORE LAST BIRTH.....995 NEVER MENSTRUATED.....996	
226	When during her monthly cycle do you think a woman has the greatest chance of becoming pregnant? PROBE: What are the days during the month when a woman has the greatest chance of becoming pregnant?	DURING HER PERIOD.....1 RIGHT AFTER HER PERIOD HAS ENDED.....2 IN THE MIDDLE OF THE CYCLE.....3 JUST BEFORE HER PERIOD BEGINS...4 AT ANY TIME.....5 OTHER _____ (SPECIFY) .....6 DK.....8	
227	PRESENCE OF OTHERS AT THIS POINT.	YES NO CHILDREN UNDER 10.....1 2 HUSBAND.....1 2 OTHER MALES.....1 2 OTHER FEMALES.....1 2	

SECTION 3: CONTRACEPTION

301 Now I would like to talk about a different topic. There are various ways or methods that a couple can use to delay or avoid a pregnancy. Which of these ways or methods have you heard about? CIRCLE CODE 1 IN 302 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN THE COLUMN, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 2 IF METHOD IS RECOGNIZED, AND CODE 3 IF NOT RECOGNIZED. THEN FOR EACH METHOD WITH CODE 1 OR 2 CIRCLED IN 302, ASK 303-305 BEFORE PROCEEDING TO THE NEXT METHOD.

		302 Have you ever heard of (METHOD)?* READ DESCRIPTION.	303 Have you ever used (METHOD)?	304 Where would you go to obtain (METHOD) if you wanted to use it? (CODES BELOW)	305 In your opinion, what is the main problem, if any, with using (METHOD)? (CODES BELOW)
01	PILL 'Women can take a pill every day.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3 ↓	YES.....1 NO.....2	☐☐ OTHER _____	☐☐ OTHER _____
02	IUD 'Women can have a loop or coil placed inside them by a doctor or a nurse.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3 ↓	YES.....1 NO.....2	☐☐ OTHER _____	☐☐ OTHER _____
03	INJECTIONS 'Women can have an injection by a doctor or nurse which stops them from becoming pregnant for several months.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3 ↓	YES.....1 NO.....2	☐☐ OTHER _____	☐☐ OTHER _____
04	DIAPHRAGM/FOAM/JELLY 'Women can place a sponge, suppository, diaphragm, jelly or cream inside them before intercourse.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3 ↓	YES.....1 NO.....2	☐☐ OTHER _____	☐☐ OTHER _____
05	CONDOM 'Men can use a rubber sheath during sexual intercourse.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3 ↓	YES.....1 NO.....2	☐☐ OTHER _____	☐☐ OTHER _____
06	FEMALE STERILIZATION 'Women can have an operation to avoid having any more children.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3 ↓	YES.....1 NO.....2	☐☐ OTHER _____	☐☐ OTHER _____
07	MALE STERILIZATION 'Men can have an operation to avoid having any more children.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3 ↓	YES.....1 NO.....2	☐☐ OTHER _____	☐☐ OTHER _____
08	PERIODIC ABSTINENCE 'Couples can avoid having sexual intercourse on certain days of the month when the woman is more likely to become pregnant.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3 ↓	YES.....1 NO.....2	Where would you go to obtain advice on periodic abstinence? ☐☐ OTHER _____	☐☐ OTHER _____
09	WITHDRAWAL 'Men can be careful and pull out before climax.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3 ↓	YES.....1 NO.....2	→	☐☐ OTHER
10	ANY OTHER METHODS? 'Apart from the ones we have mentioned, have you heard of any other ways or methods that women or men can use to avoid pregnancy? _____ (SPECIFY)	YES/SPONT.....1→ NO.....3 ↓	YES.....1 NO.....2		

CODES FOR 304	CODES FOR 305
01 GOVERNMENT HOSPITAL	02 NOT EFFECTIVE
02 GOVERNMENT HEALTH CNTR	03 PARTNER DISAPPROVES
03 PPAG CLINIC	04 HEALTH CONCERNS
04 PRIVATE MATERNITY HOME	05 DIFFICULT TO GET
05 FIELD WORKER	06 COSTS TOO MUCH
06 PRIVATE DOCTOR/CLINIC	07 INCONVENIENT TO USE
07 GOVT MATERNITY HOME	11 OTHER (SPECIFY)
08 PHARMACY/CHEM SELLER	12 NONE
09 CHRISTIAN COUNCIL	98 DK
10 FRIENDS/RELATIVES	
11 OTHER(SPECIFY)	
12 NOWHERE	
98 DOES NOT KNOW	

306 CHECK 303: NOT A SINGLE "YES" (NEVER USED) ☐ → ; AT LEAST ONE "YES" (EVER USED) ☐ → SKIP TO 309

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
307	Have you ever used anything or tried in any way to delay or avoid getting pregnant? MARK APPROPRIATE BOX WITH AN 'X'.	YES..... ☐ NO..... ☐	→316
308	What have you used or done? CORRECT 302-303 AND OBTAIN INFORMATION FOR 304 TO 306 AS NECESSARY.		
309	CHECK 303: EVER USED PERIODIC ABSTINENCE ☐ NEVER USED PERIODIC ABSTINENCE ☐		→311
310	The last time you used periodic abstinence, how did you determine on which days you had to abstain?	BASED ON CALENDAR.....1 BASED ON BODY TEMPERATURE.....2 BASED ON CERVICAL MUCUS (BILLINGS) METHOD.....3 BASED ON BODY TEMPERATURE AND MUCUS.....4 OTHER _____ (SPECIFY) .....5 NO SPECIFIC SYSTEM.....6	
311	How many living children, if any, did you already have when you first did something or used a method to avoid getting pregnant? IF NONE ENTER '00'.	NUMBER OF CHILDREN..... ☐☐	
312	CHECK 220: NOT PREGNANT OR NOT SURE ☐ PREGNANT ☐		→315H
313	Are you currently doing something or using any method to avoid getting pregnant?	YES.....1 NO.....2	→315H
314	Which method are you using?	PILL.....01 IUD.....02 INJECTIONS.....03 DIAPHRAGM/JELLY.....04 →315 CONDOM.....05 FEMALE STERILIZATION.....06 MALE STERILIZATION.....07 →315A PERIODIC ABSTINENCE.....08 →315B WITHDRAWAL.....09 →319 FOAMING TABLETS.....10 OTHER _____ (SPECIFY) .....11 →319	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
314A	Which brand are you currently using?	NORIDAY.....01 NORMINEST.....02 EUGYNON.....03 MICROGYNON.....04 OTHER PILL.....05 KAMAL.....06 SAMPOON.....07 OTHER FOAMING TABLET.....08 PANTHER.....09 SULTAN.....10 TAHITI.....11 SSS.....12 OTHER CONDOM.....13 CANNOT NAME.....14	→315
314B	Have you used other brands before or is (BRAND FROM 314A) the only brand you have ever used?	HAS NEVER USED OTHER BRAND.....1 HAS USED OTHER BRAND.....2	→315
314C	Which other brands have you used?	NORIDAY.....01 NORMINEST.....02 EUGYNON.....03 MICROGYNON.....04 OTHER PILL.....05 KAMAL.....06 SAMPOON.....07 OTHER FOAMING TABLETS.....08 PANTHER.....09 SULTAN.....10 TAHITI.....11 SSS.....12 OTHER CONDOM.....13 CANNOT NAME.....14	
314D	Why did you change to the brand you are currently using?	PREVIOUS BRAND NOT EASILY AVAILABLE.....1 MORE EXPENSIVE.....2 NOT VERY RELIABLE.....3 HAS MORE SIDE EFFECTS.....4 DOCTOR/PHARMACIST/CHEMICAL SELLER'S ADVICE.....5 OTHER_____6 (SPECIFY)	
315 315A 315B	Where did you obtain (METHOD) the last time? Where did the sterilization take place? Where did you obtain instructions or advice about the safe period?	GOVERNMENT HOSPITAL.....01 GOVERNMENT HEALTH CENTER.....02 PPAG CLINIC.....03 PRIVATE MATERNITY HOME.....04 FIELD WORKER.....05 PRIVATE DOCTOR/CLINIC.....06 GOVT MATERNITY HOME.....07 PHARMACY/CHEMICAL SELLER.....08 CHRISTIAN COUNCIL.....09 FRIENDS/RELATIVES/SCHOOL.....10 OTHER_____11 (SPECIFY) NOWHERE.....12 DK.....98	→315F
315C	How did you get there the last time?	PRIVATE CAR.....1 TAXI.....2 BUS/TROTRO.....3 WALKED.....4 OTHER_____.5 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
315D	How long did it take you to get there by (MODE OF TRANSPORT 315C) the last time?	HOURS..... ☐☐ MINUTES..... ☐☐ 97....PARTNER BUYS CONTRACEPTIVES	→315F
315E	Would you consider this place convenient?	YES.....1 NO.....2	
315F	You said you are using (METHOD CIRCLED IN 314). Is this the method you prefer to use or would you prefer a different method?	USING PREFERRED METHOD.....1 NOT USING PREFERRED METHOD.....2	→319
315G	Why are you not using (PREFERRED METHOD)?	PARTNER DISAPPROVES.....1 HEALTH CONCERNS.....2 DIFFICULT TO GET.....3 COSTS TOO MUCH.....4 INCONVENIENT TO USE.....5 DOCTOR/PHARMACIST'S ADVICE.....6 OTHER_____.7 (SPECIFY) NO REASON.....8	→319
315H	Why did you stop using a method?	METHOD NOT EFFECTIVE.....01 PARTNER DISAPPROVES.....02 HEALTH CONCERNS.....03 DIFFICULT TO GET.....04 COSTS TOO MUCH.....05 INCONVENIENT TO USE.....06 WANTED A CHILD.....07 MENOPAUSAL.....08 OTHER_____.09 (SPECIFY) DK.....98	
316	Do you intend to use a method to avoid pregnancy at any time in the future?	YES.....1 NO.....2 DK.....8	→317 →319
316A	Why not?	PARTNER DISAPPROVES.....1 HEALTH CONCERNS.....2 RELIGIOUS REASONS.....3 WANTS CHILDREN.....4 OTHER_____.5 (SPECIFY) DK.....8	→319
317	Which method would you prefer to use?	PILL.....01 IUD.....02 INJECTIONS.....03 DIAPHRAGM/JELLY.....04 CONDOM.....05 FEMALE STERILIZATION.....06 MALE STERILIZATION.....07 PERIODIC ABSTINENCE.....08 WITHDRAWAL.....09 FOAMING TABLET.....10 OTHER_____.11 (SPECIFY) UNSURE.....98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
318	Do you intend to use (PREFERRED METHOD) in the next 12 months?	YES.....1 NO.....2 DK.....8	
319	Is it acceptable to you that family planning information is provided on radio or television?	ACCEPTABLE.....1 NOT ACCEPTABLE.....2 DK.....8	
319A	Have you heard or seen any advertisements about the following brands of contraceptives? Norminest? Kamal? Panther? Bojo?	YES / NO / CAN'T REMEMBER NORMINEST..... 1 2 3 KAMAL..... 1 2 3 PANTHER..... 1 2 3 BOJO..... 1 2 3	
319B	CHECK 319A; AT LEAST ONE "YES" IN 319A: ☐ → (continue) ALL OTHERS ☐		→401
319C	Where have you heard or seen these advertisements or information? CIRCLE ALL MENTIONED	RADIO..... 1 TV..... 1 STICKER..... 1 BILLBOARD..... 1 NEWSPAPER/MAGAZINE..... 1 POSTER..... 1 IN-STORE DISPLAY..... 1 HEALTH CLINIC..... 1 RALLY..... 1 OTHER..... 1 DK..... 1	

SECTION 4. HEALTH AND BREASTFEEDING

401 CHECK 214:
ONE OR MORE LIVE BIRTHS SINCE JAN. 1983 [ ] ↓ NO LIVE BIRTHS SINCE JAN. 1983 [ ] → (SKIP TO 501)

402 ENTER NAME AND SURVIVAL STATUS OF EACH BIRTH SINCE JAN. 1983 IN TABLE. BEGIN WITH LAST BIRTH. ASK QUESTIONS ABOUT ALL BIRTHS.

LINE NUMBER FROM Q. 212	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
	LAST BIRTH NAME ______ ALIVE [ ] DEAD [ ]	NEXT-TO-LAST BIRTH NAME ______ ALIVE [ ] DEAD [ ]	SECOND-FROM-LAST NAME ______ ALIVE [ ] DEAD [ ]	THIRD-FROM-LAST NAME ______ ALIVE [ ] DEAD [ ]
403 When you were pregnant with (NAME) were you given any injection to prevent the baby from getting tetanus, that is, convulsions after birth?	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8
404 When you were pregnant with (NAME), did you see anyone for a check on this pregnancy? IF YES: Whom did you see? PROBE FOR TYPE OF PERSON AND RECORD MOST QUALIFIED.	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 OTHER ______.4 (SPECIFY) NO ONE 5	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 OTHER ______.4 (SPECIFY) NO ONE 5	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 OTHER ______.4 (SPECIFY) NO ONE 5	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 OTHER ______.4 (SPECIFY) NO ONE 5
405 Who assisted with the delivery of (NAME)? PROBE FOR TYPE OF PERSON AND RECORD MOST QUALIFIED.	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 RELATIVE....4 OTHER ______.5 (SPECIFY) NO ONE....6	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 RELATIVE....4 OTHER ______.5 (SPECIFY) NO ONE....6	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 RELATIVE....4 OTHER ______.5 (SPECIFY) NO ONE....6	DOCTOR....1 TRAINED NURSE/ MIDWIFE....2 TRADITIONAL BIRTH ATTENDANT....3 RELATIVE....4 OTHER ______.5 (SPECIFY) NO ONE....6
406 Did you ever feed (NAME) at the breast?	YES....1 NO....2 (SKIP TO 409)	YES....1 NO....2 (SKIP TO 409)	YES....1 NO....2 (SKIP TO 409)	YES....1 NO....2 (SKIP TO 409)
407 Are you still breastfeeding (NAME)? (IF DEAD, CIRCLE '2')	YES....1 (SKIP TO 409) NO (OR DEAD)....2			
407A Why did you stop breastfeeding (NAME)?	CHILD DIED....01 CHILD REACHED WEANING AGE....02 CHILD BECAME SICK.03 CHILD HAD DIARRHEA....04 R BECAME PREGNANT.05 INSUFFICIENT MILK.06 R HAD TO WORK....07 CHILD REFUSED BREAST....08 INCONVENIENT....09 OTHER REASON....10	CHILD DIED....01 CHILD REACHED WEANING AGE....02 CHILD BECAME SICK.03 CHILD HAD DIARRHEA....04 R BECAME PREGNANT.05 INSUFFICIENT MILK.06 R HAD TO WORK....07 CHILD REFUSED BREAST....08 INCONVENIENT....09 OTHER REASON....10	CHILD DIED....01 CHILD REACHED WEANING AGE....02 CHILD BECAME SICK.03 CHILD HAD DIARRHEA....04 R BECAME PREGNANT.05 INSUFFICIENT MILK.06 R HAD TO WORK....07 CHILD REFUSED BREAST....08 INCONVENIENT....09 OTHER REASON....10	CHILD DIED....01 CHILD REACHED WEANING AGE....02 CHILD BECAME SICK.03 CHILD HAD DIARRHEA....04 R BECAME PREGNANT.05 INSUFFICIENT MILK.06 R HAD TO WORK....07 CHILD REFUSED BREAST....08 INCONVENIENT....09 OTHER REASON....10
408 How many months did you breastfeed (NAME)?	MONTHS.... [ ][ ] UNTIL DEATH....96	MONTHS.... [ ][ ] UNTIL DEATH....96	MONTHS.... [ ][ ] UNTIL DEATH....96	MONTHS.... [ ][ ] UNTIL DEATH....96
409 How many months after the birth of (NAME) did your period return?	MONTHS.... [ ][ ] NOT RETURNED....96	MONTHS.... [ ][ ] NEVER RETURNED...96 (ALL SKIP TO 411)	MONTHS.... [ ][ ] NEVER RETURNED...96 (ALL SKIP TO 411)	MONTHS.... [ ][ ] NEVER RETURNED...96 (ALL SKIP TO 411)
410 Have you resumed sexual relations since the birth of (NAME)?	YES (OR PREGN.)...1 NO....2 (GO TO NEXT COL)			
411 How many months after the birth of (NAME) did you resume sexual relations?	MONTHS.... [ ][ ] (GO TO NEXT COLUMN)	MONTHS.... [ ][ ] (GO TO NEXT COLUMN)	MONTHS.... [ ][ ] (GO TO NEXT COLUMN)	MONTHS.... [ ][ ] (GO TO 412)

412 CHECK 407 FOR LAST BIRTH:
LAST CHILD STILL BREASTFED [ ] ↓ ALL OTHERS [ ] → (SKIP TO 417B)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
413	How many times did you breastfeed last night, between sundown and sunrise?	NUMBER OF TIMES..... ☐☐ AS OFTEN AS CHILD WANTED.....96	
414	How many times did you breastfeed yesterday during daylight hours?	NUMBER OF TIMES..... ☐☐ AS OFTEN AS CHILD WANTED.....96	
415	At any time yesterday or last night, was (NAME OF LAST CHILD) given any of the following: Plain water? Juice? Powered milk? Cow's or goat's milk? Any other liquid? Any solid or mushy food?	YES NO PLAIN WATER.....1 2 JUICE.....1 2 POWDERED MILK.....1 2 COW'S OR GOAT'S MILK.....1 2 ANY OTHER LIQUID _____.1 2 (SPECIFY) ANY SOLID OR MUSHY FOOD.....1 2	
416	CHECK 415: WAS GIVEN FOOD OR LIQUID ☐ NO FOODS OR LIQUID GIVEN ☐		→418
417	Were any of these given in a bottle with a nipple?	YES.....1 NO.....2	
417A	CHECK 415: WAS GIVEN SOLID OR MUSHY FOOD ☐ NO SOLID OR MUSHY FOOD GIVEN ☐		→418
417B	How old was (LAST CHILD) when you started giving him/her supplementary food?	MONTHS ☐☐ CHILD DIED BEFORE FOOD GIVEN...96	→418
417C	What food did you give him/her?	_____ _____ _____	
418	At the time you became pregnant with (NAME OF LAST BIRTH), did you want to have that child then, did you want to wait until later, or did you want no (more) children at all?	THEN.....1 LATER.....2 NO MORE.....3	

419 ENTER NAME AND SURVIVAL STATUS OF EACH BIRTH SINCE JAN. 1983 BELOW. BEGIN WITH THE LAST BIRTH. THE HEADING IN THE TABLE SHOULD BE EXACTLY THE SAME AS PREVIOUS TABLE. ASK QUESTIONS ONLY FOR LIVING CHILDREN.

LINE NUMBER FROM Q. 212	☐☐	☐☐	☐☐	☐☐
	LAST BIRTH NAME ______ ALIVE ☐ DEAD ☐ →	NEXT-TO-LAST BIRTH NAME ______ ALIVE ☐ DEAD ☐ →	SECOND-FROM-LAST NAME ______ ALIVE ☐ DEAD ☐ →	THIRD-FROM-LAST NAME ______ ALIVE ☐ DEAD ☐ → 42
420 Do you have a health card for (NAME)? IF YES: May I see it, please?	YES, SEEN....1 YES, NOT SEEN....2 (SKIP TO 422) NO CARD....3	YES, SEEN....1 YES, NOT SEEN....2 (SKIP TO 422) NO CARD....3	YES, SEEN....1 YES, NOT SEEN....2 (SKIP TO 422) NO CARD....3	YES, SEEN....1 YES, NOT SEEN....2 (SKIP TO 422) NO CARD....3
421 RECORD DATES OF IMMUNIZATIONS FROM HEALTH CARD.	NOT GIVEN / DA / MO / YR	NOT GIVEN / DA / MO / YR	NOT GIVEN / DA / MO / YR	NOT GIVEN / DA / MO / YR
BCG	1	1	1	1
POLIO 1	1	1	1	1
POLIO 2	1	1	1	1
POLIO 3	1	1	1	1
DPT 1	1	1	1	1
DPT 2	1	1	1	1
DPT 3	1	1	1	1
MEASLES	1	1	1	1
	(SKIP TO 423)	(SKIP TO 423)	(SKIP TO 423)	(SKIP TO 423)
422 Has (NAME) ever had a vaccination to prevent him/her from getting diseases?	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8
423 Has (NAME) had diarrhea in the last 24 hours?	YES....1 (SKIP TO 425) NO....2 DK....8	YES....1 (SKIP TO 425) NO....2 DK....8	YES....1 (SKIP TO 425) NO....2 DK....8	YES....1 (SKIP TO 425) NO....2 DK....8
424 Has (NAME) had diarrhea in the last two weeks?	YES....1 NO....2 (GO TO NEXT COL) DK....8	YES....1 NO....2 (GO TO NEXT COL) DK....8	YES....1 NO....2 (GO TO NEXT COL) DK....8	YES....1 NO....2 (SKIP TO 428) DK....8
425 Did you take (NAME) to a private doctor, or to a hospital or clinic to treat the diarrhea (the last time)? IF YES: Where did you take him/her?	DOCTOR....1 HOSPITAL/CLINIC....2 NO....3	DOCTOR....1 HOSPITAL/CLINIC....2 NO....3	DOCTOR....1 HOSPITAL/CLINIC....2 NO....3	DOCTOR....1 HOSPITAL/CLINIC....2 NO....3
426 Was (NAME) given an oral rehydration packet to treat the diarrhea (the last time)?	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8	YES....1 NO....2 DK....8
427 Was there anything (else) you or somebody did to treat the diarrhea? IF YES: What was done? CIRCLE CODE 1 FOR ALL MENTIONED.	HOME SOLUTION OF SUGAR, SALT & WATER...1 TABLETS, INJECTIONS SYRUPS....1 TRADITNL MEDICINE...1 INCREASE FLUIDS....1 DECREASE FLUIDS....1 INCREASE FOODS....1 DECREASE FOODS....1 OTHER ______ .1 (SPECIFY) NOTHING....1 (ALL GO TO NEXT COL)	HOME SOLUTION OF SUGAR, SALT & WATER...1 TABLETS, INJECTIONS SYRUPS....1 TRADITNL MEDICINE...1 INCREASE FLUIDS....1 DECREASE FLUIDS....1 INCREASE FOODS....1 DECREASE FOODS....1 OTHER ______ .1 (SPECIFY) NOTHING....1 (ALL GO TO NEXT COL)	HOME SOLUTION OF SUGAR, SALT & WATER...1 TABLETS, INJECTIONS SYRUPS....1 TRADITNL MEDICINE...1 INCREASE FLUIDS....1 DECREASE FLUIDS....1 INCREASE FOODS....1 DECREASE FOODS....1 OTHER ______ .1 (SPECIFY) NOTHING....1 (ALL GO TO NEXT COL)	HOME SOLUTION OF SUGAR, SALT & WATER...1 TABLETS, INJECTIONS SYRUPS....1 TRADITNL MEDICINE...1 INCREASE FLUIDS....1 DECREASE FLUIDS....1 INCREASE FOODS....1 DECREASE FOODS....1 OTHER ______ .1 (SPECIFY) NOTHING....1 (ALL GO TO 428)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
428	CHECK 426: ORAL REHYDRATION: NOT MENTIONED ☐ → 429 MENTIONED FOR ANY BIRTH ☐ → 429A		
429	Have you ever heard of a special product called oral rehydration packet you can get for the treatment of diarrhea?	YES.....1 NO.....2	
429A	Where can you go if you want to get a vaccination for your child? CIRCLE ALL MENTIONED	HOSPITAL.....1 CLINIC.....1 VILLAGE HEALTH WORKER.....1 PRIVATE DOCTOR.....1 SPECIAL CAMPAIGNS.....1 OTHER_____1 (SPECIFY) DK.....1	

430 ENTER NAME AND SURVIVAL STATUS OF EACH BIRTH SINCE JAN. 1983 BELOW. BEGIN WITH THE LAST BIRTH. THE HEADING IN THE TABLE SHOULD BE EXACTLY THE SAME AS PREVIOUS TABLE. ASK QUESTIONS ONLY FOR LIVING CHILDREN.

LINE NUMBER FROM Q. 212				
	LAST BIRTH NAME________ ALIVE ☐ DEAD ☐	NEXT-TO-LAST BIRTH NAME________ ALIVE ☐ DEAD ☐	SECOND-FROM-LAST NAME________ ALIVE ☐ DEAD ☐	THIRD-FROM-LAST NAME________ ALIVE ☐ DEAD ☐ (GO TO 501)
431 Has (NAME) had fever in the last four weeks?	YES.................1 NO..................2 (SKIP TO 434) DK..................8	YES.................1 NO..................2 (SKIP TO 434) DK..................8	YES.................1 NO..................2 (SKIP TO 434) DK..................8	YES.................1 NO..................2 (SKIP TO 434) DK..................8
432 Did you take (NAME) to a private doctor or to a hospital or clinic to treat the fever? IF YES: Where did you take him/her?	DOCTOR.............1 HOSPITAL/CLINIC.....2 NO.................3	DOCTOR.............1 HOSPITAL/CLINIC.....2 NO.................3	DOCTOR.............1 HOSPITAL/CLINIC.....2 NO.................3	DOCTOR.............1 HOSPITAL/CLINIC.....2 NO.................3
433 Was there anything (else) you or somebody did to treat the fever? IF YES: What was done? CIRCLE CODE 1 FOR ALL MENTIONED.	ANTIMALARIAL........1 ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1	ANTIMALARIAL........1 ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1	ANTIMALARIAL........1 ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1	ANTIMALARIAL........1 ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1
434 Has (NAME) suffered from severe cough or difficult or rapid breathing in the last four weeks?	YES.................1 NO..................2 (SKIP TO 436A) DK..................8	YES.................1 NO..................2 (SKIP TO 436A) DK..................8	YES.................1 NO..................2 (SKIP TO 436A) DK..................8	YES.................1 NO..................2 (SKIP TO 436A) DK..................8
435 Did you take (NAME) to a private doctor or to a hospital or clinic to treat the problem? IF YES: Where did you take him/her?	DOCTOR.............1 HOSPITAL/CLINIC.....2 NO.................3	DOCTOR.............1 HOSPITAL/CLINIC.....2 NO.................3	DOCTOR.............1 HOSPITAL/CLINIC.....2 NO.................3	DOCTOR.............1 HOSPITAL/CLINIC.....2 NO.................3
436 Was there anything (else) you or somebody did to treat the problem? IF YES: What was done? CIRCLE CODE 1 FOR ALL MENTIONED.	ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1	ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1	ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1	ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1
436A Has (NAME) ever suffered from guinea-worm infestation?	YES.................1 NO..................2 (SKIP TO 436C) DK..................8	YES.................1 NO..................2 (SKIP TO 436C) DK..................8	YES.................1 NO..................2 (SKIP TO 436C) DK..................8	YES.................1 NO..................2 (SKIP TO 436C) DK..................8
436B Was there anything (else) you or somebody did to treat the problem? IF YES: What was done? CIRCLE CODE 1 FOR ALL MENTIONED.	ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1	ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1	ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1	ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1
436C Has (NAME) ever suffered from bilharzia?	YES.................1 NO..................2 (GO TO NEXT COL) DK..................8	YES.................1 NO..................2 (GO TO NEXT COL) DK..................8	YES.................1 NO..................2 (GO TO NEXT COL) DK..................8	YES.................1 NO..................2 (SKIP TO 501) DK..................8
436D Was there anything (else) you or somebody did to treat the problem? IF YES: What was done? CIRCLE CODE 1 FOR ALL MENTIONED.	ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1 (ALL GO TO NEXT COL)	ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1 (ALL GO TO NEXT COL)	ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1 (ALL GO TO NEXT COL)	ANTIBIOTICS.........1 LIQUID OR SYRUP.....1 ASPIRIN.............1 INJECTION...........1 TRADTNL MEDICINE....1 OTHER ___________.1 (SPECIFY) NOTHING.............1 (ALL GO TO 501)

SECTION 5. MARRIAGE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
501	Have you ever been married or lived with a man?	YES.....1 NO.....2	→519
502	Are you now married or living with a man, or are you widowed, divorced or not now living together?	MARRIED.....1 LIVING TOGETHER.....2 WIDOWED.....3 DIVORCED.....4 NOT NOW LIVING TOGETHER.....5	→507
503	Does your husband/partner live with you or is he now staying elsewhere?	LIVING WITH HER.....1 STAYING ELSEWHERE.....2	
504	Does your husband/partner have any other wives besides yourself?	YES.....1 NO.....2	→507
505	How many other wives does he have?	NUMBER..... ☐☐ DK.....98	→507
506	Are you the first, second,...wife?	RANK..... ☐☐	
507	Have you been married or lived with a man only once, or more than once?	ONCE.....1 MORE THAN ONCE.....2	
508	In what month and year did you start living with your (first) husband or partner?	MONTH..... ☐☐ DK.....98 YEAR..... ☐☐ DK YEAR.....98	→510
509	How old were you when you started living with him?	AGE..... ☐☐	
510	Are your mother and father still alive?	YES NO DK WOMAN'S MOTHER.....1 2 8 WOMAN'S FATHER.....1 2 8	
511	Are your (first) husband's/partner's mother and father still alive?	YES NO DK FIRST HUSBAND'S MOTHER.....1 2 8 FIRST HUSBAND'S FATHER.....1 2 8	
512	CHECK 510 AND 511: AT LEAST ONE PARENT NOT LIVING OR DK ☐ ↓ ALL ALIVE ☐		→515

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
513	Was (MENTION PARENTS NOT ALIVE NOW OR DK) alive at the time you began living together with your (first) husband or partner?	YES NO DK WOMAN'S MOTHER.....1 2 8 WOMAN'S FATHER.....1 2 8 FIRST HUSBAND'S MOTHER.....1 2 8 FIRST HUSBAND'S FATHER.....1 2 8	
514	CHECK 513: SOME PARENT ALIVE AT MARRIAGE ☐ NO PARENT ALIVE AT MARRIAGE ☐		→518
515	At the time you began living together, did you and your (first) husband/partner live with any of these parents for at least six months?	YES.....1 NO.....2	→517
516	For about how many years did you live together with a parent at that time?	YEARS..... UP TO THE PRESENT.....96	→518
517	Are you now living either with your parents or your husband's parents?	YES.....1 NO.....2	
518	In how many localities have you lived for six months or more since you were first married (started living together) including this place?	NUMBER OF LOCALITIES.....	→520
519	Have you ever had sexual intercourse?	YES.....1 NO.....2	→528
520	Now we need some details about your sexual activity in order to get a better understanding of contraception and fertility. How old were you when you first had sexual intercourse?	AGE.....	
521	Have you had sexual intercourse in the last four weeks?	YES.....1 NO.....2	→523
522	How many times?	TIMES.....	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
523	When was the last time you had sexual intercourse?	DAYS AGO.....1 [ ][ ] WEEKS AGO.....2 [ ][ ] MONTHS AGO.....3 [ ][ ] YEARS AGO.....4 [ ][ ] BEFORE LAST BIRTH.....996	→528
524	CHECK 220: NOT PREGNANT OR NOT SURE ☐	PREGNANT ☐	→528
525	CHECK 313: NOT USING ☐	USING ☐	→528
526	If you become pregnant in the next few weeks, would you feel happy, unhappy, or would it not matter very much?	HAPPY.....1 UNHAPPY.....2 WOULD NOT MATTER.....3	→528
527	What is the main reason that you are not using a method to avoid pregnancy?	LACK OF KNOWLEDGE.....01 OPPOSED TO FAMILY PLANNING.....02 HUSBAND DISAPPROVES.....03 OTHERS DISAPPROVE.....04 HEALTH CONCERNS.....05 ACCESS/AVAILABILITY.....06 COSTS TOO MUCH.....07 INCONVENIENT TO USE.....08 INFREQUENT SEX.....09 FATALISTIC.....10 RELIGION.....11 POSTPARTUM/BREASTFEEDING.....12 MENOPAUSAL/SUBFECUND.....13 OTHER _____ (SPECIFY) .14 DK.....98	
528	PRESENCE OF OTHERS AT THIS POINT.	YES NO CHILDREN UNDER 10.....1 2 HUSBAND.....1 2 OTHER MALES.....1 2 OTHER FEMALES.....1 2	

SECTION 6. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
601	CHECK 502: CURRENTLY MARRIED OR LIVING TOGETHER ☐ ALL OTHERS ☐		→609
602	CHECK 220 AND MARK BOX. Now I have some questions about the future. NOT PREGNANT OR NOT SURE ☐ Would you like to have a (another) child or would you prefer not to have any (more) children? PREGNANT ☐ After the child you are expecting, would you like to have another child or would you prefer not to have any (more) children?	HAVE ANOTHER.....1 NO MORE.....2 SAY SHE CAN'T GET PREGNANT.....3 UNDECIDED OR DK.....8	→605
603	How long would you want to wait from now before the birth of a (another) child?	TIME TO WAIT: MONTHS.....1 ☐☐ YEARS.....2 ☐☐ DK.....998	→605
604	CHECK 215: How old would you like your youngest child to be when you have your next child? IF NO LIVING CHILDREN, CIRCLE '96'.	AGE OF YOUNGEST: YEARS..... ☐☐ NO LIVING CHILDREN.....96 DK.....98	
605	For how long should a couple wait before starting sexual intercourse after the birth of a baby?	MONTHS.....1 ☐☐ YEARS.....2 ☐☐ OTHER_____.996 (SPECIFY)	
606	Should a mother wait until she has completely stopped breastfeeding before starting to have sexual relations again, or doesn't it matter?	WAIT.....1 DOESN'T MATTER.....2	
607	Do you think that your husband/partner approves or disapproves of couples using a method to avoid pregnancy?	APPROVES.....1 DISAPPROVES.....2 DK.....8	
608	How often have you talked to your husband/partner about this subject in the past year?	NEVER.....1 ONCE OR TWICE.....2 THREE OR MORE.....3	
609	In general, do you approve or disapprove of couples using a method to avoid pregnancy?	APPROVE.....1 DISAPPROVE.....2	
610	CHECK 202 AND 204: NO LIVING CHILDREN ☐ If you could choose exactly the number of children to have in your whole life, how many would that be? HAS LIVING CHILDREN ☐ If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? RECORD SINGLE NUMBER OR OTHER ANSWER.	NUMBER..... ☐☐ OTHER ANSWER _____ (SPECIFY)	

SECTION 7. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
701	CHECK 501: EVER MARRIED OR LIVED WITH A MAN ☐ → ASK QUESTIONS ABOUT CURRENT OR MOST RECENT HUSBAND/PARTNER. ALL OTHERS ☐		→712
702	Now I have some questions about your (most recent) husband/partner. Did your husband/partner ever attend school?	YES.....1 NO.....2	→706
703	What was the highest level of school he attended: primary, middle, secondary or postsecondary?	PRIMARY.....1 MIDDLE.....2 POSTMIDDLE.....3 SECONDARY.....4 POSTSECONDARY.....5 DK.....8	→706
704	What was the highest (GRADE, FORM, YEAR) he completed at that level?	GRADE..... ☐☐ DK.....98	
705	CHECK 703: PRIMARY ☐ → ASK 706 MIDDLE OR HIGHER ☐		→707
706	Can (could) he read a letter or newspaper easily, with difficulty, or not at all?	EASILY.....1 WITH DIFFICULTY.....2 NOT AT ALL.....3	
707	What kind of work does (did) your husband/partner mainly do?	_____ ☐☐ _____ _____	
708	CHECK 707: DOES (DID) NOT WORK IN AGRICULTURE ☐ → ASK 709 WORKS (WORKED) IN AGRICULTURE ☐		→710
709	Does (did) he work most of the time, part of the time, seasonally or irregularly?	MOST.....1 PART.....2 SEASONALLY.....3 IRREGULARLY.....4 OTHER.....5	→712
710	Does (did) your husband/partner work mainly on his or family land, or on someone else's land?	HIS/FAMILY LAND.....1 SOMEONE ELSE'S LAND.....2	→712
711	Does (did) he work mainly for money or does (did) he work for a share of the crops?	MONEY.....1 A SHARE OF CROPS.....2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
712	Aside from their usual housework, many women work in order to earn money. Are you currently doing any work for money, other than on a farm or business run by your family?	YES.....1 NO.....2	→719
713	What is your occupation, that is, what kind of work do you do?	_____ _____ _____	
714	In a typical day, week or month, how much do you earn for this work?	AMOUNT..... ☐☐☐☐☐ PER HOUR.....1 PER DAY.....2 PER WEEK.....3 PER MONTH.....4 PER YEAR.....5	
715	Do you usually work at this job most of the time, part of the time, or do you work seasonally or irregularly?	MOST.....1 PART.....2 SEASONALLY.....3 IRREGULARLY.....4 OTHER.....5	
716	On a typical day when you are doing this work, how many hours do you spend working?	HOURS..... ☐☐	
717	On a typical working day, how long does it take you to travel to the place where you work? PROBE: About how many minutes or hours?	HOURS..... ☐☐ MINUTES..... ☐☐ WORKS AT PLACE RESIDES.....96	
718	Most of the time when you work for money, do you decide how <u>all</u> the money you earn will be used, how <u>some</u> of it will be used, or does <u>someone else</u> decide how your earnings are used ?	DECIDES ABOUT ALL.....1 DECIDES ABOUT SOME.....2 SOMEONE ELSE DECIDES.....3	
719	Whether you have worked in the past or not, do you think it is alright for a mother to work away from home, if her children can be adequately cared for ?	YES.....1 NO.....2 NOT SURE.....3	
720	And how would the members of your family feel about you working away from home ? Would they be against it or wouldn't they mind ?	AGAINST.....1 WOULDN'T MIND.....2 SOME EACH WAY.....3 UNCERTAIN.....4	

721 CHECK 215, 217, 712:

HAS LIVE CHILDREN < AGE 6 LIVING AT HOME AND IS CURRENTLY WORKING ☐ → 722

ALL OTHERS ☐ → 724

722 While you are working, do you usually have your children under age 6 with you, sometimes have them with you, rarely have them with you, or never have them with you ?

USUALLY.....1 → 724
SOMETIMES.....2
RARELY.....3
NEVER.....4

723 Who usually takes care of your children under age 6 while you are working ?

HUSBAND.....01
OTHER CHILD(REN).....02
OTHER RELATIVES IN OR NEAR HOUSEHOLD.....03
OTHER RELATIVES FARTHER AWAY.....04
NEIGHBORS.....05
FRIENDS/ACQUAINTANCES.....06
SERVANTS/HIRED HELP.....07
CHILDREN IN SCHOOL.....08
INSTITUTIONAL CHILD CARE.....09
OTHER_____10
(SPECIFY)

724 CHECK 501:

EVER MARRIED/ LIVED WITH A MAN ☐ → 725

NEVER MARRIED/ LIVED WITH A MAN ☐ → 728B

725 What was the age of your (first) husband at the time of your (first) marriage ?

AGE..... ☐☐
DK.....98

726 Before you were first married or lived with a man, did you ever work for money other than on a farm or business run by your family ?

YES.....1
NO.....2 → 728B

727 What was your occupation, that is, what kind of work did you do?

_____
_____
_____

728 Most of the time when you worked for money before marrying/living with a man, did you decide how all the money you earned would be used, how some of it would be used, or did someone else decide how your earnings would be used?

DECIDED ABOUT ALL.....1
DECIDED ABOUT SOME.....2
SOMEONE ELSE DECIDED.....3

7288 CHECK 208, 712:

ONE OR MORE LIVE BIRTHS AND CURRENTLY WORKING ☐ ↓

ONE OR MORE LIVE BIRTHS AND NOT CURRENTLY WORKING ☐ → COL. 1

NO LIVE BIRTHS ☐ → 730

729 Have you been working continuously since your last birth?

YES.....1 → COL. 2

NO.....2 → COL. 1

	Since the birth of NAME_____ (LAST BIRTH) (but before the work you are currently doing)..... (1)	Before the birth of NAME_____ (FIRST BIRTH) (but after you were first married or lived with a partner...) (2)	Before the birth of NAME_____ (LAST BIRTH) but after the birth of NAME_____ (NEXT TO LAST BIRTH) (3)	Before the birth of NAME_____ (NEXT TO LAST BIRTH) but after the birth of NAME_____ (SECOND TO LAST BIRTH) (4)
729A ...did you ever work for money other than on a farm or business run by your family ?	YES.....1 NO.....2 (SKIP TO NEXT COL)	YES.....1 NO.....2 (SKIP TO NEXT COL)	YES.....1 NO.....2 (SKIP TO NEXT COL)	YES.....1 NO.....2 (SKIP TO 730)
729B ...what was your occupation, that is, what kind of work did you do ?	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____
729C ...did you work most of the time, part of the time, seasonally or only irregularly ?	MOST.....1 PART.....2 SEASONAL.....3 IRREGULAR.....4	MOST.....1 PART.....2 SEASONAL.....3 IRREGULAR.....4	MOST.....1 PART.....2 SEASONAL.....3 IRREGULAR.....4	MOST.....1 PART.....2 SEASONAL.....3 IRREGULAR.....4
729D ...on a typical working day, how long did it take you to travel to the place where you worked ?	HOURS..... ☐☐ MINUTES..... ☐☐ TRAVELLING SALES..95 WORKED AT PLACE RESIDED.....96	HOURS..... ☐☐ MINUTES..... ☐☐ TRAVELLING SALES..95 WORKED AT PLACE RESIDED.....96	HOURS..... ☐☐ MINUTES..... ☐☐ TRAVELLING SALES..95 WORKED AT PLACE RESIDED.....96	HOURS..... ☐☐ MINUTES..... ☐☐ TRAVELLING SALES..95 WORKED AT PLACE RESIDED.....96
729E ...aside from the time you spent traveling to and from work, on a typical day, how many hours did you spend working ?	HOURS..... ☐☐ < 1 HOUR.....96	HOURS..... ☐☐ < 1 HOUR.....96	HOURS..... ☐☐ < 1 HOUR.....96	HOURS..... ☐☐ < 1 HOUR.....96
729F ...how many years total did you work in this interval at all jobs combined ?	YEARS..... ☐☐ MONTHS..... ☐☐ (GO TO NEXT COL.)	YEARS..... ☐☐ MONTHS..... ☐☐ (GO TO NEXT COL.)	YEARS..... ☐☐ MONTHS..... ☐☐ (GO TO NEXT COL.)	YEARS..... ☐☐ MONTHS..... ☐☐ (GO TO 730)

730 RECORD THE TIME.

HOUR..... ☐☐

MINUTES..... ☐☐

SECTION 8. WEIGHT AND LENGTH

INTERVIEWER: IN 801-802, RECORD LINE NUMBERS AND NAMES OF ALL LIVING CHILDREN BORN SINCE JANUARY 1, 1985 STARTING WITH THE YOUNGEST CHILD. RECORD DATE OF BIRTH IN 803 AND CHECK AGE IN 804. RECORD WEIGHT AND LENGTH OF CHILDREN 3-36 MONTHS IN 805 AND 806.

	[1] YOUNGEST LIVING CHILD	[2] NEXT-TO-YOUNGEST LIVING CHILD	[3] SECOND-TO-YOUNGEST LIVING CHILD
801 LINE NO.	☐☐	☐☐	☐☐
802 NAME	(NAME) _____	(NAME) _____	(NAME) _____
803 DATE OF BIRTH	MONTH.... ☐☐ YEAR..... ☐☐	MONTH.... ☐☐ YEAR..... ☐☐	MONTH.... ☐☐ YEAR..... ☐☐
804 CHECK AGE: 3-36 MONTHS	YES ☐ NO ☐ →	YES ☐ NO ☐ →	YES ☐ NO ☐ → GO TO NEXT PAGE.
805 WEIGHT (in kgs)	☐☐.☐	☐☐.☐	☐☐.☐
806 LENGTH (in cms)	☐☐☐.☐	☐☐☐.☐	☐☐☐.☐
807 STATE REASON IF UNABLE TO RECORD	_____ _____	_____ _____	_____ _____

808 NAME OF MEASURER: _____ ☐☐ NAME OF ASSISTANT: _____ ☐☐

SECTION 9. LANGUAGE INFORMATION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
901	WHAT IS THE RESPONDENT'S OWN LANGUAGE ?	TWI.....1 GA.....2 EWE.....3 NZEMA.....4 HAUSA.....5 DAGBANI.....6 ENGLISH.....7 OTHER_____8 (SPECIFY)	
902	IN WHAT LANGUAGE DID YOU CONDUCT THE INTERVIEW ?	TWI.....1 GA.....2 EWE.....3 NZEMA.....4 HAUSA.....5 DAGBANI.....6 ENGLISH.....7 OTHER_____8 (SPECIFY)	
903	FOR HOW MUCH OF THE INTERVIEW DID YOU DEPEND ON A THIRD PERSON TO INTERPRET FOR YOU ?	NONE OF THE INTERVIEW.....1 SOME OF THE INTERVIEW.....2 MOST OF THE INTERVIEW.....3 ALL OF THE INTERVIEW.....4 OTHER_____5 (SPECIFY)	

INTERVIEWER'S OBSERVATIONS:

Name of Interviewer:_____ Date:_____

SUPERVISOR'S OBSERVATIONS:

Name of Supervisor:_____ Date:_____

EDITOR'S OBSERVATIONS:

Name of Editor:_____ Date:_____

ENGLISH

REPUBLIC OF GHANA

GHANA DEMOGRAPHIC AND HEALTH SURVEY

HUSBAND'S QUESTIONNAIRE

STATISTICAL SERVICE
P. O. BOX 1098
ACCRA

1988

GHANA DEMOGRAPHIC AND HEALTH SURVEY
HUSBAND'S QUESTIONNAIRE

GHANA STATISTICAL SERVICE

IDENTIFICATION	
PLACE NAME _____	
CLUSTER NUMBER.....	☐☐☐☐
HOUSEHOLD NUMBER.....	☐☐
NAME OF HOUSEHOLD HEAD _____	
LINE NUMBER OF HUSBAND.....	☐☐
LINE NUMBER OF WIFE INTERVIEWED.....	☐☐
LINE NUMBER OF WIFE INTERVIEWED.....	☐☐
LINE NUMBER OF WIFE INTERVIEWED.....	☐☐
LINE NUMBER OF WIFE INTERVIEWED.....	☐☐
LINE NUMBER OF WIFE INTERVIEWED.....	☐☐

	1	2	3	FINAL VISIT
DATE				MONTH ☐☐ YEAR ☐☐
INTERVIEWER'S NAME				☐☐
RESULT**				☐
NEXT VISIT: DATE				TOTAL NUMBER OF VISITS ☐
TIME				

**RESULT CODES:
1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 OTHER _____
(SPECIFY)

	FIELD EDITED BY	OFFICE EDITED BY	KEYED BY	KEYED BY
NAME				☐☐
DATE				

SECTION H1 RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
H100	RECORD THE TIME.	HOUR..... ☐☐ MINUTES..... ☐☐	
H101	First I would like to ask some questions about you and your household. For most of the time until you were 12 years old, did you live in a village, in a town, or in a city?	VILLAGE.....1 TOWN.....2 CITY.....3	
H102	How long have you been living continuously in _____ (NAME OF VILLAGE, TOWN, CITY)?	ALWAYS.....95 VISITOR.....96 YEARS..... ☐☐	
H103	In what month and year were you born?	MONTH..... ☐☐ DK MONTH.....98 YEAR..... ☐☐ DK YEAR.....98	
H104	How old were you at your last birthday? COMPARE AND CORRECT H103 AND/OR H104 IF INCONSISTENT.	AGE IN COMPLETED YEARS..... ☐☐	
H105	What is your ethnic group ?	_____ _____ _____	
H106	How many wives/partners do you currently have?	NUMBER..... ☐☐	
H107	Have you ever attended school?	YES.....1 NO.....2	→H111

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	TO
H108	What was the highest level of school you attended: primary, middle, secondary, or postsecondary?	PRIMARY.....1 MIDDLE.....2 POSTMIDDLE.....3 SECONDARY.....4 POSTSECONDARY.....5	
H109	What was the highest (GRADE, FORM, YEAR) you completed at that level?	GRADE..... ☐	
H110	CHECK H108: PRIMARY ☐ → MIDDLE OR HIGHER ☐		→H112
H111	Can you read a letter or newspaper easily, with difficulty, or not at all?	EASILY.....1 WITH DIFFICULTY.....2 NOT AT ALL.....3	
H112	Do you usually listen to a radio at least once a week?	YES.....1 NO.....2	
H113	What kind of work do you mainly do ?	_____ ☐☐	
H114	CHECK H113: DOES NOT WORK IN AGRICULTURE ☐ → WORKS IN AGRICULTURE ☐		→H116
H115	Do you work most of the time, part of the time, seasonally or irregularly?	MOST.....1 PART.....2 SEASONALLY.....3 IRREGULARLY.....4	→H201
H116	Do you work mainly on your own or family land, or on someone else's land?	HIS/FAMILY LAND.....1 SOMEONE ELSE'S LAND.....2	→H201
H117	Do you work mainly for money or do you work for a share of the crops?	MONEY.....1 A SHARE OF CROPS.....2	

SECTION H2: CONTRACEPTION

H201 Now I would like to talk about a different topic. There are various ways or methods that a couple can use to delay or avoid a pregnancy. Which of these ways or methods have you heard about? CIRCLE CODE 1 IN H202 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN THE COLUMN, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 2 IF METHOD IS RECOGNIZED, AND CODE 3 IF NOT RECOGNIZED. THEN FOR EACH METHOD WITH CODE 1 OR 2 CIRCLED IN H202 ASK H203-H305 BEFORE PROCEEDING TO THE NEXT METHOD.

		H202 Have you ever heard of (METHOD)? READ DESCRIPTION.	H203 Have you and your wife/ partner ever used (METHOD)?	H204 Where would you go to obtain (METHOD) if you wanted to use it? (CODES BELOW)	H205 In your opinion, what is the main problem, if any, with using (METHOD)? (CODES BELOW)
01	PILL 'Women can take a pill every day.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	☐☐ OTHER _____	☐☐ OTHER _____
02	IUD 'Women can have a loop or coil placed inside them by a doctor or a nurse.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	☐☐ OTHER _____	☐☐ OTHER _____
03	INJECTIONS 'Women can have an injection by a doctor or nurse which stops them from becoming pregnant for several months.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	☐☐ OTHER _____	☐☐ OTHER _____
04	DIAPHRAGM/FOAM/JELLY 'Women can place a sponge, suppository, diaphragm, jelly or cream inside them before intercourse.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	☐☐ OTHER _____	☐☐ OTHER _____
05	CONDOM 'Men can use a rubber sheath during sexual intercourse.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	☐☐ OTHER _____	☐☐ OTHER _____
06	FEMALE STERILIZATION 'Women can have an operation to avoid having any more children.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	☐☐ OTHER _____	☐☐ OTHER _____
07	MALE STERILIZATION 'Men can have an operation to avoid having any more children.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	☐☐ OTHER _____	☐☐ OTHER _____
08	PERIODIC ABSTINENCE 'Couples can avoid having sexual intercourse on certain days of the month when the woman is more likely to become pregnant.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	Where would you go to obtain advice on periodic abstinence? ☐☐ OTHER _____	☐☐ OTHER _____
09	WITHDRAWAL 'Men can be careful and pull out before climax.'	YES/SPONT.....1→ YES/PROBED.....2→ NO.....3	YES.....1 NO.....2	→	☐☐ OTHER _____
10	ANY OTHER METHODS? 'Apart from the ones we have mentioned, have you heard of any other ways or methods that women or men can use to avoid pregnancy? _____ (SPECIFY)	YES/SPONT.....1→ NO.....3	YES.....1 NO.....2		

CODES FOR H204
01 GOVERNMENT HOSPITAL
02 GOVERNMENT HEALTH CNTR
03 PPAG CLINIC
04 PRIVATE MATERNITY HOME
05 FIELD WORKER
06 PRIVATE DOCTOR/CLINIC
07 GOVT MATERNITY HOME
08 PHARMACY/CHEM SELLER
09 CHRISTIAN COUNCIL
10 FRIENDS/RELATIVES
11 OTHER(SPECIFY)
12 NOWHERE
98 DOES NOT KNOW

CODES FOR H205
02 NOT EFFECTIVE
03 PARTNER DISAPPROVES
04 HEALTH CONCERNS
05 DIFFICULT TO GET
06 COSTS TOO MUCH
07 INCONVENIENT TO USE
11 OTHER (SPECIFY)
12 NONE
98 DK

H206 CHECK H203: NOT A SINGLE "YES" (NEVER USED) ☐ → SKIP TO H209 ; AT LEAST ONE "YES" (EVER USED) ☐

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
H207	Have you and your wife(s)/partner(s) ever used anything or tried to delay or avoid having a child? MARK APPROPRIATE BOX WITH AN 'X'.	YES..... ☐ NO..... ☐	→H212
H208	What have you used or done? CORRECT H202-H203 AND OBTAIN IFORMATION FOR H204 TO H206 AS NECESSARY.		
H209	How many living children, if any, did you already have when you first did something or used a method to avoid having a child? IF NONE ENTER '00'.	NUMBER OF CHILDREN..... ☐☐	
H210	Are you and your wife(s)/partner(s) currently doing something or using any method to avoid having a child?	YES.....1 NO.....2	→H212
H211	Which method(s) are you using? CIRCLE ALL MENTIONED	PILL.....1 IUD.....1 INJECTIONS.....1 DIAPHRAGM/JELLY.....1 CONDOM.....1 FEMALE STERILIZATION.....1 MALE STERILIZATION.....1 PERIODIC ABSTINENCE.....1 WITHDRAWAL.....1 FOAMING TABLETS.....1 OTHER_____.1 (SPECIFY)	→H216
H212	Do you intend to use a method to avoid pregnancy at any time in the future?	YES.....1 NO.....2 DK.....8	→H214 →H216
H213	Why not?	PARTNER DISAPPROVES.....1 HEALTH CONCERNS.....2 RELIGIOUS REASONS.....3 WANTS CHILDREN.....4 OTHER_____.5 (SPECIFY) DK.....8	→H216
H214	Which method would you prefer to use?	PILL.....01 IUD.....02 INJECTIONS.....03 DIAPHRAGM/JELLY.....04 CONDOM.....05 FEMALE STERILIZATION.....06 MALE STERILIZATION.....07 PERIODIC ABSTINENCE.....08 WITHDRAWAL.....09 FOAMING TABLET.....10 OTHER_____.11 (SPECIFY) UNSURE.....98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
H215	Do you intend to use (PREFERRED METHOD) in the next 12 months?	YES.....1 NO.....2 DK.....8	
H216	Where would you go to get information about family planning?	GOVT.HOSPITAL/HEALTH CENTER.....1 PPAG CLINIC.....2 PRIVATE DOCTOR/CLINIC.....3 PHARMACY/CHEMICAL SELLER.....4 CHRISTIAN COUNCIL.....5 FRIENDS/RELATIVES.....6 COMMUNITY LEADERS.....7 OTHERS.....8 DK.....9	
H217	Is it acceptable to you that family planning information is provided on radio or television?	ACCEPTABLE.....1 NOT ACCEPTABLE.....2 DK.....8	
H218	How often have you talked to your wife(s)/partner(s) about family planning in the past year?	NEVER.....1 ONCE OR TWICE.....2 THREE OR MORE.....3	
H219	In general, do you approve or disapprove of couples using a method to avoid pregnancy?	APPROVE.....1 DISAPPROVE.....2	
H220	How many own sons do you have? And how many own daughters do you have? IF NONE ENTER '00'.	SONS..... ☐☐ DAUGHTERS..... ☐☐	
H221	Now I have some questions about the future. Would you like to have a (another) child or would you prefer not to have any (more) children?	HAVE ANOTHER.....1 NO MORE.....2 UNDECIDED OR DK.....3	→H223
H222	How long would you want to wait from now before the birth of a (another) child?	TIME TO WAIT: MONTHS.....1 ☐☐ YEARS.....2 ☐☐ DK.....998	
H223	If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? RECORD SINGLE NUMBER OR OTHER ANSWER.	NUMBER..... ☐☐ OTHER ANSWER _____ (SPECIFY)	
H224	RECORD THE TIME.	HOUR..... ☐☐ MINUTES..... ☐☐	

SECTION H3. LANGUAGE INFORMATION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
H301	WHAT IS THE RESPONDENT'S OWN LANGUAGE ?	TWI.....1 GA.....2 EWE.....3 NZEMA.....4 HAUSA.....5 DAGBANI.....6 ENGLISH.....7 OTHER_____8 (SPECIFY)	
H302	IN WHAT LANGUAGE DID YOU CONDUCT THE INTERVIEW ?	TWI.....1 GA.....2 EWE.....3 NZEMA.....4 HAUSA.....5 DAGBANI.....6 ENGLISH.....7 OTHER_____8 (SPECIFY)	
H303	FOR HOW MUCH OF THE INTERVIEW DID YOU DEPEND ON A THIRD PERSON TO INTERPRET FOR YOU ?	NONE OF THE INTERVIEW.....1 SOME OF THE INTERVIEW.....2 MOST OF THE INTERVIEW.....3 ALL OF THE INTERVIEW.....4 OTHER_____5 (SPECIFY)	

INTERVIEWER'S OBSERVATIONS:

_____

_____

_____

Name of Interviewer:_____ Date:_____

SUPERVISOR'S OBSERVATIONS:

_____

_____

_____

Name of Supervisor:_____ Date:_____

EDITOR'S OBSERVATIONS:

_____

_____

_____

Name of Editor:_____ Date:_____