Egypt

Egypt Demographic and Health Survey 1988

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October 1989

This report presents findings from the Egypt Demographic and Health Survey (EDHS). The survey was a collaborative effort between the National Population Council and the Institute for Resource Development/Macro Systems, Inc. (IRD). The survey is part of the worldwide Demographic and Health Surveys (DHS) Program, which is designed to collect data on fertility, family planning and maternal and child health. Funding for the survey was provided by the Agency for International Development (Contract No. DPE-3023-C-00-4083-00) and the Government of Egypt.

Additional information on the EDHS can be obtained from the National Population Council, P.O. Box 1036, Cairo, Egypt. Additional information on the DHS Program can be obtained from the 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).

FOREWORD

The 1988 Egypt Demographic and Health Survey (EDHS) is the most recent in a series of surveys carried out in Egypt to provide the information needed to study fertility behavior and its determinants, particularly contraceptive use. The EDHS findings are important in monitoring trends in these variables and in understanding the factors which contribute to differentials in fertility and contraceptive use among various population subgroups. The EDHS also provides a wealth of health-related information for mothers and their children, which was not available in the earlier surveys. These data are especially important for understanding the factors that influence the health and survival of infants and young children. In addition to providing insights into population and health issues in Egypt, the EDHS also hopefully will lead to an improved global understanding of population and health problems as it is one of 35 internationally comparable surveys sponsored by the Demographic and Health Surveys program.

This report presents key results from the EDHS. It highlights basic findings relating to fertility levels, childbearing intentions, and contraceptive knowledge and use. It also looks at key maternal and health indicators including the extent to which mothers receive trained medical care during pregnancy and at the time of delivery and, for young children, the extent of immunization coverage and the prevalence and treatment of diarrheal disease.

The challenge that remains is to use the information in this report as a basis for evaluating and modifying family planning and health service delivery in Egypt. The EDHS data will only truly be useful when they are employed to improve the design and implementation of population and health programs in Egypt.

Finally, I would like to express my appreciation to the EDHS team for their efforts in completing the survey. Their diligence has enabled population and health policy makers and program planners to have access to this vital information in a very timely fashion.

Prof. Dr. Maher Mahran
Secretary General
National Population Council

ACKNOWLEDGEMENTS

The Egypt Demographic and Health Survey (EDHS) represents the continuing commitment in Egypt to efforts to obtain data on fertility behavior and contraceptive practice. The survey also reflects the strong interest in information on key maternal health and child survival issues. The wealth of demographic and health data that the survey provides will be of great use in evaluating the performance of the family planning and health programs and in charting future directions for these programs.

This important survey could not have been implemented without the participation of a large number of institutions and individuals. The National Population Council under the leadership of Prof. Dr. Maher Mahran has provided logistical support throughout the survey. Prof. Dr. Mahran has shown keen interest in the survey findings and a continuing commitment to further policy-oriented analysis.

I would like to thank other institutions in Egypt for their assistance to the EDHS. Staff of the Central Agency of Public Mobilization and Statistics (CAPMAS) worked diligently to provide the census findings used in the EDHS sample selection. The Cairo Demographic Center (CDC) provided office space for the EDHS headquarters staff.

International support for the EDHS is also gratefully acknowledged. U.S.A.I.D. population funds for Egypt financed the EDHS. Technical assistance and additional financial support was provided by the Institute for Resource Development through the international Demographic and Health Surveys program.

Although it is not possible to acknowledge all of the individuals who contributed to the EDHS, I would like to especially thank senior members of the EDHS staff. Dr. Magued I. Osman, the EDHS Assistant Director, and Dr. Fatma Hassan El-Zanaty, the Sampling Coordinator, were instrumental in the planning and implementation of the survey activities. Mr. Mohamed Abdel Aty, the Fieldwork Coordinator, ably supervised the field teams. Dr. Abdallah A. Abdel Ghaly coordinated the successful data processing effort. Dr. Amin Kamel Said, Dr. Effat Fakher El-Din and Dr. Abdel Monem Darwesh were instrumental in carrying out the anthropometric training.

Finally, I am deeply indebted and grateful to all of the EDHS central office and field staff. Without their willing and very able assistance, the EDHS data collection and processing phases could not have been completed in such a timely fashion.

Dr. Hussein Abdel-Aziz Sayed
Technical Director

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SUMMARY OF FINDINGS

FERTILITY AND FAMILY PLANNING--A DECADE OF PROGRESS

Declining Fertility. The Egypt Demographic and Health Survey (EDHS) documents the significant progress that has been made in the 1980s in addressing the population problem in Egypt. Fertility levels have declined steadily over the decade. At current rates, women will have an average of 4.4 births by their 45th birthday. This total fertility rate represents a decline of 15 percent from the level of 5.2 births per woman recorded in the Egypt Fertility Survey (EFS) at the beginning of the decade.

Increasing Use of Contraception. The fertility decline has taken place in the context of increasing use of contraception. The EDHS found that 38 percent of married women are currently using family planning--an increase of 60 percent over the rate of 24 percent recorded in the 1980 EFS. Equally encouraging is the dramatic increase in IUD use since the middle of the decade. The percent of currently married women relying on the IUD doubled in the four-year period between the Egypt Contraceptive Prevalence Survey (ECPS) and the EDHS, increasing from 8 percent in 1984 to the current level of 16 percent. The pill continues to be widely used; according to the EDHS, 15 percent of currently married women are using the pill. Use of other modern methods remains limited, and few women rely on traditional methods.

Childbearing Attitudes. Childbearing attitudes of Egyptian women are supportive of further fertility decline. Three in five women want no more children, and, among those who want another child, nearly half are interested in delaying the next birth at least two years. According to fecund married women, more than half of their husbands also desire no more children. The average ideal family size--2.9 children--is well below the current fertility rate, and more than one-third of ever-married women prefer a two-child family.

Widespread Knowledge and Approval of Family Planning. Widespread knowledge and approval of family planning are also supportive of further fertility reduction. Nearly all currently married women (98 percent) know at least one contraceptive method. Efforts to broadcast family planning information through mass media, particularly television, appear to be successful in reaching women; two-thirds of currently married women reported watching a television broadcast about family planning in the month before the survey.

Among women knowing about family planning, 87 percent approve of the use of contraception, and 70 percent believe their husband approves. Almost half of married women not currently using family planning indicate that they plan to adopt a method in the future.

Access to Family Planning Services. Egyptian women are knowledgeable about family planning service providers; 96 percent of currently married women are able to name a source where contraceptive services are available. Both the public and private sector continue to be important in the provision of family planning services. Current users of the

pill obtain their supply largely from pharmacies, while users of the IUD are about equally divided between those obtaining services from private doctors and government facilities. Nearly 20 percent of IUD users purchased the IUD at a pharmacy before having it inserted.

Other Fertility Determinants. In addition to the increasing use of contraception, changes in marriage patterns are contributing to declining fertility. Women who marry at an early age tend to bear children sooner and give birth to more children than women who delay marriage. The EDHS results show that the median age at first marriage has been increasing steadily across age cohorts, from 17.4 years among women 45-49 to 19.5 years among women 25-29.

By extending the period of natural infecundity following birth, breastfeeding also plays an important role in protecting women from a subsequent pregnancy. On average, women breastfeed for 17 months. As a result, the return of menstruation and, thus, the risk of another pregnancy, are delayed, on average, for 8 months following birth.

CONTINUING CHALLENGES

Unwanted Fertility. Despite the clear progress in reducing fertility and increasing the use of family planning during the 1980s, the EDHS results point to a number of continuing challenges for Egypt's population program. A key concern is that, although fertility levels are declining, there remains a significant level of unwanted births. Overall, 22 percent of the births in the five-year period before the survey were not wanted. If unwanted births had been prevented, a woman would have had an average of 3.6 births during the period compared with the actual average of 4.7 births.

High Risk Pregnancies. For many mothers the prevention or delay of a birth is an important health measure. Nearly 60 percent of the births occurring in the five years before the survey were the outcome of pregnancies defined as high risk, i.e., pregnancies too young (mothers under age 18), too old (mothers age 35 and over), too many (mothers with five births or more) or too soon (births which occur less than two years after the last birth). More than 30 percent of these high risk births were unwanted and 16 percent were mistimed.

Need for Family Planning. Many women who currently do not want another child or who want to delay having a birth for at least two years are not using contraception. Nearly half of currently married women are potentially in need of family planning to achieve their childbearing goals--30 percent to limit further childbearing and 17 percent to space desired births. Almost 60 percent of women not currently using family planning report that they would be unhappy if they became pregnant soon.

Barriers to Use of Contraception. The EDHS results provide information on a number of potential barriers to contraceptive use. One of the major obstacles is concern about side effects. Over 60 percent of women knowing about the pill consider side effects to be the main problem in using the method, and 40 percent of those using the IUD see side effects as the primary obstacle to use.

For a minority of women, the husband's attitude may also be a barrier to contraceptive use. Around one in six women who knows about family planning believes that her husband disapproves of the use of contraception. Other potential barriers to use (including cost or difficulties in obtaining contraceptive services) are cited by only a few women. Nearly one-third of IUD users think the method had cost too much.

Reasons for Discontinuing Use of Contraception. A key concern for the Egyptian family planning program must also be the reasons women give for discontinuing contraceptive use. Two in every five women who discontinued use of the pill or the IUD in the five years before the survey report that they stopped using the method the last time because they had experienced side effects. Among pill users, 18 percent report that they became pregnant while using the method.

Problems in Using the Pill. The EDHS results indicate that many pill users fail to take the pill correctly. For some, noncompliance appears to be linked to a belief that it is necessary to take the pill only when the husband is present in the household. "Resting" from the pill is another reason frequently given for not having a pill packet or not taking the pill systematically. Short interruptions of use seem to be linked primarily to forgetting to take the pill, but side effects also lead some users to stop taking the pill.

RESIDENTIAL DIFFERENTIALS

Fertility. One of the major challenges facing the population program is the differentials in fertility by residence. At the rates prevailing during the calendar period 1986-1988, urban women will have an average of 3.5 births before their 45th birthday while rural women will have 5.4 births. Fertility rates also vary significantly by place of residence, averaging 3.0 births in the Urban Governorates, 4.4 births in Lower Egypt and 5.4 births in Upper Egypt. In rural Upper Egypt, the fertility rate exceeds 6 births.

Use of Contraception. Underlying the fertility differentials are differentials in contraceptive use. The contraceptive use rate in urban areas (52 percent) is more than double the level in rural areas (24 percent). The use rate is highest in the Urban Governorates (56 percent) followed by Lower Egypt (41 percent) and Upper Egypt (22 percent). Within the latter two areas, the differential in the use rate for rural women is especially striking; married women in rural Lower Egypt (36 percent) are three times as likely to be using a contraceptive method as women in rural Upper Egypt (12 percent).

This threefold differential continues a pattern that has been apparent throughout the 1980s.

Rural Upper Egypt. Rural women from Upper Egypt clearly differ from other women on a variety of attitudinal indicators. For example, much of the disapproval of contraceptive use is concentrated among women from rural Upper Egypt; almost one in five rural women knowing a contraceptive method in this region disapproves of a couple using family planning, three times the level of disapproval recorded for women in rural Lower Egypt. More than one in four women in rural Upper Egypt believes that her husband disapproves of family planning; this is more than twice the level of husband disapproval reported by women from rural Lower Egypt.

Rural women in Upper Egypt are also less likely to want to stop childbearing compared with those from Lower Egypt (43 percent vs. 67 percent). They also report a higher ideal number of children than women from rural Lower Egypt (3.6 vs. 2.8 children).

Despite the generally more conservative attitudes toward childbearing, many women in rural Upper Egypt have been having more children than they want. Nearly one in five births in rural Upper Egypt during the five years before the survey was reported by the mother as unwanted. If these unwanted births had been prevented, the fertility rate for the period would have been five births rather than the actual rate of more than six births.

MATERNAL AND CHILD HEALTH

Infant and Child Mortality. The EDHS results indicate significant progress has been made in reducing child mortality. Infant and childhood mortality has declined from high levels in the 1970s. The mortality levels for the five-year period preceding the EDHS are 73 per thousand (infant) and 31 per thousand (childhood). Overall, under five mortality declined from 203 per thousand in 1974-1978 to 102 per thousand in 1984-1988.

There are substantial differences in mortality by residence. Rural mortality is around twice the level of urban mortality. Children in Upper Egypt are at significantly greater risk of dying than children in other areas. The highest level is seen for children in rural Upper Egypt, where under five mortality exceeds 200 deaths per thousand.

Both the age of the mother and the interval between births is related to child mortality. Considering age, the highest mortality risk occurs for children of very young mothers or mothers nearing the end of the reproductive period. Mortality risks for children are substantially reduced when the interval between births increases.

Maternal Care Indicators. The care that a woman receives during pregnancy and at childbirth affects the health and survival of both the mother and her child. The EDHS found that many women do not receive medical care during pregnancy; only half of the

births during the five-year period before the survey were preceded by a prenatal checkup. When a mother receives a tetanus toxoid injection as part of prenatal care, immunity against tetanus is passed on to the baby and protects the child against neonatal tetanus, a common cause of neonatal death. Mothers received tetanus toxoid injections during pregnancy for only 11 percent of the births during the period.

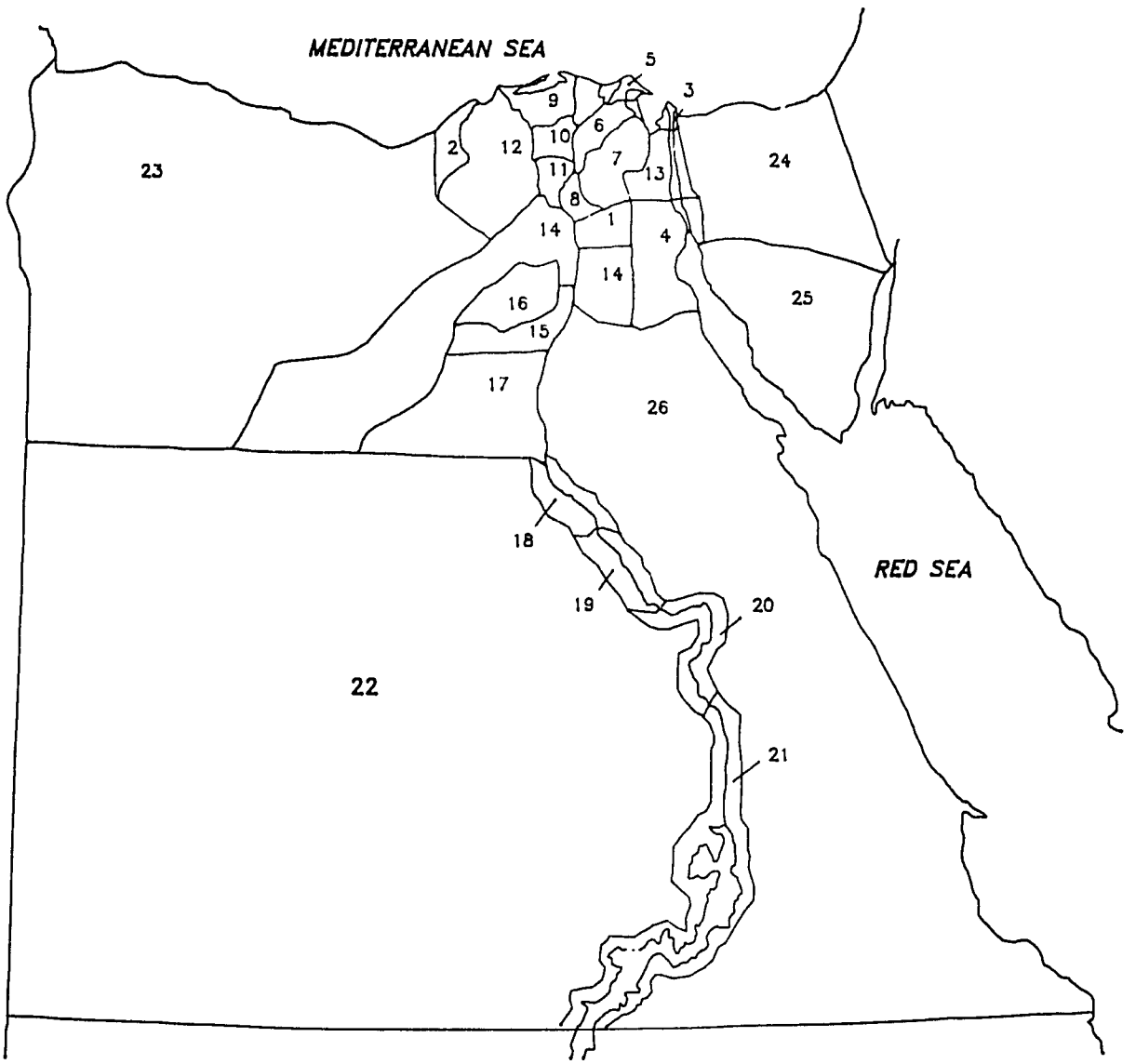
Women are even less likely to have medical assistance for delivery than they are to receive medical care during pregnancy. Seventy-five percent of births in the five-year period before the survey took place at home, and only one-third were assisted at delivery by a doctor or trained nurse/midwife.

Immunization. One of the primary mechanisms for improving child survival is increasing the proportion of children immunized against the major preventable childhood diseases (tuberculosis, diphtheria, whooping cough, tetanus, polio and measles). The EDHS results suggest that almost all young children receive immunization against childhood illnesses. According to the mother, 93 percent of children 12-23 months have received drops or an injection to prevent disease. There is evidence, however, that many of these children have not received the full primary course of immunizations. Among children for whom an immunization record was seen, only one-third could be considered to be fully immunized.

Childhood Illnesses and Treatment. Diarrheal and respiratory illnesses are among the leading causes of infant and child deaths in Egypt. The EDHS results indicate that medical advice is sought in around one in two episodes of diarrhea or respiratory illness among children under five. Almost all mothers of children under age 5 are aware of Oral Rehydration Therapy (ORT), an inexpensive and effective treatment for diarrheal illness, which has been widely promoted in Egypt.

Nutritional Status. Malnutrition frequently contributes to child deaths. The EDHS found that 30 percent of children 3-36 months were stunted--short in relation to their age in comparison with an international reference population. Stunting, which is an indicator of chronic malnutrition, was more common among rural children than urban children and in Upper Egypt than in Lower Egypt. The adverse effect of closely spaced births is again apparent; children born four or more years after an older sibling are much less likely to be stunted than other children.

Egypt



Urban Governorates
1 - Cairo
2 - Alexandria
3 - Port Said
4 - Suez

Lower Egypt
5 - Damietta
6 - Dakahlia
7 - Sharkia
8 - Kalyubia
9 - Kafr El-Sheikh
10 - Gharbia
11 - Menoufia
12 - Behera
13 - Ismailia

Upper Egypt
14 - Giza
15 - Beni Suef
16 - Fayoum
17 - Menya
18 - Assiut
19 - Souhag
20 - Qena
21 - Aswan

Frontier Governorates
22 - New Valley
23 - Matrouh
24 - North Sinai
25 - South Sinai
26 - Red Sea

Chapter 1

BACKGROUND

1.1 HISTORY, GEOGRAPHY AND ECONOMY

Egypt, one of the most densely populated countries in the Middle East, is located on the northeast corner of the African continent. It extends from the Mediterranean Sea on the north to Sudan on the south, and from the Red Sea on the east to Libya on the west. Even though the total area of Egypt is around one million square kilometers, less than five percent of the land is inhabited.

For thousands of years, the people of Egypt have derived their livelihood from cultivating the area irrigated by the Nile, whose waters have been the symbol of the life for the country. Thus, for many centuries, attention has focused on maximizing utilization of the river's water. Recently, however, the government has adopted a policy of land reclamation and fostering of new settlements in the desert. Despite these efforts, the vast majority of Egyptians continue to live either in the Nile delta located in the north (Lower Egypt) or in the narrow Nile Valley (Upper Egypt). Population density in inhabited areas exceeds 1,300 per square kilometer, although, for the country as a whole, it is around 50 per square kilometer.

Administratively, modern Egypt is divided into 26 governorates. Four of these governorates are major metropolitan areas (Cairo, Alexandria, Port Said and Suez), nine are located in the Nile delta, eight are located in the Nile valley and five are frontier governorates (see map).

The Egyptian economy, which is the second largest in the Middle East, has expanded steadily during the past several decades. The gross domestic product (GDP) increased from $4.6 billion in 1965 to $34.5 billion in 1986 (World Bank, 1989b). The annual rate of growth in the GDP is estimated to have been 6.8 percent in the period 1965-1980 and 6.3 percent in the period 1980-1987. Growth slowed sharply, however, during the last half of the latter period because of lower oil prices and declines in remittances received from Egyptians working abroad; in 1988, the GDP increased by only 3.2 percent (World Bank, 1989a).

Despite its growth, the economy has not been able to absorb a rapidly expanding labor force. Currently, 43 percent of the labor force is employed in services, 21 percent in the industrial sector and 36 percent in agriculture. Dependency on foreign countries for agricultural products is one of the major economic problems facing Egypt. Cereal imports increased from 3.9 million to 9.3 million metric tons between 1974 and 1986

(World Bank, 1989b). In the same period, foreign assistance in the form of food aid increased from 0.6 to 1.8 million metric tons.

1.2 POPULATION

Size, Growth and Structure

Preliminary results from the 1986 Census indicate that the total population of Egypt is 48 million,[1] nearly double the population in 1960 (Table 1.1). Roughly half of the increase occurred in the ten-year period between the 1976 and 1986 censuses, when the population grew by more than 10 million. If it continues to grow at the annual rate observed in the 1976-1986 intercensal period, the population will nearly double again by the year 2015.

Table 1.1 Estimates of the Mid-year Population, 1960-1976, and the 1986 Census Population, Egypt

Year	Total Population (in Thousands)
1960	26,085
1966	30,076
1976	38,198
1986	48,205

Source: Central Agency for Public Mobilization and Statistics (CAPMAS), 1986 and CAPMAS, 1987

Around one-fifth of the Egyptian population is found in the Urban Governorates (Table 1.2). Lower Egypt is home for about 21 million people, while 17 million live in Upper Egypt. Slightly more than one percent reside in the Frontier Governorates. The majority of the population is rural, in both Lower Egypt (72 percent) and Upper Egypt (68 percent).

The population of Egypt has a young age structure, as a consequence of high fertility and declining child mortality. Preliminary results from the 1986 Census indicate that one-third of Egyptians are under age 12, and 19 percent are under age 5 (Central Agency for Public Mobilization and Statistics, 1987). Other key census findings include:

- Among the population age 6 and over, 28 percent are participating in the labor force. The labor force participation rate among males (47 percent) is more than five times that among females (9 percent).
- The level of illiteracy among males is only 38 percent compared with 62 percent among females.
- Among the female population age 16 and older, 65 percent are married.
- Ninety-four percent are Muslim, with the remainder being mainly Christian.

[1] This figure does not include 2.25 million Egyptians who live abroad.

Table 1.2 Population by Urban-Rural Residence and Place of Residence, Egypt, 1986

Residence	Population (in Thousands)	Percent
Urban-Rural Residence		
Urban	21,183	43.9
Rural	27,022	56.1
Place of Residence		
Urban Governorates	9,697	20.1
Lower Egypt	20,876	43.3
Urban	5,755	11.9
Rural	15,121	31.4
Upper Egypt	17,067	35.4
Urban	5,399	11.2
Rural	11,668	24.2
Frontier Governorates	565	1.2
Urban	332	0.7
Rural	233	0.5
Total	48,205	100.0

Source: Central Agency for Public Mobilization and and Statistics, 1987

Mortality

In Egypt, mortality levels were high and relatively stable until after World War II, when both the crude death rate and the infant mortality rate started to decline. The crude death rate dropped from a level of 30 deaths per thousand population in the 1940s to around 15 per thousand during the sixties, before declining to the present level of less than 10 per thousand. During the same period, infant mortality fell from a level of more than 200 deaths per thousand births to 124 in the late 1970s (Bucht and El-Badry, 1986).

Mortality levels continued to decline during the 1980s. The infant mortality rate is estimated to have been 88 per thousand in 1986. Life expectancy is 62 years for females and 59 years for males (United Nations, 1989).

Fertility

Fertility levels also declined during the period following World War II, but at a slower pace than mortality. In the 1940s, the crude birth rate averaged just under 50 births per thousand population. By the early sixties, the crude birth rate had declined to around 45 per thousand. The slow decline continued during the late sixties and seventies. By the mid-eighties, the crude birth rate was estimated to be just under 40 per thousand (Bucht and El-Badry, 1986).

Internal Migration and Urbanization

Due to migration from rural to urban areas, the proportion of the total Egyptian population that was urban increased steadily from 37 percent in 1960 to 44 percent at the time of the 1976 census. Preliminary results of the 1986 census suggest that the urban-rural distribution remained stable in the intercensal period. This does not necessarily indicate that the level of rural to urban migration has slowed, since the effect of greater rural outmigration may have been offset by higher fertility in rural areas compared with urban areas.

International Migration

The Egyptian Migration Survey estimated that the number of Egyptian emigrant workers at the beginning of 1985 was 1,210,000 (Fergany, 1987). The total number of Egyptian workers who had lived abroad during the period 1973-1985 but had returned to Egypt at the beginning of 1985 was 1,165,000. Almost all emigrant workers were male. Including dependents of these workers who also lived abroad, a total of 3,425,000 Egyptians emigrated during the period 1973-1985. Five countries received 85 percent of Egyptian emigrants during the period: Iraq, Saudia Arabia, Kuwait, Jordan and Libya.

1.3 HEALTH POLICY AND PROGRAMS

Egypt has long given high priority to the provision of public health services, through a national system of health facilities at all levels (central, governorate and local). Up to the mid-1980s, the public health program was curative and physician-oriented. In the health plan for the period 1960-1965, 54 percent of all resources were allocated to curative services (Ministry of Health, 1960). While this rate decreased to 46 percent in the 1977-1981/82 plan (Ministry of Health, 1977), it increased again to 54 percent in the 1982/83-1986/87 health plan (Ministry of Health, 1982).

The main objective of health policies during the 1960s and 1970s was to increase coverage of the health care system. As a result, during those two decades, there was a tremendous increase in the number of health units, hospitals, clinic beds, paramedical staff, and physicians. Rural health units increased from 733 in 1960 to 2,519 in 1982. The average population served by the health units decreased from 21,992 in 1960 to 9,576 in 1982. The number of physicians per 1,000 population increased from 4.4 in 1960 to 11.8 in 1980. The 1960s and 1970s were also characterized by a commitment to large-scale construction projects. The early 1960s witnessed a campaign to build new general hospitals, chest disease hospitals and health institutes. In the 1970s, attention focused on efforts to renovate public hospitals as well as technical institutes (United States Department of Health, Education and Welfare, 1975).

Despite the commitment to improving the coverage and services of the health care system, health care delivery in Egypt still faces significant problems. Both health facilities and manpower tend to be unevenly distributed, clustering in urban areas, especially in Cairo and Alexandria. For example, the average number of hospital beds per 10,000 population is 3.8 in Cairo and 2.8 in Alexandria compared with 1.6 in Lower Egypt and 1.2 in Upper Egypt. Moreover, in Ministry of Health hospitals, there has been an overall decrease in the ratio of beds per 10,000 population, from 1.4 in 1960 to 1.3 in 1986.

There has recently been an increasing emphasis on primary health care, with the adoption of new approaches emphasizing child survival interventions, the control of diarrheal diseases and the strengthening of rural health services. Priorities of Egyptian health policy in the 1980s include:

- an emphasis on preventive care;
- a focus on the reduction of mortality and morbidity rates through prevention of childhood and endemic diseases and of excess fertility;
- an expansion of the national health care financing system, emphasizing cost recovery and greater participation by the private sector; and
- an emphasis in biomedical research on the problems of mothers and children (United States Agency for International Development, 1987).

1.4 POPULATION POLICY AND PROGRAMS

Egypt has a long history of support for efforts to control the country's rapid population growth. Family planning services were first offered in the 1950s through experimental and pilot projects instituted in clinics in selected areas under the auspices of the National Commission for Population Matters; responsibility for these projects was later transferred to established voluntary organizations such as the Egyptian Association for Population Studies, the forerunner of the Egyptian Family Planning Association. Revitalized governmental concern led in the mid-1960s to the establishment of the Supreme Council for Family Planning and its secretariat, the Family Planning Board. The scope of activities of these organizations was later broadened to include population as well as family planning. As an interministerial commission, the Supreme Council's mandate was to formulate policies, coordinate family planning activities and evaluate performance in meeting objectives. The strong government support for population and family planning activities was evidenced again in 1984 when a National Population Conference was held and the National Population Council was established. The chairmanship of the Council and its structure reflected the continuing commitment of the government to dealing with Egypt's population problem.

Population and family planning targets, which were first established in the late 1960s, were included in three policy documents published in 1973, 1980 and 1986. In the policy statement, an overall goal was set of reducing population growth to around 2.1

percent by the year 2001. To accomplish this objective, the crude birth rate would be reduced to 28.5 births per thousand. In addition, the policy set objectives for improving population characteristics (e.g., raising literacy) and the spatial distribution (National Population Council, 1986).

Improving the accessibility and availability of contraceptive services has been one of the central goals of the Egyptian family planning program over the almost 25 years of its existence. Contraceptive services are currently available from a network of around 4,000 government operated facilities, including hospitals, Maternal and Child Health (MCH) centers and family planning clinics. In addition to these clinic-based providers, contraceptive methods including the IUD as well as the pill and other supply methods are sold in more than 4,000 pharmacies throughout Egypt at nominal government-subsidized prices. Private physicians play a key role in the delivery of family planning services in Egypt, and the Egyptian Family Planning Association, a private voluntary family planning association, operates a network of urban clinics. Community-based programs have been used to promote family planning acceptance among both urban and rural residents.

The long commitment to efforts to reduce population growth in Egypt showed signs of success by the middle of the 1980s, with the prevalence of contraceptive use reaching a level of 30 percent in 1984 and fertility levels falling. Nevertheless, family planning program efforts in Egypt in the early 1980s were classified as "weak" in comparison to that in other countries (Mauldin and Lapham, 1984). Of particular concern was the substantial difference in the level of family planning use between couples living in Lower Egypt and Upper Egypt (Sayed et al., 1985). Recently, governmental efforts to deliver contraceptive services have been strengthened. Political leaders frequently speak out in support of family planning, and the National Population Council is providing the leadership in coordinating a more decentralized approach to service delivery that is emphasizing governorate-level initiatives for tackling the population problem (Gillespie et al., 1989).

1.5 OBJECTIVES OF THE SURVEY

The Egypt Demographic and Health Survey (EDHS) has as its major objective the provision of current and reliable information on fertility, mortality, family planning, and maternal and child health indicators. The information is intended to assist policy makers and administrators in Egyptian population and health agencies to: (1) assess the effect of ongoing family planning and maternal and child health programs and (2) improve planning for future interventions in these areas. The EDHS provides data on topics for which comparable data are not available from previous nationally representative surveys, as well as information needed to monitor trends in a number of indicators derived from earlier surveys, in particular, the 1980 Egypt Fertility Survey (EFS) and the 1980 and 1984 Egypt Contraceptive Prevalence Surveys (ECPS). Finally, as part of the worldwide Demographic

Table 1.3 Survey Timetable, Egypt DHS 1988

Activity	Starting Date	Duration
General Preparation	July 1987	1 month
Development of the Sample Design	January 1988	3 months
Mapping (Rural Areas)	April 1988	3 months
Quick Count (Urban Areas)	June 1988	3 months
Recruitment and Training of Listing Staff	August 1988	6 weeks
Listing and Relisting	September 1988	1 month
Sample Selection	October 1988	1 month
Questionnaire Design	November 1987	3 months
Preparation of Training Manuals and Other Documents	May 1988	3 months
Printing of Pretest Materials	May 1988	1 month
Pretest	June 1988	2 weeks
Finalization of Questionnaire	September 1988	1 month
Recruitment of Field Staff	September 1988	1 month
Printing Survey Materials	September 1988	1 month
Training of Fieldwork Staff	September 1988	5 weeks
Fieldwork	October 1988	3 months
Reinterviewing	December 1988	1 month
Office Editing	November 1988	3 months
Data Entry	November 1988	3 months
Computer Editing	December 1988	3 months
Preliminary Report Preparation	March 1989	1 month
Detailed Tabulations	June 1989	1 month
Final Report Preparation	July 1989	4 months

and Health Surveys (DHS) program, the EDHS is intended to add to an international body of data, which can be used for cross-national research on these topics.

1.6 ORGANIZATION OF THE SURVEY

The Egypt DHS was carried out by the National Population Council (NPC) with financial support from the United States Agency for International Development (U.S.A.I.D.). The Institute for Resource Development (IRD), a Macro Systems Company, provided technical assistance for the survey through the Demographic and Health Surveys program. The timetable for the survey is detailed in Table 1.3. The organization, training

and supervision of the staff participating at the various stages of the survey are described below. Appendix A includes a list of the EDHS staff.

Sample Design and Implementation

Geographical Coverage. The EDHS was carried out in 21 of the 26 governorates in Egypt. The Frontier Governorates (Red Sea, New Valley, Matrouh, North Sinai and South Sinai), which represent around two percent of the total population in Egypt, were excluded from coverage because a disproportionate share of EDHS resources would have been needed to survey the dispersed population in these governorates.

The EDHS sample was designed to provide separate estimates of all major parameters for: the national level, the Urban Governorates, Lower Egypt (total, urban and rural) and Upper Egypt (total, urban and rural). In addition, the sample was selected in such a fashion as to yield a sufficient number of respondents from each governorate to allow for governorate-level estimates of current contraceptive use. In order to achieve the latter objective, sample takes for the following governorates were increased during the selection process: Port Said, Suez, Ismailia, Damietta, Aswan, Kafr El-Sheikh, Beni Suef and Fayoum.

Sampling Plan. The sampling plan called for the EDHS sample to be selected in three stages. The sampling units at the first stage were shiakhas/towns in urban areas and villages in rural areas. The frame for the selection of the primary sampling units (PSU) was based on preliminary results from 1986 Egyptian census, which were provided by the Central Agency for Public Mobilization and Statistics. During the first stage selection, 228 primary sampling units (108 shiakhas/towns and 120 villages) were sampled.

The second stage of selection called for the PSUs chosen during the first stage to be segmented into smaller areal units and for two of the areal units to be sampled from each PSU. In urban PSUs, a quick count operation was carried out to provide the information needed to select the secondary sampling units (SSU) while for rural PSUs, maps showing the residential area within the selected villages were used.

Following the selection of the SSUs, a household listing was obtained for each of the selected units. Using the household lists, a systematic random sample of households was chosen for the EDHS. All ever-married women 15-49 present in the sampled households during the night before the interviewer's visit were eligible for the individual interview.

Quick Count and Listing. As noted in the discussion of the sampling plan, two separate field operations were conducted during the sample implementation phase of the EDHS. The first field operation involved a quick count in the shiakhas/towns selected as PSUs in urban areas. Prior to the quick count operation, maps for each of the selected shiakhas/towns were obtained and divided into approximately equal-sized segments, with

each segment having well-defined boundaries. The objective of the quick count operation was to obtain an estimate of the number of households in each of the segments to serve as the measures of size for the second stage selection.

A review of the preliminary 1986 Census population totals for the selected shiakhas/towns showed that they varied greatly in total size, ranging from less than 10,000 to more than 275,000 residents. Experience in the 1984 Egypt Contraceptive Prevalence Survey, in which a similar quick count operation was carried out, indicated that it was very time-consuming to obtain counts of households in shiakhas/towns with large populations. In order to reduce the quick count workload during the EDHS, a subsample of segments was selected from the shiakhas/towns, with 50,000 or more population. The number of segments subsampled depended on the size of the shiakha. Only the subsampled segments were covered during the quick count operation in the large shiakhas/towns. For shiakhas with less than 50,000 population, all segments were covered during the quick count.

Prior to the quick count, a one-week training was held, including both classroom instruction and practical training in shiakhas/towns not covered in the survey. The quick count operation, which covered all 108 urban PSUs, was carried out between June and August 1988. A group of 62 field staff participated in the quick count operation. The field staff was divided into ten teams, each composed of one supervisor and three to four counters.

As a quality control measure, the quick count was repeated in 10 percent of the shiakhas. Discrepancies noted when the results of the second quick count operation were compared with the original counts were checked. No major problems were discovered in this matching process, with most differences in the counts attributed to problems in the identification of segment boundaries.

The second field operation during the sample implementation phase of the survey involved a complete listing of all of the households living in the 456 segments chosen during the second stage of the sample selection. Prior to the household listing, the listing staff attended a one-week training course, which involved both classroom lectures and field practice. After the training, the 14 supervisors and 32 listers were organized into teams; except in Damietta and Ismailia, where the listers work on their own, each listing team was composed of a supervisor and two listers. The listing operation began in the middle of September and was completed in October 1988.

Segments were relisted when the number of households in the listing differed markedly from that expected based on: (1) the quick count in urban areas or (2) the number of households estimated from the information on the size of the inhabited area for rural segments. Few discrepancies were noted for urban segments. Not surprisingly, more problems were noted for rural segments since the estimated size of the segment was not based on a recent count as it was for the urban segments. All segments where major

Table 1.4 Results of the Household and Individual Interviews by Urban-Rural Residence, Egypt DHS, 1988

Result	Urban	Rural	Total
HOUSEHOLD INTERVIEWS:			
Completed	91.7	94.9	93.1
No Competent Respondent at Home	0.1	0.2	0.2
Household Not Found	0.2	0.1	0.2
Postponed	0.0	0.0	0.0
Refused	0.4	0.1	0.2
Household Absent(1)	2.5	1.2	2.0
Vacant/Not a Dwelling(1)	1.6	2.0	1.7
Dwelling Destroyed(1)	0.0	0.1	0.0
Other(1)	3.4	1.4	2.5
Total Percent	100.0	100.0	100.0
Number of Households Sampled	5,855	4,673	10,528
Number of Eligible Households	5,412	4,455	9,867
Number of Households Interviewed	5,370	4,435	9,805
Household Response Rate	99.2	99.6	99.4
INDIVIDUAL INTERVIEWS:			
Completed	98.1	97.8	97.9
Not at home	1.1	1.2	1.2
Postponed	0.1	0.0	0.1
Refused	0.2	0.2	0.2
Partly completed	0.0	0.1	0.0
Other	0.4	0.7	0.6
Total Percent	100.0	100.0	100.0
Number of Eligible Women Identified	4,495	4,600	9,095
Number of Eligible Women Interviewed	4,409	4,502	8,911
Individual Response Rate	98.1	97.9	98.0
Overall Response Rate	97.3	97.4	97.4

(1) Excluded from calculation of the household response rate

differences were noted in the matching process were relisted in order to resolve the problems.

Coverage of the Sample. A total of 10,528 households was selected for the EDHS sample. Table 1.4 indicates that 661 of the selected households were considered to be ineligible for interview because no household member had slept in the dwelling on the night before the interview, the dwelling in which the selected household had resided was vacant or destroyed or the household could not be contacted for other reasons. Among the remaining 9,867 eligible households, 9,805, or 99 percent, were successfully interviewed.

Table 1.5 Results of the Household and Individual Interviews by Place of Residence, Egypt DHS, 1988

Place of Residence	Number of Households			Household Response Rate	Eligible Women		Individual Response Rate
	Sampled	Eligible	Interview Completed		Identified	Interview Completed	
Urban Governorates	3,140	2,851	2,824	99.0	2,330	2,279	97.8
Cairo	1,714	1,554	1,538	99.0	1,223	1,196	97.8
Alexandria	845	773	768	99.4	643	631	98.1
Port Said	300	273	272	99.6	248	240	96.8
Suez	281	251	246	98.0	216	212	98.2
Lower Egypt	3,754	3,601	3,585	99.6	3,502	3,446	98.4
Damietta	309	291	286	98.3	263	259	98.5
Dakahlia	634	601	598	99.5	541	525	97.0
Sharkia	565	544	542	99.6	563	561	99.6
Kalyubia	460	441	437	99.1	428	418	97.7
Kafr El-Sheikh	274	265	265	100.0	258	257	99.6
Gharbia	552	539	539	100.0	497	493	99.2
Menoufia	379	368	367	99.7	355	345	97.2
Behera	446	436	435	99.8	483	474	98.1
Ismailia	135	116	116	100.0	114	114	100.0
Upper Egypt	3,634	3,415	3,396	99.4	3,263	3,186	97.6
Giza	772	725	722	99.6	647	635	98.2
Beni Suef	339	323	323	100.0	328	326	99.4
Fayoum	314	300	299	99.7	295	292	99.0
Menya	636	609	607	99.7	605	594	98.2
Assiut	443	412	409	99.3	418	406	97.1
Souhag	450	427	419	98.1	368	353	95.9
Qena	377	346	344	99.4	358	350	97.8
Aswan	303	273	273	100.0	244	230	94.3
Total	10,528	9,867	9,805	99.4	9,095	8,911	98.0

As noted, an eligible respondent for the individual survey was defined as an ever-married woman between the ages of 15 and 49 years who was present in a sampled household during the night before the household interview. A total of 9,095 eligible respondents was identified, and 8,911 (98 percent) of these women were interviewed. The overall response rate, which is the product of the household and individual response rates, was 97 percent in the EDHS.

There was almost no variation in the household, individual or overall response rates between urban and rural areas. By governorate, the household response rate ranged from 98 percent in Suez to 100 percent in Kafr El-Sheikh, Gharbia, Ismailia, Fayoum and Aswan while individual response rate varied from 94 percent in Aswan to 100 percent in Ismailia (Table 1.5).

Further details on the sample design are included in Appendix B. Sampling errors for selected variables are presented in Appendix C.

Questionnaire Development and Pretest

The EDHS involved both a household and an individual questionnaire. These questionnaires were based on the DHS model "A" questionnaire for high contraceptive prevalence countries. Additional questions on a number of topics not covered in the DHS questionnaire were included in both the household and individual questionnaires. The questionnaires were pretested in June 1988, following a one-week training for supervisors and interviewers. Three supervisors and seven interviewers participated in the pretest. Interviewer comments and tabulations of the pretest results were reviewed during the process of modifying the questionnaires. An English translation of the final Arabic language questionnaire is included in Appendix D.

The EDHS household questionnaire obtained a listing of all usual household members and visitors and identified those present in the household during the night before the interviewer's visit. For each of the individuals included in the listing, information was collected on the relationship to the household head, age, sex, marital status, educational level, occupation and work status. In addition, questions were included on the mortality experience of sisters of all household members age 15 and over in order to obtain data to estimate the level of maternal mortality. The maternal mortality questions were administered in a randomly selected subsample of one in two households. Finally, the household questionnaire also included questions on characteristics of the physical and social environment of the household (e.g., availability of electricity, source of drinking water, household possessions, etc.), which are assumed to be related to the health and socioeconomic status of the household.

The individual questionnaire was administered to all ever-married women aged 15-49 present in the household during the night before the interviewer's visit. It obtained information on the following topics:

- Respondent's background;
- Reproductive behavior;
- Knowledge and use of contraception;
- Contraceptive use history;
- Family planning and childbearing attitudes;
- Husband's and parents' statuses;
- Maternal health and breastfeeding;
- Child health and cause of death;
- Weight and height of children.

The anthropometric data were collected in the same sample of households from which the maternal mortality data were obtained. Children age 3-36 months born to women interviewed in the individual survey were weighed and measured.

Data Collection Activities

Staff Recruitment. Candidates for the positions of interviewer and field editor were identified in two ways. First of all, advertisements in newspapers attracted a number of applicants. The Ministry of Social Affairs (MOSA) nominated an equal number of its female personnel, who were working to fulfill the mandatory one-year period of governmental service for university graduates. All candidates for the field staff positions were interviewed, and only those who were qualified were accepted in the training program. For those MOSA personnel who were accepted and completed interviewer training successfully, work on the EDHS was credited toward the required service period.

All candidates for interviewer and field editor positions were recent university graduates. Another basic qualification was a willingness to work in any of the governorates covered in the survey. With few exceptions, interviewers who had previous experience in surveys were not accepted in the training program. This decision was taken to reduce any bias that might result from their previous experience and to ensure that all trainees had a similar background.

Training Materials. A variety of materials were developed for use in training personnel involved in the fieldwork. A lengthy interviewer manual giving general guidelines to follow in conducting an interview, as well as specific instructions for asking particular questions in the questionnaire, was prepared and given to all fieldwork staff. In addition, a chart to convert months from the Islamic calendar to the Gregorian calendar was designed for the five-year period before the EDHS and distributed to all fieldworkers.

Other training materials included special manuals describing the duties of the team supervisors and the rules for field editing. Instructions regarding the anthropometric data collection were included in a manual that was made available to the interviewers who were trained as measurers and the team supervisors.

Supervisor and Interviewer Training. Interviewer training for the EDHS data collection began in the first week of October 1988. A special training program for supervisors started one week earlier. This training focused specifically on the supervisor's duties, but also covered the questionnaire in order to give supervisors a head start prior to the main fieldwork training program.

The training program, which was held in Cairo for four weeks, included:

- general lectures related to fertility, family planning and public health;
- specific sessions with visual aids on how to fill out the questionnaire;
- opportunities for role playing and mock interviews;
- three days of field practice in areas not covered in the survey; and
- six quizzes.

Trainees who failed to show interest in the survey, did not attend the training program on a regular basis or failed the first three tests were disqualified immediately.

At the beginning of the third week of the training, a preliminary list including the best 15 trainees was prepared. Those trainees were further examined in order to select the 12 field editors. A special four-session training was held for the field editors following their selection.

About 30 trainees were selected for anthropometric training. This training included both classroom lectures and practice measurement in a nursery school. At the end of the program the twenty best trainees were selected to serve as measurers during the EDHS fieldwork.

At the end of the training course, 87 of the 100 candidates originally recruited for the interviewer training were selected to work as field editors, interviewers and measurers in the EDHS fieldwork. An additional five trainees were asked to stand by as back-ups.

Fieldwork. Fieldwork for the survey including initial interviews, callbacks and reinterviews began on October 29, 1988 and was completed on January 27, 1989. A total of 105 staff, including one fieldwork coordinator, one assistant fieldwork coordinator, 16 supervisors, 12 field editors and 74 interviewers were responsible for the data collection. The supervisors were male, while field editors and interviewers were female. The field staff was divided into 12 teams; each team had a supervisor, a field editor and four to six interviewers. Usually two of the interviewers in the team and the field editor were specially trained to collect the weight and height measurements. During the fieldwork, two teams worked in Cairo and another team covered Alexandria. Each of the other nine teams was responsible for the interviewing in two to three governorates.

After the initial fieldwork was completed, a random sample of five percent of the households selected in the original EDHS sample were reinterviewed as a quality control measure. Household and individual questionnaires which were incomplete or had errors that could not be corrected in the office were also assigned for callbacks. Special teams were organized to handle callbacks and reinterviews. During the reinterview and callback phase of the survey, interviewers were not allowed to work in the governorates in which they had participated in the initial fieldwork.

Data Processing Activities

Office Editing. The central office of the EDHS was responsible for collecting completed questionnaires from supervisors as soon as a cluster was completed. Questionnaires were coded and reviewed for consistency and completeness by office editors. To provide feedback for the field teams, the office editors were asked to write a summary report of problems for each PSU. The report was then reviewed by one of the two senior staff assigned to supervise the work of the office editors. When there were

serious errors found in one or more questionnaires from a cluster, the team supervisor was contacted in order to ensure that the problem would not occur in other clusters in which the team was working.

Machine Entry and Editing. The data were entered and edited on microcomputers using the Integrated System for Survey Analysis (ISSA), a package program specially developed to process DHS data. ISSA allows range, skip and most consistency errors to be detected and corrected at the entry stage, substantially reducing the time required for the processing of data. The machine entry and editing phase began while interviewing teams were still in the field. The data entry personnel used six IBM-compatible microcomputers to process the EDHS questionnaires. Working six days per week in two shifts, they completed the machine entry and editing of the data in three months.

1.7 BACKGROUND CHARACTERISTICS OF SURVEY RESPONDENTS

The distribution of the sample population by age, residence, education and employment status is shown in Table 1.6. Among the ever-married women interviewed in the EDHS sample, three in five respondents are 30 years or older. Considering their residence, 48 percent are from urban areas, while 52 percent live in rural areas. Roughly equal proportions live in Lower Egypt (39 percent) and Upper Egypt (37 percent), while nearly one in four respondents is from one of the four urban governorates (Cairo, Alexandria, Port Said and Suez).

Table 1.6 also shows that one in two respondents has never attended school. Among those attending school, around half have not completed the primary level, and only one in three attained the secondary level. Only one in five respondents is working. Among those who say they are doing some work, only 60 percent are paid in cash for the work that they do. Among those not currently working 30 percent indicate that they would be interested in working for cash in the future if a good opportunity was available.

Table 1.7 gives an overview of the relationship between the level of education and other background characteristics. The proportion of ever-married women who are not educated exhibits a U-shaped curve with relation to age. This should not be interpreted as a decline in educational attainment among young females. Since the sample includes only ever-married women, the high proportion who never attended school can be attributed to the fact that these women married earlier than other women in the age cohort, and thus, are more likely to have less education than their late-marrying counterparts, for whom part of the delay in marrying can be attributed to school attendance. Women who marry early also are more likely to be from rural areas, where female educational attainment is low.

Table 1.6 Unweighted and Weighted Distribution of Ever-married Women by Age, Urban-Rural Residence, Place of Residence, Education Level and Work Status, Egypt DHS, 1988

Background Characteristic	Number		Percent
	Unweighted	Weighted	Weighted
Age			
15-19	418	422	4.7
20-24	1,402	1,417	15.9
25-29	1,679	1,669	18.7
30-34	1,567	1,557	17.5
35-39	1,597	1,605	18.0
40-44	1,219	1,207	13.5
45-49	1,029	1,034	11.6
Urban-Rural Residence			
Urban	4,409	4,305	48.3
Rural	4,502	4,606	51.7
Place of Residence			
Urban Governorates	2,279	2,141	24.0
Lower Egypt	3,446	3,505	39.3
Urban	1,035	1,019	11.4
Rural	2,411	2,486	27.9
Upper Egypt	3,186	3,265	36.6
Urban	1,095	1,145	12.8
Rural	2,091	2,120	23.8
Education Level			
No Education	4,429	4,530	50.9
Some Primary	2,087	2,059	23.1
Primary through Secondary	886	859	9.6
Completed Secondary/Higher	1,507	1,463	16.4
Work Status			
Working for Cash	1,130	1,109	12.4
Working, Not Paid in Cash	673	694	7.8
Not Working	7,108	7,108	79.8
Interested in Work	2,141	2,155	24.2
Not Interested in Work	4,967	4,953	55.6
Total	8,911	8,911	100.0

Note: All ever-married women present in the sampled household on the night before the interviewer's visit were eligible for the individual interview.

The table indicates that the level of education varies greatly according to residence. One in three urban women received no formal education, compared with two in three in rural areas. The educational attainment of urban women varies by place of residence, with nearly 75 percent of women in the Urban Governorates having attended at least some school, compared with only around 65 percent of urban women in Lower Egypt and less than 60 percent among urban women in Upper Egypt. There are also striking region-

Table 1.7 Percent Distribution of Respondents by Level of Education, According to Age, Urban-Rural Residence, Place of Residence and Work Status, Egypt DHS, 1988

Background Characteristic	No Education	Some Primary	Primary Through Secondary	Completed Secondary/ Higher	Total Percent	Number of Women
Age						
15-19	59.8	18.7	15.5	6.0	100.0	422
20-24	49.3	22.4	8.7	19.6	100.0	1,417
25-29	43.6	24.4	8.7	23.3	100.0	1,669
30-34	42.9	26.5	9.5	21.1	100.0	1,557
35-39	53.0	22.5	10.4	14.1	100.0	1,605
40-44	57.3	20.0	10.7	11.9	100.0	1,207
45-49	62.0	23.0	7.9	7.0	100.0	1,034
Urban-Rural Residence						
Urban	32.9	24.5	14.6	28.0	100.0	4,305
Rural	67.6	21.8	5.0	5.6	100.0	4,606
Place of Residence						
Urban Governorates	27.4	26.2	17.7	28.7	100.0	2,141
Lower Egypt	54.5	23.4	7.3	14.8	100.0	3,505
Urban	34.6	22.0	11.5	31.8	100.0	1,019
Rural	62.6	23.9	5.6	7.8	100.0	2,486
Upper Egypt	62.3	20.8	6.8	10.1	100.0	3,265
Urban	41.8	23.7	11.4	23.1	100.0	1,145
Rural	73.5	19.2	4.3	3.0	100.0	2,120
Work Status						
Working for Cash	18.4	7.1	4.5	70.0	100.0	1,109
Working, Not Paid in Cash	69.1	24.2	4.1	2.6	100.0	694
Not Working	54.1	25.5	11.0	9.4	100.0	7,108
Interested in Work	44.7	25.8	11.7	17.8	100.0	2,155
Not Interested in Work	58.2	25.4	10.7	5.7	100.0	4,953
Total	50.8	23.1	9.6	16.4	100.0	8,911

al differences among rural women in the level of educational attainment. Only one in four women in rural Upper Egypt has attended school compared with one in three women in rural Lower Egypt.

Paid employment, not unexpectedly, is largely confined to women with a secondary education. Women interested in paid employment also are somewhat more likely than other women to have attended school.

Chapter 2

MARRIAGE, BREASTFEEDING AND POSTPARTUM INSUSCEPTIBILITY

Marriage is a primary indicator of women's exposure to the risk of pregnancy. This is particularly true in a country like Egypt where childbearing is confined to marital unions. Thus, a study of the patterns of marriage is essential to understanding fertility patterns and to formulating policies to reduce fertility. In examining marriage patterns, this chapter considers not only a woman's current marital status but also the age at which she first married.

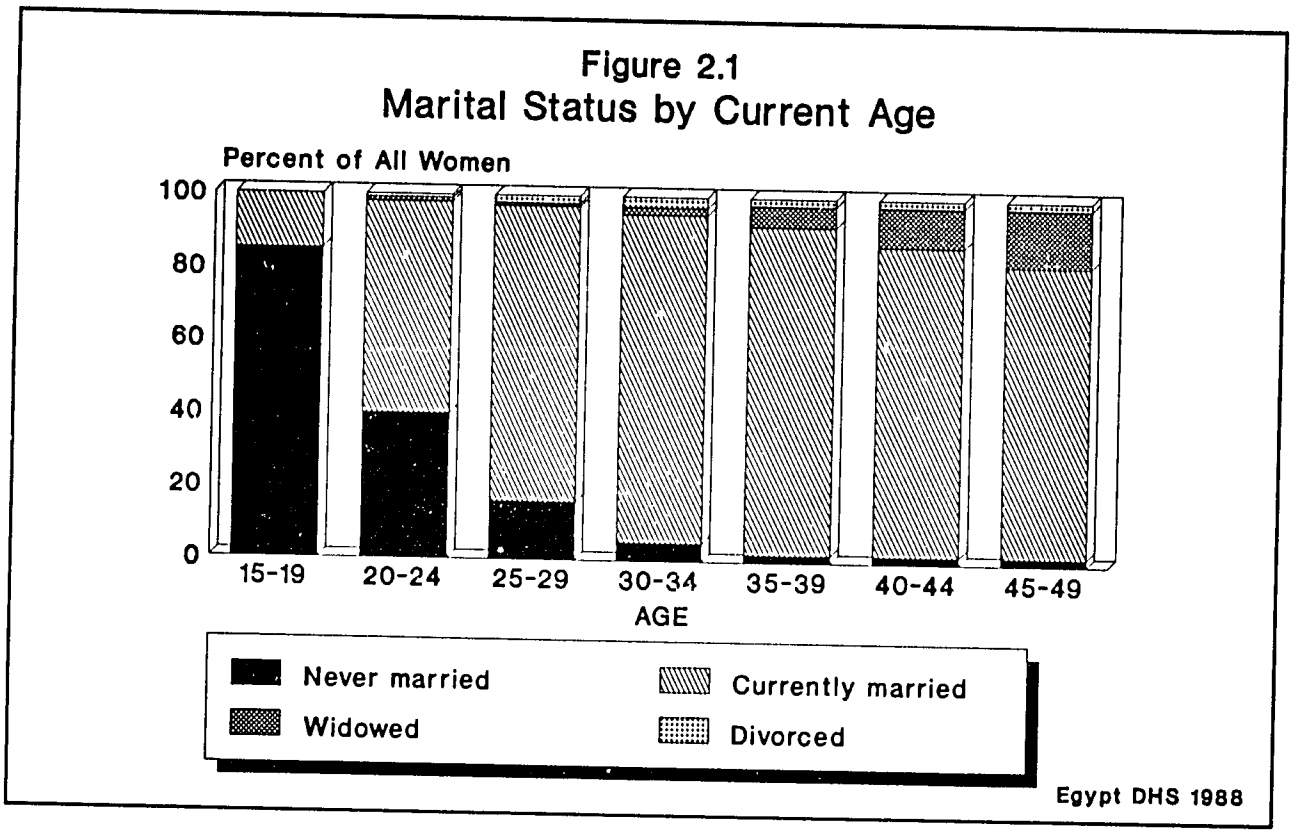
Several other variables--breastfeeding, postpartum amenorrhea and postpartum abstinence--which help to determine fertility levels by influencing exposure to the risk of pregnancy within marriage are also examined. By extending the interval between births, the latter variables contribute to improved health and survival for infants and young children, topics which are explored further in the final chapters of this report.

2.1 CURRENT MARITAL STATUS

Table 2.1 shows the current marital status distribution of women in Egypt. This table, like a number of other tables in this and the next chapter, refers to all women. Since only ever-married women were interviewed individually in the Egypt DHS, the total

Table 2.1 Percent Distribution of All Women by Current Marital Status, According to Age, Egypt DHS, 1988

Age	Never Married	Married	Widowed	Divorced	Total Percent	Number of Women
15-19	84.5	15.3	0.0	0.2	100.0	2,718
20-24	40.3	57.7	0.6	1.4	100.0	2,374
25-29	15.6	81.2	1.3	1.8	100.0	1,978
30-34	5.1	89.7	2.5	2.7	100.0	1,642
35-39	2.2	89.6	5.8	2.4	100.0	1,640
40-44	1.5	85.0	11.5	2.0	100.0	1,226
45-49	1.8	80.2	16.2	1.8	100.0	1,053
Total	29.5	65.1	3.9	1.6	100.0	12,631



number of women is estimated based on information obtained in the household questionnaire on the marital status of all females age 15-49.[1]

Two-thirds of women 15-49 in Egypt are currently married, 30 percent have never been married, while the rest (5 percent) are either widowed or divorced. The proportion of women who have never married decreases with age, from 84 percent of women 15-19 to five percent of women 30-34 (Figure 2.1). Marriage is nearly universal among the oldest cohorts, with less than two percent of women age 35 and over never having married. As expected, the proportion widowed increases with age, up to a maximum of 16 percent at age 45-49. Relatively few women in any age group are divorced; the proportion divorced peaks at under three percent among women 30-34.

A woman's place of residence is closely associated with the likelihood that she has married. Table 2.2 shows that rural women, particularly those living in Upper Egypt, are more likely than urban women to have married. Among all women 15-49, the proportion

[1] To derive these estimates, the ratio of all women to ever-married women enumerated in the household schedule was calculated at each single year of age for each category of background characteristic (e.g., urban or rural, working or not working, etc.). These ratios were then applied to the number of ever-married women interviewed individually in order to expand the denominators to represent all women.

Table 2.2 Percent of All Women Ever Married by Current Age, According to Urban-Rural Residence and Place of Residence, Egypt DHS, 1988

Age	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Total
				Total	Urban	Rural	Total	Urban	Rural	
15-19	7.1	23.2	4.2	13.6	7.8	15.8	24.9	11.3	32.9	15.5
20-24	43.6	75.5	35.7	67.0	53.2	72.2	70.2	52.4	80.2	59.7
25-29	77.5	91.8	70.6	90.0	86.4	91.5	89.4	85.3	92.0	84.3
30-34	93.7	96.4	91.7	96.3	96.9	96.0	96.4	95.5	97.0	94.9
35-39	97.1	98.6	96.0	98.4	98.7	98.3	98.6	97.7	99.2	97.8
40-44	98.1	98.6	97.3	99.2	99.2	99.4	98.1	98.7	97.7	98.5
45-49	98.3	98.2	98.2	97.2	97.1	97.4	99.2	99.4	99.2	98.2
Total	66.0	75.3	63.1	71.5	69.4	72.4	75.2	69.1	79.0	70.6
Number of Women	6,521	6,116	3,394	4,903	1,469	3,434	4,340	1,658	2,682	12,631

ever married ranges from only 63 percent of women living in the Urban Governorates to a high of nearly 80 percent among women from rural Upper Egypt.

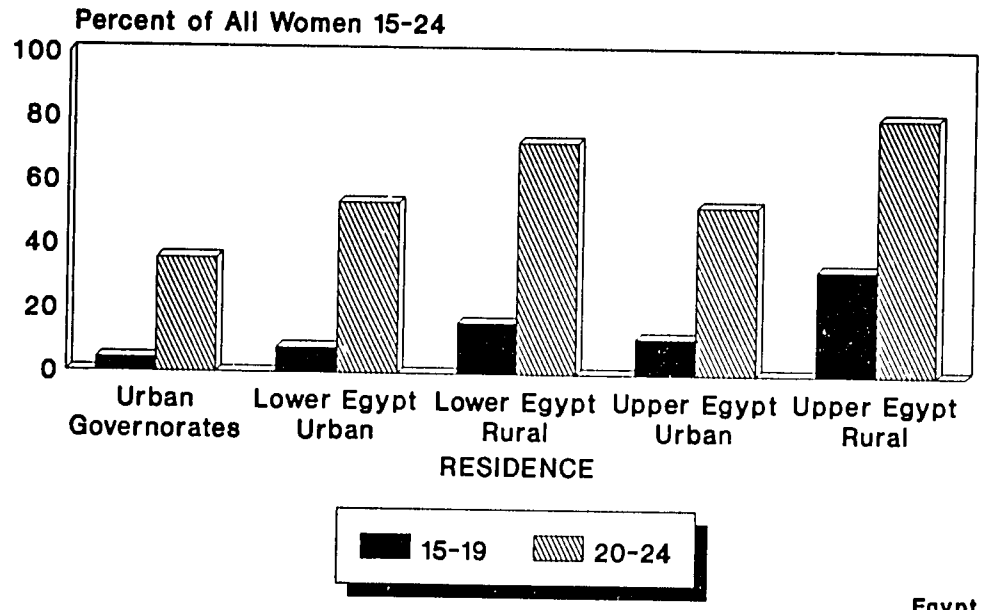
Residential differentials in the proportion ever married are particularly striking for young women. For example, in the 15-19 age group, only one in 14 urban women has married compared to around one in four rural women. Moreover, while regional differences among urban women in this age category are relatively minor, the proportion ever married among women in rural Upper Egypt (33 percent) is more than twice the proportion among women in rural Lower Egypt (16 percent) (Figure 2.2). In the 20-24 age group, more than three-quarters of rural women have married compared to only one-third of women in the Urban Governorates and one-half of the women in other urban areas. Even in the 25-29 age group, where the majority of women from all regions have married, women from the Urban Governorates are more than twice as likely as women from other urban areas, and nearly four times as likely as rural women, to be single.

These figures suggest that urban women, particularly those living in the Urban Governorates, are more likely to delay marriage than are rural women, especially those living in Upper Egypt. Data on the age at first marriage for women in the sample which are presented in the next section confirm these patterns.

2.2 AGE AT FIRST MARRIAGE

Information on age at first marriage was collected by asking each ever-married woman for the date (month and year) when she began living with her first husband. If a woman could not remember the date of marriage, then she was asked how old she was when she first married. Among ever-married women, 48 percent were able to give both

Figure 2.2
Percent Ever Married by Place of Residence



the month and year when they first married, 35 percent knew only the year and 16 percent were only able to report how old they were when they first married. Less than one percent of the women were unable to provide the date or age when they married; for these women a date was imputed, based on the woman's age and the date of her first live birth.

Any analysis of the patterns in age at first marriage must take into account the fact that the data on age at marriage are censored, i.e., the data are incomplete since information on the age at marriage is available only for women who have ever been married. Since never-married women in any age group will marry at later ages than those who are already married, the data on age at first marriage from the ever-married group will give a downwardly biased picture of the pattern of age at entry into marriage for the age group. The effect is greatest in the youngest age groups where a significant proportion of women has never married. In describing trends and differentials in the age at first marriage, the median is preferred to the mean, because it is not affected by censoring; the median is fixed once 50 percent of a group have married and, in contrast to the mean, it will not increase as never-married women in the group continue to marry.

In the following discussion, cohort patterns in the age at first marriage are described first, using information for **all** women in the sample. Attention then shifts to the topic of early marriage and the trend across calendar periods in the age at first marriage. For the latter analysis, only **ever-married** women are considered.

Table 2.3 Percent Distribution of All Women by Age at First Marriage (Including Category "Never Married") and Median Age at First Marriage, According to Current Age, Egypt DHS, 1988

Age	Never Married	Age at First Marriage: Under 16	16-17	18-19	20-21	22-24	25 and Over	Total Percent	Number of Women	Median Age
15-19	84.5	6.7	6.4	2.3	0.0	0.0	0.0	100.0	2,718	--
20-24	40.2	15.0	15.6	15.0	9.5	4.7	0.0	100.0	2,374	20.8
25-29	15.6	21.8	17.5	14.0	12.8	11.8	6.5	100.0	1,978	19.5
30-34	5.1	24.3	16.6	15.4	11.9	14.0	12.6	100.0	1,642	19.0
35-39	2.2	28.4	19.6	15.6	10.4	12.0	11.8	100.0	1,640	18.2
40-44	1.5	30.2	22.0	15.0	10.9	10.9	9.5	100.0	1,226	17.8
45-49	1.8	35.4	20.3	14.6	10.1	8.8	9.0	100.0	1,053	17.4
Total	29.5	20.4	15.6	12.2	8.6	7.9	5.9	100.0	12,631	--

Note: The median is defined as the exact age at which 50 percent of women married for the first time.

-- Omitted due to because less than 50 percent ever married

Cohort Patterns

The legal age at marriage in Egypt is 16 for females and 18 for males. Table 2.3 shows that one-fifth of all Egyptian women 15-49 married for the first time before age 16, nearly half married before age 20 and about two-thirds married before age 25. There has been a steady decline over time in early marriage (before age 16). While one in three women 40-49 married before 16 years of age, only one in seven women 20-24 married before her sixteenth birthday. Early marriage is even less common among women 15-19, although the final figure is not certain since some unmarried women who were age 15 at the time of the survey may marry before their 16th birthday. Nevertheless, it is surprising that young women are still marrying before the legal age.

Table 2.4 shows the variation in the median age at first marriage across age cohorts for various subgroups. No medians are presented for women 15-19 because more than 50 percent of this cohort have never married. For some subgroups, more than 50 percent of women 20-24 have never married so the median age at marriage for women 20-24 in the subgroup is not shown. In order to avoid the slight bias that the inclusion of women 20-24 from these subgroups would have on the median age for the subgroup as a whole, the medians presented in the total column in Table 2.4 are limited to women 25-49.

Table 2.4 Median Age at First Marriage Among All Women 25-49 by Current Age, According to Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Current Age						Total 25-49
	20-24	25-29	30-34	35-39	40-44	45-49	
Urban-Rural Residence							
Urban	--	21.8	21.4	20.2	18.9	18.0	20.4
Rural	18.6	17.5	17.1	16.7	16.7	16.8	17.0
Place of Residence							
Urban Governorates	--	23.1	22.2	20.9	18.8	18.2	21.1
Lower Egypt	--	18.9	18.6	17.9	18.1	17.8	18.4
Urban	--	21.6	20.8	20.5	19.8	17.7	20.5
Rural	19.5	17.9	17.8	17.2	17.3	17.8	17.6
Upper Egypt	18.6	17.7	17.5	16.9	16.8	16.5	17.1
Urban	--	20.0	19.5	18.5	18.0	17.7	18.8
Rural	17.5	16.9	16.7	16.1	16.2	15.9	16.4
Education							
No Education	17.7	17.0	17.1	17.0	16.7	16.8	16.9
Some Primary	18.6	18.0	18.1	18.0	18.0	17.1	18.0
Primary through Secondary	--	19.7	20.0	19.1	19.4	19.4	19.5
Completed Secondary/Higher	--	24.9	24.8	24.7	23.9	24.4	24.7
Work Status							
Working for cash	--	25.4	24.5	24.1	23.3	22.0	24.5
Not working	--	18.4	18.1	17.7	17.2	17.2	17.8
Total	--	19.5	19.0	18.2	17.8	17.4	18.5

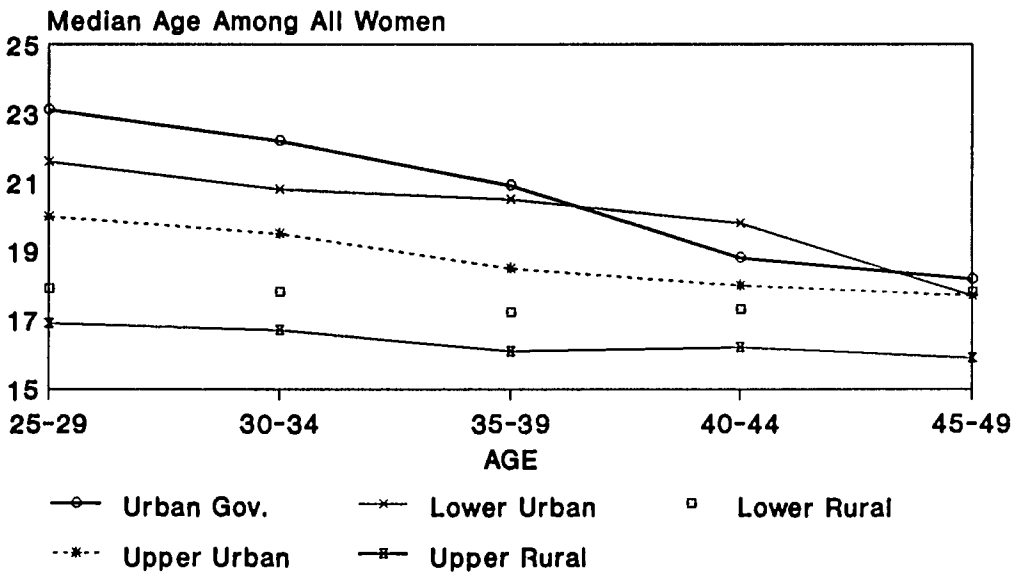
-- Omitted because less than 50 percent ever married

The results in Table 2.4 indicate that the average Egyptian woman married for the first time while she was still in her teens. The trend, however, is toward later marriage. The median age at first marriage increases steadily across age cohorts, from 17.4 years among women 45-49 to 19.5 years among women 25-29.

Urban women marry considerably later, on average, than rural women, and this differential has been increasing over time. The median age at first marriage in urban areas is three years higher than in rural areas. While there has been a trend toward later marriage across age cohorts for both urban and rural women, the median age at first marriage has undergone an increase of nearly four years in urban areas compared to about one year in rural areas.

Within each residential category, there are differences across geographic areas in the age at which women first marry (Figure 2.3). For example, the median age at first marriage for rural women is more than one year higher in Lower Egypt than in Upper Egypt. Similarly, women in the Urban Governorates marry one year later, on average, than women from urban Lower Egypt and more than two years later than women from

Figure 2.3
Age at First Marriage by Current Age and Place of Residence



urban Upper Egypt. The differences among urban women are due to differences in the pace at which the age at first marriage has been rising in the three areas. Across age cohorts, the largest increase in the median age at first marriage--nearly five years--occurred in the Urban Governorates (from 18.2 for women 45-49 to 23.1 for women 25-29). Smaller increases are observed for urban Lower Egypt (3.9 years) and urban Upper Egypt (2.3 years).

Rural women marry at considerably younger ages than urban women in both Lower Egypt and Upper Egypt. For rural women in both regions, there has been a gradual increase in the age at first marriage, with the pace of the increase accelerating over the past decade, particularly among women from Lower Egypt. In Lower Egypt, the difference in the median age at first marriage between women 25-29 and women 20-24 is 1.6 years, more than twice the difference in the median age at first marriage for women in these cohorts in rural Upper Egypt. The comparatively slow pace of change among rural women in Upper Egypt will be observed in other indicators throughout this report.

The level of education has a clear effect on age at marriage. A difference of about eight years in the median age at first marriage is found between women with no education and women who have completed secondary school. Interestingly, within any education group, there is relatively little increase in the median age at first marriage across age cohorts. This suggests that the upward trend in the age at first marriage over time is primarily a consequence of increasing educational attainment among younger women.

Table 2.5 Percent of Ever-married Women Married for the First Time Before Age 16 by Calendar Period in Which the Marriage Took Place, According to Urban-Rural Residence and Place of Residence, Egypt DHS, 1988

Calendar Period	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Total
				Total	Urban	Rural	Total	Urban	Rural	
1960-1964	33.9	46.4	31.8	39.5	32.6	41.6	47.4	39.0	52.1	40.3
1965-1969	24.1	46.9	17.2	37.2	27.7	40.8	46.2	32.0	54.7	36.2
1970-1974	18.5	41.4	14.2	32.0	21.5	36.4	38.8	23.3	47.8	30.4
1975-1979	14.1	37.5	9.8	25.5	12.3	31.6	36.9	24.5	43.7	25.6
1980-1984	9.5	26.3	5.3	16.9	8.4	20.4	28.9	19.2	33.9	18.2

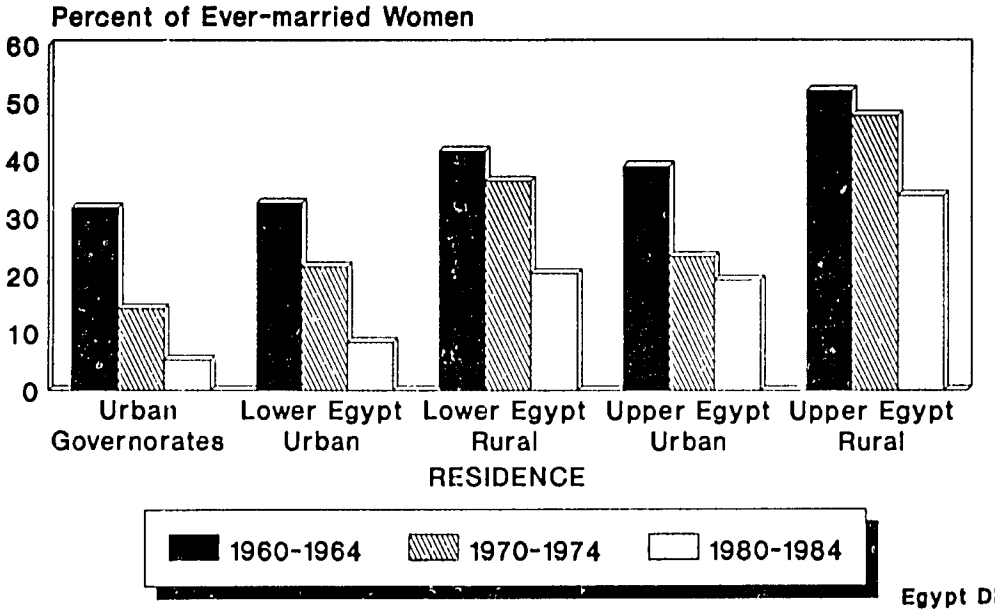
Trend Across Calendar Periods

Early Marriage. Table 2.5 looks at the proportion of ever-married women who married before the legal age of 16 according to the calendar-year period in which the marriage occurred for a 25-year period, beginning in 1960 and ending in 1984.[2] The results provide a further indication of the trend away from early marriage; since the 1960s, there has been a steady decrease in the proportion of marriages in which the bride was below the legal age at marriage, from 40 percent in the early 1960s to under 20 percent in the early 1980s.

The decrease in the rate of early marriage is particularly striking among women living in the Urban Governorates (Figure 2.4). The proportion of first marriages in which the bride had not yet celebrated her 16th birthday exceeded 30 percent in the early 1960s compared to only five percent in the early 1980s. The momentum of the trend away from early marriage was almost as rapid in urban Lower Egypt, while a somewhat slower pace is observed for rural Lower Egypt and urban Upper Egypt. Again rural Upper Egypt exhibited the slowest rate of change. Among women marrying for the first time during the early 1980s, around one-third in rural Upper Egypt were married before age 16 compared to only about one-fifth in rural Lower Egypt.

[2] The proportion marrying for the first time before age 16 is not presented in Table 2.5 for the periods 1985-1988 and 1955-1959 because the data for these periods are incomplete and the results would, therefore, be biased. With regard to the most recent period (1985-1988), there are two sources of potential bias: (1) some women age 15 who were not married at the time of the interview may have gone on to marry before the end of 1988 and (2) women under age 15 who married before the legal age in the period 1985-1988 were not interviewed. Similarly, information for the period 1955-1959 is not shown because women age 50 and over who may have married during the latter period also were not eligible for interview in the survey.

Figure 2.4
Percent Married Before Age 16 by Place of Residence, 1960-1984



Egypt DHS 1988

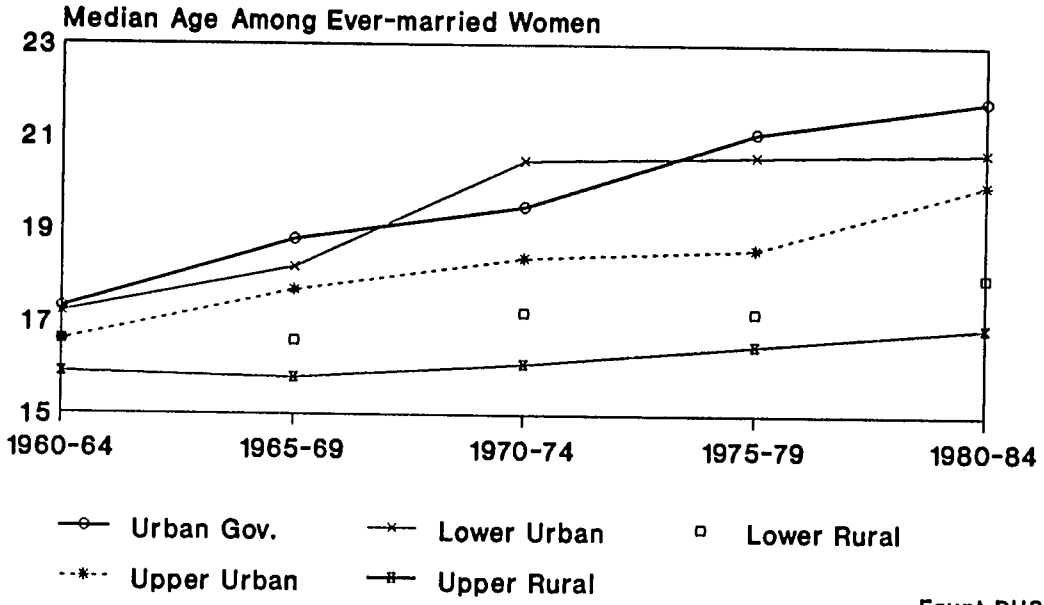
Median Age. The trend across calendar periods in the median age at first marriage for ever-married women illustrates again the steady increase in the age at marriage that has been occurring in Egypt over the past 25 to 30 years (Table 2.6). The median age at first marriage rose from less than 17 years in the early 1960s to 19 years in the early 1980s. The increase in the median age at first marriage is again more striking in urban

Table 2.6 Median Age at First Marriage Among Ever-married Women by Calendar Period in Which the Marriage Took Place, According to Urban-Rural Residence and Place of Residence, Egypt DHS, 1988

Calendar Period	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt			Total
				Total	Urban	Rural	Total	Urban	Rural	
1960-1964	17.1	16.2	17.3	16.7	17.2	16.6	16.1	16.6	15.9	16.6
1965-1969	18.4	16.2	18.8	16.9	18.2	16.6	16.3	17.7	15.8	17.1
1970-1974	19.4	16.6	19.5	18.1	20.5	17.2	16.9	18.4	16.1	17.9
1975-1979	20.5	16.9	21.1	18.0	20.6	17.2	17.1	18.6	16.5	18.3
1980-1984	21.2	17.5	21.8	18.7	20.7	18.0	17.6	20.0	16.9	19.0

Note: The median is defined as the exact age at which 50 percent of women married for the first time.

Figure 2.5
Age at First Marriage by Calendar Period and Place of Residence



areas, particularly the Urban Governorates, than in rural areas (Figure 2.5). The slow pace of change in rural Upper Egypt is also further illustrated by the fact that the median age at first marriage increased by only one year over the 25-year period covered in Table 2.6, from just under 16 years in the early 1960s to just under 17 years in the early 1980s. The median age at first marriage in rural Lower Egypt also changed slowly over the period, but the overall increase (1.4 years) was greater than in rural Upper Egypt.

2.3 BREASTFEEDING AND POSTPARTUM INSUSCEPTIBILITY

Three other variables for which information is collected in the EDHS--breastfeeding, postpartum amenorrhea and postpartum sexual abstinence--play an important role in determining fertility levels by influencing the duration of the period following the birth in which a woman is not susceptible to the risk of another pregnancy. Table 2.7 presents cross-sectional data on the proportion of births whose mothers were found to be still breastfeeding, postpartum amenorrheic, abstaining and insusceptible. It should be noted that the information in Table 2.7 is birth-based rather than woman-based, i.e., a woman who had more than one live birth during the 36 months preceding the survey is included as many times as the number of births she had. However, twins are counted as a single birth. Because the data are obtained for births at a single point in time rather than for an actual cohort over time, the number of cases in the duration categories may be small.

Table 2.7 Percent of Births in the Last 36 Months Whose Mothers Are Still Breastfeeding, Postpartum Amenorrheic, Postpartum Abstaining and Insusceptible to Pregnancy, by Number of Months Since Birth, Egypt DHS, 1988

Months Since Birth	Still Breast-feeding	Still Amenor-rheic	Still Abstaining	Still Insuscep-tible(1)	Number of Births
Less than 2	90.4	92.8	74.0	94.1	264
2-3	89.9	69.2	19.8	71.7	343
4-5	80.2	51.1	6.4	53.8	274
6-7	83.0	41.3	7.3	44.1	254
8-9	84.3	37.8	8.4	41.4	265
10-11	76.1	30.8	5.1	33.2	304
12-13	68.1	21.3	5.5	23.6	377
14-15	63.2	16.3	2.8	17.8	324
16-17	60.7	13.0	4.8	17.0	262
18-19	50.1	8.2	4.5	12.0	222
20-21	39.5	5.7	2.0	7.0	234
22-23	29.9	6.0	1.8	7.5	284
24-25	12.2	2.1	2.2	3.6	283
26-27	11.7	1.3	1.0	2.0	330
28-29	11.0	3.8	2.2	5.5	296
30-31	6.2	2.4	1.6	3.6	278
32-33	7.6	1.6	1.2	2.8	282
34-35	3.0	0.7	1.7	2.5	298
Total	48.2	22.6	8.3	24.7	5,174

(1) Amenorrheic, abstaining or both.

As a result, the proportions do not always decline in a steady fashion at increasing durations since birth as would be expected. To help minimize such fluctuations, the births are grouped in two-month intervals.

Durations of breastfeeding are fairly long. Table 2.7 indicates that more than two-thirds of babies born around a year before the survey are still being breastfed, and 30 percent of those who are approaching their second birthday continue to be breastfed. Breastfeeding for more than two years is uncommon, however. Fewer than one in ten babies 24 months and older is being breastfed.

As expected, almost all mothers experience postpartum amenorrhea until the second month after delivery. The proportion drops considerably after the second month, although nearly one-third of the mothers who delivered 10-11 months ago were still amenorrheic. Table 2.7 shows a loose association between breastfeeding and amenorrhea, which is not surprising since breastfeeding tends to suppress the return of menstruation following a birth. Breastfeeding, however, does not provide reliable protection against conception after the first few months. For example, the proportion of births whose mothers are

amenorrheic is only half as large as the proportion being breastfed at 6-7 months and only one-quarter as large at 14-15 months.

The proportion of babies whose mothers practice sexual abstinence after their birth decreases even faster than the proportion whose mothers breastfeed or are amenorrheic. The proportion drops to only 20 percent by the second or third month after delivery.

Finally, Table 2.7 also provides information about the proportion insusceptible to pregnancy because of either postpartum amenorrhea or postpartum sexual abstinence (or both). The proportion exceeds 70 percent at 2-3 months after delivery, then drops off rapidly to around 40 percent by 8-9 months. Thus, the majority of women become susceptible to the risk of another pregnancy within nine months after giving birth. If, as the information in Chapter 7 suggests, many of these women do not want another child, they should be encouraged to adopt family planning. Mothers wanting another child should also be encouraged to use family planning in order to ensure a safe interval between births.

2.4 DIFFERENTIALS IN BREASTFEEDING AND POSTPARTUM INSUSCEPTIBILITY

Estimates of the mean duration of breastfeeding, postpartum amenorrhea and postpartum abstinence for various subgroups are presented in Table 2.8. The estimates are based on the prevalence-incidence method, in which the prevalence of each factor (the total number of women breastfeeding, amenorrheic, etc.) is divided by the incidence (the average number of births per month over the 36-month period). The results indicate that the mean duration of breastfeeding is 17.3 months. The mean duration of amenorrhea is 8.2 months, roughly half the breastfeeding duration. The mean length of insusceptibility (9.2 months) is only slightly longer than the mean length of amenorrhea because few couples abstain for long periods.

Very little difference in the mean duration of breastfeeding, postpartum amenorrhea or postpartum abstinence is observed between younger and older mothers. Urban-rural differences, however, are substantial. Rural mothers breastfeed their children about three months longer than urban mothers. An even larger difference (4 months) is observed for the duration of postpartum amenorrhea. A similar pattern is found in both Upper and Lower Egypt; however, the difference in the breastfeeding period between rural and urban mothers is much smaller in Upper Egypt than in Lower Egypt (Figure 2.6). The Urban Governorates exhibit the shortest duration of breastfeeding of all areas (14.2 months).

Education has a negative effect on the duration of breastfeeding. Children of mothers with no education are breastfed longer than children of educated mothers (Figure 2.7). The mean period of postpartum amenorrhea and postpartum abstinence is also longer for less educated mothers. Part of the reason for the negative relationship between

Table 2.8 Mean Number of Months of Breastfeeding, Postpartum Amenorrhea, Postpartum Abstinence and Postpartum Insusceptibility, by Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Breast-feeding	Amenor-rhea	Absti-nence	Insuscep-tibility(1)	Number of Births
Age					
15-29	17.5	8.1	3.2	9.1	3,113
30-49	17.1	8.3	3 2	9.3	2,105
Urban-Rural Residence					
Urban	15.5	6.0	2.7	6.9	2,134
Rural	18.6	9.7	3.6	10.7	3,084
Place of Residence					
Urban Governorates	14.2	5.3	2.6	6.2	975
Lower Egypt	17.6	8.1	2.7	8.9	2,096
Urban	15.2	5.6	2.4	6.2	536
Rural	18.4	8.9	2.9	9.8	1,560
Upper Egypt	18.5	9.6	4.0	10.7	2,147
Urban	17.7	7.2	3.0	8.4	623
Rural	18.9	10.6	4.4	11.7	1,524
Education					
No Education	18.1	9.4	3.5	10.5	2,682
Some Primary	16.8	7.7	3.1	8.8	1,215
Primary through Secondary	17.5	7.7	3.6	8.4	440
Completed Secondary/Higher	15.7	5.4	2.5	5.9	882
Work Status					
Working for Cash	15.9	6.1	3.2	7.1	548
Working, Not Paid in Cash	18.0	9.3	2.7	10.5	462
Not Working	17.5	8.3	3.3	9.3	4,208
Interested in Working	16.8	7.7	3.1	8.8	1,252
Not Interested in Working	17.8	8.6	3.3	9.5	2,956
Total	17.3	8.2	3.2	9.2	5,218

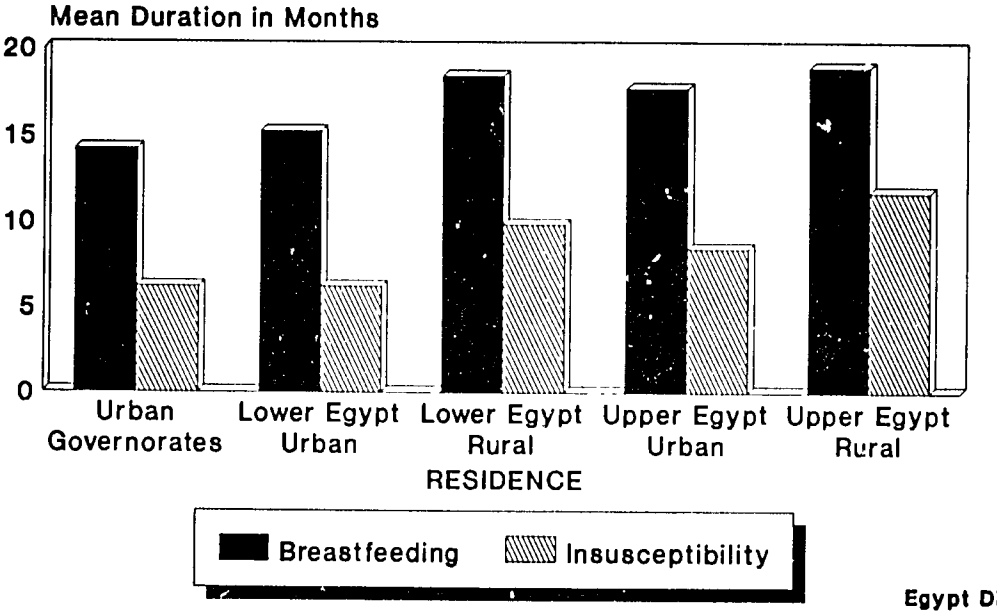
Note: Includes births occurring during the period 1-36 months before the survey. The mean number of months is calculated using a "prevalence-incidence" approach (see text).

(1) Amenorrheic, abstaining or both.

education and the duration of breastfeeding, which has been observed in many developing countries, can be traced to the greater likelihood that women with higher education are employed in positions with regular working hours that keep them away from home. As a result these women are unable to breastfeed their children on a regular basis.

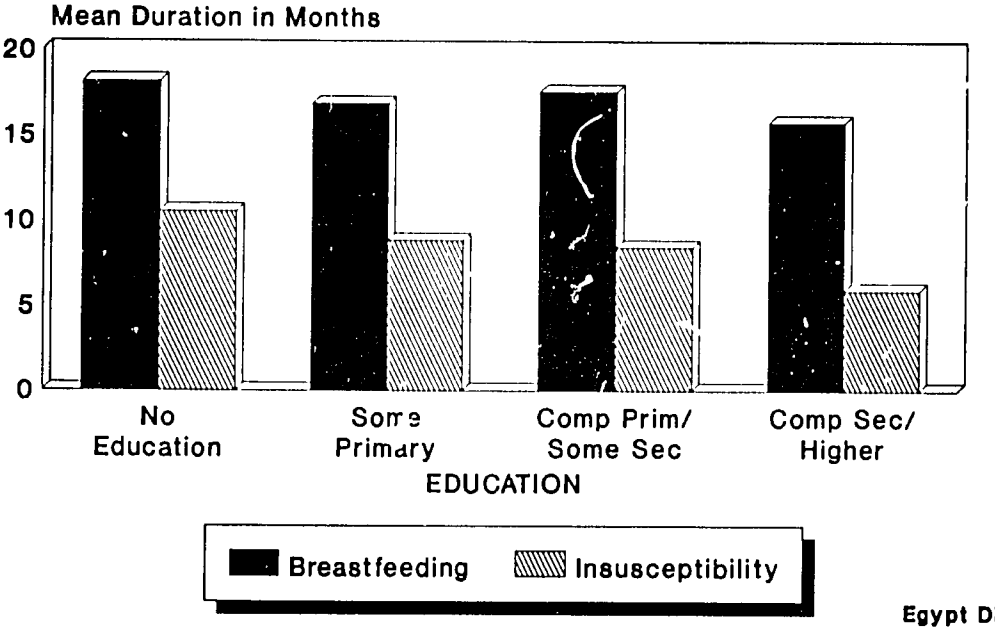
Table 2.8 indicates that the duration of breastfeeding and postpartum amenorrhea is somewhat shorter among women working for cash. Shorter breastfeeding is not, however, characteristic of unpaid workers since they usually work at home or they can keep

Figure 2.6
Duration of Breastfeeding and Postpartum Insusceptibility by Place of Residence



Egypt DHS 1988

Figure 2.7
Duration of Breastfeeding and Postpartum Insusceptibility by Level of Education



Egypt DHS 1988

their babies with them when they work. Among women who were not working, those women interested in paid work breastfed their children and experienced postpartum amenorrhea for an average of one month less than those who were not interested in paid employment.

In summary, children in Egypt are breastfed for an average of 17 months and this practice, by extending the period of postpartum amenorrhea, causes women to be insusceptible to pregnancy for nine months following a birth. However, more modern women (urban, educated women working for cash) wean their children at an earlier age and are, therefore, insusceptible for a shorter period after each birth. If other women eventually follow the lead of the more modern mothers, then there will be a greater need for contraception to prevent unplanned pregnancies, and children may be subject to increased health risks if weaning occurs at earlier ages in the future.

Chapter 3

FERTILITY

Monitoring change in fertility levels and differentials has been one of the primary reasons for conducting a series of demographic surveys in Egypt during the last decade. Of particular concern has been the impact of increasing use of family planning as well as changes in the other proximate determinants of fertility. The EDHS continues in this tradition, by providing the data needed to monitor fertility behavior in the late 1980s.

3.1 FERTILITY LEVELS AND DIFFERENTIALS

As in many other countries, prevailing norms in Egypt place a high value on children and greatly enhance the position of fertile women, especially in rural areas. For this reason, fertility levels have traditionally been high, as documented by previous surveys. In this section of the report, EDHS data are used to look at levels, trends and differentials in current and cumulative fertility levels.

Birth History Data

The fertility data from the EDHS are based on responses to a series of questions designed to provide information on the number and timing of births. All respondents were asked first about the total number of live births and surviving children. In addition, a full birth history was collected from each woman, including the name, sex, and date (month and year) of each live birth; the age at death for children who died; and whether or not living children were residing with their mother.

Fertility data collected through the EDHS birth history have a number of limitations. First, because the upper limit on eligibility for the survey was 49 years, the age-specific fertility rates for older age groups become progressively more truncated further back in time, i.e., births to some women in those cohorts during the time periods in question are excluded from the calculation of fertility rates because the women were age 50 and over at the time of the EDHS and, thus, not interviewed in the survey.

Estimation of fertility levels can be affected by underreporting of the number of children ever born, while errors in the reporting of birth dates can distort trends in fertility over time. Such problems are more common in countries with moderate levels of female illiteracy like Egypt, especially among older women. To ensure the quality of the fertility data, the EDHS interviewers were trained to probe carefully to be sure that all births were

reported and to verify birth dates by checking birth records.[1] Both the month and year of birth were reported for 62 percent of all births, and, for an additional 25 percent, the year of birth and the age of the child were reported. For most of the remaining cases, the child's age was given.[2] The birth date information in the EDHS is more complete than in previous surveys; in the Egypt Fertility Survey (EFS), for example, both the month and year of birth were reported for only 41 percent of births (Goldman et al., 1985).

Current and Cumulative Fertility

Table 3.1 presents data on current and cumulative fertility patterns in Egypt. The total fertility rate (TFR), which is the measure of current fertility, represents the average number of births a woman would have at the end of her reproductive life if she had children according to the age-specific fertility rates prevailing during a given period. The first two columns of Table 3.1 show total fertility rates for all women 15-44[3] for two calendar periods, 1986-1988 and 1983-1985, while the third column shows the total fertility rates for the five-year period before the survey. The final column in Table 3.1 presents the mean number of children ever born (CEB) to all women 40-49. The latter indicator, which is a measure of cumulative fertility, is the product of the past childbearing behavior of these women who are nearing the end of their reproductive lives. The current trend in fertility in Egypt can be assessed by comparing the TFRs for the two calendar periods, while a comparison of the total fertility rate with the measure of completed family size provides a rough indication of the trend in fertility levels over the past several decades.

Fertility remains high in Egypt although there is evidence that it has declined significantly from the level prevailing in the past (Figure 3.1). The TFR for the five-year period before the survey is 4.7 births per woman, more than one child lower than the mean number of children ever born to women 40-49 (6.0 children). The EDHS results also suggest that fertility is continuing to decline; the TFR for the 1986-1988 period (4.4 births) is nearly 10 percent lower than the TFR for the period 1983-1985 (4.8 births).

Residential Differentials. Urban fertility is substantially lower than rural fertility, with a difference of more than two children observed in the TFR for the five-year period before the survey between urban women (3.7 births) and rural women (5.7 births). It is

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[1] Although no information was available on the proportion of total births for which a birth certificate was seen, birth records were seen for about half the children 12-59 months. See Chapter 9 for a discussion of the availability of birth certificates.

[2] When a complete date was not reported, the missing information (month only or month and year) was imputed. Fertility rates shown in the report are based on these imputed dates.

[3] Throughout this chapter, whenever an estimate is based on all women, information on the marital status and age of all females 15-49 is used to derive the all women denominator, using the procedures described in Chapter 2.

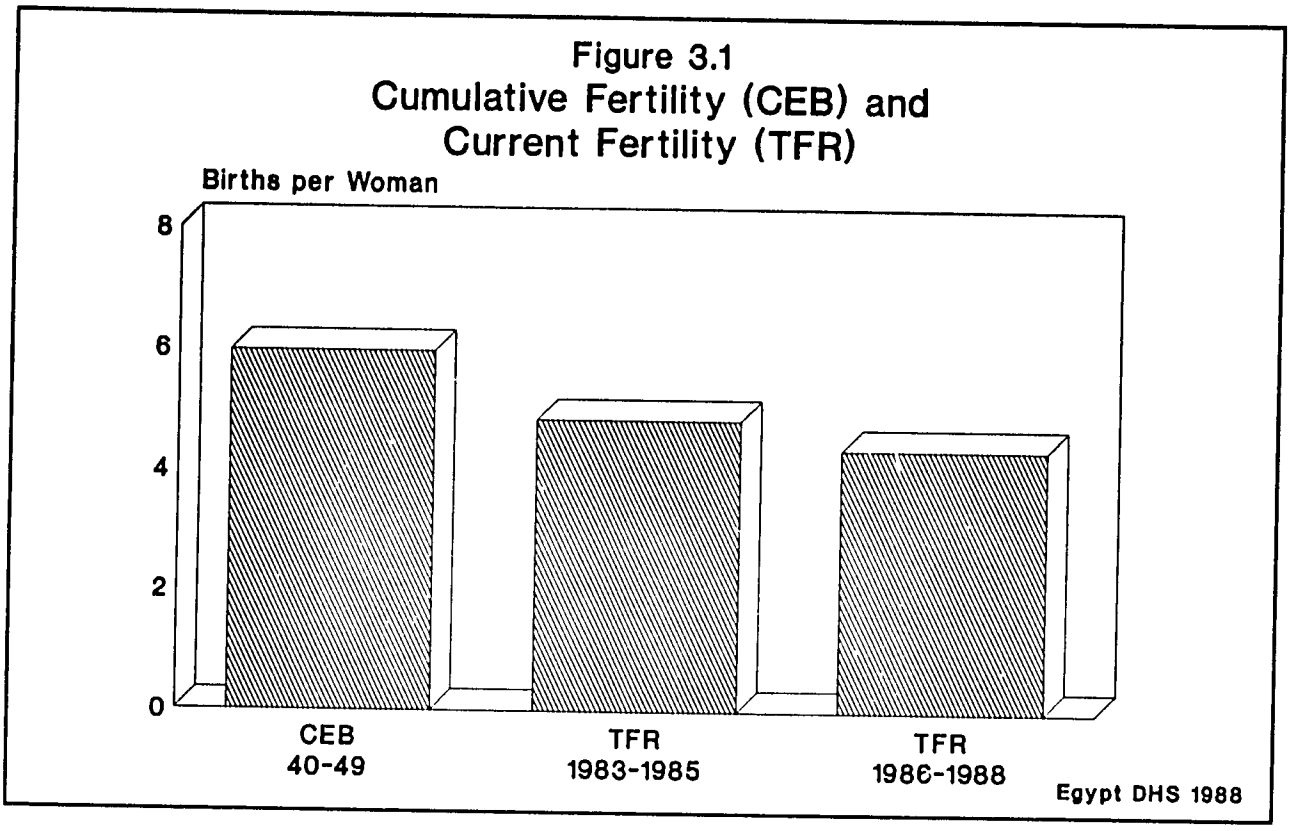
Table 3.1 Total Fertility Rate for the Calendar Year Periods 1986-1988 and 1983-1985 and for the Period 0-4 Years Before the Survey, and the Mean Number of Children Ever Born to Women 40-49, by Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Total Fertility Rates(1)			Mean Number of Children Ever Born to Women Age 40-49
	1986-1988(2)	1983-1985	0-4 Years Before the Survey	
Residence				
Urban	3.48	3.75	3.69	5.18
Rural	5.35	6.08	5.73	6.86
Place of Residence				
Urban Governorates	3.01	3.41	3.26	4.91
Lower Egypt	4.45	5.18	4.83	6.23
Urban	3.81	3.93	3.95	5.18
Rural	4.73	5.75	5.22	6.72
Upper Egypt	5.39	5.66	5.60	6.49
Urban	4.17	4.32	4.35	5.70
Rural	6.15	6.50	6.38	7.02
Education				
No Education	5.38	5.99	5.73	6.56
Some Primary	4.76	5.28	5.09	5.94
Primary through Secondary	3.61	4.05	3.79	4.91
Completed Secondary/Higher	3.15	3.03	3.23	3.27
Work Status				
Working for Cash	2.91	3.30	3.15	4.25
Not Working	4.60	5.12	4.90	6.17
Total	4.38	4.85	4.66	5.96

(1) Based on births to women 15-44 years
(2) Includes 1989 up to the survey date

also evident that urban women have been leading the transition to lower fertility. Among urban women, the TFR for the five-year period prior to the survey is 29 percent lower than the mean number of children ever born to women 40-49, while, for rural women, the implied longterm decline in fertility is only half as great (16 percent). However, the urban-rural differential may be beginning to narrow as the EDHS results indicate that, in the most recent period, the pace of fertility decline has been somewhat more rapid among rural than urban women. The rural TFR for the period 1986-1988 (5.4 births) was 12 percent lower than the TFR for the period 1983-1985 (6.1 births), while the urban TFR declined by only seven percent between the two recent calendar periods.

Table 3.1 also shows that the Urban Governorates, Lower Egypt and Upper Egypt are at different stages of the fertility transition. The TFR for the five-year period before the survey is 3.3 births per woman for the Urban Governorates compared with 4.8 births

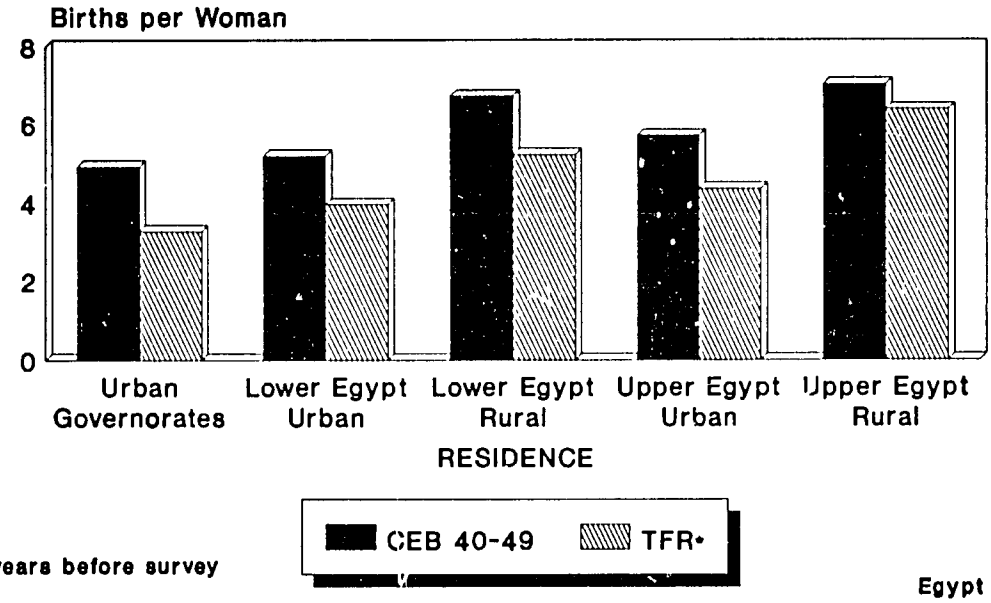


for Lower Egypt and 5.6 births for Upper Egypt. Much of the fertility differential between Lower Egypt and Upper Egypt is due to the higher level of rural fertility in Upper Egypt. The TFR for urban Upper Egypt is 4.4 births compared with 4.0 births in urban Lower Egypt, while the TFR for rural Upper Egypt is 6.4 births compared to 5.2 births in rural Lower Egypt.

Historically, the Urban Governorates have experienced the fastest decline in fertility as evidenced in the fact that the five-year TFR is one-third lower than the mean children ever born (CEB) to women 40-49 (Figure 3.2). In contrast, for Lower Egypt, the difference between the TFR and the CEB is only around 20 percent, while, for Upper Egypt, it is less than 15 percent. Currently, the pace of fertility decline is most rapid in Lower Egypt, where the TFR dropped from 5.2 to 4.4 births between 1983-1985 and 1986-1988, a decrease of 14 percent (Figure 3.3). A fairly similar rate of decline was observed for the Urban Governorates (12 percent), while Upper Egypt continues to lag behind.

The slow rate of fertility decline in Upper Egypt can largely be traced to the very slow pace of change in rural areas in this region. The longterm fertility decline implied in the comparison of the five-year TFR with the mean CEB for women 40-49 has been only around 10 percent in rural Upper Egypt compared with more than 20 percent in urban Upper Egypt and urban and rural Lower Egypt. In recent years, the fertility decline in rural Upper Egypt has been occurring at a somewhat faster pace than in urban areas in either region, but much more slowly than in rural Lower Egypt.

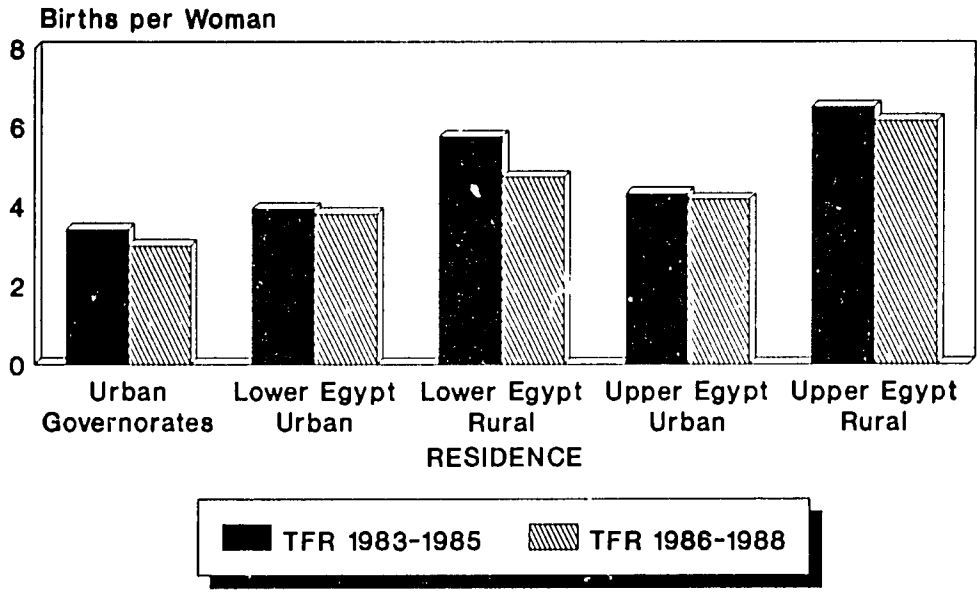
Figure 3.2
Cumulative Fertility (CEB) and Current Fertility (TFR) by Place of Residence



* 0-4 years before survey

Egypt DHS 1988

Figure 3.3
Current Fertility (TFR) by Place of Residence



Egypt DHS 1988

In summary, fertility levels have been declining in all geographic areas in Egypt, with the transition to lower fertility occurring at a faster pace among urban women, especially those living in the Urban Governorates, than among rural women. The rate of the fertility decline among rural women varies significantly by region. The longterm decline among women living in rural Lower Egypt has been similar to that observed among women living in urban areas outside the Urban Governorates, while the recent decline in rural Lower Egypt has outpaced even the rate of decline in the Urban Governorates. In rural Upper Egypt, however, while fertility has been declining, the pace of the longterm decline has been only about half that observed in the other areas, and recently the rate of decline has been only about one-third that observed in rural Lower Egypt.

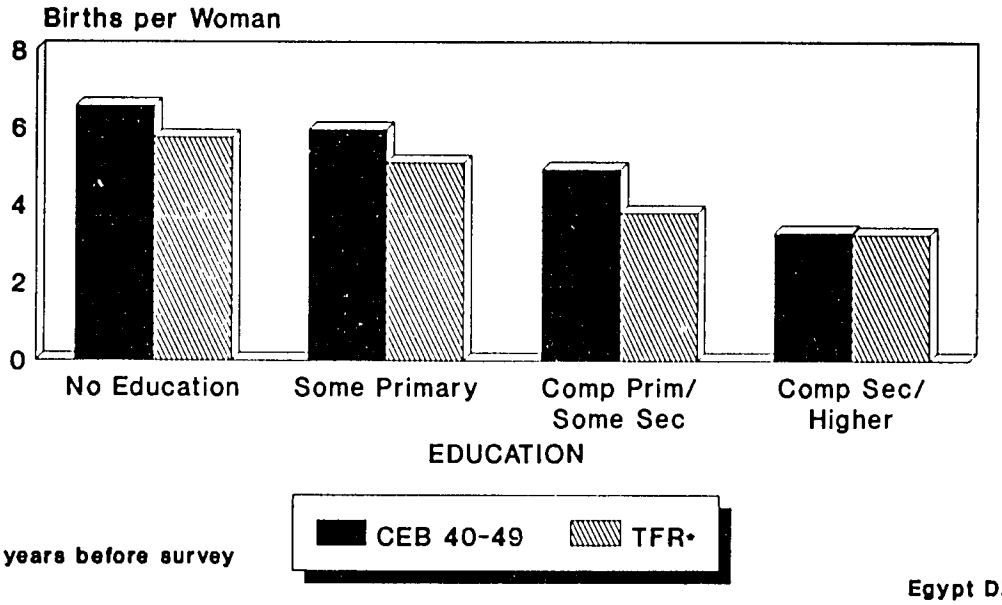
Socioeconomic Differentials. Table 3.1 also shows that fertility levels are negatively related to the education level of women. For the five-year period prior to the survey, the highest fertility level (5.7 births) is observed for women with no education. Fertility decreases rapidly with increasing education from 5.1 births for women who have not completed primary school to 3.8 births among women who have completed primary school and 3.2 births for women with a secondary school education. Lower fertility has apparently characterized women with secondary education for some time; the TFR for the five-year period prior to the survey is virtually identical to the mean children ever born to women 40-49 (Figure 3.4). Among the other education groups, the rate of fertility decline has been greatest over time for women who completed primary school. More recently, the pace of fertility decline has been similar among women in all the education groups except women with secondary education, among whom fertility levels have remained stable (Figure 3.5).

On average, women who work for cash are having 3.2 births compared to 4.9 births among women who are not working or who are employed without pay. For both groups, fertility has been declining over time, with working women leading the transition to lower fertility.

Age Pattern of Fertility

The recent trend in fertility levels can be further examined by looking at changes in the age pattern of fertility (Table 3.2). The tendency for women to have children early in the reproductive period is clear, a pattern which is consistent with the fertility curve observed in most developing countries. The age-specific rates for the five-year period before the survey indicate that fertility is low among women 15-19, increases significantly among women 20-24 and peaks among women in the 25-29 age group. Approximately half of all current childbearing is to women 20-29. The concentration of fertility in the first half of the childbearing period despite the rise in the age at marriage, is an indicator of the emphasis placed in Egyptian society on bearing children soon after marriage.

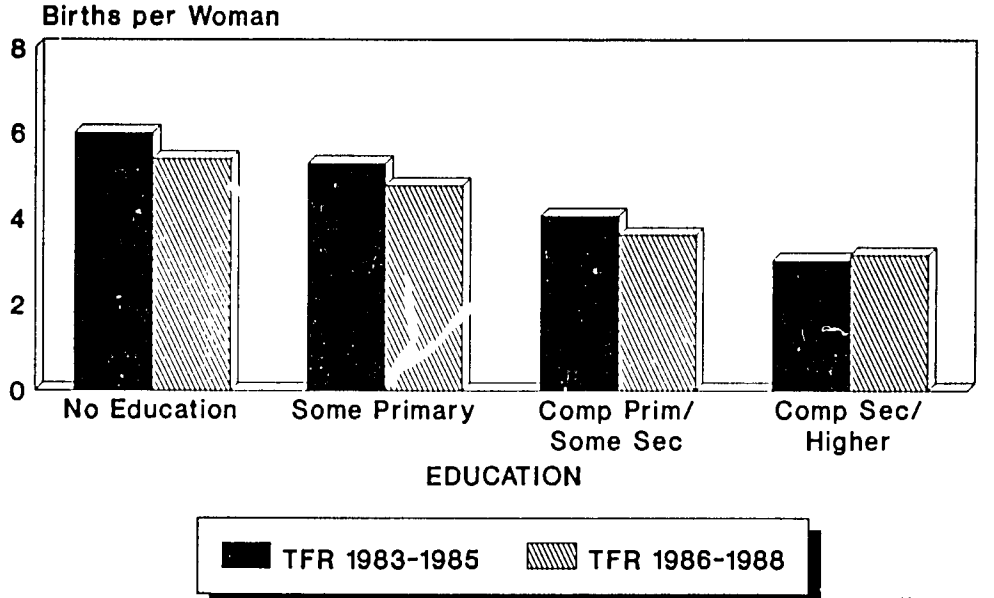
Figure 3.4
Cumulative Fertility (CEB) and Current Fertility (TFR) by Level of Education



• 0-4 years before survey

Egypt DHS 1988

Figure 3.5
Current Fertility (TFR) by Level of Education



Egypt DHS 1988

Table 3.2 Age-Specific Fertility Rates (per 1,000 Women) for the Calendar Year Periods 1986-1988 and 1983-1985 and for the Period 0-4 Years Before the Survey, Egypt DHS, 1988

Age	1986-1988(1)	1983-1985	0-4 Years Before the Survey
15-19	72	95	83
20-24	220	250	237
25-29	243	258	251
30-34	182	205	198
35-39	118	115	120
40-44	41	47	44
45-49	6	1	5
Total Fertility Rates:			
15-44	4.38	4.85	4.66
15-49	4.41	4.86	4.69

(1) Includes 1989 up to the survey date

The narrowing of the childbearing period can also be seen by examining the decline in fertility between 1983-1985 and 1986-1988. The age-specific fertility rates declined in almost all age groups, but the decline was most rapid in the youngest group (24 percent). This probably reflects the decreasing tendency to early (teenage) marriage described in Chapter 2.

Finally, although the peak childbearing period is concentrated among women 20-29, it is important to note that, according to the schedule of age-specific rates prevailing in the five years before the survey, around one in eleven births occurs to women in their teens and almost one in five births occurs to women 35 years and older. Studies have shown that, for both mothers and their children, the morbidity and mortality risks associated with pregnancy are greatest for women in these age groups.

Longterm Trend in the Age Pattern

The birth history data collected in EDHS allow a more detailed examination of fertility trends during the 30-year period before the survey. The age-period fertility rates derived from the birth history are shown in Table 3.3 for successive five-year periods before the survey by the mother's age at the time of the birth.[4] As noted earlier, one of

[4] To compute the numerator for these rates, births were classified by the segment of time preceding the survey (e.g., 0-4 years, 5-9 years, etc.) and by the age of the mother at the time of the birth. The denominator is the number of women-years lived in the specified five-year age interval for each time segment.

Table 3.3 Age-Period Fertility Rates (per 1,000 Women) for Five-Year Periods Before the Survey by Age of Mother at the Time of the Birth, Egypt DHS, 1988

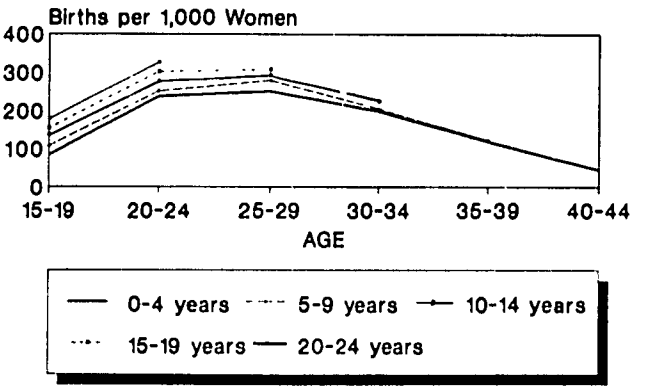
Age at Birth	Number of Years Before Survey						
	0-4	5-9	10-14	15-19	20-24	25-29	30-34
15-19	83	107	136	153	177	171	(161)
20-24	237	250	276	302	325	(334)	--
25-29	251	279	293	308	(316)	--	--
30-34	198	204	224	(228)	--	--	--
35-39	120	122	(150)	--	--	--	--
40-44	44	(48)	--	--	--	--	--
45-49	(5)	--	--	--	--	--	--
Cumulative Fertility, 15-34	3.8	4.2	4.6	5.0	--	--	--

Note: Figures in parentheses are based on partially truncated information.
-- Not calculated due to age truncation

the drawbacks in using these data for examining fertility trends is that the rates for the older age groups in Table 3.3 become progressively more truncated further back in time. For example, rates cannot be calculated for the 45-49 age group for the period 5-9 years before the survey, because women who would have been 45-49 at that time were 50-54 years old at the time of the EDHS and, consequently, not interviewed in the survey. Partially truncated rates are shown in parentheses.

Table 3.3 confirms the declining trend in the age-specific rates. The most rapid decline has been in the youngest age groups, supporting the observation about the narrowing in the prime childbearing period (Figure 3.6). This decline is consistent with the trend toward delayed marriage. Another indicator of the downward trend in fertility is the decrease in the cumulative fertility rate for women 15-34. This rate declined from 5.0 births for the period 15-19 years before the EDHS to 3.8 births for the five-year period immediately prior to the survey.

Figure 3.6
Age-Period Fertility Rates



Egypt DHS 1988

Tables 3.2 and 3.3 use information collected in the EDHS to examine the trend in fertility over time. In exploring the fertility trend, another approach is to compare the rates obtained from the EDHS with estimates from other sources, including the 1980 Fertility Survey and the 1984 Contraceptive Prevalence Survey. Table 3.4 presents the age-specific and total fertility rates for the three surveys. It is important to bear in mind in comparing these rates that both the EFS and EDHS rates are derived from birth history data while the ECPS rate is based on information obtained through a question about the date of the last live birth.

Table 3.4 Age-Specific Fertility Rates (per 1,000 Women) and the Total Fertility Rate, Egypt DHS 1986-1988, CPS 1983-1984 and FS 1979-1980

Age	EFS 1979-1980(1)	ECPS 1983-1984(2)	EDHS 1986-1988(3)
15-19	78	73	72
20-24	256	205	220
25-29	280	265	243
30-34	239	223	182
35-39	139	151	118
40-44	53	42	41
45-49	12	13	6
Total Fertility Rates:			
15-44	5.22	4.79	4.38
15-49	5.28	4.85	4.41

(1) Hallouda, A. M. et al., 1983, Volume II, Table 4.16
(2) Unpublished results
(3) Includes 1989 up to the survey date

The trend in fertility rates from the three surveys is downward. The TFR decreases by 16 percent, from a level of 5.2 births at the time of the EFS in 1979-1980 to 4.4 births in the three-year period before the EDHS in 1986-1988. This again suggests that Egypt has experienced a steady decline in fertility during the 1980s.

3.2 CURRENT PREGNANCY

The percent currently pregnant can be taken as an indicator of recent fertility levels. However, this measure must be treated with caution since it suffers from underreporting, either because the woman is unaware (uncertain) that she is pregnant, especially during the first three months, or because she is embarrassed to admit that she is pregnant.

Overall, 12 percent of currently married women were pregnant at the time of the survey (Table 3.5). Pregnancy was highly concentrated in the safer period of the child-

Table 3.5 Percent of All Women and of Currently Married Women Who Were Pregnant at the Time of the Survey by Age, Egypt DHS 1988

Age	All Women	Currently Married Women
15-19	3.6	23.5
20-24	12.9	22.4
25-29	13.8	17.0
30-34	10.5	11.7
35-39	6.1	6.8
40-44	3.0	3.5
45-49	0.5	0.6
Total	7.9	12.1

bearing ages, namely among women 20-34 years. However, one in ten women age 35 and over, a high risk category, was pregnant.

3.3 CHILDREN EVER BORN

Data on the number of children ever born to the women interviewed in the EDHS are presented in Table 3.6 for all women and currently married women. These data reflect the cumulative outcome of the childbearing experience of the EDHS respondents over their entire reproductive lives up to the point of interview. The results indicate that Egyptian women have given birth to an average of 2.8 children.

Since fertility levels have been high in the past, the number of children ever born increases rapidly with age. On average, cumulative fertility increases by about one child for each five-year age group except for women 40-49. Women 45-49, who are nearing the end of their reproductive years, have had an average of 6.1 births. About 15 percent of these women have given birth to ten or more children.

Table 3.6 Percent Distribution of All Women and Currently Married Women By Number of Children Ever Born and Mean Number of Children Ever Born, According to Age, Egypt DHS, 1988

	Number of Children Ever Born													
Age	None	1	2	3	4	5	6	7	8	9	10 or more	Total	Number of Women	Mean
							All Women							
15-19	92.3	5.6	1.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	2,718	0.1
20-24	51.4	17.7	16.3	9.1	3.8	1.2	0.3	0.1	0.0	0.0	0.0	100.0	2,374	1.0
25-29	23.1	10.9	18.3	17.6	13.8	9.1	4.8	1.7	0.6	0.1	0.1	100.0	1,978	2.5
30-34	10.3	6.2	14.6	17.4	16.0	12.8	9.7	6.8	3.2	1.6	1.3	100.0	1,642	3.8
35-39	4.8	2.7	8.5	13.4	13.6	13.4	13.4	9.8	9.0	5.7	5.7	100.0	1,640	5.2
40-44	4.3	2.7	6.0	10.2	13.5	11.6	11.6	11.4	9.9	7.0	11.9	100.0	1,226	5.8
45-49	4.4	2.4	5.4	8.1	9.8	11.3	12.7	12.5	10.6	8.2	14.6	100.0	1,053	6.1
Total	35.9	7.9	10.4	10.2	8.8	7.1	6.0	4.6	3.5	2.3	3.3	100.0	12,631	2.8
							Currently Married Women							
15-19	50.3	36.5	11.5	1.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	100.0	416	0.7
20-24	18.5	28.9	27.7	15.7	6.4	2.0	0.5	0.2	0.1	0.0	0.0	100.0	1,369	1.7
25-29	8.2	12.5	21.3	21.2	16.8	11.0	5.9	2.1	0.7	0.1	0.1	100.0	1,607	3.0
30-34	4.5	5.8	14.9	18.6	17.5	13.9	10.6	7.5	3.6	1.7	1.4	100.0	1,473	4.1
35-39	2.5	2.1	8.4	13.3	13.5	13.9	13.8	10.3	9.6	6.3	6.1	100.0	1,470	5.4
40-44	2.3	2.7	5.7	10.3	12.6	11.4	11.7	12.1	10.5	7.2	13.4	100.0	1,042	6.0
45-49	2.6	2.0	4.9	8.0	9.7	11.3	12.2	13.0	11.3	9.1	15.8	100.0	844	6.4
Total	9.1	11.1	14.8	14.7	12.5	10.1	8.4	6.5	5.0	3.3	4.7	100.0	8,221	4.0

The proportion childless among women nearing the end of the reproductive period provides an indication of the low level of primary sterility, since, in Egypt, prevailing norms do not support voluntary childlessness. Less than three percent of currently married women 45-49, and only four percent of all women in the same age group, have not had any children.

Finally, one important goal of the family planning program is to prevent infant and maternal deaths by assisting women to avoid high risk pregnancies. Evidence suggests that pregnancies among women who have already had five or more births are associated with increased mortality and morbidity for both the mother and the child. The results in Table 3.6 show that many women, particularly those in the older age groups, are in this high parity risk category. Overall, more than one in four women has had five or more births. By age, the proportion with five or more births increases from less than 20 percent among women under 30 to 35 percent in the 30-34 group. Among women age 35 and over, who already are at greater pregnancy risk because of their age, the proportion in the high parity risk group increases from nearly 60 percent in the 35-39 cohort to 70 percent among women 45-49.

3.4 CHILDREN EVER BORN AND AGE AT MARRIAGE

Table 3.7 provides information on the mean number of children ever born to ever-married women by the duration and age at first marriage. The table permits an assessment of the relationship between the age at first marriage and the level of marital childbearing. The expectation is that women who marry early will bear more children since they will have more years of exposure to the risk of pregnancy than women who marry later. The population as a whole exhibits the expected pattern; the mean number

Table 3.7 Mean Number of Children Ever Born to Ever-married Women by Age at First Marriage, According to the Number of Years Since First Marriage, Egypt DHS, 1988

Years Since First Marriage	Age at First Marriage						
	Under 16	16-17	18-19	20-21	22-24	25 and over	Total
0-4	1.0	1.0	1.0	1.0	1.0	0.9	1.0
5-9	2.6	2.7	2.7	2.6	2.4	2.2	2.6
10-14	4.1	4.1	4.0	3.7	3.5	2.9	3.8
15-19	5.4	5.6	5.2	4.7	4.3	3.3	5.1
20-24	6.8	6.1	5.7	5.2	5.0	4.0	6.0
25-29	7.2	6.6	6.3	5.7	5.1	-	6.7
30 or more	7.3	6.8	6.7	-	-	-	7.2
Total	5.3	4.3	3.8	3.2	2.8	2.1	4.0

of children ever born decreases from 5.3 among women who married before age 16 to 2.1 among women married at age 25 and older. To some extent this pattern is due to the fact that women who marry early tend to be older, and, thus, have had more time to have children; the duration of marriage is directly associated with the mean number of children ever born, ranging from one child among women married less than five years to 7.2 children among women married 30 or more years.

Fertility at most marriage durations is inversely related to the age at first marriage. Among women married less than five years, there is, however, no association between the age at first marriage and the mean number of children ever born. Irrespective of the age at first marriage, women who married less than five years ago have given birth to one child on the average, suggesting that most women bear a child soon after marriage. This indicates the importance of children in the context of Egyptian families.

The impact of age at first marriage can be seen in the cumulative fertility level for women married 5-9 years, but is more noticeable for those married 10 years or more, especially among women who married after age 20. For example, the depressing effect on lifetime fertility of increases in the age at marriage is evident in the variation in the mean number of children ever born among women married for 30 or more years; those who were married at age 16-19 have had around 6.7 children while women who were married before the legal age of 16 years have 7.3 children (Table 3.7). For women who first married 20-24 years ago, the mean number of children ever born declines from nearly seven children among those women who married before age 16 to only four children among women who delayed marriage until they were age 25 or older.

3.5 AGE AT FIRST BIRTH

The age at which childbearing is initiated is an important demographic and health indicator that is affected by changes in the age at first marriage. The age at first birth also influences the level of completed fertility. Table 3.8 shows the percent distribution of all women by the woman's current age and age at first birth. For women 25 years and over, the median age at first birth is presented in the last column of the table.

Overall, the median age at first birth for women age 25-49 is 20.8 years. The median age increases from 20 years for women in their forties to around 21.5 years for women in their late twenties and early thirties. This trend is consistent with the increase in the age at first marriage in recent years (Figure 3.7). On average, the median age at first birth is about two years higher than the median age at first marriage (see Table 2.3).

It should be noted that around eight percent of all women gave birth to their first child before age 16. The incidence of very early childbearing has decreased over time. About one in every eight women age 45-49 had their first birth before age 16 compared to less than one in ten women age 25-34 and one in twenty women age 20-24. Less than

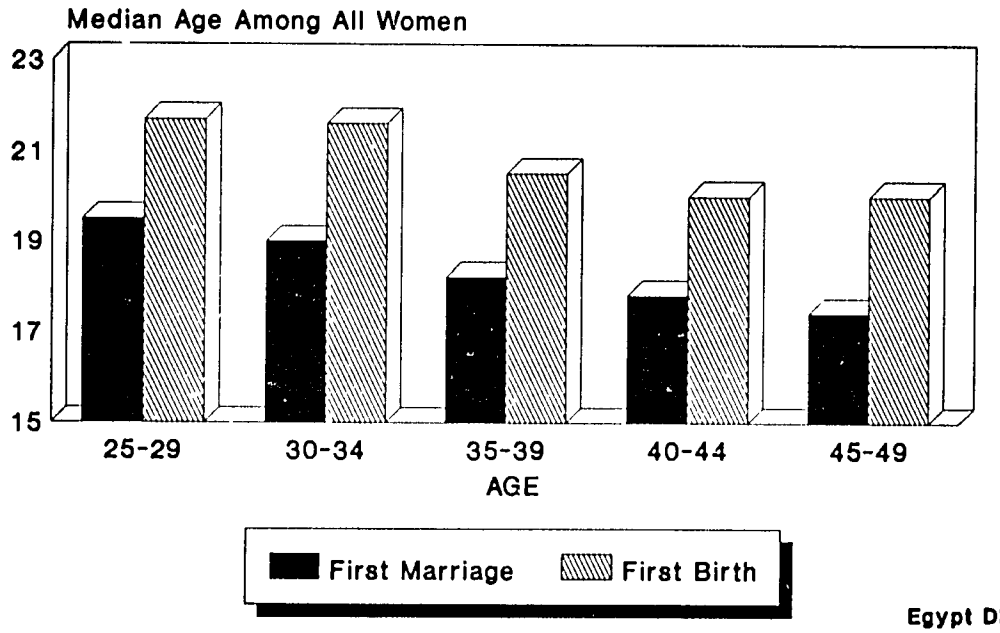
Table 3.8 Percent Distribution of All Women by Age at First Birth (Including Category "No Births") and Median Age at First Birth, According to Current Age, Egypt DHS, 1988

Current Age	No Births	Age at First Birth: Under 16	16-17	18-19	20-21	22-24	25 and over	Total Percent	Number of Women	Median Age
15-19	92.3	1.9	4.0	1.8	0.0	0.0	0.0	100.0	2718	--
20-24	51.4	4.8	10.3	15.6	12.3	5.7	0.0	100.0	2374	--
25-29	23.1	9.0	12.4	16.5	14.4	15.7	8.8	100.0	1978	21.7
30-34	10.3	9.3	13.3	17.2	13.3	18.0	18.8	100.0	1642	21.6
35-39	4.8	11.7	17.0	17.2	16.0	15.8	17.4	100.0	1640	20.5
40-44	4.3	12.2	17.6	20.0	14.8	15.5	15.7	100.0	1226	20.0
45-49	4.4	12.6	16.7	20.5	16.5	13.8	15.4	100.0	1053	20.0
Total	35.9	7.7	11.8	14.0	11.2	10.6	8.9	100.0	12631	--

Note: The median age is defined as the age at which 50 percent of the women have had a birth.

-- Omitted due to censoring

Figure 3.7
Median Age at First Marriage and First Birth by Current Age



Egypt DHS 1988

two percent of women 15-19 at the time of the survey had already had a child before their 16th birthday.

The incidence of first births to women under age 18 is considerably greater, although it has also been decreasing over time. The percentage of women whose first birth occurred before age 18 was around 30 percent for women in their late thirties and forties, over 20 percent for women 25-34 and only 15 percent for women in their early twenties (Figure 3.8). Although the rate is clearly declining, the proportion of births occurring to women under age 18 remains high, representing a serious health and social problem that needs to be addressed.

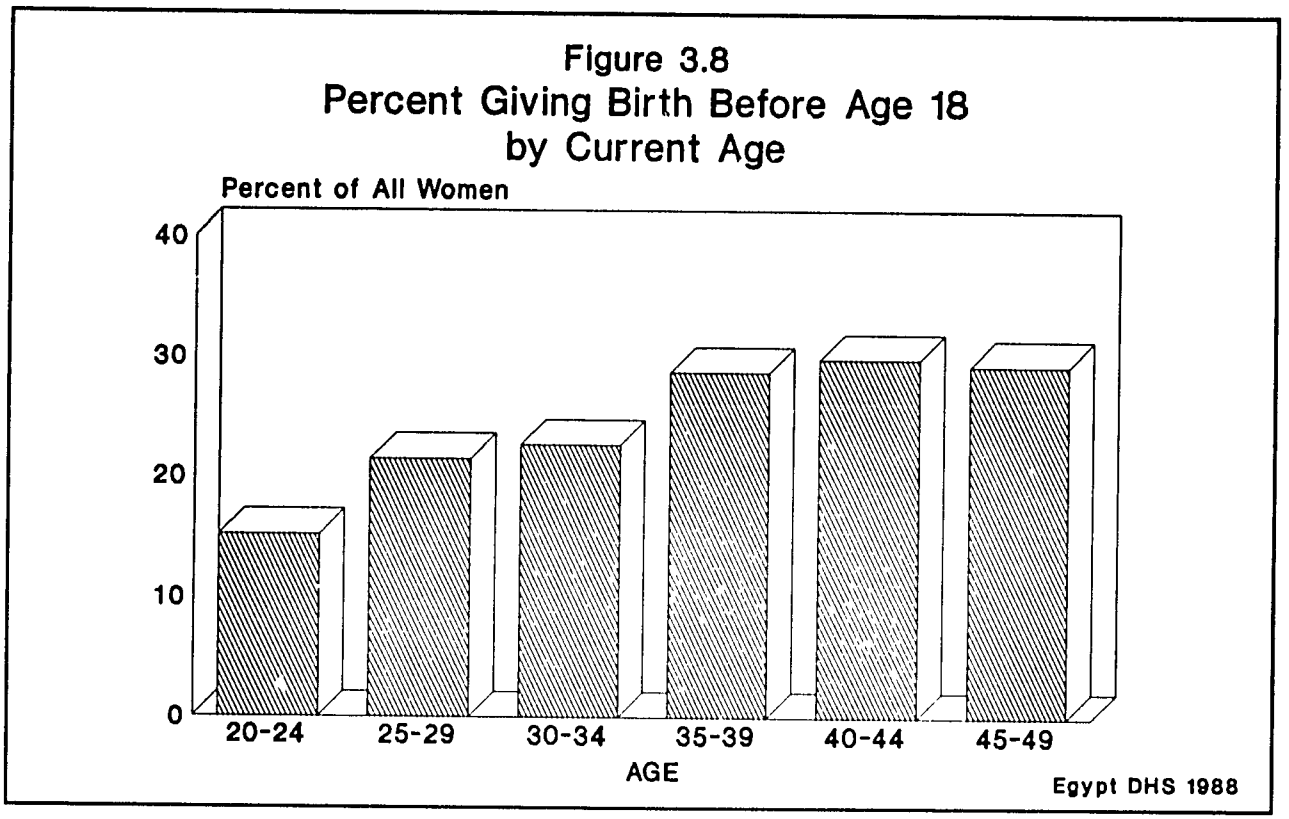
3.6 DIFFERENTIALS IN AGE AT FIRST BIRTH

Table 3.9 summarizes the changes in the median age at first birth among women 25-49 by current age and background characteristics. Overall, there is a difference of about three years in the median age at first birth between women living in urban areas

Table 3.9 Median Age at First Birth Among Women 25-49 by Current Age, According to Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Current Age					Total
	25-29	30-34	35-39	40-44	45-49	25-49
Urban-Rural Residence						
Urban	24.0	23.3	22.2	21.0	20.3	22.4
Rural	19.6	19.7	19.0	19.0	19.8	19.4
Place of Residence						
Urban Governorates	25.1	24.2	22.8	20.8	20.4	23.0
Lower Egypt	21.1	20.6	19.9	20.3	19.9	20.4
Urban	23.5	22.7	22.1	22.0	19.6	22.4
Rural	20.0	19.8	19.2	19.4	20.0	19.7
Upper Egypt	20.1	20.3	19.5	19.2	19.9	19.8
Urban	22.1	21.9	20.8	20.1	20.5	21.1
Rural	19.3	19.6	18.7	18.7	19.5	19.2
Education						
No Education	19.3	19.6	19.2	19.0	19.6	19.3
Some Primary	20.4	19.9	20.3	19.9	19.7	20.1
Primary through Secondary	21.5	21.8	20.8	21.0	21.6	21.3
Completed Secondary/Higher	25.6	25.3	25.3	25.1	25.2	25.3
Work Status						
Working for Cash	25.8	25.3	25.1	24.9	24.5	25.2
Not Working	20.7	20.3	19.9	19.5	19.8	20.1
Total	21.7	21.6	20.5	20.0	20.0	20.8

Note: The median age is defined as the age at which 50 percent of the women have had a birth.



(22.4 years) and in rural areas (19.4 years). While the median age at first birth has changed very little over time in rural areas, it has increased steadily in urban areas from about 20 years for women 45-49 to 24 years for women 25-29.

Regional differences are substantial. The median age at first birth is highest in the Urban Governorates (23 years), followed by urban areas in Lower and Upper Egypt (22.4 and 21.1 years, respectively), and finally rural areas in these regions (19.7 and 19.2 years, respectively). The overall difference between Upper and Lower Egypt is less than one year (20.4 years in Lower Egypt compared with 19.8 years in Upper Egypt). The median age at first birth has increased in all urban areas while rural areas have not shown any significant changes. It should be noted, however, that the median age at first birth in rural areas is slightly higher in Lower Egypt than in Upper Egypt for all cohorts.

Education has a strong inverse relationship with the median age at first birth, which increases from 19.3 years for women with no education to 25.3 years for women who have completed at least a secondary education. Although women in the highest education groups had their first child at a relatively late age, there is an unusually short gap between their marriage and their first birth (see Tables 2.4 and 3.9). Within education groups, there has been little (if any) increase in the median age at first birth across cohorts. Therefore, most of the overall increase in the median age at first birth is attributable to increases in educational attainment over time.

Chapter 4

KNOWLEDGE, ATTITUDES AND EXPOSURE TO FAMILY PLANNING MESSAGES

Among the prerequisites for adoption of family planning are sufficient knowledge about contraceptive methods to allow a potential acceptor to make an informed choice about the method to use, information about where methods are available and a positive attitude toward the use of family planning. This chapter looks at how widespread knowledge and approval of family planning are among Egyptian women. The chapter also considers how well efforts to disseminate information on family planning through broadcast media are succeeding in reaching women of childbearing age.

4.1 CONTRACEPTIVE KNOWLEDGE

Familiarity with contraceptive methods and places to obtain methods are preconditions to use. The EDHS provides information on the level of knowledge for both methods and service providers. Data on method knowledge were obtained by asking the respondent to name the methods or ways to avoid pregnancy which she had heard about. If a respondent did not spontaneously mention a particular method, the interviewer read a description of the method and the respondent was asked if she recognized that method. Descriptions were included in the questionnaire for seven modern methods (the pill, IUD, injection, condom, vaginal methods (foam, cream or jelly), female sterilization and male sterilization) and three traditional methods (safe period, withdrawal and prolonged breastfeeding). In addition to these methods, the respondent had an opportunity to mention any other methods about which she had heard. For any modern method the respondent recognized, she was asked about where she would go to obtain the method if she wanted to use it. In the case of the safe period, she was asked from where she would seek advice about using the method.

Finally, while lack of information about a specific contraceptive method or about a service provider offering the method are obvious barriers to use of the method, there are many other factors including concerns about side effects or the effectiveness of the method which can stand in the way of a woman adopting a particular method. To obtain information on other obstacles to use, ever-married women who have heard of a method were also asked about the main problem (if any) with using the method.

Level of Contraceptive Knowledge

Knowledge of contraceptive methods is widespread. Nearly all ever-married women know about at least one method (Table 4.1). In general, modern methods are more likely

Table 4.1 Among Ever-married Women, Percent Knowing a Contraceptive Method by Method, Egypt DHS, 1988, CPS, 1984 and FS, 1980, and Percent Knowing a Source by Method, DHS, 1988

Method	Know Method			Know Source
	EDHS 1988	ECPS 1984(1)	EFS 1980(2)	EDHS 1988
Any Method	98.0	85.4	89.7	95.2
Any Modern Method	97.8	85.2	NA	95.2
Pill	97.4	84.9	89.4	93.9
IUD	93.3	74.9	69.6	87.2
Injection	30.5	35.3	15.6	47.9
Vaginal Methods	39.6	27.8	13.8	36.6
Condom	43.3	21.5	25.9	40.2
Female Sterilization	53.5	20.5	42.5	50.2
Male Sterilization	9.6	5.3	6.0	8.4
Any Traditional Method	67.3	30.0	NA	--
Safe Period	22.1	11.3	14.0	20.0
Withdrawal	13.4	6.9	9.8	--
Prolonged Breastfeeding	64.8	24.7	NA	--
Other Methods	4.6	1.3	NA	--
Number of Women	8,911	10,013	8,788	8,911

Note: Differences in data collection methods may affect comparisons (see text).

NA - Not available
-- Not applicable

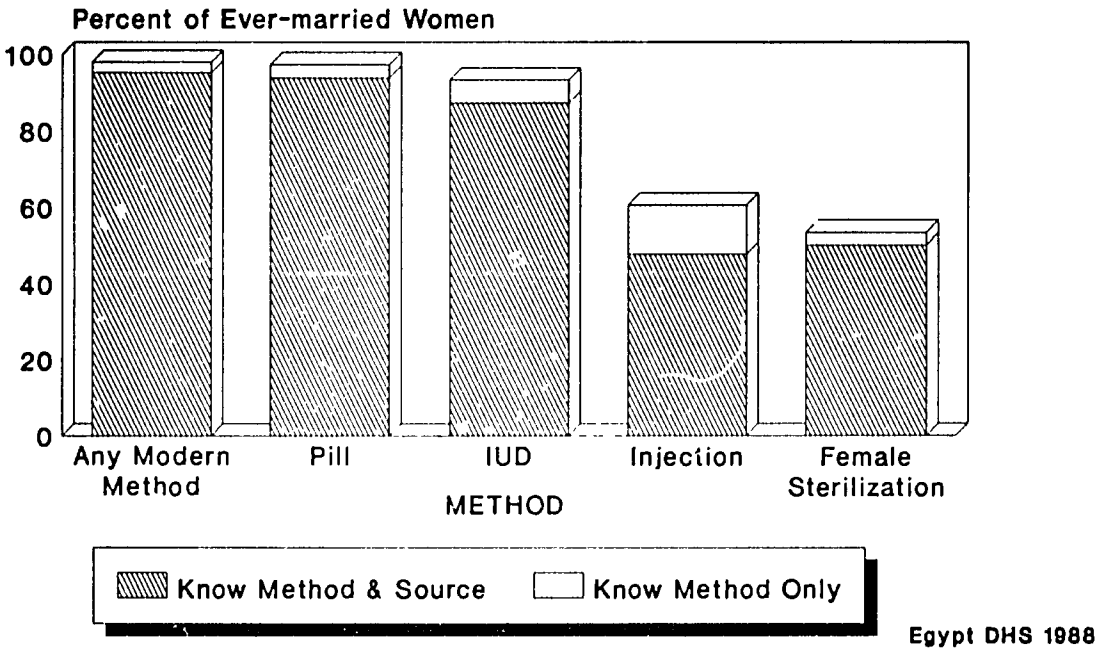
(1) Sayed et al., 1985, Tables 7.1 and 7.2
(2) Hallouda et al., Volume IV, Tables 4.2.1-1A

to be recognized than traditional methods (98 percent vs. 67 percent). Considering individual methods, the pill is the most widely known modern method (97 percent), followed by the IUD (93 percent), injection (60 percent) and female sterilization (54 percent).

Prolonged breastfeeding, the most widely known traditional method, is recognized by more women (65 percent) than any modern contraceptive methods except the pill and IUD. Other traditional methods (including the safe period method and withdrawal) are known by less than 25 percent of women.

Using information from the 1980 Fertility Survey (EFS) and the 1984 Contraceptive Prevalence Survey (ECPS), Table 4.1 shows the upward trend in the level of contraceptive knowledge during the 1980s. Overall, the percent of ever-married women knowing any

Figure 4.1
Contraceptive Knowledge by Method



method increased from 90 percent in 1980 to 98 percent in 1988.[1] The pill was the most widely recognized method in all three surveys. Egyptian women have clearly become more aware of family planning methods other than the pill since 1980. Increases in the percent of ever-married women saying that they knew about the method are particularly striking in the case of the IUD, injection, vaginal methods, and the condom.

Egyptian women are well-informed about family planning service providers; 95 percent of ever-married women can name a source from which contraceptive methods are available (Table 4.1). Women knowing a method are most likely to know about a service provider for the pill and least likely to name a source for injection (Figure 4.1). Even in the case of injection, however, eight in ten women knowing about the method were able to name a service provider where injection was available.

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[1] The ECPS differed somewhat from the EFS and the EDHS in the manner in which the information on contraceptive knowledge was obtained. In all three surveys, the respondent was first asked to name all the methods that she knew. The interviewer then probed to find out whether the respondent recognized methods which she had not spontaneously mentioned. In the ECPS, the interviewers used only the name when probing while, in the EFS and the EDHS, both the name of the method and a brief description were used. The fact that ECPS knowledge levels are somewhat lower for some methods than the levels in the earlier EFS may be related to differences in the probing techniques between the two surveys.

Differentials in Contraceptive Knowledge

Table 4.2 shows the percent knowing any modern method and the percent knowing any source for a modern method among currently married women, controlling for selected background characteristics. The results confirm that contraceptive knowledge is widespread among all groups. Differentials in method knowledge by age, place of residence, educational level and work status are generally minimal, with 95 percent of women in all subgroups able to name a modern method. There is somewhat greater variability in the proportions identifying a service provider, but even for this indicator, 90 percent or more of the women in all subgroups except rural Upper Egypt are able to name a source for at least one method.

Table 4.2 Among Currently Married Women, Percent Knowing at Least One Modern Contraceptive Method and Percent Knowing a Source (for Information or Services) for a Modern Method, by Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Know Modern Method	Know Source	Number of Women
Age			
15-19	96.9	91.6	416
20-24	97.8	95.7	1,369
25-29	98.9	97.2	1,607
30-34	98.4	96.6	1,473
35-39	98.9	96.7	1,470
40-44	97.9	95.7	1,042
45-49	96.7	93.2	844
Urban-Rural Residence			
Urban	99.4	98.8	4,006
Rural	96.9	93.1	4,215
Place of Residence			
Urban Governorates	99.7	99.3	1,996
Lower Egypt	99.0	98.0	3,230
Urban	99.8	99.3	952
Rural	98.6	97.5	2,278
Upper Egypt	96.2	91.3	2,995
Urban	98.6	97.3	1,058
Rural	94.9	88.0	1,937
Education Level			
No Education	96.9	93.3	4,105
Less than Primary	99.0	97.4	1,895
Primary through Secondary	99.9	99.2	804
Completed Secondary/Higher	99.7	99.5	1,417
Work Status			
Working for Cash	99.9	99.4	985
Working, Not Paid in Cash	98.9	97.4	657
Not Working	97.8	95.2	6,579
Interested in Work	98.8	96.7	1,960
Not Interested in Work	97.4	94.5	4,619
Total	98.2	95.9	8,221

Table 4.3 Percent of Currently Married Women Knowing a Contraceptive Method by Method, According to Urban-Rural Residence and Place of Residence, Egypt DHS, 1988

Method	Urban	Rural	Urban Governorates	Lower Egypt Total	Lower Egypt Urban	Lower Egypt Rural	Upper Egypt Total	Upper Egypt Urban	Upper Egypt Rural	Total
Any Method	99.5	97.2	99.8	99.1	99.8	98.9	96.4	98.6	95.2	98.3
Any Modern Method	99.4	96.9	99.7	99.0	99.8	98.6	96.2	98.6	94.9	98.2
Pill	99.2	96.6	99.4	98.5	99.4	98.2	96.1	98.6	94.7	97.9
IUD	97.7	90.2	98.5	93.6	96.2	92.5	91.2	97.7	87.6	93.9
Injection	68.2	55.9	65.0	61.5	68.7	58.5	60.3	73.8	52.9	61.9
Vaginal Methods	55.8	26.9	58.9	38.4	53.0	32.3	31.8	52.3	20.6	41.0
Condom	65.4	24.9	70.3	39.3	60.3	30.6	33.2	60.5	18.3	44.6
Female Sterilization	66.4	43.2	70.2	56.9	64.7	53.6	41.4	60.6	30.9	54.5
Male Sterilization	14.5	5.6	15.6	8.6	14.3	6.2	7.5	12.6	4.8	9.9
Any Traditional Method	79.4	57.4	87.2	61.9	66.2	60.2	62.0	76.5	54.1	68.1
Safe Period	37.6	8.8	42.4	16.8	32.5	10.3	16.3	33.1	7.1	22.8
Withdrawal	22.6	5.6	26.1	13.1	26.0	7.7	6.6	13.0	3.1	13.9
Prolonged Breastfeeding	76.0	55.7	83.5	59.5	62.3	58.4	60.1	74.1	52.5	64.8
Other Methods	6.2	3.0	7.5	2.1	1.6	2.3	5.3	8.1	3.7	4.6
Number of Women	4,006	4,215	1,996	3,230	952	2,278	2,995	1,058	1,937	8,221

Although most Egyptian women are familiar with the pill and the IUD, there is greater variability in the recognition of other methods. Currently married women living in urban areas are, for example, more than twice as likely as rural women to know about the condom or vaginal methods (Table 4.3). Women from rural Upper Egypt are particularly limited in their recognition of methods other than the pill or the IUD; only one in two knows about the injection, and fewer than one in three has heard about the condom, vaginal methods or female sterilization.

Perceived Source of Supply

Table 4.4 presents the percent distribution of women knowing contraceptive methods by the service provider from which they say that they would obtain the method. Pharmacies stand out as the most frequently cited source for the pill (80 percent), condom (88 percent) and vaginal methods (85 percent). Pharmacies (45 percent) and private physicians (22 percent) are seen as the principal source for injection.

Private physicians are the main perceived source (45 percent) for the IUD, followed by government sources (hospitals, MCH centers or FP clinics) (29 percent). In addition to being available at these sources, IUDs can be purchased at pharmacies at a subsidized rate for later insertion by a physician. Nearly 20 percent of women knowing about the IUD would buy the IUD from a pharmacy if they wanted to use it. Government hospitals and private physicians are the main service providers women report for female and male

Table 4.4 Percent Distribution of Ever-married Women Knowing a Contraceptive Method by the Source Where the Woman Would Go to Obtain the Method, According to Method, Egypt DHS, 1988

Source	Pill	IUD	Injec-tion	Vagin-als	Condom	Sterilization		Safe Period
						Female	Male	
Government FP Clinic	5.0	7.2	2.3	1.8	0.9	0.7	0.5	2.6
Government MCH Center	2.4	4.1	1.1	0.4	0.3	0.2	0.0	1.0
Government Hospital	5.6	17.5	7.3	1.4	0.8	50.2	38.2	1.5
Home Delivered	0.4	0.1	0.2	0.3	0.3	0.0	0.0	0.0
Private FP Clinic	0.3	0.6	0.1	0.1	0.0	0.1	0.3	0.4
Private Doctor/Clinic	1.8	45.2	22.1	3.1	1.7	41.3	47.1	36.4
Pharmacy	80.0	17.8	45.1	85.2	88.5	1.3	1.1	0.3
Relatives, Friends and Other	0.9	0.9	0.8	0.2	0.4	0.1	0.9	46.3
Nowhere	0.0	0.0	0.2	0.0	0.0	0.1	0.2	1.7
Don't Know	3.6	6.4	20.5	7.2	6.4	5.6	10.9	6.1
Missing	0.1	0.1	0.3	0.3	0.7	0.5	0.8	3.6
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	8,684	3,313	5,392	3,532	3,856	4,767	853	1,972

sterilization. Relatives and friends (46 percent) and private doctors (36 percent) are the primary sources from which women would seek advice about using the safe period.

In summary, private sector providers are perceived to be the principal providers for contraceptive methods. The pharmacy is the most frequently cited source for the pill and other methods requiring resupply (condom, vaginal methods and injection), and many women would purchase the IUD at a pharmacy. Private doctors are most often named as the source for the IUD. Only a minority of women would rely on government facilities for any methods except sterilization, which is not widely available or used in Egypt.

Acceptability of Methods

Table 4.5 shows the problems women associated with specific contraceptive methods. For most methods except the pill and the IUD, the majority of respondents either do not consider the method to have any problems or report that they do not know about any problems. The proportion indicating that there are no problems with the method ranges from 11 percent in the case of injection to 48 percent in the case of prolonged breastfeeding, while the proportion claiming not to know about any problems varies from 10 percent for prolonged breastfeeding to 62 percent for injection.

Respondents falling into the "don't know" category may not be familiar enough with the methods (e.g., injection) to be able to specify problems or they may be embarrassed to discuss problems with using some methods (e.g., the condom). Therefore, the large proportions of women answering that they do not know about any problems with a method

Table 4.5 Percent Distribution of Ever-married Women Knowing a Contraceptive Method by the Main Problem Perceived in Using the Method, According to Method, Egypt DHS, 1988

Main Problem	Pill	IUD	Injec-tion	Vagin-als	Con-dom	Sterilization		Safe Per-iod	With-drawal	Prolonged Breast-feeding
						Female	Male			
No Problem	18.0	20.8	11.2	13.2	18.5	25.0	13.5	26.2	25.8	48.0
Husband Disapproves	0.1	0.2	0.1	0.4	13.1	1.2	11.7	2.6	16.3	0.0
Other Relative Disapproves	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1
Religious Prohibitions	0.3	0.1	0.2	0.3	0.5	11.2	13.3	0.3	0.7	0.2
Side Effects for Woman	59.2	39.9	18.4	13.5	2.5	6.7	1.3	0.6	1.4	4.1
Side Effects for Child	1.0	0.0	0.1	0.1	0.1	0.0	0.0	0.2	0.0	1.0
Method Irreversible	0.1	0.1	1.3	0.1	0.0	15.5	12.0	0.0	0.0	0.0
Difficult to Obtain	0.0	0.0	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Not Effective	1.2	8.7	3.8	16.2	12.6	0.9	0.4	43.6	16.5	33.9
Costs Too Much	0.0	0.1	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.0
Inconvenient to Use	0.7	1.4	0.6	1.3	2.9	1.3	2.4	2.2	4.2	1.0
Other	0.7	1.7	1.1	1.2	2.1	1.8	2.7	1.6	4.4	0.7
Don't Know	18.6	27.0	61.8	53.1	47.0	35.5	41.8	21.9	29.9	10.4
Missing	0.1	0.1	0.3	0.4	0.5	0.5	0.5	0.9	0.8	0.6
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	8,684	8,313	5,392	3,532	3,856	4,767	853	1,972	1,192	5,775

should not be interpreted as evidence that the method is "without problems" for women. Lack of adequate information about a method, including both its advantages and disadvantages, may in itself be the greatest barrier to the method's use.

Among those women citing problems with methods, side effects (for the woman) tend to be the chief concern. In the case of the pill, six in ten women consider such side effects to be the main problem, while four in ten women are concerned about side effects in using the IUD. Side effects are also associated with the injection and vaginal methods, although by considerably smaller proportions of women.

Ineffectiveness is the principal problem for the safe period and prolonged breastfeeding and, to a lesser extent, the condom, vaginal methods, withdrawal and the IUD. Irreversibility of the method and religious prohibitions are cited by 10 to 15 percent of women as the main problems associated with female sterilization and male sterilization. For the latter method and the condom, similar proportions of women point to husband's disapproval as an obstacle to use. Other potential problems, including cost or difficulties in obtaining or using methods, are mentioned by very few women.

In conclusion, the findings in Table 4.5 suggest that the major potential barrier to use of contraceptive methods for most Egyptian women are method side effects, and such side effects are primarily associated with use of the pill and the IUD. To some extent, these results may simply reflect greater familiarity with the pill and the IUD on the part

of women and consequently, greater awareness of the possibility that side effects can occur with these methods. However, the results suggest that concerns about side effects are a significant obstacle to use of these methods, which must be addressed in educational campaigns and through improved followup of women adopting these methods.

4.2 ATTITUDINAL INDICATORS

A positive attitude toward family planning is another basic prerequisite for contraceptive use. Attitudinal data were collected by asking women in the sample whether they approved of family planning use and, if they were married, whether their husbands approved or not. The extent to which wives and husbands discuss family planning use was investigated, on the assumption that more frequent discussion might predispose the couple to use. Finally, information was obtained on attitudes toward the timing of the first use of family planning in order to better understand at what stage in childbearing women believe contraceptive use should be initiated. In addition, the issue of whether Egyptian women consider female sterilization to be an acceptable contraceptive method was explored.

Approval of Family Planning Use

Table 4.6 shows the overall level of approval of family planning among currently married women who know at least one contraceptive method. The table also looks at the extent to which these women say that their attitude parallels that of their husband. Although the husband's actual attitude toward family planning may differ from what the wife reports, a wife's perceptions concerning his attitude are important since they will help to shape her decisions with regard to the use of family planning.

Table 4.6 Percent Distribution of Currently Married Women Knowing a Contraceptive Method by the Wife's Attitude Toward Contraceptive Use and the Wife's Perception about the Husband's Attitude, Egypt DHS, 1988

Wife's and Husband's Attitude	Percent
Wife Approves	86.6
Husband Approves	70.7
Husband Disapproves	9.4
Husband's Attitude Not Known	6.5
Wife Disapproves	7.2
Husband Approves	0.8
Husband Disapproves	4.8
Husband's Attitude Not Known	1.6
Wife Not Sure	6.2
Husband Approves	0.4
Husband Disapproves	2.0
Husband's Attitude Not Known	3.7
Total	100.0
Number of Women	8,082

According to wives, the majority of couples approve of the use of family planning; in only one in five couples does either or both spouses disapprove. In the case of most of these couples, it is the husband and not the wife who is seen as disapproving of family planning; only seven percent of women disapprove of family planning compared with 16 percent of husbands.

Discussion of Family Planning with Husband

While husband-wife discussion of family planning is not a necessary precondition for adoption of a method, evidence of such discussion is an indication of interest in the subject on the part of the couple, which is presumed to precede use. Table 4.7 shows one in three women knowing a contraceptive has never talked about family planning with her husband. Among those who have discussed the subject, 60 percent talked to their husband at least once in the 12 months before the survey, and around half of these women report having had at least four conversations with their husband during the period.

Table 4.7 Percent Distribution of Currently Married Women Knowing a Contraceptive Method by Frequency of Discussion about Family Planning with Husband, Egypt DHS, 1988

Frequency of Family Planning Discussion	Percent
Discussed in Past Year	40.9
Once	8.5
2-3 Times	12.1
4 or More Times	20.3
Ever Discussed, Not in Past Year	26.5
Never Discussed	32.4
No Information	0.2
Total	100.0
Number of Women	8,082

Initiation of Family Planning Use

Although the majority of married women knowing about a contraceptive method approve of the use of family planning, EDHS results indicate that there is little support for family planning use during the early stages of childbearing. None of the women advocate using a contraceptive method prior to the birth of the first child, and only a small fraction (10 percent) think a couple should begin using family planning after one child (Table 4.8). However, almost 60 percent of the women approve of the use of family planning when a couple has two or three children, and only 11 percent feel contraceptive use should be started only after a couple has had four or more children.

Table 4.8 Percent Distribution of Currently Married Women Knowing a Contraceptive Method by the Number of Children a Woman Should Have Before Using Contraception and the Mean Number of Children a Woman Should Have Before Using Contraception, Egypt DHS, 1988

Number of Children	Percent
None	0.0
1 Child	10.3
2 Children	34.9
3 Children	24.6
4 Children	8.7
5 or More Children	1.9
Not Sure	9.9
Should Not Use	7.4
Missing	2.2
Total	100.0
Number of Women	8,082
Mean Number of Children(1)	2.5

(1) Calculated only for women giving numeric responses (N = 6,502)

Attitude About Use of Sterilization

In order to collect data on attitudes toward sterilization as a method for limiting births, EDHS respondents were asked: "If a couple has had the number of children that they want, do you think that it is acceptable for women to have an operation to prevent her from becoming pregnant again if her husband agrees?" Overall, women are fairly evenly divided on this issue; among women knowing at least one contraceptive method, 47 percent of the women knowing about family planning consider sterilization acceptable or sometimes acceptable, 44 percent feel it is unacceptable to have such an operation, and nine percent are unsure about their attitude.

Differentials in the Attitudinal Indicators

The EDHS results presented above indicate that the majority of wives and husbands approve of the use of family planning. Among almost one-fifth of couples, however, one (usually the husband) or both spouses disapprove of a couple using contraception. Couples talk about family planning, with only one in three women saying that she had never discussed family planning with her husband. Although there is widespread discussion and approval of family planning among couples, most Egyptian women do not consider it appropriate for a couple to begin using family planning until they have had at least two children. Thus, contraceptive methods are considered largely as a means to limit births once a couple has achieved a desired number of children, and there is little apparent demand for using family planning to space wanted second births. With regard to the use of female sterilization when a couple has achieved their desired family size, women seem to be equally divided between those who consider it acceptable and those who do not.

Table 4.9 looks at differences in these attitudinal indicators across population subgroups. In general, rural women (and their husbands), women from Upper Egypt, women who never attended school, and those who are not working tend to be more conservative in their attitudes than other women. Women from rural Upper Egypt stand out as much more likely than other women to express negative feelings about family planning use. Much of the disapproval of family planning is, in fact, concentrated among women from rural Upper Egypt (Figure 4.2). For example, almost one in five women knowing a contraceptive method in this region disapproves of a couple using family planning, nearly three times the level of disapproval recorded for women in other residential categories. More than one in four women in rural Upper Egypt believes that her husband disapproves of family planning; this is more than twice the level of husband disapproval reported by women from rural Lower Egypt. There is little discussion about family planning among couples from rural Upper Egypt; only one in three married women has ever talked about the subject with her husband, and only one in four has had a recent conversation with her husband about family planning.

The more conservative attitudes of women from rural Upper Egypt are also reflected in their opinion as to the time when a couple should initiate family planning use.

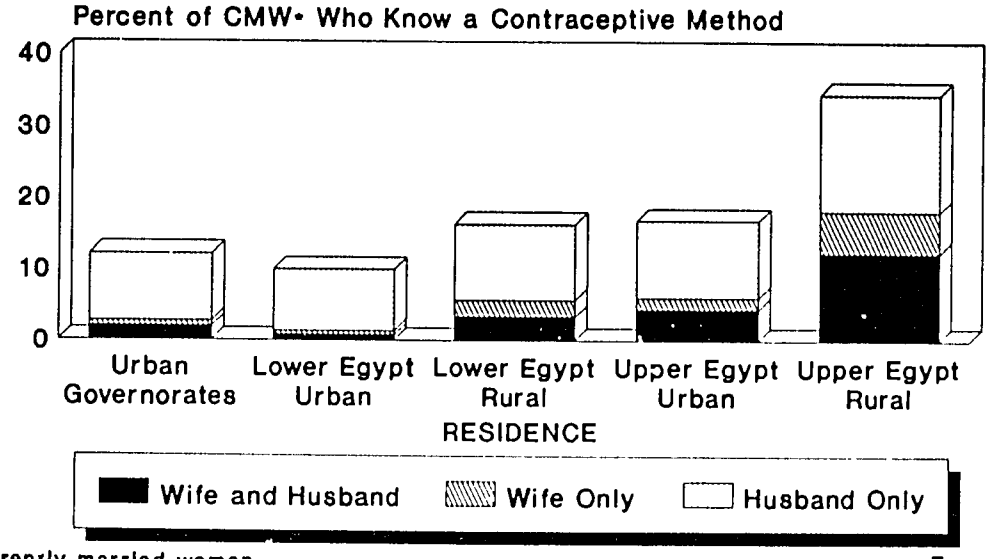
Table 4.9 Attitudinal Indicators for Currently Married Women Knowing a Contraceptive Method by Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Disapproves of Using Contraception: Both	Wife Only	Husband Only	Wife-Husband Have Talked About Family Planning: Ever	Within Year	Mean Number of Children Any Couple Should Have Before Using Contraception(1)	Sterilization Acceptable	Number of Women
Age								
15-19	7.8	3.3	12.2	38.0	34.4	2.4	40.6	403
20-24	5.7	2.2	13.7	61.0	47.9	2.4	39.0	1,345
25-29	4.0	2.4	12.9	72.0	51.2	2.4	39.0	1,592
30-34	4.1	1.7	11.0	75.5	48.4	2.5	41.6	1,451
35-39	3.9	2.7	9.7	74.7	39.9	2.6	42.0	1,454
40-44	5.1	2.4	9.9	68.0	29.8	2.6	44.6	1,020
45-49	6.3	3.3	10.1	57.3	15.0	2.6	41.9	817
Urban-Rural Residence								
Urban	2.3	1.0	9.6	80.2	44.5	2.3	44.6	3,984
Rural	7.4	3.9	13.2	55.0	37.4	2.8	48.6	4,098
Place of Residence								
Urban Governorates	1.9	0.8	9.4	82.5	40.6	2.2	43.3	1,992
Lower Egypt	2.6	1.8	10.1	73.1	48.0	2.5	49.1	3,202
Urban	0.7	0.6	8.6	82.2	53.1	2.3	43.0	949
Rural	3.3	2.4	10.6	69.3	45.8	2.6	51.6	2,253
Upper Egypt	9.4	4.3	14.3	50.8	33.3	2.8	46.1	2,088
Urban	4.4	1.6	10.8	74.0	44.2	2.5	48.4	1,043
Rural	12.3	5.8	16.4	37.7	27.2	3.1	44.8	1,845
Education Level								
No Education	7.8	3.7	13.4	54.6	32.7	2.7	47.0	3,990
Less than Primary	2.9	2.2	11.7	72.9	44.2	2.5	55.8	1,876
Primary through Secondary	1.5	0.5	9.0	83.8	49.3	2.3	47.1	802
Completed Secondary/Higher	0.9	0.5	7.0	87.2	54.9	2.0	33.0	1,414
Work Status								
Working for Cash	1.9	0.9	9.4	82.1	47.0	2.1	36.5	984
Working, Not Paid in Cash	4.3	2.8	12.8	59.1	35.3	2.7	58.4	650
Not Working	5.3	2.6	11.6	66.1	40.5	2.5	48.5	6,448
Interested in Work	2.9	1.5	10.0	73.3	47.6	2.4	55.3	1,938
Not Interested in Work	6.4	3.1	12.3	63.0	37.5	2.6	43.4	4,510
Total	4.8	2.4	11.4	67.4	40.9	2.5	46.6	8,082

(1) Calculated only for women giving numeric responses

The mean preferred family size before use is initiated is 3.1 children among these women compared to 2.6 children for women from rural areas in Lower Egypt. Somewhat surprisingly, women from rural Upper Egypt are not more negative than women from urban areas regarding the acceptability of sterilization, although they are less likely to think sterilization is acceptable than women from rural Lower Egypt.

Figure 4.2
Percent of Wives and Husbands Disapproving of Family Planning by Place of Residence



• Currently married women

Egypt DHS 1988

4.3 EXPOSURE TO MASS MEDIA AND FAMILY PLANNING MESSAGES

Activities designed to inform and educate couples about the use of contraception are a major component of the Egyptian family planning program. To help design and evaluate one aspect of these activities, the EDHS obtained information on the overall coverage of broadcast (radio and television) media and the exposure of women to family planning messages through those media. Table 4.10 suggests that television has wider coverage of the female population than does radio; three in four currently married women say that they watch television every day, while only around one in two say that they listen to the radio daily. As might be expected given the wider coverage of television, family planning messages broadcast on the television are more successful in reaching an audience than radio messages; fewer than one in three women listened to a family planning message on the radio in the month before the survey compared to two in three women who reported seeing a message on television.

Exposure to family planning messages varies according to age, residence, educational level and work status. Of concern is the more limited exposure to family planning messages reported for rural women, particularly those from Upper Egypt, than for other groups. For example, only 54 percent of rural women had watched a television broadcast about family planning in the month before the survey compared to 84 percent of urban

Table 4.10 Among Currently Married Women, Percent Watching Television or Listening to the Radio Daily and Percent Exposed to a Family Planning Message on the Television or Radio During the Month Before the Survey, by Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Usually Listens to Radio	Usually Watches Television	Exposed to Family Planning Message on: Radio	Exposed to Family Planning Message on: Television	Number of Women
Age					
15-19	53.6	68.5	24.9	59.9	416
20-24	59.2	75.0	35.0	68.7	1,369
25-29	57.5	77.4	35.1	70.4	1,607
30-34	56.7	78.5	33.3	73.5	1,473
35-39	53.6	73.9	30.7	68.9	1,470
40-44	51.3	76.5	30.9	67.7	1,042
45-49	51.5	71.8	27.6	62.3	844
Urban-Rural Residence					
Urban	66.2	86.7	41.8	84.3	4,006
Rural	45.0	64.7	23.0	53.9	4,215
Place of Residence					
Urban Governorates	66.3	89.1	40.2	86.5	1,996
Lower Egypt	53.0	73.8	34.8	65.7	3,230
Urban	67.5	85.8	49.7	83.8	952
Rural	46.9	68.8	28.6	58.1	2,278
Upper Egypt	50.6	68.1	23.9	60.1	2,995
Urban	64.8	82.9	37.8	80.8	1,058
Rural	42.8	60.0	16.4	48.9	1,937
Education Level					
No Education	44.4	65.6	22.4	55.8	4,105
Less than Primary	56.1	79.0	32.5	72.5	1,895
Primary through Secondary	69.2	89.6	44.7	85.9	804
Completed Secondary/Higher	78.3	91.2	52.9	91.2	1,417
Work Status					
Working for Cash	68.7	85.3	43.8	83.7	985
Working, Not Paid in Cash	40.8	65.4	18.0	51.4	657
Not Working	54.8	74.9	31.8	68.2	6,579
Interested in Work	60.1	80.5	36.8	73.0	1,960
Not Interested in Work	52.5	72.6	29.7	66.1	4,619
Total	55.3	75.4	32.2	68.7	8,221

women. Among women in rural areas in Upper Egypt, less than 50 percent had seen a family planning message on television (Figure 4.3).

Much, but not all, of the more limited exposure to family planning messages in rural areas may be due to the fact that women from these areas are much less likely than women from other areas to report watching television or listening to the radio on a daily basis (Figure 4.4). Only 65 percent of rural women report that they watch television every day compared to nearly 90 percent of urban women. Among those watching television

Figure 4.3
Exposure to Family Planning Broadcasts by Place of Residence

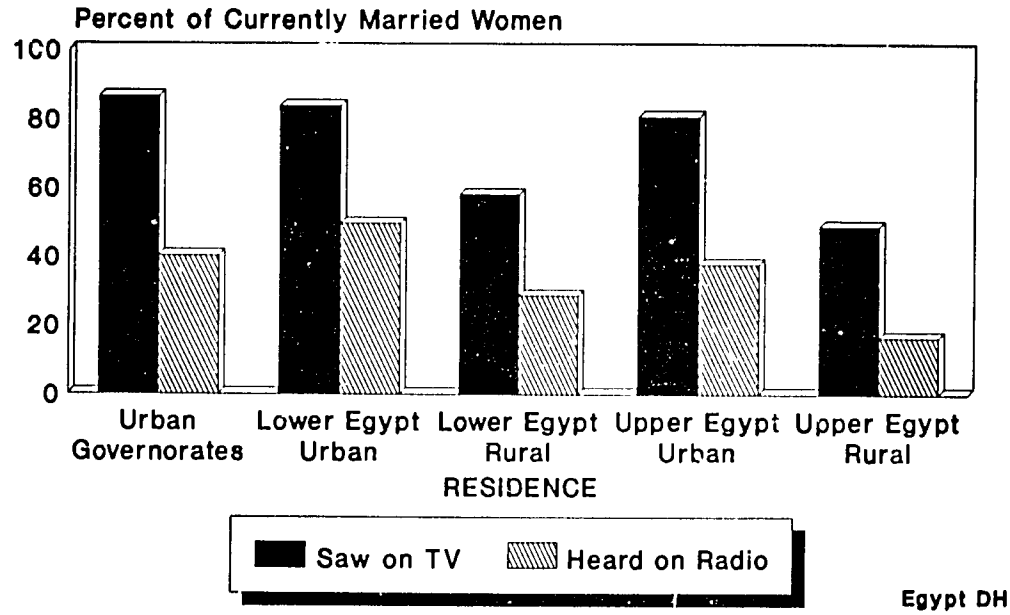
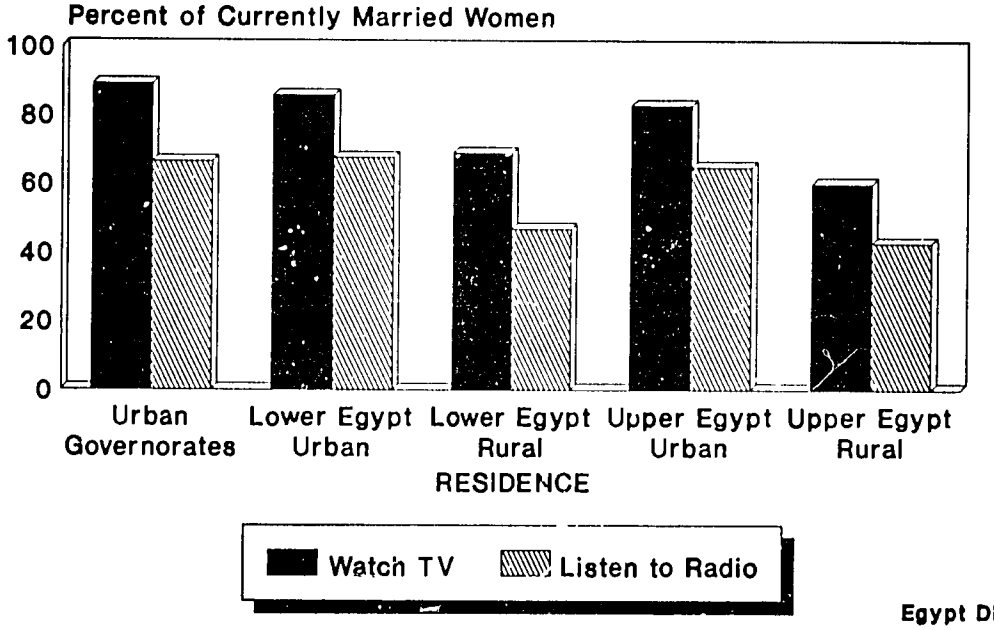


Figure 4.4
Exposure to Broadcast Media by Place of Residence



regularly, 83 percent of rural women had seen a family planning message compared to 97 percent of urban women. Thus, it seems likely that as coverage of the rural population by television expands, differentials in exposure to family planning messages will narrow. However, it is clear that alternate means of informing and educating rural women who are not regularly exposed to media messages on family planning must be considered, especially to reach rural women in Upper Egypt.

Chapter 5

EVER USE OF FAMILY PLANNING

The EDHS collected information on the level of ever use of family planning and on patterns of method adoption including the first method used, the provider from which the first method used was obtained and the motivation for adopting family planning at the time of first use (i.e., to limit or space). Roles of the husband and wife in deciding to use family planning are also investigated. Finally, information on reasons for discontinuing use was obtained in order to provide insights into factors which lead women to stop using after they have adopted a method.

5.1 EVER USE OF FAMILY PLANNING

Levels and Trends

The EDHS findings indicate that 57 percent of ever-married women (60 percent of currently married women) have used a contraceptive method at some time (Table 5.1). Overall, modern methods are much more frequently adopted than traditional methods; 56 percent of ever-married women have used a modern method, while only 11 percent have used a traditional method. The pill is the most widely adopted modern method. Around one-half of ever-married women have used the pill, compared with only one in four who have used the IUD and fewer than one in ten have tried the condom. Five percent or less report ever use of other modern methods (injection, vaginal methods and female sterilization). Prolonged breastfeeding, the most widely adopted traditional method, has been used by only six percent of ever-married women.

Across age groups, the highest level of ever use is observed for women 35-39 (70 percent), and the lowest level is recorded for women 15-19 (12 percent). In every age cohort, the pill is the most frequently adopted method. Older women are, however, more likely than younger women to have experience with other modern methods, particularly the IUD. Older women are also more likely than younger women to have used traditional methods.

Comparing EDHS with ECPS findings, the level of ever use has increased by almost 20 percent, from 48 percent in 1984 to the present rate of 57 percent (Table 5.2). By method, the greatest increase over the period was registered for the IUD. One in four ever-married women had used the IUD at the time of the EDHS compared to fewer than one in six women in 1984 (Figure 5.1). The absolute increase in the percent ever using the pill was only about half that observed for the IUD.

Table 5.1 Percent of Ever-married Women and Currently Married Women Who Have Ever Used a Contraceptive Method by Method, According to Age, Egypt DHS, 1988

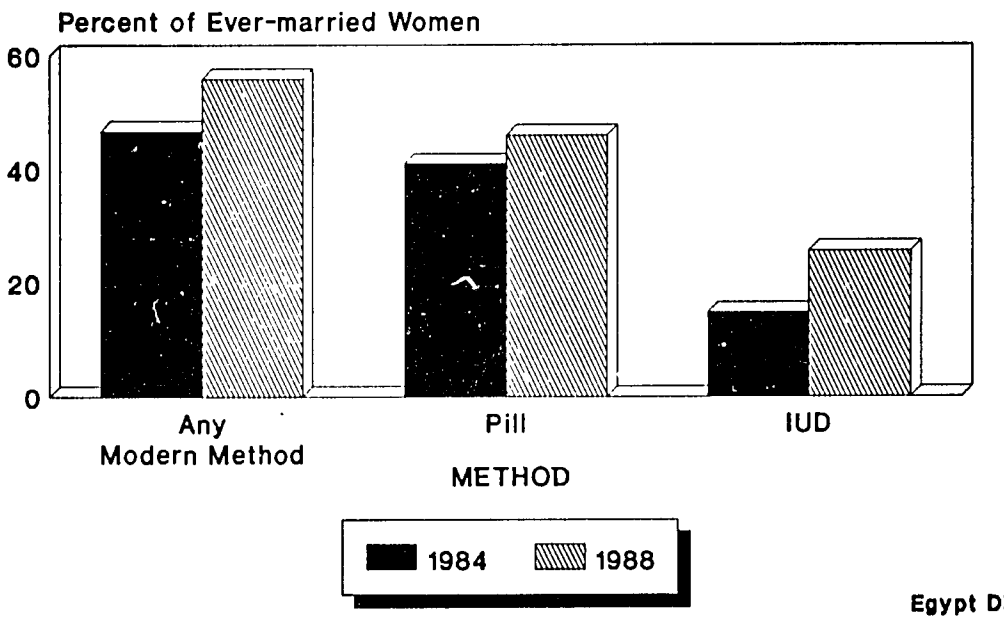
Age	Any Method	Any Modern Method	Pill	IUD	Injection	Vaginals	Condom	Sterilization		Any Traditional Method	Safe Period	Withdrawal	Prolonged Breastfeeding	Other	Number of Women
								Female	Male						
Ever-married Women															
15-19	11.8	11.3	8.6	3.2	0.0	0.0	0.9	0.0	0.0	0.8	0.3	0.0	0.5	0.0	422
20-24	38.4	36.3	26.9	14.7	0.9	1.0	4.1	0.1	0.0	6.1	1.2	1.1	4.5	0.0	1,417
25-29	57.8	56.0	42.2	27.2	2.3	4.1	8.0	0.4	0.0	10.1	3.3	2.6	5.1	0.6	1,669
30-34	67.8	66.0	53.3	32.9	3.4	7.5	11.9	0.8	0.0	13.2	5.2	3.0	7.5	0.6	1,557
35-39	70.2	69.4	59.2	33.0	3.2	7.4	11.2	1.9	0.0	14.6	5.2	3.2	8.1	1.3	1,605
40-44	65.8	64.5	56.9	30.0	3.3	7.7	11.6	4.1	0.0	14.8	5.1	3.0	8.3	1.5	1,207
45-49	56.0	54.6	48.7	19.7	1.4	5.5	6.5	3.5	0.2	13.6	3.4	2.1	8.2	1.7	1,034
Total	57.4	55.9	46.0	25.6	2.3	5.3	8.6	1.5	0.0	11.4	3.7	2.4	6.5	0.8	8,911
Currently Married Women															
15-19	12.0	11.5	8.7	3.2	0.0	0.0	0.9	0.0	0.0	0.8	0.3	0.0	0.5	0.0	416
20-24	39.2	37.2	27.6	15.2	1.0	1.1	4.2	0.1	0.0	6.2	1.2	1.1	4.6	0.0	1,369
25-29	59.1	57.4	43.1	28.1	2.4	4.2	8.2	0.4	0.0	10.4	3.3	2.6	5.3	0.6	1,607
30-34	70.0	68.3	55.1	34.3	3.6	7.8	12.3	0.8	0.0	13.8	5.4	3.1	7.8	0.6	1,473
35-39	73.1	72.3	61.9	34.8	3.5	8.0	12.0	1.9	0.0	15.5	5.7	3.5	8.4	1.4	1,470
40-44	70.0	68.7	60.5	32.7	3.6	8.5	13.1	4.4	0.0	15.9	5.8	3.4	8.5	1.7	1,042
45-49	61.1	59.8	53.1	22.6	1.5	6.3	7.7	3.8	0.2	14.8	4.1	2.5	9.0	1.5	844
Total	59.5	58.0	47.5	27.0	2.5	5.6	9.1	1.5	0.0	11.9	4.0	2.6	6.7	0.8	8,221

Table 5.2 Percent of Ever-married Women Who Have Ever Used a Contraceptive Method by Method, Egypt DHS, 1988, and CPS, 1984

Method	EDHS 1988	ECPS 1984(1)
Any Method	57.4	48.2
Any Modern Method	55.9	46.7
Pill	46.0	41.0
IUD	25.6	14.8
Injection	2.3	1.1
Vaginal Methods	5.3	3.9
Condom	8.6	3.4
Female Sterilization	1.5	1.4
Male Sterilization	0.0	0.0
Any Traditional Method	11.4	5.3
Safe Period	3.7	1.4
Withdrawal	2.4	1.0
Prolonged Breastfeeding	6.5	3.1
Other Methods	0.8	0.5
Number of Women	8,911	10,013

(1) Sayed et al., 1985, Table 8.3

Figure 5.1
Ever Use of Contraception by Method, 1984 and 1988



Egypt DHS 1988

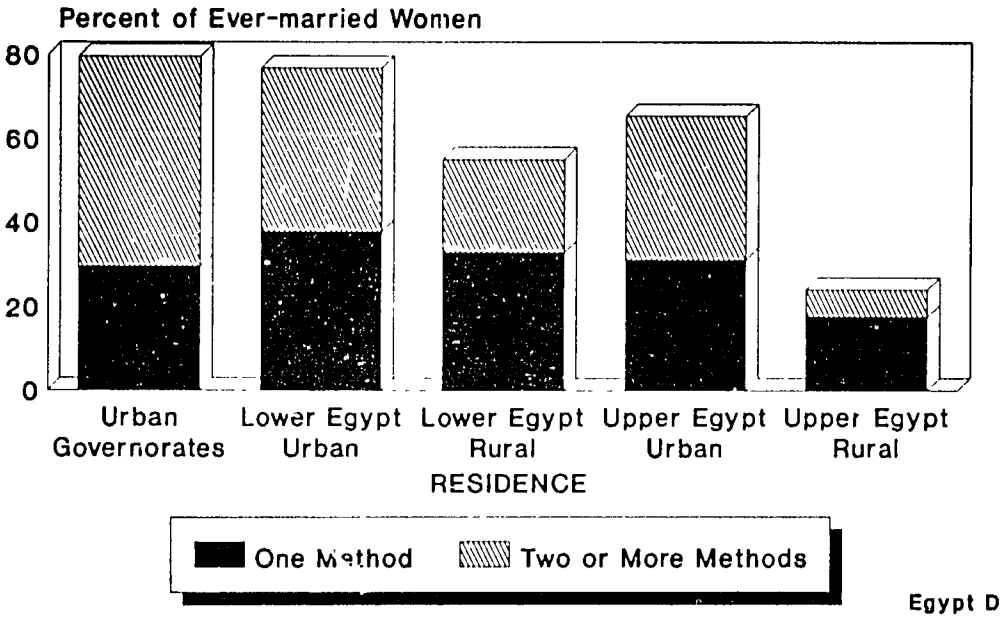
Differentials in Ever Use

An Egyptian woman is most likely to have used a family planning method if she lives in an urban area, especially one of the Urban Governorates, has had some secondary education or is employed at a job for which she is paid in cash. The differentials in ever-use between these women and their rural, less educated, non-employed counterparts are presented in Table 5.3. Not only are urban women, educated women and women holding

Table 5.3 Among Ever-married Women, Percent Who Have Ever Used a Contraceptive Method and, Among Ever-users, Percent Distribution by Number of Methods Used and Mean Number of Methods Used, According to Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Percent Ever Using Any Family Planning Method	Among Ever-users: Number of Methods Used 1	2	3 or More	Total Percent	Mean Number Used	Number of Women
Age							
15-19	11.8	85.8	14.2	0.0	100.0	1.1	422
20-24	38.4	67.9	24.2	7.9	100.0	1.4	1,417
25-29	57.8	55.5	30.4	14.2	100.0	1.7	1,669
30-34	67.8	47.2	31.9	20.9	100.0	1.9	1,557
35-39	70.3	46.4	30.7	22.9	100.0	1.9	1,605
40-44	65.9	39.3	35.9	24.9	100.0	2.0	1,207
45-49	56.1	49.0	32.3	18.7	100.0	1.8	1,034
Urban-Rural Residence							
Urban	75.2	42.5	33.3	24.3	100.0	2.0	4,305
Rural	40.8	63.3	27.2	9.6	100.0	1.5	4,606
Place of Residence							
Urban Governorates	79.6	37.1	34.2	28.7	100.0	2.1	2,141
Lower Egypt	61.4	55.8	30.9	13.3	100.0	1.6	3,505
Urban	76.8	49.1	32.7	18.2	100.0	1.8	1,019
Rural	55.1	59.6	29.9	10.5	100.0	1.5	2,486
Upper Egypt	38.6	58.0	26.9	15.1	100.0	1.6	3,265
Urban	65.4	47.7	31.8	20.5	100.0	1.8	1,145
Rural	24.1	73.2	19.8	7.0	100.0	1.4	2,120
Education Level							
No Education	45.3	58.7	29.9	11.4	100.0	1.6	4,531
Less than Primary	64.9	51.7	31.6	16.7	100.0	1.7	2,058
Primary through Secondary	74.6	36.8	36.0	27.2	100.0	2.1	859
Completed Secondary/Higher	74.0	40.0	29.4	30.6	100.0	2.1	1,463
Work Status							
Working for Cash	71.9	40.1	30.5	29.3	100.0	2.1	1,109
Working, Not Paid in Cash	51.7	60.3	30.3	9.4	100.0	1.5	694
Not Working	55.7	51.2	31.2	17.6	100.0	1.8	7,108
Interested in Work	60.8	49.5	29.2	21.3	100.0	1.8	2,155
Not Interested in Work	53.5	52.1	32.2	15.8	100.0	1.7	4,953
Total	57.4	50.1	31.0	18.9	100.0	1.8	8,911

Figure 5.2
Ever Use of Contraception by
Place of Residence



jobs more likely to have tried a contraceptive method, but those who are ever-users are more likely than other women to have experience with more than one method. For example, more than one-half of urban women have tried two or more methods compared to only one in three rural women. Variations by place of residence are also striking (Figure 5.2). While almost two-thirds of ever-users living in the Urban Governorates have used at least two methods, only one-quarter of ever-users from rural Upper Egypt have tried more than one method.

5.2 FIRST USE OF CONTRACEPTION

The Egypt DHS included questions on the first method ever used, the timing of the adoption of the method and the source from which the method was obtained. These data provide useful insights into the motivation women have when they first begin using contraception. They also enable an examination of cohort changes in the timing of adoption in order to identify any trend toward earlier adoption of more effective methods.

First Method Used

For most women, family planning experience begins with adoption of the pill. Table 5.4 shows that, among ever-users, 70 percent started practicing family planning by

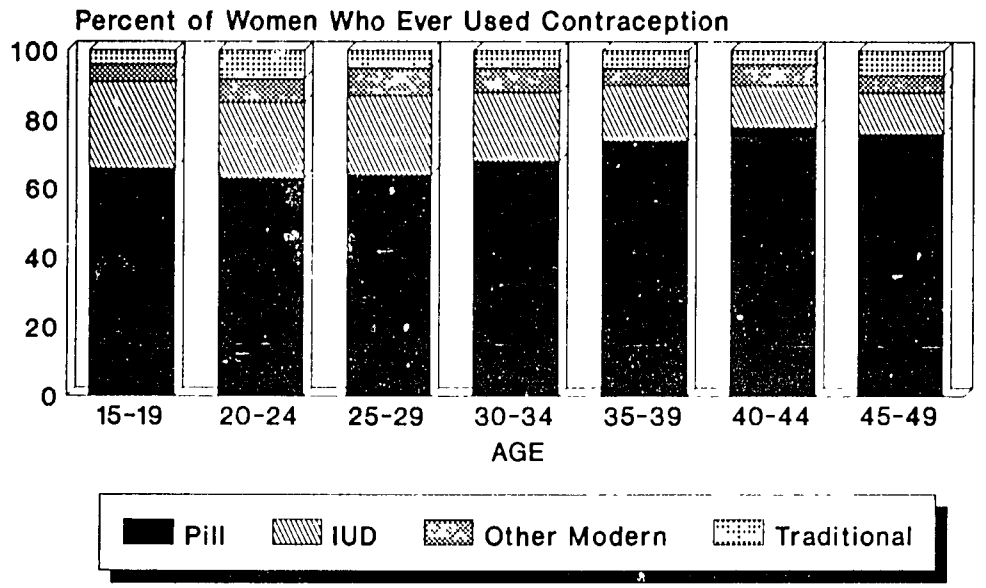
Table 5.4 Percent Distribution of Ever-users by First Method Used, According to Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Pill	IUD	Other Modern	Tradi-tional	Total Percent	Number of Ever-users
Age						
15-19	65.3	24.9	5.3	4.4	100.0	50
20-24	62.9	22.4	7.1	7.7	100.0	544
25-29	64.0	23.3	8.2	4.5	100.0	964
30-34	68.1	19.8	6.9	5.1	100.0	1,055
35-39	74.5	16.0	4.5	5.0	100.0	1,128
40-44	77.7	12.5	5.9	3.9	100.0	795
45-49	75.6	11.7	5.1	7.5	100.0	580
Urban-Rural Residence						
Urban	66.7	20.6	6.6	6.1	100.0	3,235
Rural	77.0	13.3	5.7	4.0	100.0	1,881
Place of Residence						
Urban Governorates	62.2	22.7	6.8	8.2	100.0	1,704
Lower Egypt	75.3	15.4	5.2	4.0	100.0	2,153
Urban	74.6	15.7	5.8	3.9	100.0	782
Rural	75.8	15.3	4.8	4.1	100.0	1,371
Upper Egypt	73.4	15.6	7.4	3.7	100.0	1,259
Urban	68.7	20.8	7.0	3.6	100.0	749
Rural	80.4	7.9	7.9	3.9	100.0	510
Education Level						
No Education	75.6	14.7	4.3	5.4	100.0	2,055
Less than Primary	75.9	15.2	4.6	4.3	100.0	1,336
Primary through Secondary	70.8	19.5	5.1	4.6	100.0	640
Completed Secondary/Higher	53.9	26.2	12.8	7.0	100.0	1,083
Work Status						
Working for Cash	60.9	23.6	9.6	5.9	100.0	797
Working, Not Paid in Cash	71.3	17.1	3.9	7.7	100.0	359
Not Working	72.4	16.8	5.8	5.0	100.0	3,960
Interested in Work	71.2	16.8	6.6	5.3	100.0	1,311
Not Interested in Work	72.9	16.8	5.4	4.8	100.0	2,649
Total	70.5	17.9	6.3	5.3	100.0	5,116

using the pill, while 18 percent chose the IUD for their first method, six percent first adopted other modern methods and five percent began contracepting with a traditional method. Although the majority of ever-users in all subgroups report that the first method adopted was the pill, younger users are somewhat more likely to have begun family planning use with the IUD than older women (Figure 5.3). This may reflect the increasing popularity of the IUD as a method in recent periods when younger women first began to use contraception (see Chapter 6).

Rural users are somewhat more likely than urban users to have started family planning use with the pill (77 percent vs. 67 percent) and less likely to have initiated use

Figure 5.3
First Contraceptive Method
Used by Current Age



with the IUD (13 percent vs. 21 percent). Rural women from Upper Egypt stand out as least likely to have begun family planning use by adopting the IUD. Only eight percent of ever-users in rural Upper Egypt adopted the IUD as their first method compared to 15 percent of ever-users in rural Lower Egypt. A woman's educational level is closely associated with the method she adopts when she begins using. Although the majority of women in every educational category began use with the pill, the more highly educated the woman the more likely she is to chose the IUD or some other modern method as her first method. Table 5.4 also shows that women in paid employment are somewhat more likely than other women to adopt the IUD as the first method.

Source for the First Method

The source from which ever-users first obtained a method is examined in Table 5.5. Private sector sources (pharmacy and private doctor) are clearly the major providers of the first method. For two in three ever-users, the pharmacy was the source for the first method used, and, for one in ten, private doctors provided the first method that the woman used. Government facilities (FP clinics, MCH centers and hospitals) were the source for the first method for one in four ever-users.

The service provider used initially by ever-users varies according to the method the user first adopted (Table 5.5). Ever-users adopting the pill as the first method generally

relied on pharmacies for their supply, with government facilities the second most widely used source (75 percent and 22 percent, respectively). Among those initiating use with the IUD, 46 percent reported the IUD was inserted by a private doctor, while public sector providers were the source for most of the remaining IUD users (42 percent). Around 10 percent of IUD users reported obtaining the IUD at a pharmacy prior to insertion.

Table 5.5 Percent Distribution of Ever-users of Modern Methods by the Source for the Method First Used, Egypt DHS, 1988

Source for First Method	Pill	IUD	Other Modern	Any Modern Method
Government Facility(1)	22.2	41.9	10.8	23.6
Private Doctor/Clinic	1.4	46.2	6.4	10.2
Pharmacy	75.5	9.5	79.5	63.3
Other	2.7	2.2	3.0	2.6
Not Sure	0.3	0.2	0.3	0.3
Total Percent	100.0	100.0	100.0	100.0
Number of Ever-users	3,606	916	321	4,843

(1) Includes FP clinic, MCH center and hospital

Number of Children at First Use of Contraception

Table 5.6 shows the percent distribution of ever-married women by the number of living children at the time of first use of contraception and the woman's current age. The results indicate that Egyptian women are adopting contraception at a fairly early stage in the family building process although almost none begin to use immediately after marriage in order to delay the first birth. Overall, one-third of all ever-users (20 percent of ever-married women) began using family planning when they had one child, and an additional one-quarter (13 percent of ever-married women) started when they had only two children. Clearly, there has been a downward trend over time in the parity at which women first

Table 5.6 Percent Distribution of Ever-married Women by Number of Living Children at Time of First Use of Contraception, According to Current Age, Egypt DHS, 1988

Age	Never Used	Number of Living Children						Total Percent	Number of Women
		None	1	2	3	4	5 or More		
15-19	88.2	1.3	8.9	1.6	0.0	0.0	0.0	100.0	422
20-24	61.6	1.1	23.8	10.7	2.3	0.5	0.0	100.0	1,417
25-29	42.2	1.9	25.4	16.4	8.4	4.0	1.6	100.0	1,669
30-34	32.2	1.8	26.4	17.3	9.7	7.1	5.5	100.0	1,557
35-39	29.7	1.3	19.0	14.8	12.1	9.5	13.6	100.0	1,605
40-44	34.2	1.0	13.5	13.0	11.3	10.7	16.3	100.0	1,207
45-49	44.0	0.7	7.7	8.9	11.1	9.4	18.3	100.0	1,034
Total	42.6	1.4	19.7	13.3	8.6	6.3	8.1	100.0	8,911

Table 5.7 Percent Distribution of Ever-users by Number of Living Children at Time of First Use of Contraception, According to Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Number of Living Children						Total Percent	Mean Number	Number of Ever-users
	None	1	2	3	4	5 or More			
Urban-Rural Residence									
Urban	3.1	42.5	24.6	13.3	8.1	8.4	100.0	2.1	3,235
Rural	1.1	20.2	20.9	18.0	15.9	23.8	100.0	3.3	1,881
Place of Residence									
Urban Governorates	3.7	45.9	23.7	13.1	6.8	6.8	100.0	2.0	1,704
Lower Egypt	1.5	28.9	23.0	17.0	13.0	16.6	100.0	2.8	2,153
Urban	1.9	42.4	26.1	14.3	8.1	7.2	100.0	2.1	782
Rural	1.2	21.3	21.2	18.5	15.8	21.9	100.0	3.2	1,371
Upper Egypt	2.2	27.9	22.9	14.2	13.2	19.4	100.0	2.9	1,259
Urban	3.1	35.2	24.8	12.7	11.2	13.0	100.0	2.4	749
Rural	0.9	17.3	20.1	16.6	16.2	28.8	100.0	3.5	510
Education Level									
No Education	1.2	18.5	21.7	18.1	15.5	24.9	100.0	3.3	2,057
Less than Primary	1.4	29.1	25.1	18.0	13.8	12.7	100.0	2.6	1,336
Primary through Secondary	1.4	44.5	26.3	16.5	6.4	4.8	100.0	2.0	640
Completed Secondary/Higher	6.4	64.9	21.9	4.6	1.7	0.4	100.0	1.3	1,083
Work Status									
Working for Cash	4.7	55.8	24.0	6.4	5.5	3.7	100.0	1.7	797
Working, Not Paid in Cash	2.2	17.1	17.3	16.8	16.8	29.7	100.0	3.5	359
Not Working	1.9	31.6	23.6	16.6	11.5	14.7	100.0	2.6	3,960
Interested in Work	2.7	38.1	23.1	15.8	10.4	9.8	100.0	2.3	1,311
Not Interested in Work	1.6	28.4	23.8	17.0	12.1	17.1	100.0	2.8	2,649
Total	2.4	34.4	23.2	15.0	11.0	14.0	100.0	2.5	5,116

adopt family planning, with younger users initiating use at lower parities than older women. Among ever-users, the proportion adopting when they had one child increased from less than 14 percent among women 45-49 to 44 percent among ever-users 25-29.

Table 5.7 presents differentials in the number of living children at time of first use of contraception. Urban ever-users begin using at much lower parities than rural ever-users; for example, nearly 43 percent of urban ever-users initiated contraceptive use when they had only one child, compared with only 20 percent of rural ever-users. Education exhibits an inverse association with the timing of first use.

Reproductive Intention at First Use of Contraception

The EDHS questionnaire also obtained information on a woman's childbearing intentions at the time contraception was first used in order to investigate the extent of interest in limiting or spacing births. Overall, ever-users are divided almost equally into

Table 5.8 Percent Distribution of Ever-users by Reproductive Intention at Time of First Use of Contraception, According to Number of Living Children at Time of First Use of Contraception, Egypt DHS, 1988

Reproductive Intention	Number of Living Children						
	None	1	2	3	4	5 or More	Total
Wanted Child Later	89.4	86.7	47.4	26.0	13.6	4.2	48.9
Did not Want Child	9.7	13.1	51.9	74.0	86.2	95.5	50.8
Other	0.0	0.2	0.7	0.0	0.0	0.3	0.3
Missing	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Ever-users	122	1,757	1,188	768	563	718	5,116

those who began using to delay the next birth and those who initiated use because they wanted no more children. Table 5.8 shows that nearly 90 percent of ever-users who began using before they had two children were interested in spacing the next birth. Ever-users initiating use when they had two children are divided between limiters and spacers, while the majority of ever-users starting contraceptive use at parity three or higher want to limit births (Figure 5.4).

Figure 5.4
Reproductive Intention at the Time of First Use of Contraception by Number of Living Children at the Time of First Use

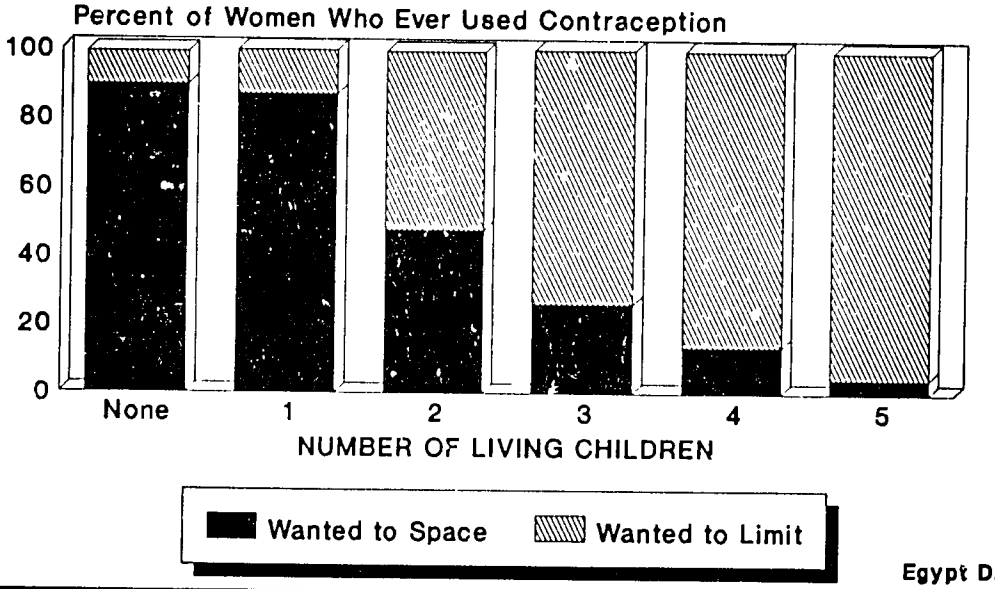


Table 5.9 shows that there is little relationship between the method ever-users adopt and their motivation for using a method. Although the pill is more appropriate for spacing than for limiting (because of the need for resupply), ever-users adopting the pill as the first method are as likely as ever-users adopting the IUD to say that they wanted to limit when they first began using. To some extent, this simply reflects the past dominance of the pill in the method mix among users in Egypt; a woman adopting a method in the past, no matter what her motivation, was likely to have begun use with the pill. Ever-users initiating use with traditional methods usually are intending to space rather than limit births.

Table 5.9 Percent Distribution of Ever-users by Reproductive Intention at Time of First Use of Contraception, According to Method First Used, Egypt DHS, 1988

Reproductive Intention	Pill	IUD	Other Modern	Tradi-tional	Any Modern Method
Wanted Child Later	46.8	48.4	53.9	72.1	48.9
Did not Want Child	53.0	50.8	45.4	27.9	50.8
Other	0.2	0.7	0.3	0.0	0.3
Missing	0.0	0.1	0.3	0.0	0.0
Total Percent	100.0	100.0	100.0	100.0	100.0
Number of Ever-users	3,606	916	321	273	5,116

5.3 FAMILY PLANNING DECISION-MAKING

Another area of investigation in the EDHS was the nature of the process of making the decision to use family planning. To obtain information on this topic, ever-users were asked if they had talked about using family planning with their husband before deciding to use and whether they felt that the use of family planning for the first time was mainly their idea, their husband's idea or a joint decision. Women were also asked whether they had talked about using family planning with other persons beside their husband before making the decision to use. Similar questions were asked about the choice of the method first adopted. The responses to these questions provide insights into the perceptions of ever-users as to the persons influencing the decision to use family planning. The results are, however, subject to recall problems, particularly among older ever-users who may have made the decision to adopt family planning years before the EDHS interview. Ever-users may also tend to provide responses that are in keeping with cultural norms (e.g., with respect to the husband's role) rather than reflecting the actual process of decision-making. These problems must be kept in mind in considering the information on family planning decision-making presented below.

Decision to Use Family Planning

Table 5.10 summarizes the information concerning the persons whom ever-users reported that they consulted prior to the decision to adopt family planning and on the role

Table 5.10 Among Ever-users, Percent Discussing Decision to Use Family Planning With the Husband, a Female Relative or a Doctor, and Percent Reporting the Decision to Use Was Mainly the Wife's Idea, the Husband's Idea or a Joint Decision, According to Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Persons Consulted			Main Decisionmaker			Number of Ever-users
	Husband	Female Relative	Doctor	Wife	Husband	Joint	
Reproductive Intention							
Wanted Child Later	87.3	39.7	42.7	36.9	3.8	59.3	2,501
Did not Want Child	85.5	34.7	40.7	43.6	5.0	51.3	2,599
Age							
15-19	84.8	63.0	42.6	48.1	4.9	47.1	50
20-24	88.4	52.9	39.0	37.0	4.2	58.8	544
25-29	88.8	46.2	40.8	37.1	3.7	59.2	964
30-34	87.2	38.4	44.9	38.3	3.9	57.7	1,055
35-39	87.7	35.6	41.2	40.5	5.2	54.3	1,128
40-44	83.8	25.6	42.7	43.1	5.0	51.9	795
45-49	79.5	21.9	39.6	48.1	4.6	47.3	580
Urban-Rural Residence							
Urban	86.6	36.4	46.3	37.4	3.6	59.0	3,235
Rural	85.8	38.5	33.8	45.4	5.9	48.6	1,881
Place of Residence							
Urban Governorates	84.4	37.8	49.3	37.7	2.4	59.9	1,704
Lower Egypt	87.6	37.2	30.0	40.3	5.0	54.6	2,153
Urban	88.5	34.7	35.3	33.2	4.0	62.7	782
Rural	87.1	38.7	26.9	44.4	5.6	50.0	1,371
Upper Egypt	86.6	36.2	51.5	44.0	6.2	49.8	1,259
Urban	89.6	35.0	50.9	41.3	5.7	53.0	749
Rural	82.2	38.0	52.5	48.0	6.9	45.1	510
Education Level							
No Education	82.7	32.3	34.6	48.8	5.2	46.0	2,057
Less than Primary	85.5	40.2	39.5	43.4	5.1	51.5	1,336
Primary through Secondary	89.9	43.7	46.5	34.5	2.8	62.5	640
Completed Secondary/Higher	92.0	38.6	55.1	24.1	3.3	72.7	1,083
Work Status							
Working for Cash	89.5	33.2	49.9	30.3	3.7	66.0	797
Working, Not Paid in Cash	80.5	39.6	23.2	53.3	7.1	39.6	359
Not Working	86.2	37.7	41.8	41.2	3.8	54.4	3,960
Interested in Work	86.4	40.0	41.6	38.4	5.2	56.3	1,311
Not Interested in Work	86.1	36.6	41.8	42.6	3.9	53.4	2,649
Total	86.3	37.2	41.7	40.3	4.4	55.2	5,116

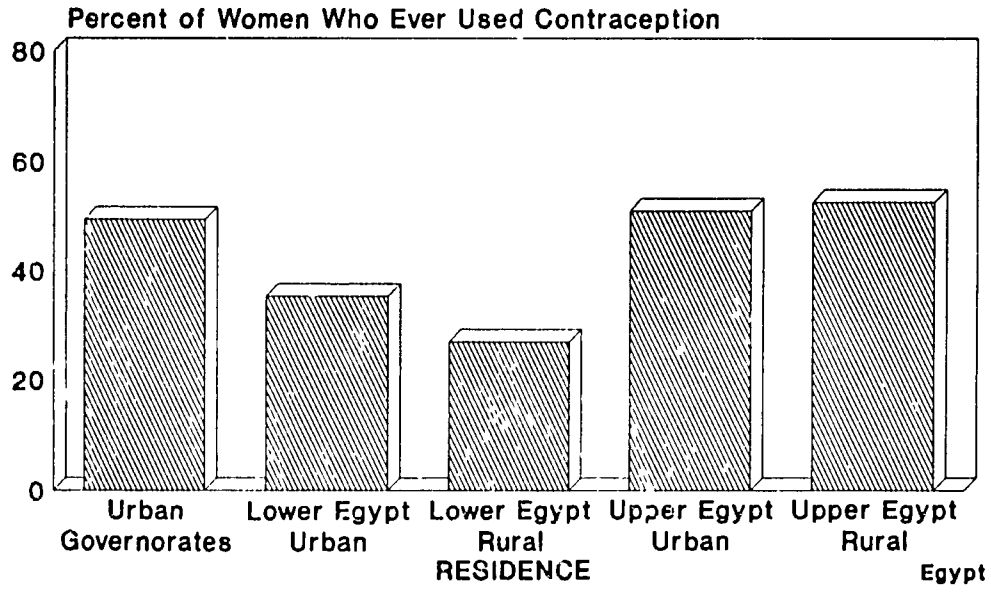
of the husband and wife in making the decision to adopt. Most ever-users discussed the decision to use family planning with their husband before first use (86 percent). Around one-third discussed it with a female relative; 28 percent talked to their mother about adopting family planning, 17 percent to the husband's mother and 16 percent to another

female relative (not shown in table). Over 40 percent of ever-users discussed the subject with a doctor. The majority of women indicated that the decision to use family planning was made jointly with their husband although over 40 percent reported that they had the main role in the decision to use the first time. Only a few women saw their husband as the main decision-maker.

There were only minor variations in the percent of women discussing the decision to adopt family planning with their husband prior to the first use, with 80 percent or more of women in all subgroups saying they talked about using with their husband. The proportion talking with a female relative prior to use decreases sharply with age. This pattern may be influenced by recall bias or simply reflect the fact that there is a more open attitude now toward family planning than when older ever-users first adopted.

Urban-rural residence is strongly associated with the proportion reporting that they sought medical advice prior to use. Urban women are more likely than rural women to talk about the decision to use with a doctor before starting to use for the first time. By place of residence, there are also substantial differences in the proportion reporting that they consulted a doctor; ever-users from the Urban Governorates and, somewhat surprisingly, from both urban and rural areas in Upper Egypt are much more likely to report seeking a doctor's advice than ever-users from Lower Egypt (Figure 5.5). The role of physicians in the decision to adopt family planning is clearly very important in Upper

Figure 5.5
Percent Consulted Doctor Prior to Adopting Family Planning by Place of Residence



Egypt, a region where ever use is low and attitudes toward family planning tend to be more negative (see Chapter 4). In view of the importance of physician advice, the family planning program needs to be sure that physicians in this region are aware of the health benefits of family planning for women and children and are able to provide appropriate advice for women seeking information about family planning use.

With respect to the role of the husband and wife in the decision to adopt, ever-users desiring to limit at the time of first adoption were somewhat more likely than women interested in spacing to report that the decision to adopt was mainly their idea, although, even among spacers, the majority saw the decision as made jointly. Women who might be expected to be more modern in their attitudes (e.g., urban women, women living in the Urban Governorates, and more educated women) are more likely to report the decision to be a joint decision than other women.

Choice of Method

Table 5.11 considers the information on the process of choosing a method. Husbands are again frequently consulted about the method first adopted. Among other persons with whom the choice of method is discussed, doctors appear to be very important. One in two ever-users reports consulting a doctor about the method to adopt before choosing the first method. Overall, about one in three ever-users says she talked with a female relative; 24 percent discussed the choice of method with their mothers, 14 percent talked with their husband's mother and a similar proportion with another female relative (not shown in table). The majority viewed the choice of the first method as a joint decision with their husbands, although 44 percent said that they made the decision on their own.

Not surprisingly, since the IUD must be inserted by a physician, ever-users whose first method was the IUD are much more likely to report seeking the advice of a physician about the choice of the method. This may also reflect the fact that women seeking advice from a physician about the method to use prior to the first adoption may be more likely to be advised to use the IUD. Consultation with a doctor about the choice of method seems especially important for women in Upper Egypt, reinforcing again the importance of physicians in this region in counseling women interested in adopting family planning.

5.4 DISCONTINUATION OF CONTRACEPTIVE USE

A key concern for family planning programs is the reason women discontinue contraceptive use. In order to gain some insight into the problem of discontinuation, the EDHS obtained information on whether women had ever discontinued a method in the five years prior to the interview and, if they had, the reason for discontinuing use. One in three women had stopped using a contraceptive method at least one time during the period. The main reasons for discontinuing use included side effects, becoming pregnant

Table 5.11 Among Ever-users, Percent Discussing Choice of Method Prior to First Use With the Husband, a Female Relative or a Doctor, and Percent Reporting the Method Chosen Was Mainly the Wife's Idea, the Husband's Idea or a Joint Decision, According to Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Persons Consulted			Main Decisionmaker			Number of Ever-users
	Husband	Female Relative	Doctor	Wife	Husband	Joint	
Method First Used							
Pill	79.4	31.1	44.9	47.3	2.9	49.7	3,606
IUD	89.5	39.6	85.9	36.2	1.6	61.8	916
Other Modern	87.7	19.9	48.8	23.8	14.8	61.4	321
Traditional	60.3	27.3	13.2	58.2	3.7	38.0	273
Age							
15-19	67.8	45.6	49.8	45.6	3.1	51.3	50
20-24	83.0	46.7	47.4	39.6	5.5	54.9	544
25-29	84.0	40.4	51.9	42.2	2.8	55.0	964
30-34	81.7	33.6	55.2	42.3	2.7	54.9	1,055
35-39	81.2	28.0	50.3	45.5	3.9	50.5	1,128
40-44	78.2	21.8	51.0	47.6	3.8	48.6	795
45-49	75.0	17.9	47.3	50.6	3.0	46.3	580
Urban-Rural Residence							
Urban	81.8	30.6	55.6	42.8	2.8	54.2	3,235
Rural	78.9	33.3	43.3	47.4	4.6	48.0	1,881
Place of Residence							
Urban Governorates	81.1	31.6	57.4	44.3	2.3	53.2	1,704
Lower Egypt	80.6	32.1	41.0	41.7	3.7	54.5	2,153
Urban	81.6	29.3	47.1	35.7	2.8	61.5	782
Rural	80.0	33.7	37.6	45.2	4.3	50.6	1,371
Upper Egypt	80.5	30.6	59.6	49.6	4.7	45.8	1,259
Urban	83.6	29.6	60.2	47.0	4.1	48.9	749
Rural	75.9	32.1	58.7	53.4	5.4	41.2	510
Education Level							
No Education	75.9	27.4	43.0	51.8	3.6	44.6	2,055
Less than Primary	79.8	35.6	49.1	47.5	3.9	48.6	1,336
Primary through Secondary	86.4	35.8	56.7	39.5	2.9	57.3	640
Completed Secondary/Higher	87.7	32.0	65.4	29.9	3.0	66.8	1,083
Work Status							
Working for Cash	85.5	26.8	61.1	36.5	2.5	61.0	797
Working, Not Paid in Cash	72.0	35.2	35.7	57.5	3.8	38.7	359
Not Working	80.5	32.2	50.4	45.0	3.6	51.3	3,960
Interested in Work	80.1	34.2	50.1	43.9	3.7	52.4	1,311
Not Interested in Work	80.7	31.2	50.6	45.5	3.6	50.8	2,649
Total	80.7	31.6	51.0	44.5	3.5	51.9	5,116

Table 5.12 Percent Distribution of Ever-users Who Have Discontinued Use of a Contraceptive Method In the Five Years Prior to the Survey by Main Reason for Last Discontinuation, According to Method, Egypt DHS, 1988

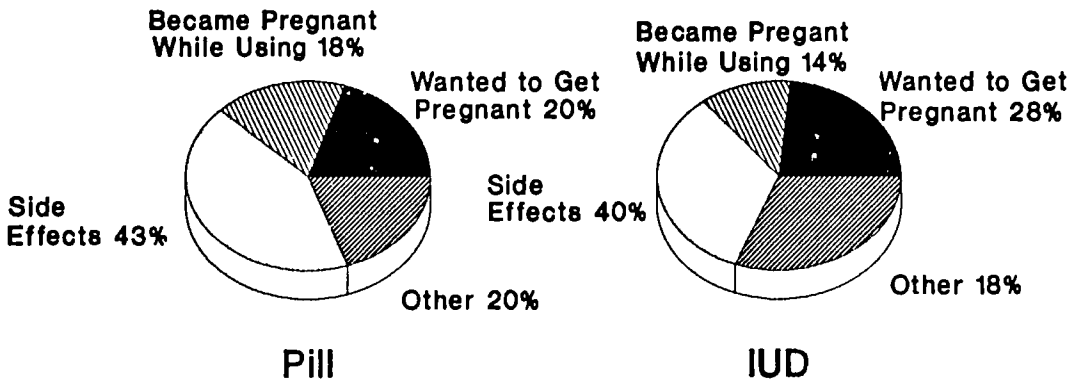
Reason for Discontinuation	Pill	IUD	Injec-tion	Vaginal Methods	Condom	Safe Period	With-drawal	Pro-longed Breast-feeding
Stopped to Get Pregnant	20.1	28.2	16.7	5.9	19.5	21.5	18.6	21.5
Became Pregnant While Using	17.6	14.4	10.5	39.1	34.0	65.1	38.7	26.2
Husband Disapproved	1.4	1.2	0.0	1.8	14.1	0.0	7.4	0.0
Other Relatives Disapproved	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0
Side Effects for Woman	41.9	40.3	42.8	26.4	7.3	0.0	3.7	8.3
Side Effects for Child	0.6	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Difficult to Obtain	0.7	0.0	15.8	7.4	0.8	0.0	0.0	0.0
Cost Too Much	0.0	0.2	2.1	0.0	0.0	0.0	0.0	0.0
Inconvenient to Use	0.6	1.3	0.0	1.5	3.5	0.0	3.7	13.5
Use Other Method	1.4	2.6	2.1	4.8	7.6	0.0	4.5	4.7
Fatalistic	1.6	0.6	0.0	1.8	0.0	4.2	0.0	2.1
Infrequent Sex	4.2	2.5	2.1	2.6	4.6	4.6	10.4	1.9
Other	7.4	5.8	7.9	4.5	6.9	4.6	9.4	19.6
Don't Know	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Missing	2.4	2.9	0.0	3.0	1.8	0.0	3.7	0.0
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Ever-users	1,797	600	53	75	140	48	30	105

while using and a desire to become pregnant (Table 5.12). Factors relating to the availability of a method, particularly its cost, or to the inconvenience of using a method were not cited by many women as a main reason for discontinuing use. Only a few women cited disapproval of the husband or other relative in explaining why they stopped using a method.

The concern with side effects was especially evident among women who had been relying on the pill and the IUD (Figure 5.6) and among the few injection users before they discontinued contraceptive use. Four in ten users of these methods cited side effects as the reason for discontinuation compared with one in four users of vaginal methods and one in fourteen condom users.

Around one in five discontinuers reported that they became pregnant while using a method. The proportion reporting that they became pregnant while using the pill was only slightly higher than that reported for the IUD (18 vs. 14 percent, respectively). Among the few women reporting use of the condom, vaginal methods and traditional methods, one-third or more reported that they became pregnant while they were using the method.

Figure 5.6
Reasons for Discontinuation
Among Pill and IUD Users



Egypt DHS 1988

5.5 KNOWLEDGE OF FERTILE PERIOD

The EDHS indicated that method failure is associated with use of traditional methods, particularly the safe period. A basic understanding of the ovulatory cycle, especially an awareness of the fertile period, is important for the successful practice of family planning and particularly of methods like the safe period, which has ever been used by four percent of ever-married women in Egypt. Table 5.13 presents the distribution of all ever-married women and of women who have used the safe period by the time during the ovulatory cycle that they think a woman is most likely to get pregnant. To obtain these data,

Table 5.13 Percent Distribution of Ever-Married Women and Women Who Have Ever Used the Safe Period Method, by Knowledge of the Fertile Period During the Ovulatory Cycle, Egypt DHS, 1988

Fertile Period	Ever-married Women	Safe Period User
During Period	0.2	0.3
After Period Ended	29.2	27.9
Middle of Cycle	16.6	52.9
Before Period Begins	1.3	3.4
At Any Time	3.1	1.3
Other	2.2	10.5
Don't Know	47.3	3.7
Total	100.0	100.0
Number of Women	8911	334

respondents were asked when in the monthly cycle women have the greatest chance of becoming pregnant. It should be noted that the response categories developed for this question are one attempt at dividing the ovulatory cycle into distinct periods. It is possible that women who gave an answer like "one week after her period" were coded in the category "just after her period has ended," instead of in the category "in the middle of her cycle". Thus, women may actually have a more accurate understanding of the menstrual cycle than is reflected in Table 5.13.

One-half of ever-married women say that they do not know when the fertile time is, 30 percent think the fertile time is just after a period has ended and only 17 percent correctly identified the fertile time as occurring in the middle of the cycle. Among women who have used the safe period method, knowledge of the reproductive cycle is better, with one-half of ever-users of the method knowing that the fertile time occurs in the middle of the cycle. However, even among women who have relied on the safe period to avoid a pregnancy, 28 percent believe the fertile time is just after the period and 16 percent consider a woman to be fertile at some other time in the ovulatory cycle.

Chapter 6

CURRENT USE OF FAMILY PLANNING

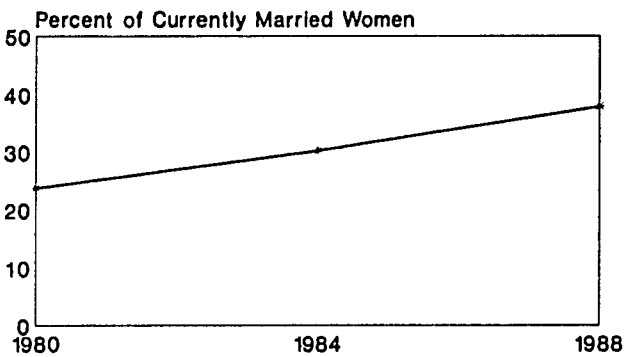
One of the most important determinants of fertility levels in a society is the level of current use of contraception. This chapter looks at the levels and trends in contraceptive use, with a particular emphasis on the method mix among users and differentials in the level of contraceptive use among population subgroups. Information on the service providers from which users obtain their methods and on the general level of satisfaction with providers is presented. Attention is focused on issues relating to the proper use of the pill. The chapter concludes by looking at the attitudes of nonusers toward the adoption of contraception in the future.

6.1 LEVELS AND TRENDS IN CURRENT USE

The EDHS findings indicate that 38 percent of currently married women are practicing family planning. Almost all users rely on modern methods. The IUD and the pill are clearly the most popular methods; 16 percent of currently married women rely on the IUD and 15 percent are using the pill. Less than five percent of women rely on other modern methods (principally the condom and female sterilization), and under three percent are using traditional methods (largely prolonged breastfeeding).

Contraceptive use has increased substantially during the 1980s. Over the eight-year period between the EFS and the EDHS, the absolute increase in current use was 14 percentage points (Figure 6.1). This represents a relative increase of nearly 60 percent over the 1980 figure of 24 percent. Comparing the two four-year periods between the surveys, it is apparent that the rate of increase in the percent using has been fairly steady; the relative increase between 1980 and 1984 was 27 percent compared to 24 percent between 1984 and 1988.

Figure 6.1
Current Use of Contraception, 1980 to 1988



Egypt DHS 1988

Table 6.1 Percent Distribution of Currently Married Women by the Contraceptive Method Currently Used, Egypt DHS, 1988 and CPS, 1984

Method	1988 EDHS	1984 ECPS(1)
Any Method	37.8	30.3
Any Modern Method	35.4	28.7
Pill	15.3	16.5
IUD	15.7	8.4
Injection	0.1	0.3
Vaginal Methods	0.4	0.7
Condom	2.4	1.3
Female Sterilization	1.5	1.5
Male Sterilization	0.0	0.0
Any Traditional Method	2.4	1.6
Safe Period	0.6	0.6
Withdrawal	0.5	0.3
Prolonged Breastfeeding	1.1	0.6
Other Methods	0.2	0.1
Not Using	62.2	69.7
Total Percent	100.0	100.0
Number of Women	8,221	9,158

(1) Sayed et al., 1985, Table 9.4

Table 6.2 Percent Distribution of Currently Married Women Using a Contraceptive Method by the Method Used, Egypt DHS, 1988 and CPS, 1984

Method	1988 EDHS	1984 ECPS(1)
Pill	40.5	54.4
IUD	41.6	27.7
Condom	6.3	4.3
Female Sterilization	4.0	5.0
Other Modern Methods	1.3	3.3
Traditional Methods	6.3	5.3
Total Percent	100.0	100.0
Number of Users	3,108	2,775

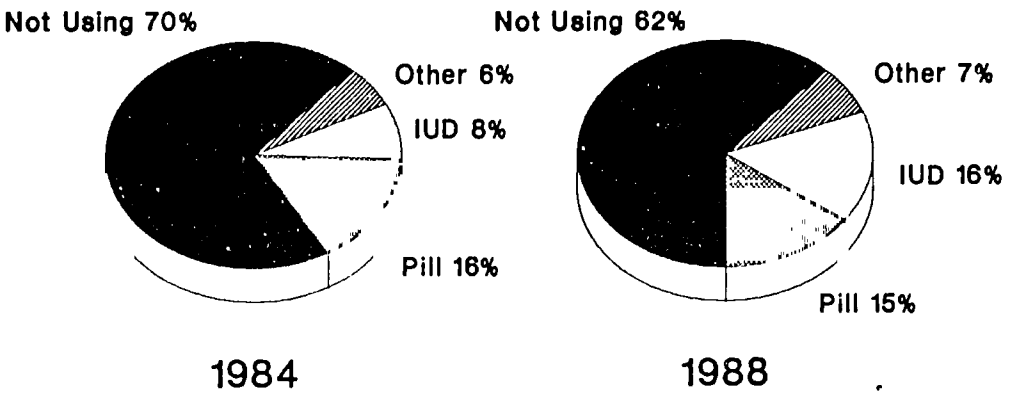
(1) Sayed et al., 1985, Table 9.4

Using results from the 1984 ECPS and the 1988 EDHS, Table 6.1 documents not only the overall increase in use, but also the changes that have been occurring in the method mix among users since the mid-1980s. Comparing the level of use of specific methods in the EDHS with those reported in the 1984 ECPS, it is apparent that much of the recent increase in contraceptive use can be attributed to the increased adoption of the IUD (Figure 6.2). The percent of currently married women relying on the IUD doubled between 1984 and 1988 (from 8 percent to 16 percent) while there was a small decrease in the percent using the pill (from 16 to 15 percent).

The increase in IUD adoption has produced a dramatic change in the method mix among current users (Table 6.2). In 1984, around one in two users relied on the pill while roughly one in four users relied on the IUD. During the four-year period between the ECPS and the EDHS, the proportion of users relying on an IUD increased by 50 percent, while the proportion using the pill declined by around 25 percent. As a result, by 1988, the proportion of users relying on the IUD--two in five users--was virtually identical to the proportion relying on the pill (Figure 6.3).

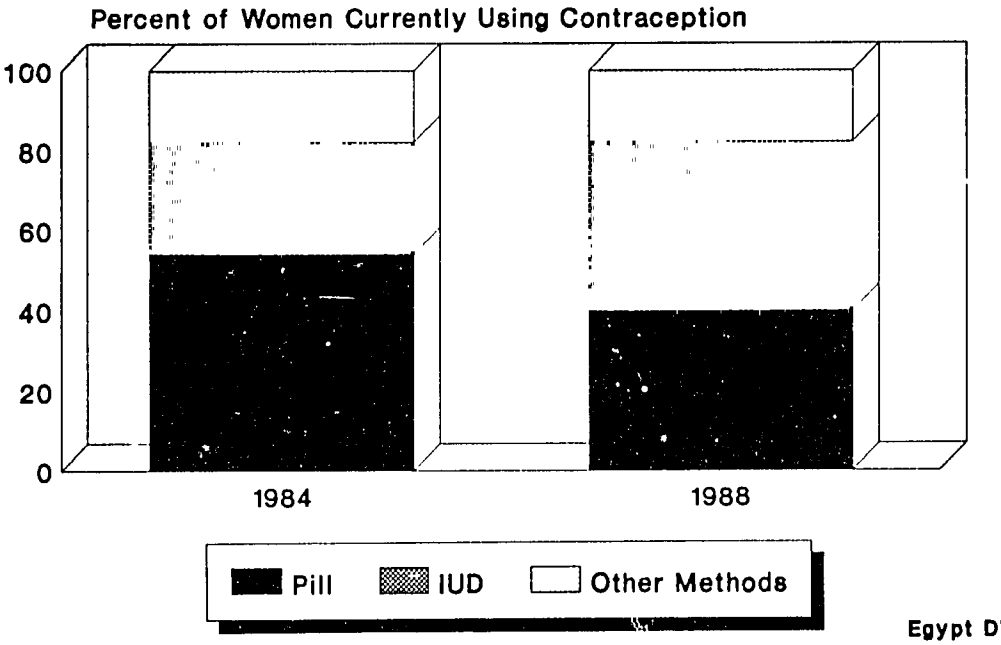
The shift in the method mix toward the IUD is among the most encouraging findings in the EDHS. The IUD is more effective in preventing a pregnancy than the pill,

Figure 6.2
Current Use of Contraception by Method, 1984 and 1988



Egypt DHS 1988

Figure 6.3
Method Mix, 1984 and 1988



Egypt DHS 1988

and it has a higher continuation rate. As a result, it is a more appropriate method for couples who are, as the next chapter shows, primarily seeking to limit births.

6.2 GEOGRAPHIC DIFFERENTIALS

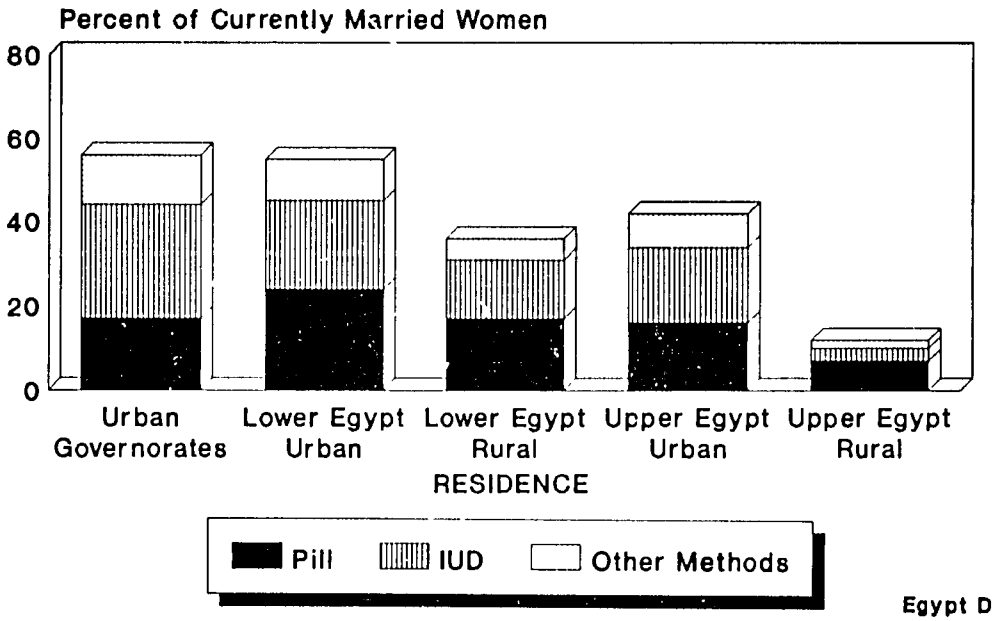
Urban-Rural Residence and Place of Residence

The level of current use varies considerably among geographic subgroups (Table 6.3). The level of use in urban areas (52 percent) is more than double the level in rural areas (24 percent). According to place of residence, the use rate is highest in the Urban Governorates (56 percent) followed by Lower Egypt (41 percent) and Upper Egypt (22 percent). Looking at both urban-rural residence and place of residence, contraceptive use is more common in urban Lower Egypt (54 percent) than in urban Upper Egypt (42 percent). The differential between rural Upper Egypt and rural Lower Egypt is even more striking; 36 percent of currently married women in rural areas in Lower Egypt are currently using a contraceptive method compared with 12 percent in rural Upper Egypt (Figure 6.4).

Table 6.3 Percent Distribution of Currently Married Women by Contraceptive Method Currently Used, According to Urban-Rural Residence and Place of Residence, Egypt DHS, 1988

Method	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt		
				Total	Urban	Rural	Total	Urban	Rural
Any Method	51.8	24.5	56.0	41.2	54.5	35.6	22.1	41.5	11.5
Any Modern Method	48.6	23.0	52.1	39.1	52.0	33.7	20.5	39.0	10.4
Pill	18.4	12.4	16.9	19.2	24.2	17.2	10.0	16.0	6.7
IUD	23.0	8.8	26.8	16.2	21.2	14.1	7.9	17.6	2.7
Injection	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.0
Vaginal Methods	0.6	0.2	0.9	0.2	0.0	0.0	0.4	0.7	0.2
Condom	4.3	0.6	5.0	1.8	4.0	0.8	1.4	3.1	0.4
Female Sterilization	2.2	0.9	2.4	1.6	2.5	1.2	0.7	1.4	0.4
Male Sterilization	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Any Traditional Method	3.2	1.6	3.9	2.1	2.4	1.9	1.6	2.6	1.1
Safe Period	1.1	0.1	1.2	0.3	0.8	0.1	0.5	1.4	0.0
Withdrawal	0.8	0.8	1.0	0.5	0.6	0.4	0.2	0.5	0.1
Prolonged Breastfeeding	1.0	1.1	1.4	1.3	1.0	1.4	0.6	0.2	0.8
Other Methods	0.3	0.1	0.3	0.0	0.0	0.0	0.3	0.5	0.2
Not Using	48.2	75.5	44.0	58.8	45.5	64.4	77.9	58.5	88.5
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	4,006	4,215	1,996	3,230	952	2,278	2,995	1,058	1,937

Figure 6.4
Current Use of Contraception by Method According to Place of Residence



Egypt DHS 1988

Comparing the EDHS results with those reported in the 1984 ECPS, it is clear that there has been little change in the geographic differentials in current use (Table 6.4). Urban women continue to be more than twice as likely to be using as rural women, and the current use rate in Lower Egypt also remains almost twice the rate in Upper Egypt. Perhaps most significantly, the more than threefold differential in the current use level between rural areas in Lower Egypt and Upper Egypt continues a pattern that was apparent in the 1980 as well as the 1984 ECPS results (Figure 6.5).

Table 6.4 Percent of Currently Married Women Currently Using a Contraceptive Method by Urban-Rural Residence and Place of Residence, Egypt DHS, 1988 and CPS, 1984

Residence	EDHS 1988	ECPS 1984(1)
Urban-Rural Residence		
Urban	51.8	45.1
Rural	24.5	19.2
Place of Residence		
Urban Governorates	56.0	49.6
Lower Egypt	41.2	34.1
Urban	54.5	47.6
Rural	35.6	28.5
Upper Egypt	22.1	17.3
Urban	41.5	36.8
Rural	11.5	7.9
Total	37.8	30.3

(1) Sayed et al., 1985, Table 9.2

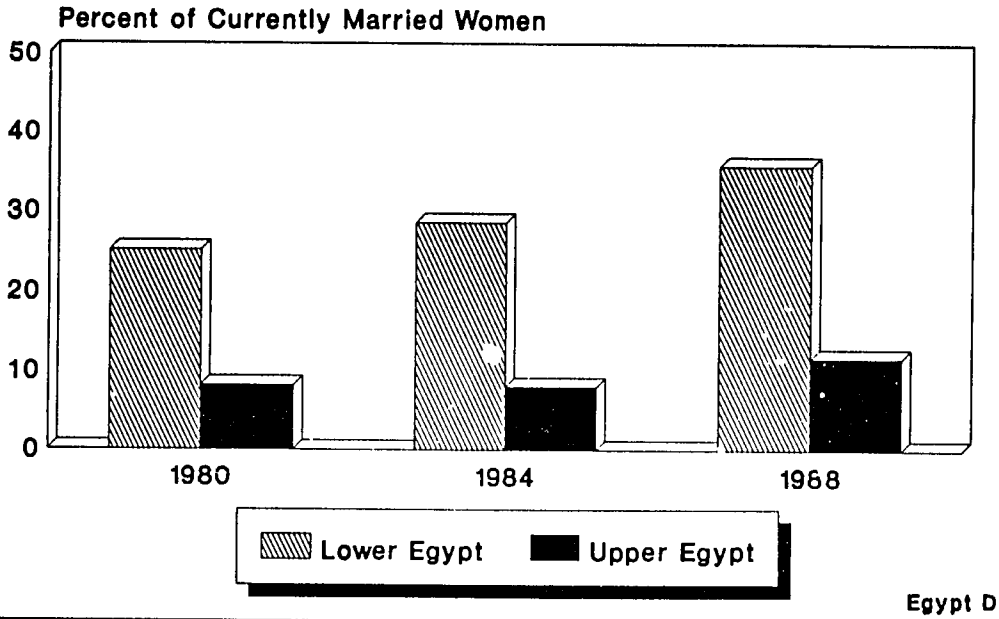
Table 6.5 Percent Distribution of Currently Married Women Currently Using a Contraceptive Method by the Method Used, According to Urban-Rural Residence and Place of Residence, Egypt DHS, 1988 and CPS, 1984

Residence	EDHS 1988	ECPS 1984(1)
Urban-Rural Residence		
Urban		
Pill	18.4	23.3
IUD	23.0	12.9
Other Methods	10.4	8.9
Not Using	48.2	54.9
Total Percent	100.0	100.0
Rural		
Pill	12.4	11.4
IUD	8.8	5.0
Other Methods	3.3	2.9
Not Using	75.5	80.7
Total Percent	100.0	100.0
Place of Residence		
Urban Governorates		
Pill	16.9	20.8
IUD	26.8	17.4
Other Methods	12.3	11.4
Not Using	44.0	50.4
Total Percent	100.0	100.0
Lower Egypt		
Pill	19.2	19.8
IUD	16.2	9.0
Other Methods	5.8	5.3
Not Using	58.8	65.9
Total Percent	100.0	100.0
Upper Egypt		
Pill	10.0	10.8
IUD	7.9	3.7
Other Methods	4.2	2.8
Not Using	77.9	82.7
Total Percent	100.0	100.0

(1) Sayed et al., 1985, Table 9.4

Among current users, the method mix also varies by area of residence. The IUD is the most frequently used method in urban areas, particularly in the Urban Governorates, while the pill is the most popular method among rural users. Table 6.5 documents the changes between the ECPS and the EDHS across geographic areas in the percent relying on the pill, the IUD or other methods. In urban areas, the percent of currently married women using the pill declined from 23 percent in 1984 to 18 percent in 1988, while the percent relying on an IUD nearly doubled (from 13 percent to 23 percent). Although the

Figure 6.5
Current Use of Contraception in Rural Egypt by Place of Residence, 1980-1988



pill remains the most widely used method in rural areas, there was a substantial increase in the proportion of rural women relying on an IUD between 1984 and 1988 (from 5 percent to 9 percent).

Similar changes in the method mix are observed in the Urban governorates, Lower Egypt and Upper Egypt. Between 1984 and 1988, the IUD replaced the pill as the most commonly used method in the Urban Governorates. In contrast, the pill continues to be the predominant method in both Lower Egypt and Upper Egypt. However, much of the overall increase in current use in these areas can be attributed to increased use of the IUD, since the percent using the pill remained stable between 1984 and 1988 in both Lower Egypt and Upper Egypt.

Governorate-level Use Rates

Table 6.6 shows the current use rates for 21 governorates in Egypt. Within the Urban Governorates, current use is highest in Cairo (59 percent) and lowest in Port Said (48 percent) (Figure 6.6). Among the nine governorates in Lower Egypt, current use is highest in Damietta (54 percent) and lowest in Behera (32 percent). In Upper Egypt, the use rate is highest in Giza governorate (46 percent). Among the other governorates in Upper Egypt, the current use rate ranges from only 12 percent in Qena to 20 percent in Fayoum.

Table 6.6 Percent of Currently Married Women Currently Using a Contraceptive Method by Place of Residence and Governorate of Residence, Egypt DHS, 1988

Governorate	Percent Currently Using
Urban governorates	56.0
Cairo	58.9
Alexandria	51.6
Port Said	48.2
Suez	50.3
Lower Egypt	41.2
Damietta	54.1
Dakahlia	41.3
Sharkia	35.2
Kalyubia	42.3
Kafr El-Sheikh	41.7
Gharbia	50.1
Menoufia	43.9
Behera	32.5
Ismailia	43.4
Upper Egypt	22.1
Giza	45.7
Beni Suef	15.3
Fayoum	20.2
Menya	16.6
Assiut	12.7
Souhag	16.2
Qena	12.2
Aswan	18.6
Total	37.8

The current use rate in Giza governorate (which includes part of metropolitan Cairo) is two to four times the rate in the other governorates in Upper Egypt. The effect that the inclusion of Giza has had on the overall current use rate for Upper Egypt is shown in Table 6.7. If Giza is excluded, the use rate for Upper Egypt is only 16 percent compared to 22 percent when Giza is included. The effect on the use rate is greater for urban areas than for rural areas; with Giza excluded, the Upper Egypt urban use rate is only 30 percent--six percentage points lower than the rate observed for rural areas in Lower Egypt. By method, the greatest differences are observed in the percent using the IUD; with Giza excluded, only four percent of currently married women in Upper Egypt are reported to be using the IUD compared with eight percent when Giza is included.

Figure 6.6
Current Use of Contraception by Governorate

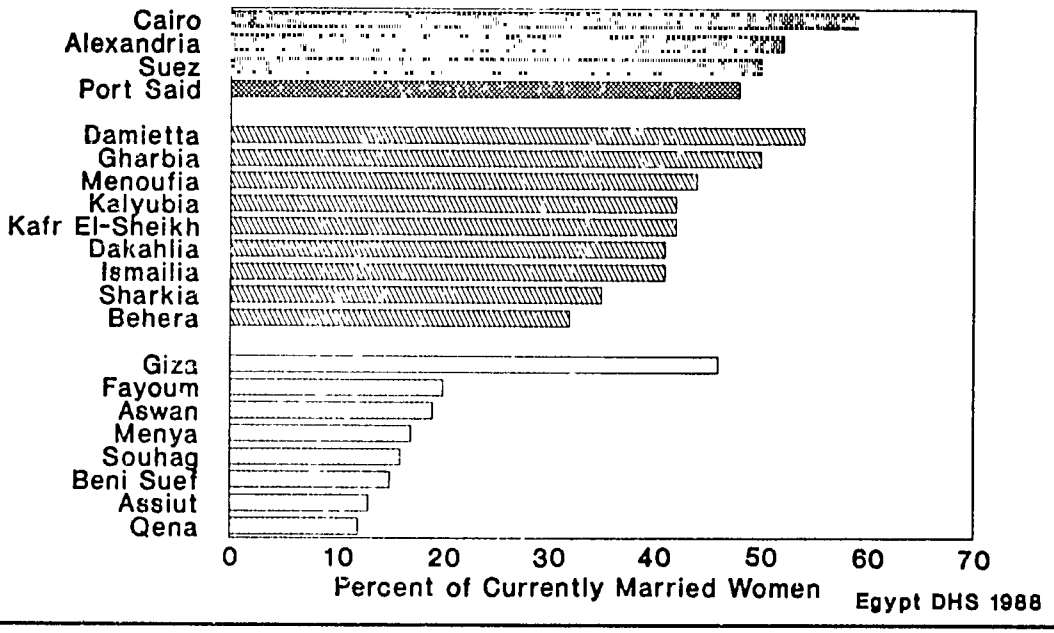


Table 6.7 Percent of Currently Married Women Currently Using a Contraceptive Method by Method Used, According to Urban-Rural Residence Within Upper Egypt (Including and Excluding Giza Governorate), Egypt DHS, 1988

	Upper Egypt (Including Giza)			Upper Egypt (Excluding Giza)		
	Total	Urban	Rural	Total	Urban	Rural
Using Any Method	22.1	41.5	11.5	15.5	30.3	10.6
Pill	10.0	16.0	6.7	8.8	14.5	6.8
IUD	7.9	17.6	2.7	4.0	9.8	2.0
Other Modern Methods	2.6	5.4	1.0	1.4	3.7	0.7
Traditional Methods	1.6	2.6	1.1	1.4	2.3	1.1
Not Using	77.9	58.5	88.5	84.5	69.7	89.4
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	2,995	1,058	1,937	2,342	591	1,752

6.3 OTHER DIFFERENTIALS

Other differentials in the level of current use and in the method mix among users are described in Table 6.8. Younger and older women are much less likely to be using than women 25-44. The use rate peaks in the 35-39 age group, where one in two women is using a method. The increase in current use with age is especially striking among the three youngest cohorts; the rate among women 20-24 is more than four times that observed for women under 20, and the use rate for women 25-29 is more than 50 percent higher than that for women 20-24.

There is no clear preference for the IUD or the pill across age groups. Younger users are almost as likely as older users to be relying on the IUD (Figure 6.7); among women 25-29, the percent using the IUD in fact exceeds the percent using the pill (18 percent vs. 15 percent). There is some tendency for the use of female sterilization and, somewhat surprisingly, the condom to increase with age. However, even in the 40-44 group where the prevalence of use of other methods is highest, seven in ten users rely on the pill or the IUD.

The variation in the current use rate with the number of surviving children confirms that few women in Egypt adopt contraception prior to their first birth, but that substantial

Figure 6.7
Current Use of Contraception by Age

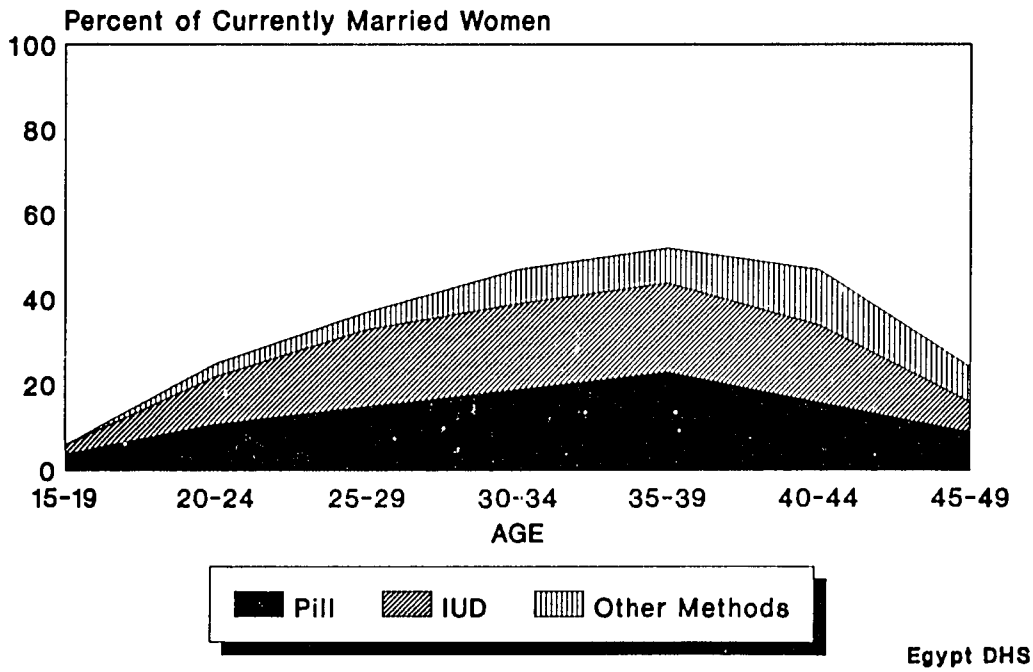


Table 6.8 Percent Distribution of Currently Married Women by Contraceptive Method Currently Used, According to Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Any Method	Any Modern Method	Pill	IUD	Injection	Vaginals	Condom	Sterilization		Any Traditional Method	Safe Period	Withdrawal	Prolonged Breastfeeding	Other	Not Using	Total Percent	Number of Women
								Female	Male								
Age																	
15-19	5.5	5.5	3.5	1.7	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.1	0.0	94.5	100.0	416
20-24	24.3	22.2	10.8	10.7	0.0	0.2	0.5	0.1	0.0	2.2	0.1	0.2	1.9	0.0	75.7	100.0	1,369
25-29	37.1	35.2	14.9	17.7	0.0	0.1	2.2	0.3	0.0	1.9	0.2	0.3	1.4	0.0	62.9	100.0	1,607
30-34	46.8	44.2	19.2	20.2	0.2	0.6	3.3	0.8	0.0	2.7	0.5	0.6	1.3	0.2	53.2	100.0	1,473
35-39	52.8	50.0	23.2	21.2	0.1	0.5	3.1	1.9	0.0	2.7	0.8	0.5	0.9	0.5	47.2	100.0	1,470
40-44	47.5	44.0	15.5	18.5	0.3	0.8	4.6	4.4	0.0	3.5	1.8	0.9	0.4	0.4	52.5	100.0	1,042
45-49	23.4	21.2	8.6	6.6	0.0	0.7	1.5	3.5	0.2	2.2	0.9	1.0	0.1	0.3	76.6	100.0	844
Living Children																	
None	0.7	0.7	0.1	0.4	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	99.3	100.0	806
1	23.1	21.5	7.6	11.4	0.0	0.1	2.2	0.2	0.0	1.6	0.2	0.3	0.9	0.1	76.9	100.0	1,040
2	43.4	40.3	14.7	20.5	0.0	0.6	3.7	0.8	0.0	3.0	1.0	0.6	1.4	0.1	56.6	100.0	1,404
3	47.8	44.8	19.9	19.6	0.0	0.2	3.1	1.9	0.1	3.0	1.0	0.6	1.2	0.2	52.2	100.0	1,428
4 or more	44.4	41.8	19.4	17.1	0.2	0.6	2.2	2.3	0.0	2.6	0.5	0.6	1.2	0.4	55.6	100.0	3,542
Education																	
No Education	27.5	25.9	13.4	10.0	0.1	0.3	0.8	1.2	0.0	1.7	0.1	0.3	1.0	0.2	72.5	100.0	4,105
Less than Primary	42.5	40.6	20.3	16.3	0.1	0.6	1.8	1.4	0.1	2.0	0.3	0.3	1.3	0.1	57.5	100.0	1,895
Primary through Secondary	52.3	48.2	15.6	23.9	0.0	0.7	5.1	2.9	0.0	4.1	1.4	1.2	1.3	0.3	47.7	100.0	804
Completed Secondary/Higher	53.2	49.2	13.8	27.1	0.1	0.3	6.3	1.6	0.0	4.0	2.1	1.0	0.7	0.2	46.8	100.0	1,417
Work Status																	
Working for Cash	54.0	49.6	15.2	26.3	0.2	0.2	5.9	1.7	0.0	4.4	2.6	1.0	0.5	0.3	46.0	100.0	985
Working, Not Paid in Cash	32.5	29.9	15.1	12.1	0.2	0.0	0.6	1.5	0.3	2.7	0.2	0.2	2.0	0.3	67.5	100.0	657
Not Working	36.0	33.9	15.3	14.5	0.1	0.5	2.1	1.4	0.0	2.0	0.3	0.5	1.0	0.2	64.0	100.0	6,579
Interested in Work	40.1	37.2	17.5	15.8	0.1	0.2	2.4	1.3	0.0	2.9	0.7	0.7	1.2	0.4	59.9	100.0	1,960
Not Interested in Work	34.2	32.5	14.5	14.0	0.0	0.6	1.9	1.5	0.0	1.7	0.2	0.4	1.0	0.1	65.8	100.0	4,619
Total	37.8	35.5	15.3	15.8	0.1	0.4	2.4	1.5	0.0	2.4	0.6	0.5	1.1	0.2	62.2	100.0	8,221

proportions begin to practice family planning when they have at least one living child. The current use rate increases sharply with the number of living children, from less than one percent among currently married women with no children to 23 percent among those with one child. The use rate peaks at 48 percent among women with three children, before declining to 44 percent among those with four or more children. The type of method adopted also tends to vary with the number of children. IUD use generally exceeds pill use among women with smaller families. Since, as the next chapter will indicate, the majority of women with two or more children want to limit, the family planning program in Egypt may want to encourage greater use of the IUD among women at parity three and above.

Current use increases with the level of education, from 28 percent among women with no education to over 50 percent among women who have completed primary school. Work status also is related to the use levels, with around one-half of women working at jobs for which they are paid in cash using contraception compared with one in three women who work but are not paid or who are not working.

6.4 SOURCE OF CONTRACEPTIVE METHOD

Source for Current Method

The dominance of private doctors and pharmacies in the provision of contraceptive services in Egypt is evident in the results presented in Table 6.9. Overall, roughly three out of every four current users report obtaining their contraceptive method from either a private doctor or the pharmacy. Among pill users, 87 percent obtain the method from the pharmacy (Figure 6.8). Among IUD users, around 40 percent obtain the method from a private doctor and nearly 20 percent purchased the IUD at a pharmacy before having it inserted (largely by private doctors).

Table 6.10 compares the current distribution of users by the service provider with the distribution reported in the 1984 ECPS. The percent of users relying on private doctors and pharmacies for contraceptive services increased slightly over the period between the surveys. In 1984, 69 percent of all users reported that they obtained their methods from private doctors or pharmacies while, in 1988, 74 percent named these providers as their current source for contraceptive services. Considering the trend by type of method, the percent of users obtaining supply methods (largely the pill) from a pharmacy increased by 9 percentage points over the period--from around 79 percent in 1984 to 88 percent in 1988. For clinic method (largely IUD) users, the percent relying on private doctors increased slightly, from 49 to 52 percent.

Table 6.9 Percent Distribution of Current Users of Modern Methods by Service Provider, According to Method, Egypt DHS, 1988

Service Provider	Pill	IUD		Condom	Female Steril-ization	All Modern Methods(1)
		Obtained	Inserted			
Government FP Clinic	3.0	13.0	13.7	0.7	1.3	7.2
Government MCH Center	2.2	7.1	7.9	0.0	0.0	4.1
Government Hospital	3.0	16.6	21.0	0.6	71.5	11.8
Home Delivery Agent	1.3	0.0	0.0	0.0	0.0	0.6
Private Family Planning Clinic	0.3	1.0	1.3	0.0	0.0	0.5
Private Doctor	0.3	43.2	54.3	0.3	25.4	20.3
Pharmacy	87.1	17.4	NA	97.8	1.8	53.4
Other/Not Sure	2.7	1.7	1.7	0.6	0.0	2.0
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of Users	1,258	1,295	1,295	198	122	2,914

NA = Not applicable

(1) Includes current users of vaginal methods, injection and male sterilization (N=41) in addition to users of the pill, IUD, condom and female sterilization

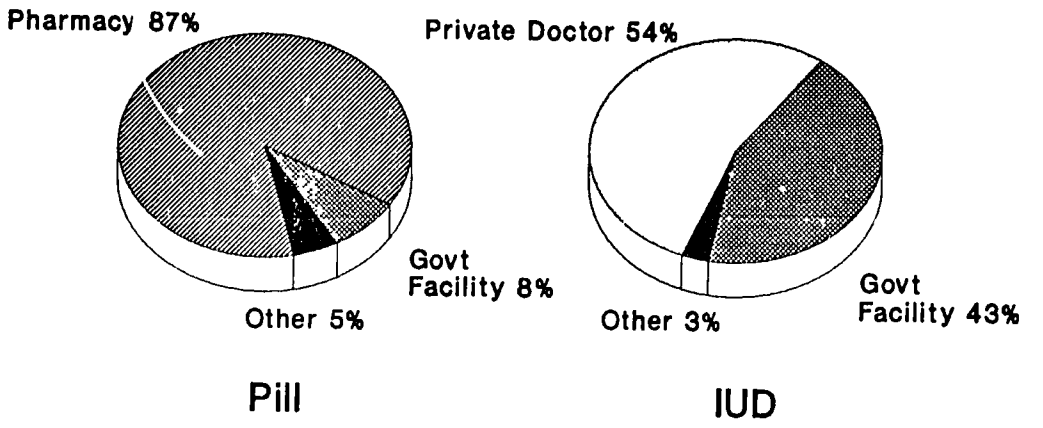
Table 6.10 Percent Distribution of Current Users of Modern Methods by Service Provider, According to Method, Egypt DHS, 1988 and CPS, 1984

Service Provider	EDHS 1988			ECPS 1984(1)		
	All Methods	Supply Methods(2)	Clinic Methods(3)	All Methods	Supply Methods(2)	Clinic Methods(3)
Government FP Clinic	7.2	2.7	12.7	8.9	8.1	10.4
Government MCH Center	4.1	1.9	7.2	4.5	3.4	6.5
Government Hospital	11.8	2.8	25.4	13.5	5.5	28.0
Private Family Planning Clinic	0.5	0.2	1.2	1.3	0.5	2.9
Private Doctor	20.3	0.3	51.8	17.8	0.5	49.4
Pharmacy	53.4	88.5	NA	51.6	78.8	1.7
Other(4)/Not Sure	2.5	3.6	1.7	2.5	3.2	1.2
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of Users	2,914	1,493	1,401	2,631	1,701	930

NA = Not applicable

(1) Sayed et al., 1985, Table 12.1
(2) Pill, condom, vaginal methods and injection
(3) IUD (place inserted), female sterilization and male sterilization
(4) Includes home delivery agents

Figure 6.8
Service Providers for Pill and IUD Users



Egypt DHS 1988

Satisfaction with Services

Users who obtained their method from a clinical source were asked a series of questions designed to determine the level of satisfaction with services that they received from their provider. As Table 6.11 shows, overall, both pill and IUD users were satisfied with most aspects of the services at the place where they had obtained their method. The most frequent complaint from pill users was that they were not given enough information by the staff at the place where they obtained their method. Cost was the major source of dissatisfaction for IUD users; nearly one-third felt that it had cost too much to obtain their method.

Table 6.11 Among Pill and IUD Users, Percent Expressing Dissatisfaction with Various Aspects of Services, Egypt DHS, 1988

Aspect of Service	Pill Users(1)	IUD Users(2)
Costs too Much	3.6	30.6
Staff Discourteous	16.8	1.7
Wait Too Long	10.6	18.9
Not Satisfied with Information	24.0	7.4
Facility Not Clean	13.2	3.2
Number of Users	110	1,295

(1) Includes users obtaining methods from government outlets and private voluntary FP clinics
(2) Includes users whose IUDs were inserted at government outlets or private voluntary FP clinics or by private doctors

Table 6.12 Percent Distribution of Current Pill Users by the Brand Used, Egypt DHS, 1988 and CPS, 1984

Brand	EDHS 1988	ECPS 1984(1)
Norminist	10.6	9.3
Nordette	13.6	15.2
Microvlar	20.4	16.4
Anovlar	12.6	29.2
Primovlar	12.6	16.7
Other Brand	6.9	8.0
Packet Not Shown	22.7	--
Not stated	--	5.2
Total Percent	100.0	100.0
Number of Pill Users	1,258	1,497

(1) Sayed et al., 1985, Table 13.6

6.5 PILL USE

Around half of all currently married women using contraception use the pill. In the EDHS questionnaire, additional information was obtained from pill users on the brand of pill used, the number of pill cycles a woman obtained each time she visited her provider and the cost of a pill cycle. A number of other questions also were included on the extent to which women appeared to be complying with directions about how to take the pill.

Brand and Cost

Table 6.12 provides information about the brands relied on by pill users. Information obtained in the 1984 ECPS on the brands adopted by pill users at the time of that survey is also presented in Table 6.12.[1] Around one in four pill users was unable to show the EDHS interviewer a pill packet. Among those showing a packet, Microvlar was the most commonly used brand, followed by Nordette, Anovlar, Primovlar and Norminist. The distribution of users by brand is generally similar to that reported in the 1984 ECPS although, in that survey, the modal brand was Anovlar rather than Microvlar.

[1] Slightly different procedures were used in the two surveys to collect the brand information. In the ECPS, a chart with pictures of the various brands available in Egypt was shown to women using the pill, and they were asked to identify the brand that they were currently using. In the EDHS, pill users were asked to show the packet of pills that they were taking to the interviewer.

The EDHS results indicate that most pill users were relying on the same brand during the time that they had been using in the year before the survey; only around one in six users reported switching brands (Table 6.13). Most pill users obtain one cycle of pills at a time; only one-third report obtaining more than one cycle. Since forgetting to get a new packet of pills may lead to interruption of use and, thus, reduce the pill's effectiveness, the family planning program may want to consider ways of encouraging women to obtain more than one cycle at a time. With regard to cost, almost all pill users pay 35 piastres or less per cycle, and more than one-quarter pay only 10 piastres for a cycle.

Table 6.13 Percent Distribution of Pill Users by Whether They Switched Brands During Year Before the Survey, Number of Cycles Usually Purchased and Cost of a Cycle, Egypt DHS, 1988

Pill Use Indicator	Percent
Switched Brand	
Yes	15.4
No	84.6
Total Percent	100.0
Number of Cycles Usually Purchased	
One	68.1
Two	13.8
Three or More	17.0
Not Sure	1.1
Total Percent	100.0
Cost of One Cycle	
10 piastres or less	29.0
11-35 piastres	60.1
36-100 piastres	6.7
Over 100 piastres	3.4
Total Percent	100.0

Compliance

As noted in the previous chapter, nearly one in six women discontinuing use of the pill during the five years before the survey reported that she discontinued during the last segment of use because she became pregnant while she was using the pill. Concern about the high level of failure associated with use of the pill, which was also reported in the 1984 ECPS, led to the inclusion of a series of questions designed to obtain information on the level of knowledge of users regarding use of the pill and on the extent to which users appear to be taking the pill properly. In this regard, an obvious concern is whether women are taking the pill regularly. The EDHS data indicate that substantial numbers of pill users interrupt regular use of the pill for a variety of reasons.

Table 6.14 Percent Distribution of Pill Users Unable to Show Pill Packet by Reason for Not Having Packet Available, Egypt DHS, 1988

Reason Packet Not Shown	Percent
Has Period	22.2
Forgot to Buy	9.7
Resting from Pill	13.2
Husband Away	4.1
Misplaced	39.7
Other	11.1
Total Percent	100.0
Number of Pill Users	287

Patterns of Pill Taking. Table 6.14 details the reasons pill users gave for not being able to show the EDHS interviewer a pill packet. As noted above around one

in four pill users could not show the interviewer a packet. Among these users, slightly more than 20 percent said that they did not have a packet because it was during their menstrual period, 40 percent said they had misplaced the packet, 10 percent had forgotten to buy the next cycle, 13 percent were "resting" and four percent did not have a packet because their husband was away. Users claiming to have misplaced the packet may simply have wanted to avoid getting the packet for the interviewer, and users reporting they did not have a packet because they were having a period may have obtained a packet after the interview. However, the other reasons given for not showing the packet ("forgot to buy", "resting", or "husband away") indicate that around five percent of all pill users may not be systematically taking the pill although they regard themselves as current users.

Among pill users able to show a packet, there was also evidence that not all users were taking the pill systematically. Interviewers found that, for more than one in five users, pills were missing out of sequence or there were no pills missing. Table 6.15 details the reasons given by these users for not taking the pills in order or not yet beginning the packet. Nearly one in four gave reasons that suggest they are not taking the pill regularly, with the majority saying that they took the pill only when needed.

Table 6.15 Percent Distribution of Pill Users Whose Pills Were Missing Out of Sequence or Whose Pill Packet Had No Pills Missing, by Reason Given For Not Taking Pills (in Sequence), Egypt DHS, 1988

Reason for Not Taking (In Sequence)	Missing Out of Sequence	None Missing	Total
Not Necessary to Take in Sequence	62.0	8.6	53.5
Followed Instruction	1.4	3.3	1.7
Just Started Packet	0.9	64.7	11.1
Take Only as Needed	26.0	2.1	22.2
Husband Away	1.0	2.7	1.3
Other	8.6	18.6	10.2
Total Percent	100.0	100.0	100.0
Number of Pill Users	219	42	260

Number of Days Since Last Pill Taken. Pill users were also asked when they had last taken a pill; nearly one-third had not taken a pill for two days, and eight percent had not taken one for more than one week. These users were asked for the reason for not taking the pill recently (Table 6.16). One-quarter were waiting to begin the next cycle. The other reasons given again suggest that the pill is not being taken systematically by some women; 19 percent said that they

Table 6.16 Percent Distribution of Pill Users Not Taking the Pill in the Last Two Days by Reason Pill Not Taken, According to Number of Days Since Pill Taken, Egypt DHS, 1988

Reason Pill Not Taken	2-7 Days	8 Days or More	Total
Waiting to Start Next Cycle	32.9	12.5	27.4
Doesn't Have Cycle	3.9	2.1	3.4
Take Only as Needed	16.2	26.4	18.9
Forgot to Take	0.4	0.0	0.3
Resting from Pill	14.9	19.5	16.3
Husband Away/Ill	6.3	14.4	8.4
Other	25.4	25.1	25.3
Total Percent	100.0	100.0	100.0
Number of Pill Users	286	106	394

take the pill only as needed, 16 percent were resting from the pill and 8 percent were not taking the pill because their husband was ill or not at home.

Problems in Taking the Pill. Pill users were also asked whether they had experienced problems in taking the pill during the month before the interview. Table 6.17 shows that three in four pill users reported having some problem. Side effects were the most frequently cited problem; eight percent of pill users reported spotting or bleeding, 16 percent said that they had not had a period and 44 percent experienced some other side effect or illness which they associated with use of the pill. More than one-third said that they had run out of pills (which is not surprising since most users obtain only one packet at a time), while 17 percent admitted that they forgot to take the pill.

Users were also asked if they interrupted use of the pill for any reason during the month before the interview. Table 6.18 shows that nearly four in ten users interrupted use for one or more days during the previous month. Among users who interrupted use, more than half forgot to take the pill or ran out of pills. Nearly one-quarter said that they had stopped use because they had experienced some side effect.

Action Taken if Pill Forgotten. Forgetting to take the pill is, as Table 6.18 shows, the most common reason for interrupting use of the pill. Table 6.19 shows the action current users say that they take if they forget a pill. Three in five users either claim never to forget to take the pill or to take two pills the next day if they do forget one. Almost 40 percent of users,

Table 6.17 Percent of Pill Users Reporting That They Experienced Various Problems When Taking the Pill During the Month Before the Survey, Egypt DHS, 1988

Problem	Percent
Any Side Effect	52.2
Spotting/Bleeding	7.9
Period Did Not Come	15.5
Other Side Effect	43.7
Ran Out of Pills	34.9
Forgot to Take Pill	16.8
Other Problem	1.0
Any Problem	72.1

6.18 Percent of Pill Users Reporting That They Interrupted Use Because of Various Problems During Month Before the Survey, Egypt DHS, 1988

Problem	Percent
Any Side Effect	9.0
Spotting/Bleeding	1.2
Period Did Not Come	1.8
Ran Out of Pills	5.1
Forgot to Take Pill	15.3
Other Problem	5.0

Table 6.19 Percent Distribution of Pill Users by Action Taken the Last Time User Forgot to Take the Pill, Egypt DHS, 1988

Action Taken	Percent
Took One Pill Next Day	39.1
Took Two Pills Next Day	28.2
Other Action	2.7
Never Forgot to Take Pill	28.2
Total Percent	100.0
Number of Pill Users	1,258

however, indicated that they take only one pill the day after they forget, when they should in fact take two.

In summary, many pill users fail to take the pill regularly. For some, noncompliance appears to be linked to a belief that it is not necessary to take the pill every day but only after intercourse or when the husband is present in the household. "Resting" from the pill is another reason frequently given for not having a pill packet or not taking the pill systematically. Short interruptions of use seem to be linked primarily to forgetting to take the pill, but side effects also cause users to stop taking the pill. Many users who forget to take the pill also do not appear to know that they should take two pills the next day.

These EDHS results indicate that substantial efforts are needed to improve users knowledge of how the pill should be taken and what to do if use must be interrupted. Such efforts would reduce the level of method failure that is associated with pill use and help to prevent "accidental" pregnancies, the majority of which will be unwanted as the results in the next chapter indicate.

6.6 INTENTION TO USE IN THE FUTURE

The focus of this chapter has been on users. In Table 6.20, attention turns to nonusers and their interest in adopting family planning in the future. The results suggest that many nonusers will use in the future; 49 percent of currently married nonusers plan to use a method, 42 percent do not intend to use and ten percent are unsure about whether they will use. Among those intending to use, around half say that they will begin using in the next 12 months.

Table 6.20 Percent 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, Egypt DHS, 1988

Intention to Use	Number of Living Children					
	None	1	2	3	4 or More	Total
In Next 12 Months	10.2	24.7	28.7	29.5	26.1	24.3
Use Later	8.4	13.6	10.9	7.9	6.8	8.9
Unsure about Timing	33.4	19.1	12.3	12.2	9.1	15.4
Unsure about Use	20.0	11.0	8.3	6.4	6.2	9.5
Does not Intend	27.8	31.5	39.6	43.9	51.6	41.7
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of Nonusers	801	800	795	746	1,968	5,110

Table 6.21 Percent 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, Egypt DHS, 1988

Preferred Method	In Next 12 Months	Later	Total
Pill	31.0	33.2	31.6
IUD	41.2	34.0	39.3
Injection	2.3	3.3	2.6
Vaginal Methods	0.9	0.0	0.7
Condom	1.7	0.9	1.5
Female Sterilization	3.4	3.0	3.3
Norplant	0.5	0.0	0.4
Safe Period	0.4	0.9	0.5
Withdrawal	0.3	0.0	0.2
Prolonged Breastfeeding	0.4	0.4	0.4
Other	6.0	8.2	6.6
Don't Know	11.8	16.0	12.9
Total Percent	100.0	100.0	100.0
Number of Nonusers	1,242	456	1,698

The proportion who say that they will not use varies with the number of children a woman has, increasing from 30 percent among young childless women to more than 50 percent among women with four or more children. The timing of future use also varies with parity. Among women who say that they will use in the future, only one-fifth of those with no children plan to start soon compared to around one-half of those with 1-3 children and 60 percent or more of those with four or more children.

As expected, the methods of choice among women who plan to use in the future are the pill and the IUD (Table 6.21). Slightly more than 30 percent of nonusers who are planning to use in the future prefer the pill, while around 40 percent say they will adopt the IUD.

Chapter 7

FERTILITY PREFERENCES, UNMET NEED AND REASONS FOR NONUSE

Insight into the fertility desires in a population is important, both for estimating the potential unmet need for family planning and for predicting future fertility. This chapter presents data from the EDHS on the fertility intentions and family size norms of Egyptian women. The extent to which contraceptive behavior diverges from expressed fertility desires is explored. The chapter also looks at the level of unwanted and mistimed pregnancies and considers the effect on recent fertility rates if these pregnancies had been prevented.

Because fertility preferences are subjective and adhered to with varying degrees of intensity, they are more difficult to measure in a structured interview like the EDHS than more objective measures such as the number of births. To gain insight into the certainty of childbearing desires, EDHS respondents were first asked about the desire for additional children and then how definite they were about the preference that they initially expressed. A woman's fertility preference does not necessarily predict her reproductive behavior, since childbearing decisions are not made solely by the woman but are frequently affected by the attitude of other family members, particularly the husband. EDHS data allow for an examination of the extent to which women claim to know about their husband's fertility preferences, and, for those knowing about their husband's attitude, the extent to which the perceptions of the husband's immediate fertility desires and norms correspond to a woman's childbearing preferences.

7.1 DESIRE FOR ADDITIONAL CHILDREN

Women's Attitudes

Three in five currently married women do not want another child. Among the remaining women, most want another child; only three percent are not sure about whether they want another child, while six percent say that they cannot have a child. Few women express uncertainty about their fertility preferences. Table 7.1 shows that, among those wanting no more children, only four percent admit after further probing that they are unsure about their desire to end childbearing. Women wanting another child are even less likely to report that they are uncertain about their intention to have another child. Parity is related to how sure a woman is about her fertility intentions. Women with two to three children are somewhat more ambivalent than other women, but even in this group, less than 10 percent exhibit any uncertainty about their childbearing intentions.

Table 7.1 Percent Distribution of Currently Married Women by Desire for Children and the Certainty of Their Preference, According to the Number of Living Children, Egypt DHS, 1988

Desire for Children	Number of Living Children(1)							
	None	1	2	3	4	5	6 or More	Total
Want Another								
Definitely	94.5	88.0	37.9	15.2	7.3	5.3	2.3	29.5
Not Sure	0.2	1.0	1.5	1.1	0.3	0.5	0.1	0.7
Uncertain if Want								
Thinks Want Another	0.4	0.2	1.4	1.1	0.3	0.3	0.2	0.6
Not Sure	0.6	1.3	3.6	2.8	2.9	2.9	2.5	2.6
Thinks Want No More	0.0	0.2	0.8	0.4	0.4	0.6	0.8	0.5
Want No More								
Definitely	0.7	6.9	47.8	72.1	78.7	80.8	80.3	57.9
Not Sure	0.2	0.9	3.2	2.6	2.9	1.3	1.7	2.0
Declared Infecund	3.4	1.5	3.8	4.7	7.1	7.9	12.1	6.1
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	592	1,047	1,428	1,472	1,291	952	1,439	8,221

(1) Includes current pregnancy

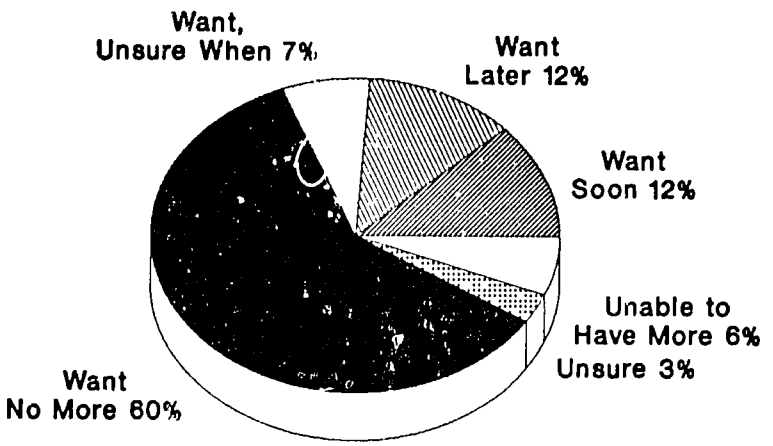
Figure 7.1 takes the timing desired for the next birth into account in classifying women according to their fertility preferences.[1] Almost three in four married women express a desire to exert some control over their future childbearing. The majority of these women want to limit, that is, to have no more children; overall, only 12 percent of married women want to space, i.e., delay the next birth for at least two years.

The desire for a child is strongly related to the number of living children the woman has.[2] Not surprisingly, almost all childless women express a desire for a child and only very few want to delay the birth at least two years (Table 7.2). Among women who have one child, the majority continue to want another child but there is greater interest

[1] In these as well as subsequent tabulations, respondents who reported that they were unsure about their desire for an additional child in response to the initial fertility preference question are reclassified if their response to the probe indicated a preference for another child or for no more children. Otherwise, the respondents are classified according to their response to the initial question.

[2] In collecting the fertility intention data, pregnant women were asked whether they wanted another child in addition to the one that they were expecting. Consequently, in the tabulations which follow, the number of living children is adjusted to count the expected pregnancy as a living child.

Figure 7.1
Desire for Children
Currently Married Women



Egypt DHS 1988

Table 7.2 Percent Distribution of Currently Married Women by Desire for Children, According to Number of Living Children, Egypt DHS, 1988

Desire for Children	Number of Living Children(1)							
	None	1	2	3	4	5	6 or More	Total
Want Another								
Within 2 Years	68.1	24.7	10.4	5.3	3.1	1.7	0.9	11.6
After 2 or More Years	1.3	47.8	20.9	7.2	2.3	2.3	0.7	11.9
Unsure about Timing	25.6	16.7	9.5	4.8	2.5	2.3	1.1	7.3
Undecided	0.6	1.3	3.6	2.8	2.9	2.9	2.5	2.6
Want No More	0.9	8.0	51.8	75.2	82.1	82.9	82.8	60.5
Declared Infecund	3.4	1.5	3.8	4.7	7.1	7.9	12.1	6.1
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	592	1,047	1,428	1,472	1,291	952	1,439	8,221

(1) Includes current pregnancy

Table 7.3 Percent Distribution of Currently Married Women by Desire for Children, According to Age, Egypt DHS, 1988

Desire For Children	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Want Another								
Within 2 Years	38.9	20.1	13.6	9.1	5.6	4.7	4.1	11.6
After 2 or More Years	34.9	30.7	17.0	6.8	2.1	0.4	0.1	11.9
Unsure about Timing	18.6	14.7	8.4	5.9	3.7	2.7	2.3	7.3
Undecided	1.1	2.4	3.3	3.6	2.5	2.0	1.1	2.6
Want No More	6.5	31.9	56.1	71.9	80.8	79.6	63.1	60.5
Declared Infecund	0.0	0.2	1.5	2.7	5.2	10.6	29.2	6.1
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	416	1,369	1,607	1,473	1,470	1,042	844	8,221

in spacing the next birth; nearly one-half of women who have their first child would like to wait at least two years before having another. Among women with two or more children, the desire to limit childbearing predominates, with the proportion saying that they do not want another child increasing from 52 percent among women with two children to over 80 percent among women with four or more children.

The association between the desire for children and age presented in Table 7.3 reflects the close relationship between age and the number of living children. The desire to space births is concentrated among younger women (under age 25), the majority of whom have two or fewer children. The interest in limiting births increases rapidly with age, from seven percent among the 15-19 age group to around 80 percent in the 35-39 cohort.

Table 7.4 shows the variation in the percent wanting no more children with the number of living children for various subgroups. The results suggest that urban women are likely to begin to want to limit family size at lower parities than rural women. For example, around 60 percent of urban women with two children say that they do not want another child compared with just under 40 percent of rural women with two children. Urban-rural differentials narrow as the number of living children increases, so that urban women with four or more children are only slightly more likely than rural women (85 vs. 81 percent) to want to end childbearing.

Regional differences in the percent wanting no more children are striking. For example, among women with two children, one in two women in Lower Egypt wants no more children compared with only one in three in Upper Egypt. These differences decrease as the number of living children increases. However, even among women with four or more children, they remain substantial, with over 90 percent of women in Lower Egypt wanting no more children compared with 70 percent of women in Upper Egypt.

Table 7.4 Percent of Currently Married Women Who Want No More Children by Number of Living Children, According to Selected Background Characteristics, Egypt DHS, 1988

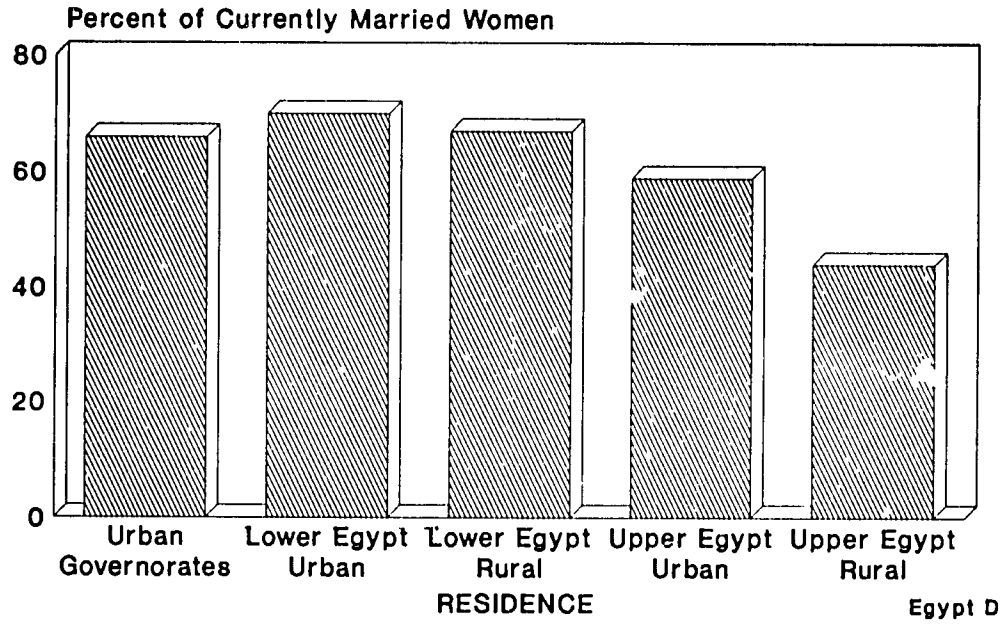
Background Characteristic	Number of Living Children(1) None	1	2	3	4 or More	Total
Urban-Rural Residence						
Urban	0.9	10.9	62.0	84.2	84.6	65.2
Rural	1.0	5.2	37.4	63.9	80.9	56.1
Place of Residence						
Urban Governorates	1.9	11.5	66.7	83.8	85.1	66.0
Lower Egypt	1.0	10.0	53.4	82.6	92.2	67.8
Urban	0.0	14.6	60.8	92.4	94.9	70.4
Rural	1.3	7.6	49.2	77.2	91.3	66.7
Upper Egypt	0.4	3.7	34.2	58.1	71.2	49.0
Urban	0.0	5.3	51.4	76.2	76.4	59.0
Rural	0.6	3.0	22.1	45.8	68.4	43.5
Education Level						
No Education	0.8	6.5	39.8	67.2	79.7	59.7
Less than Primary	0.0	8.0	52.7	75.2	86.0	65.8
Primary through Secondary	0.0	4.4	57.6	79.4	87.6	63.6
Completed Secondary/Higher	2.5	11.0	63.2	89.1	90.3	53.9
Work Status						
Working for Cash	1.7	14.2	66.3	85.7	92.3	64.6
Working, Not Paid in Cash	0.0	3.6	40.0	67.7	86.5	65.4
Not Working	0.9	7.1	48.7	73.7	81.3	59.4
Interested in Work	1.3	8.0	55.7	80.0	85.7	59.4
Not Interested in Work	0.7	6.6	45.0	71.0	79.8	59.4
Total	0.9	8.0	51.8	75.2	82.5	60.5

(1) Includes current pregnancy

Moreover, the differentials between the two regions are larger for rural than for urban residents. For example, the proportion wanting to limit childbearing is only slightly more than 20 percent among rural women in Upper Egypt with two children, while it is nearly 50 percent among rural women at the same parity in Lower Egypt.

The percent wanting no more children is positively associated with the woman's educational level. The majority of educated women want to begin to limit when they have two children, while, among women who never attended school, the majority do not express a desire to limit until they have three children. Having or showing interest in a paid job has a strong effect on the proportion wanting no more children, particularly at lower parities. For example, among women with two children, over 55 percent of those working for cash or interested in paid employment want to limit compared with 40 percent of those who are not working or are not paid for the work that they do.

Figure 7.2
Percent Wanting No More Children
by Place of Residence



In summary, the data suggest that Egyptian women want to begin childbearing immediately after marriage. Spacing is of concern only for women with one to two children, while the desire to limit becomes increasingly evident as the number of children increases. Among women with four or more children, more than 80 percent do not want another child. Urban women, women from Lower Egypt, women who have attended school and those who work for cash or are interested in paid employment begin wanting to limit at lower parities than other women.

Rural women from Upper Egypt stand out as less likely to want to limit childbearing than other women. Overall, only 40 percent of currently married women from rural Upper Egypt want no more children compared with 60 percent or more from other residential groups (Figure 7.2). Moreover, it is only among women with four or more children, that a majority in rural Upper Egypt want no more. In other residential categories, the majority become interested in limiting when they have two children.

Husbands' Attitudes

In the EDHS, fecund currently married women[3] were asked about whether their husband wanted another child. Although a woman may not be correct about her

[3] Women who indicated in response to the question about their childbearing desires that they were unable to become pregnant were not asked about their husband's childbearing desires.

husband's attitude about future childbearing, her perception concerning his attitude is likely to influence her attitude and behavior. The results presented in Table 7.5 suggest that around one in two Egyptian men are seen by their wives as wanting no more children. According to the wife, there is general agreement between husband and wife with regard to childbearing aspirations; 84 percent of women who want another child say that their husband also wants another, and 80 percent of women who do not want another child say that their husband wants to limit childbearing. When the wife reports there is disagreement, she is more likely to want to limit while saying her husband wants another child. Overall, ten percent of women want no more when their husband would like another child, and five percent of husbands want no more children when their wife wants to have additional children.

Table 7.5 Percent Distribution of Fecund Currently Married Women by Wife's and Husband's Desire for More Children, Egypt DHS, 1988

Desire for More Children	Percent
Wife Wants No More	63.7
Husband Wants Another	9.9
Husband Wants No More	50.8
Husband Not Sure	3.0
Wife Wants Another	33.1
Husband Wants Another	27.7
Husband Wants No More	4.9
Husband Not Sure	1.4
Wife Uncertain	3.2
Husband Wants Another	0.7
Husband Wants No More	0.3
Husband Not Sure	2.3
Total Percent	100.0
Number of Women(1)	7,721

(1) Excludes women who report that they cannot have another child

7.2 IDEAL NUMBER OF CHILDREN

Women's Ideal Family Size

The findings presented above focus on the respondent's current childbearing desires, which are influenced by the number of children she already has. The measure of ideal family size shown in Table 7.6 represents the results of an effort to obtain information on the number of children the respondent would have if she could go back to the beginning of the childbearing period and have only the number of children she preferred, regardless of the number of children she may have already had. This more abstract question proved difficult for some respondents; 17 percent were unsure or gave non-numeric answers. Childless women are somewhat more likely to have failed to give a numeric response than women with one child; otherwise, the proportion giving non-numeric answers generally increases with the number of living children.

In considering the findings in Table 7.6, it is important to remember that the actual and ideal number of children tend to be related. There are several reasons for this. First, to the extent that women are able to implement their fertility desires, women who want large families will achieve larger families. Moreover, since women with large families are, on average, older than women with small families, they may prefer a greater number of

Table 7.6 Percent Distribution of Ever-married Women by Ideal Number of Children and Mean Ideal Number of Children Among Ever-married Women and Currently Married Women by the Number of Living Children, Egypt DHS, 1988

Ideal Number of Children	Number of Living Children(1)							
	None	1	2	3	4	5	6 or More	Total
None	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1
1	3.8	4.2	2.5	2.4	1.6	1.2	0.4	2.2
2	41.5	46.6	47.8	37.4	33.8	27.5	21.5	36.3
3	21.2	25.6	24.9	32.3	22.2	29.0	23.5	25.8
4	10.1	8.4	8.6	10.9	20.8	12.5	19.2	13.3
5	1.9	2.1	1.4	1.7	1.6	6.0	2.9	2.4
6 or More	3.4	1.7	1.6	2.3	2.4	3.0	5.7	2.9
Non-numeric response	18.1	11.4	13.2	12.9	17.5	20.8	26.6	17.1
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	672	1,160	1,552	1,558	1,420	1,019	1,529	8,911
Mean Ideal Number:								
Ever-married Women	2.8	2.6	2.6	2.8	3.0	3.1	3.4	2.9
Currently Married Women	2.8	2.6	2.6	2.8	3.0	3.1	3.4	2.9

(1) Includes current pregnancy

children because of the more traditional attitudes toward childbearing to which they were exposed during the early stages of their reproductive lives. Finally, some women may have difficulty admitting that they would have fewer children than they currently have if they could begin again. Such women are likely to report the actual number of children as their preferred number.

Table 7.6 shows that most women want small families. More than one-third of ever-married women prefer a two-child family, and another one-quarter consider a three-child family ideal. Less than six percent want five or more children. Among women giving numeric answers, the mean ideal family size is 2.9 children. Higher parity women show a preference for more children; the mean ideal family size increases from 2.6 children among women with one child to 3.4 children among women with six or more children. The mean ideal family size is somewhat higher among childless women than among women with one to two children.

There is evidence in Table 7.6 that many Egyptian women have had more children than they would now prefer. Overall, more than one-third express a preference for fewer children than they actually have. As expected, the disparity between the ideal and actual number of children tends to increase with the actual number of children; less than two percent of women with two or fewer children prefer a smaller family while around 70 percent of those with four or more children would prefer fewer children than they have.

Table 7.7 takes age into account in examining the variation in the mean ideal family size among various subgroups. By age, the mean ideal family size declines from 3 children among women 15-19 to 2.7 children in the 30-34 age group before increasing to 3.3 children among women 45-49 years old. The somewhat higher family size preferences among women under 30 likely reflects the greater number of newly married women in these cohorts who have not yet begun childbearing, and who have been shown in Table 7.6 to have a somewhat higher mean ideal family size than women with one or two children.

Other differentials in the mean ideal family size parallel the differentials observed in actual fertility levels; family size desires are greater for rural women, women from Upper Egypt, women never attending school and women who are not working and show

Table 7.7 Among Ever-married Women, Mean Ideal Number of Children by Age, According to Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Current Age							
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Urban-Rural Residence								
Urban	2.7	2.5	2.6	2.5	2.7	2.8	3.0	2.7
Rural	3.1	2.9	3.0	3.0	3.2	3.4	3.7	3.2
Place of Residence								
Urban Governorates	2.7	2.4	2.5	2.5	2.7	2.7	2.9	2.6
Lower Egypt	2.5	2.6	2.6	2.6	2.8	2.8	3.1	2.7
Urban	2.5	2.3	2.5	2.5	2.5	2.6	2.8	2.5
Rural	2.5	2.6	2.7	2.7	2.9	2.9	3.2	2.8
Upper Egypt	3.4	3.2	3.2	3.1	3.3	3.6	3.8	3.4
Urban	2.9	2.8	2.9	2.7	2.9	3.0	3.3	2.9
Rural	3.5	3.4	3.5	3.5	3.7	4.1	4.3	3.6
Education Level								
No Education	3.2	2.9	3.0	3.0	3.2	3.2	3.5	3.1
Less than Primary	2.8	2.8	2.8	2.8	2.8	2.9	3.1	2.8
Primary through Secondary	2.7	2.6	2.6	2.5	2.8	2.8	2.7	2.7
Completed Secondary/Higher	2.9	2.4	2.5	2.5	2.5	2.6	2.6	2.5
Work Status								
Working for Cash	2.4*	2.4	2.5	2.5	2.6	2.7	2.9	2.5
Working, Not Paid in Cash	2.7	2.7	2.8	2.7	3.1	3.4	3.1	2.9
Not Working	3.0	2.8	2.9	2.8	3.0	3.1	3.3	3.0
Interested in Work	2.8	2.6	2.7	2.6	2.7	2.8	3.1	2.7
Not Interested in Work	3.2	2.9	3.0	2.9	3.1	3.2	3.4	3.1
Total	3.0	2.8	2.8	2.7	2.9	3.0	3.3	2.9

* Mean based on fewer than 25 cases

no interest in paid employment. The largest mean ideal family size--3.6 children--is found for women from rural Upper Egypt. Comparing this figure with the total fertility rate for rural Upper Egypt--6.4 births per woman--indicates that, at current fertility levels, the average rural woman in Upper Egypt is having nearly three children more than she would prefer.

Husbands' Ideal Family Size

To obtain insight into the husband's preferred family size, currently married fecund women were asked about the number of children their husband would like to have if he could have exactly the number that he wanted without regard to the couple's current number of children. Women found it more difficult to respond to this question than to other questions concerning their husband's attitudes; around one-third of the women said that they did not know how many children their husband preferred, and an additional 10 percent were unable to give a numeric response to the question. The inability of many women to answer the question on husband's family size preference is not surprising since only about 40 percent report ever discussing family size preference with their husbands.

Table 7.8 shows the distribution of currently married women knowing about their husband's family size preferences by their own preference as well as that of their husband. More than 45 percent said their husband would like two or fewer children, 25 percent said their husband wanted a three-child family and around 30 percent thought their husband wanted four or more children. The mean preferred family size among husbands as re-

Table 7.8 Percent Distribution of Currently Married Women Knowing About the Husband's Ideal Number of Children by the Husband's Ideal Number of Children, According to the Wife's Ideal Number of Children, Egypt DHS, 1988

Husband's Ideal Number of Children	Wife's Ideal Number of Children							
	None	1	2	3	4	5	6 or More	Total
None	0.0	3.0	0.1	0.3	0.0	0.0	0.0	0.2
1	0.0	35.2	4.2	3.0	1.2	0.0	1.2	4.0
2	0.0	34.6	70.8	14.1	9.2	4.9	10.4	41.5
3	0.0	12.1	10.2	59.0	10.6	7.9	9.9	25.0
4	0.0	8.8	7.7	11.5	56.0	7.2	4.4	15.2
5	0.0	1.3	1.5	3.1	5.9	52.5	5.6	3.7
6 or More	0.0	4.9	5.5	8.9	17.0	27.3	68.5	10.4
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of Women	0	101	2,061	1,247	533	85	96	4,123

ported by the wives is 2.9 children, identical to the mean reported for the women themselves.

Women generally report agreement between their preference and their husband's desired family size; however, one in ten women reports that her husband would prefer a smaller family and one in four feels that her husband would like more children than she herself wants.

7.3 UNPLANNED AND UNWANTED BIRTHS

Comparison of family size preferences with actual fertility levels indicates that many women have had more children than they would now bear if they could start their childbearing years again. The issue of unplanned and unwanted fertility was further investigated in the EDHS by asking women who had births during the five years before the survey whether the births were planned (i.e., wanted at the time), unplanned (i.e., wanted but not at the time) or unwanted. The responses to these questions provide a measure of the degree to which Egyptian couples have been successful in controlling childbearing. In addition, the information can be used to estimate the effect on period fertility if unwanted pregnancies had been prevented.

The questions on the planning status of recent births are open to several sources of error. A woman may not remember accurately how she felt about a particular pregnancy. She also may not be willing to admit that she had not wanted a child at its conception. Conversely, if the child has become an economic or health burden, she may now claim that it was not wanted. There are clearly problems in collecting this information; however, results from a number of surveys suggest that the questions yield plausible responses, with the most probable effect of biases in the answers being a net underestimation of the level of unwanted fertility.

Table 7.9 Percent Distribution of All Births in the Last Five Years by Contraceptive Practice and Fertility Planning Status, According to Birth Order, Egypt DHS, 1988

Contraceptive Practice and Fertility Planning Status	Birth Order				
	1	2	3	Fourth/ Higher	Total
Non-contracepting					
Wanted Then	94.3	55.0	45.2	33.8	52.0
Wanted Later	2.7	10.4	10.5	9.2	8.3
Not Wanted	0.4	1.8	4.9	22.0	11.1
Contracepting					
Wanted Then	1.4	22.5	19.7	9.0	11.6
Wanted Later	0.2	8.0	8.2	4.4	4.8
Not Wanted	0.0	1.5	10.4	20.6	11.2
Non-classifiable	0.9	0.8	1.1	1.0	1.0
Total Percent	100.0	100.0	100.0	100.0	100.0
Number of Births	1,969	1,784	1,505	4,324	9,582

The results in Table 7.9 show that women are willing to admit that some

pregnancies may have been unplanned or unwanted. Overall, 22 percent of the births in the five years prior to the EDHS were not wanted at the time they were conceived. An additional 13 percent were wanted but at a later time.

The absolute percentages of unwanted or mistimed births vary little according to whether contraception was used in the preceding birth interval or not. However, birth order is clearly related to the planning status of the births. Almost all first and second births occurring in the last five years were reported as wanted, although among second births, nearly 20 percent were mistimed. The proportion of unwanted births increases among third births to 15 percent and is more than 40 percent for fourth or higher order births. In addition, nearly 20 percent of third births and around 15 percent of fourth or higher order births were reported as wanted later.

Table 7.10 focuses attention on the planning status of births for women who had a birth in the 12 months before the EDHS. Among women having a recent birth, nearly one-quarter report that the birth was not wanted; and 16 percent say that the birth was wanted but at a later time. Again almost all women report first and second births as wanted although 14 percent say that the birth was mistimed. Thirty-seven percent of third or higher order births were unwanted, while around 16 percent were mistimed.

Table 7.10 Percent of Women Who Had a Birth in the Last 12 Months by Fertility Planning Status, According to Birth Order, Egypt DHS, 1988

Fertility Planning Status	Birth Order 1-2	Birth Order Third/ Higher	Total
Wanted Then	83.3	45.7	60.0
Wanted Later	14.1	16.4	15.5
Not Wanted	2.2	37.1	23.8
Not-classifiable	0.3	0.8	0.6
Total Percent	100.0	100.0	100.0
Number of Births	711	1,152	1,863

Using the information on whether births occurring in the five years before the survey were wanted or not, it is possible to calculate a total "wanted" fertility rate. This measure is calculated in the same manner as the conventional total fertility rate, except that unwanted births are excluded from consideration. The wanted fertility rate represents the level of fertility that theoretically would have prevailed during the five-year period if all unwanted births had been prevented. Comparison of the actual fertility rate with the wanted rate indicates the potential demographic impact of eliminating unwanted births.

Table 7.11 shows that the wanted fertility rate for the five-year period before the survey is nearly 25 percent lower than the total fertility rate. If unwanted births are prevented, fertility would average only 3.6 births per woman compared to the actual average of 4.7 births. In other words, Egyptian women are currently having one child more than they actually want.

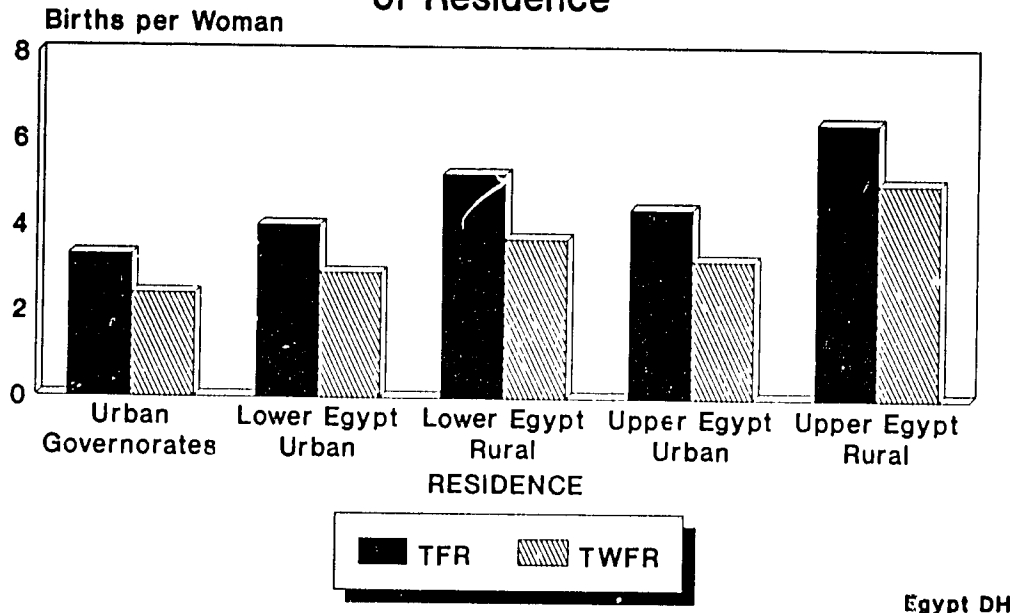
Table 7.11 Total Wanted Fertility Rates and Total Fertility Rates for the Five Years Before the Survey, by Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Total Wanted Fertility Rate	Total Fertility Rate
Urban-Rural Residence		
Urban	2.73	3.69
Rural	4.27	5.73
Place of Residence		
Urban Governorates	2.39	3.26
Lower Egypt	3.46	4.83
Urban	2.94	3.95
Rural	3.68	5.22
Upper Egypt	4.35	5.60
Urban	3.25	4.35
Rural	5.03	6.38
Education Level		
No Education	4.37	5.73
Less than Primary	3.66	5.09
Primary through Secondary	2.80	3.79
Completed Secondary/Higher	2.63	3.23
Total	3.59	4.66

Although the difference between the wanted and total fertility rate varies somewhat among subgroups, it is evident that there is substantial excess fertility in all groups. For example, the total fertility rate for urban women would be 2.7 births if unwanted births had been avoided, compared with the actual rate of 3.7 births. For all rural women, the total wanted fertility rate is 4.3 births, 1.5 births lower than the actual TFR (5.7 births). In rural Upper Egypt, where fertility is highest, women would be having five rather than six children if unwanted births were prevented (Figure 7.3).

For many mothers and their children, the prevention or delay of a birth is an important health measure. Table 7.12 shows that nearly 60 percent of the births occurring in the five years before the survey were the outcome of pregnancies defined as high risk, i.e, pregnancies too young (mothers under age 18), too old (mothers age 35 and over), too many (mothers with five births or more) or too soon (births which occur less than 2 years after the last birth). More than 30 percent of these births were unwanted, and an additional 16 percent were mistimed. Thus, nearly half of the high risk births occurring during the five year period before the survey might have been avoided if Egyptian mothers had been able to effectively implement their childbearing desires. Educating mothers as to the health risks associated with these pregnancies--for themselves and their children--

Figure 7.3
Total Fertility Rates (TFR) and Total Wanted Fertility Rates (TWFR) by Place of Residence



Egypt DHS 1988

Table 7.12 Percent Distribution of Births in the Five Years Before the Survey To Women in Various High Risk Categories, by Fertility Planning Status, and Percent of All Births Which Occurred to Mothers in High Risk Categories, According to Risk Category, Egypt DHS, 1988

Risk Category	Fertility Planning Status			Total Percent	Percent of All Births Which Occurred to Women in the High Risk Category
	Wanted Then	Wanted Later	Not Wanted		
Mother Less than 18	93.5	6.5	0.0	100.0	4.6
Mother 35 or Older	33.9	9.7	56.4	100.0	12.6
Five or More Births	39.7	12.6	47.4	100.0	32.8
Birth Interval Less Than 24 Months	57.7	20.6	21.7	100.0	30.2
Any Risk Factor	52.9	15.5	31.6	100.0	58.4

might also have led to mothers who wanted births which were high risk to delay or avoid those pregnancies.

7.4 REPRODUCTIVE INTENTIONS AND CONTRACEPTIVE USE

Many women who do not want another child or who want to delay having a birth for at least two years are not using contraception. These women exhibit a reproductive motivation-behavior gap, that is, they express a desire to limit or space births but they are not using any method to prevent a pregnancy. Not all of the women in this group are in immediate need of contraceptive services since some may not be currently exposed to the risk of pregnancy because they are amenorrheic, living apart from their husband, already pregnant, menopausal or infecund. However, family planning program efforts should be targeted at identifying all of these women and providing family planning counseling and methods as necessary in order to assist them in realizing their reproductive desires.

Table 7.13 looks at the extent of the reproductive motivation-behavior gap among currently married women. By taking into account the intention to use family planning, the table also provides an estimate of the immediate interest in contraception among nonusers wanting to limit or space births. Nearly one-half of women want to limit childbearing or space the next birth but are not using contraception. Almost two-thirds of these women (30 percent of currently married women) are potential limiters. Almost 40 percent (18 percent of currently married women) say that they intend to use family planning in the future, with the interest in using being considerably greater among those wanting to limit than among those desiring to delay a wanted birth.

Considering background characteristics, the proportion of women wanting to limit or space and not using contraception tends to be greater among the subgroups where the level of family planning use is lowest. Nearly three in five currently married women in rural areas are not using although they want no more children (36 percent) or to delay the next birth for two or more years (22 percent). Even in urban areas, one in three women is a potential limiter or spacer. Taking into account both urban-rural residence and region, the percent wanting to limit or space and not using varies from a low of 32 percent among women living in the Urban Governorates to a high of 64 percent among women residing in rural areas in Upper Egypt.

Table 7.13 also shows that the more highly educated a woman is the less likely her reproductive intention will be at odds with her contraceptive behavior. Finally, women holding a job for which they are paid in cash are less likely than other women to be potential limiters or spacers.

In absolute terms, there is fairly little variation in the percent of potential limiters and spacers who plan to use contraception in the future. For example, 16 percent of married women in urban areas are in need and say they will use in the future compared

Table 7.13 Among Currently Married Women, Percent Who Are in Need of Family Planning and Percent Who Are in Need and Intend to Use Family Planning in the Future by Reproductive Intention, According to Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	In Need of Family Planning			In Need and Plan To Use			Number of Women
	Want No More	Want Later	Total	Want No More	Want Later	Total	
Urban-Rural Residence							
Urban	24.6	11.0	35.5	11.6	4.4	16.0	4,006
Rural	35.6	22.4	58.0	15.4	5.1	20.5	4,215
Place of Residence							
Urban Governorates	22.6	9.3	31.9	10.8	3.9	14.8	1,996
Lower Egypt	32.7	15.2	47.9	14.9	4.6	19.5	3,230
Urban	25.4	11.2	36.6	11.2	5.0	16.2	952
Rural	35.7	16.9	52.6	16.5	4.4	20.9	2,278
Upper Egypt	32.7	23.5	56.2	13.9	5.5	19.4	2,995
Urban	27.6	13.8	41.4	13.3	4.8	18.2	1,058
Rural	35.5	28.8	64.3	14.2	5.8	20.0	1,937
Education Level							
No Education	35.9	18.8	54.7	14.0	3.5	17.6	4,105
Less than Primary	30.8	13.9	44.7	15.0	4.1	19.2	1,895
Primary through Secondary	22.5	12.4	34.9	11.5	5.1	16.6	804
Completed Secondary/Higher	17.5	17.4	34.9	11.4	9.0	20.4	1,417
Work Status							
Working for Cash	22.8	12.2	34.9	11.6	5.7	17.3	985
Working, Not Paid in Cash	38.2	13.2	51.4	16.5	3.4	19.9	657
Not Working	30.6	17.9	48.4	13.6	4.7	18.3	6,579
Interested in Work	28.1	16.4	44.5	13.3	6.1	19.4	1,960
Not Interested in Work	31.6	18.5	50.1	13.7	4.2	17.8	4,619
Total	30.2	16.8	47.0	13.6	4.7	18.3	8,221

with 21 percent among rural residents. However, in relative terms, the interest in adopting family planning is less among groups where the proportion wanting to limit or delay births and not using family planning is greatest. Thus, only 35 percent of the potential limiters or spacers in rural areas say that they will use family planning compared with 45 percent in urban areas. Overall, among potential limiters and spacers, the proportion who say they will use is lowest for women in rural Upper Egypt (31 percent).

In summary, nearly one-half of currently married women are not using family planning although they express a desire to limit or space the next birth. Among those whose reproductive intentions are at variance with their contraceptive behavior, only 40 percent intend to use in the future. Nonusers wanting to limit are more likely to say they will use than are women who want to delay the next birth. Contraceptive behavior is most likely to be at odds with reproductive intentions among rural women, women from Upper Egypt, women who have never attended school, and women who are not working

or who are not in paid employment. Potential limiters or spacers in these groups are also less likely to express an intention to use contraception in the future.

7.5 REASONS FOR NONUSE

The EDHS obtained information about the reasons women who are at immediate risk of an unplanned or unwanted pregnancy give for not contracepting. Overall, 50 percent of EDHS respondents were not currently pregnant, not currently abstaining following a birth and not contracepting. When women in this group were asked about their reaction to the possibility of becoming pregnant in the next few weeks, more than half said they would be unhappy (Table 7.14). The proportion who would be unhappy increases with the number of children the woman already has; over 80 percent of women with four or more living children would be unhappy, although even among women with one living children, over one-third would be unhappy.

Women who stated that they would be unhappy with a pregnancy in the next few weeks were asked why they were not using contraception. Unlike the information presented earlier in Chapter 6 on the main problems with methods, the responses here are personal, reflecting the reason that the woman herself is not using any method of contraception, rather than the obstacles or barriers that she perceives might keep other women from using a specific method.

Table 7.14 Percent Distribution of Non-pregnant Women Who Are Currently Married and Who Are Not Using Any Contraceptive Method by Attitude Toward Becoming Pregnant in the Next Few Weeks, According to Number of Living Children, Egypt DHS, 1988

Number of Living Children	Attitude Toward Becoming Pregnant			Total Percent	Number of Women
	Happy	Unhappy	Would Not Matter		
None	95.0	2.0	2.9	100.0	586
1	51.9	37.0	11.0	100.0	592
2	30.3	54.4	15.3	100.0	611
3	16.2	67.6	16.2	100.0	606
4 or More	7.1	81.7	10.7	100.0	1,724
Total	30.8	57.7	11.1	100.0	4,120

Table 7.15 Percent Distribution of Non-Pregnant Women Who Are Currently Married and Are Not Using Any Contraceptive Method and Who Would be Unhappy if They Became Pregnant by Main Reason for Nonuse, According to Age, Egypt DHS, 1988

Reason for Nonuse	Under 30	30 and Older	Total
Opposed to Family Planning	0.4	0.3	0.3
Husband Disapproves	3.6	1.6	2.2
Religious Prohibitions	0.3	0.9	0.7
Side Effects for Woman	11.0	18.6	16.2
Side Effects for Child	1.3	0.2	0.6
Lack of Knowledge	0.9	1.4	1.2
Difficult to Obtain	0.1	0.2	0.2
Costs Too Much	0.1	0.5	0.4
Inconvenient to Use	0.6	0.8	0.7
Fatalistic	6.4	13.6	11.3
Infrequent Sex	13.3	10.9	11.7
Postpartum/Breastfeeding	49.3	16.5	27.0
Menopausal/Subfecund	0.0	19.4	13.3
Other	12.7	15.1	14.3
Total	100.0	100.0	100.0
Number of Women	759	1,617	2,376

The reasons for nonuse presented in Table 7.15 suggest that 25 percent of the women are not using because they consider themselves to be at limited risk of pregnancy, largely since they believe themselves to be menopausal or subfecund or because they are having sex infrequently (due to the husband's absence or illness). An additional 25 percent feel that they are not at risk because they are postpartum or breastfeeding. The proportions mentioning these reasons vary by age, with younger women more likely to mention breastfeeding and older women to say they are menopausal or subfecund.

Among the remaining women, concern about method side effects is the primary reason for nonuse, with very few women mentioning factors relating to method availability such as cost or attitudinal variables such as the husband's disapproval as reasons for not using. Women age 30 and over are somewhat more likely than women under 30 to cite method side effects as an issue.

These findings raise some issues which the family planning program must address. First of all, while the many women citing limited risk of pregnancy because of menopause or infrequent sex may be correct about their status, it is likely that some of these women may be at higher risk than they suppose. Efforts should be directed toward encouraging these women to adopt methods appropriate to their low risk status, particularly if an unplanned or unwanted pregnancy would pose a substantial risk for the woman and child. Many women also appear to believe that they cannot become pregnant since they are

breastfeeding. Again, while this is true for breastfeeding mothers who are amenorrheic, it is important that women be counseled that they are at risk of pregnancy when menstruation resumes, which as Chapter 2 suggests, occurs on average nine months following birth.

The family planning program also must continue to address the perception many women hold that contraceptive methods cause side effects for the women who are using them. In Chapter 4, it was clear that women see side effects as a problem in using both the pill and the IUD and, in Chapter 6, it was evident that side effects were one of the chief reasons given by women discontinuing use of both the pill and the IUD for stopping use of these methods. In Table 7.15, side effects are the principal reason women who think that they are at risk of pregnancy give for not using, even when they would be unhappy to become pregnant.

Chapter 8

INFANT AND CHILD MORTALITY

Infant and child mortality levels are one of the most important indicators of the standard of living or the pace of development in any population. Recent reports focus on child mortality and literacy ratios as among the best indicators of development levels and of progress in improving the welfare of children (UNICEF, 1989). These indicators measure the end result of the interaction of many socioeconomic variables including: adequate income, nutrition, water and electricity supply, environmental safety, basic health knowledge, primary health care and basic education.

The level and trend in child mortality have been a subject of considerable debate in Egypt with rates derived from various surveys and the vital registration system not always providing consistent estimates for similar time periods. This chapter presents EDHS data on the levels, trends and differentials in child mortality and compares that information with other estimates. The chapter also reviews data collected in the EDHS on the symptoms which children who died exhibited during the illness preceding their death; this information provides insights into the major causes of child mortality in Egypt.

8.1 CHILD SURVIVORSHIP

The discussion of child mortality begins by focusing on the prevalence of child loss among children ever born to women during their entire reproductive period to date. The mean number of children ever born alive, surviving and dead, and the proportion dead among children ever born by the mother's current age are presented in Table 8.1. These data are used to examine the prevalence of child loss over the lifetime of the women interviewed in the survey. The accuracy of such data is affected by underreporting of dead children, especially by older women.

Table 8.1 shows that one in six children born to ever-married women 15-49 has died, indicating that child mortality levels have generally been high during the period in which these women have been bearing children. The proportion dying among children ever born decreases steadily with the age of the mother. This pattern reflects the shorter period that children born to younger mothers have been exposed to the risk of dying as well as the effect of declining mortality levels over time.

The final two columns of Table 8.1 show the proportions of children ever born who later died reported in the 1980 EFS and the 1984 ECPS. The proportion generally decreases over the time periods covered for all age groups, indicating that there has been a general improvement in child survivorship in the current decade. Overall, the proportion

Table 8.1 Mean Number of Children Ever Born, Surviving and Dead by Age of Mother, Egypt DHS, 1988, and the Proportion Dead Among Children Ever Born, Egypt DHS, 1988, CPS, 1984 and FS, 1980

Age of Woman	Mean Number of Children			Number of Ever-married Women	Proportion Dead		
	Ever Born	Surviving	Dead		EDHS 1988	1984 ECPS(1)	1980 EFS(2)
15-19	0.65	0.60	0.06	429	0.09	0.16	0.13
20-24	1.71	1.51	0.20	1,427	0.12	0.18	0.18
25-29	2.95	2.55	0.40	1,668	0.14	0.18	0.21
30-34	3.98	3.38	0.60	1,552	0.15	0.20	0.22
35-39	5.29	4.35	0.93	1,596	0.18	0.22	0.27
40-44	5.90	4.63	1.27	1,204	0.22	0.25	0.29
45-49	6.25	4.73	1.52	1,033	0.24	0.29	0.32
Total	4.02	3.29	0.73	8,911	0.18	0.23	0.24

(1) Sayed et al., 1985, Table 4.10
(2) Hallouda et al., 1983, Table 5.1

dead among children ever born to ever-married women 15-49 decreased from 24 percent in 1980 to 18 percent in 1988.

Differentials in the proportion dying among children ever born are presented in Table 8.2 by the mother's current residence. More than one in five children born to ever-married women 15-49 living in rural areas has died compared with only one in seven children ever born to urban women. By region, the proportion dying among children ever born is only 13 percent for the Urban Governorates compared with 17 percent for Lower Egypt and 22 percent for Upper Egypt. The differential in the proportion dying between

Table 8.2 Proportion Dead Among Children Ever Born by Urban-Rural Residence and Place of Residence, According to Age of the Mother, Egypt DHS, 1988

Age of Mother	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt		
				Total	Urban	Rural	Total	Urban	Rural
15-19	0.07	0.10	0.02	0.06	0.08	0.05	0.12	0.09	0.12
20-24	0.08	0.13	0.08	0.09	0.07	0.09	0.16	0.08	0.18
25-29	0.09	0.17	0.08	0.13	0.10	0.13	0.17	0.09	0.21
30-34	0.10	0.19	0.08	0.14	0.09	0.16	0.20	0.14	0.22
35-39	0.14	0.21	0.12	0.16	0.11	0.18	0.22	0.18	0.24
40-44	0.17	0.25	0.16	0.20	0.14	0.22	0.26	0.21	0.28
45-49	0.20	0.28	0.18	0.23	0.22	0.24	0.29	0.23	0.32
Total	0.14	0.21	0.13	0.17	0.13	0.18	0.22	0.17	0.25

rural areas in Lower Egypt and Upper Egypt is particularly large; 25 percent of children ever born to women in rural Upper Egypt have died compared to only 18 percent of children born to women in rural Lower Egypt.

8.2 INFANT AND CHILD MORTALITY

Attention now shifts to looking at direct estimates of the level of infant and child mortality over a period of 15 years before the survey. These estimates are based on data collected in the EDHS birth histories; for each reported live birth, information is available from the birth history on the date of birth, sex, survivorship status and, among those who died, age at death. These retrospective data are used to calculate period probabilities of dying using the life table methodology described by Rutstein (1984). In examining trends in mortality, rates are presented for three 5-year periods: 1974-1978, 1979-1983 and 1984-1988.[1] To allow further examination of the trend in the most recent period, rates are also presented for the periods 1983-1985 and 1986-1988. In looking at differentials, the rates are shown for the period 1978-1988. In all cases, the mortality rates are presented for three age intervals:

Infant mortality - the probability of dying between birth and exact age one;
Childhood mortality - the probability of dying between age one and age five; and
Under five mortality - the probability of dying between birth and exact age five.

Birth History Survivorship Data

Estimates of infant and child mortality based on retrospective survey data are subject to several technical limitations. First of all, the estimates are influenced by data collection errors, including underreporting of births, misreporting of birth dates and misreporting of age at death. Mortality levels are affected by the underreporting of births who later die, while errors in the reporting of birth dates can distort trends in mortality over time. Misreporting of the age at death can bias the age pattern of mortality; for example, an overestimate of child mortality relative to infant mortality may result if children dying during the first year of life are reported as having died at age one or older. Because respondent recall is likely to be better for the recent past, reporting errors of all types are generally less serious for time periods close to the survey.

The examination of mortality trends is also affected by the fact that the rates become progressively more truncated further back in time because women age 50 and over who were bearing children during those periods were not included in the survey. For example, for the period 1974-1978 (10-14 years before the survey), the rates do not include

[1] The 1974-1978 and 1979-1983 periods cover exactly five calendar years; the most recent period (1984-1988) includes the mortality experience of births to respondents up to but excluding the month of interview.

any births for women 40-49 since these women were 50-59 at the time of the survey and not eligible for interview. Since these excluded births to older women were likely to be at a somewhat greater risk of dying than births to younger women, the mortality levels for the period may be slightly underestimated. The rates for later periods are less affected by truncation bias since fewer older women are excluded. Finally, in looking at differentials in mortality rates, attention should be paid to the number of events on which the rates are based. For some subgroups, the rates are based on a small number of events and, thus, are subject to greater sampling variability.

Levels and Trends in Mortality

Table 8.3 provides estimates of the level of infant and child mortality for successive calendar periods before the survey. The estimates suggest that there has been a sustained decline in child mortality since the mid-1970s. Under five mortality dropped from 203 deaths per thousand births in the 1974-1978 period to 102 deaths per thousand births in the 1984-1988 period. During the most recent period, under five mortality has continued to drop to an estimated 90 deaths per thousand births during the 1986-1988 period. The pace of mortality decline appears to have accelerated over the 15-year period for which the rates are presented. Between the 1974-1978 and 1979-1983 periods, under five mortality dropped by less than 20 percent, while between the 1979-1983 and 1984-1988 periods, it decreased by nearly 40 percent.

Table 8.3 Infant and Childhood Mortality by Five-Year Calendar Periods, Egypt DHS, 1988

Period	Infant Mortality (1q0)	Childhood Mortality (4q1)	Under Age 5 Mortality (5q0)
1984-1988(1)	73.1	31.2	102.0
1979-1983	119.5	54.3	167.4
1974-1978	124.0	89.8	202.7

(1) Includes events occurring in the period up to but excluding the month of interview

Childhood mortality declined faster than infant mortality over the 15-year period for which rates are presented in Table 8.3. Mortality among children 1-4 years dropped by 65 percent, from 90 deaths per thousand in the 1974-1978 period to 31 in the 1984-1988 period. Infant mortality decreased at a somewhat slower rate, falling from 124 deaths per thousand births in 1974-1978 to 73 in 1984-1988. Declines in both infant and child deaths have continued in the most recent period; for the three-year calendar period before the EDHS (1986-1988), childhood mortality is estimated to have been 25 deaths per thousand while infant mortality was 67 deaths per thousand births (not shown in the table).

Typically, as infant mortality declines, neonatal deaths (i.e., deaths occurring in the first four weeks of life) decrease more slowly than deaths occurring during the postneonatal period (1-11 months following birth). Table 8.4 shows that, over the period for

which EDHS estimates are available, postneonatal mortality has declined by slightly more than fifty percent, from 71 deaths in 1974-1978 to 34 deaths per thousand births in 1984-1988. Neonatal mortality has declined more slowly, from over 50 deaths per thousand births to 38 deaths per thousand births. As a result, the proportion of infant deaths occurring in the neonatal period has increased from 43 percent in the 1974-1978 period to 52 percent in 1984-1988.

Table 8.4 Neonatal and Postneonatal Mortality by Five-Year Calendar Periods, Egypt DHS, 1988

Period	Neonatal Mortality	Postneonatal Mortality
1984-1988(1)	38.5	34.5
1979-1983	58.4	61.1
1974-1978	53.0	71.0

(1) Includes events occurring in the period up to but excluding the month of interview

Finally, using estimates from the 1980 EFS and the 1988 EDHS, the downward trend in infant mortality since the early 1950s is shown in Table 8.5 and Figure 8.1. During the 35 years for which estimates are available from the two surveys, infant mortality declined from 191 deaths per thousand in 1950-1954 to 73 in 1984-1988. The pace of the decline appears to have accelerated in the last two decades, with mortality decreasing by 50 percent, from 146 deaths per thousand births in 1970-1974 to 73 deaths per thousand births in 1984-1988.

Table 8.5 Trend in Infant Mortality in Egypt, 1950-1988, Egypt FS and DHS

Period	EFS(1)	EDHS
1950-1954	191	
1955-1959	166	
1960-1964	151	
1965-1969	141	
1970-1974	146	
1975-1979	132	
1979-1983		119
1984-1988		73

(1) Hallouda et al., 1983, Table 5.3

8.3 DIFFERENTIALS IN INFANT AND CHILD MORTALITY

Education and Residence

Table 8.6 presents estimates of the level of infant and childhood mortality during the period 1978-1988 for various subgroups. With regard to education, the expected inverse relationship is present. Under five mortality is highest for mothers with no education (161 deaths per 1000 births) and gradually declines with increasing education to a level of 49 deaths per 1000 births among children of mothers who completed secondary school.

Figure 8.1
Infant Mortality by
Calendar Period

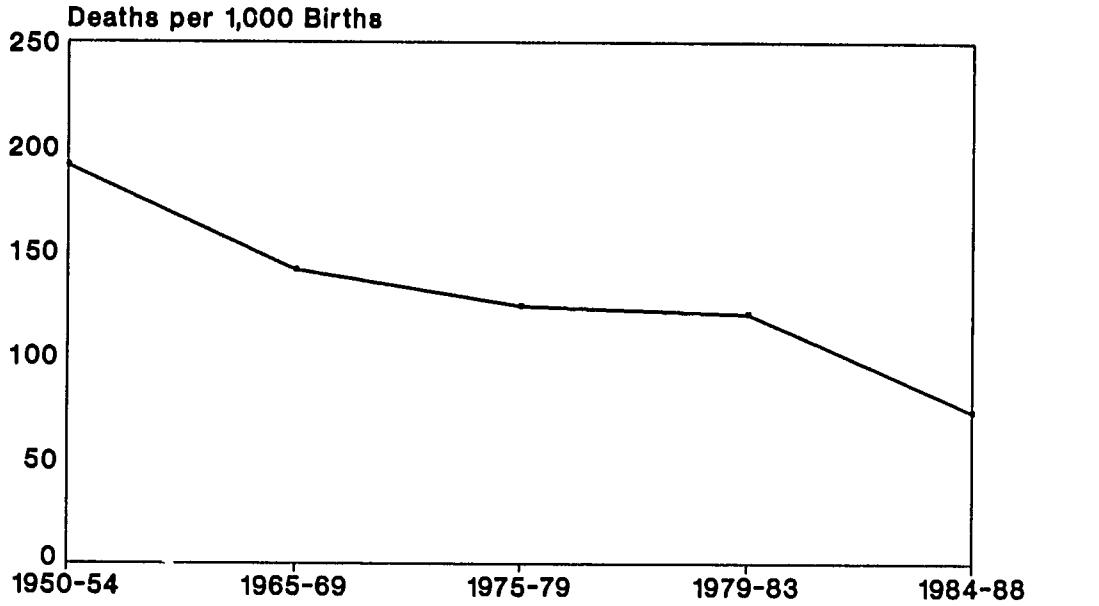


Figure 8.2
Under Five Mortality by
Place of Residence

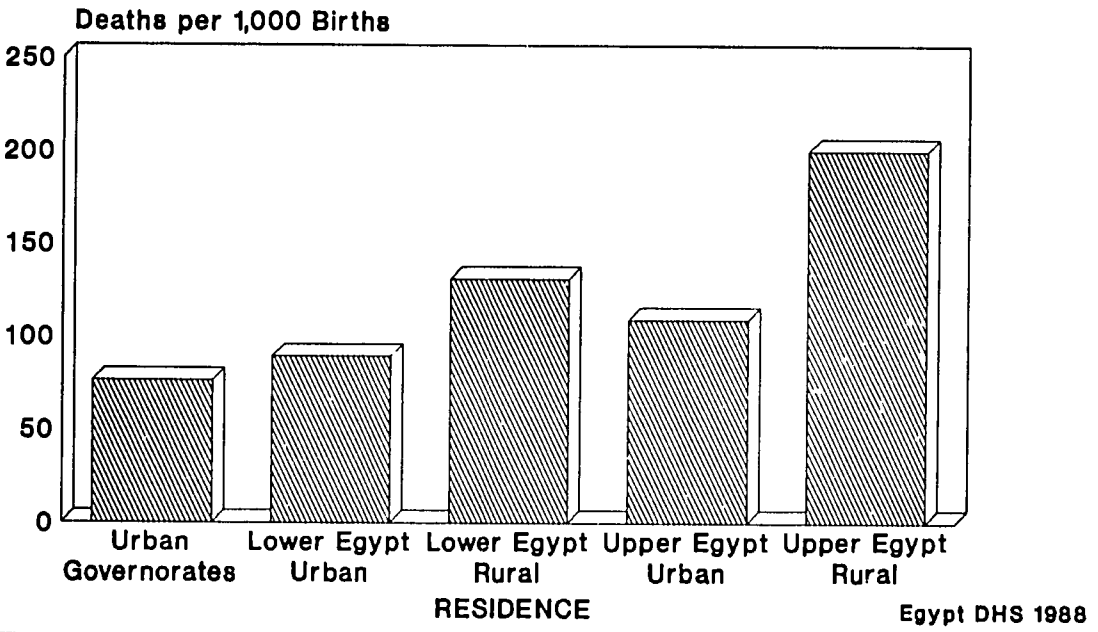


Table 8.6 Infant and Childhood Mortality by Selected Socioeconomic Characteristics of the Mother for the Period 1978-1988, Egypt DHS, 1988

Socioeconomic Characteristic	Infant Mortality (1q0) 1978-1988	Childhood Mortality (4q1) 1978-1988	Under Age 5 Mortality (5q0) 1978-1988
Education Level			
No Education	113.3	54.2	161.3
Less than Primary	88.8	36.8	122.4
Primary through Secondary	64.4	21.3	84.4
Completed Secondary/Higher	39.0	10.2	48.8
Urban-Rural Residence			
Urban	65.6	24.8	88.8
Rural	114.8	55.5	163.9
Place of Residence			
Urban Governorates	61.7	15.2	75.9
Lower Egypt	80.2	43.7	120.4
Urban	63.9	26.6	88.8
Rural	85.5	49.3	130.6
Upper Egypt	124.1	54.8	172.1
Urban	73.2	38.7	109.1
Rural	146.7	62.9	200.4
Total	94.3	42.1	132.4

Note: Includes events occurring in the period up to but excluding the month of interview

There are substantial differences in the level of childhood mortality by residence. Under five mortality in rural areas (164 deaths per thousand births) is almost double the level in urban areas (89 deaths per thousand births). Substantial differences in the level of both infant and child mortality underlie the rural-urban differential in under five mortality. Urban infant mortality is more than 40 percent lower than the rural infant mortality, and mortality in early childhood is more than fifty percent lower in urban than in rural areas.

By region, children born in the Urban Governorates are more likely to survive infancy and early childhood than children born in Lower Egypt or, particularly, Upper Egypt. Taking into account both region and urban-rural residence, it is clear that children in Upper Egypt are at greater risk of dying than children living in Lower Egypt whether they live in urban or in rural areas (Figure 8.2). Under five mortality in urban Upper Egypt is 109 deaths per thousand births, more than 20 percent higher than under five mortality in urban Lower Egypt. For rural areas, under five mortality in Upper Egypt, which exceeds 200 deaths, is more than 50 percent higher than in rural Lower Egypt.

Table 8.7 Under Age Five Mortality Rates for Recent Calendar Periods by Urban-Rural Residence and Place of Residence, Egypt DHS, 1988

Period	Urban	Rural	Urban Governorates	Lower Egypt			Upper Egypt		
				Total	Urban	Rural	Total	Urban	Rural
1986-1988(1)	58	112	54	82	64	87	116	60	139
1983-1985	86	150	78	111	93	116	159	92	187

(1) Includes events occurring in the period up to but excluding the month of interview

Table 8.7 looks at the trend in under five mortality for various geographic areas, using EDHS estimates for two recent calendar periods. Childhood mortality levels fell sharply in all geographic areas over the period. The downward trend occurred, however, at a faster rate in urban areas, especially the Urban Governorates, than in rural areas. The momentum of the mortality decline has been similar in rural Upper Egypt than in rural Lower Egypt.

Demographic Factors

Table 8.8 examines the relationship between childhood mortality and various bio-demographic factors. It is well-established that male children are at increased mortality risk both before and shortly after birth compared with female children, presumably due to genetic factors. For Egyptian children, there is, however, no apparent difference by sex in the level of infant mortality. Child mortality is somewhat higher for girls than for boys. The absence of the expected sex differential in infant mortality and the somewhat higher level of child mortality for girls suggests that there may be some tendency to provide greater care for boys than for girls during infancy and childhood. However, the sex differential in mortality levels is not large, and sex differentials in other health indicators examined in the following chapter suggest that no strong tendency toward preferential treatment for boys exists.

The association of infant mortality with maternal age at birth exhibits the expected pattern; the highest mortality risk occurs to children of very young mothers and mothers nearing the end of their reproductive lives. The effect of maternal age on child mortality is less pronounced, although child mortality is considerably higher for children born to mothers under age 20 than to older mothers. Since birth order of the child and maternal age are highly correlated, it is not surprising to find infant mortality risks to be greater among first births (which are generally to young mothers) than among second and third births. Both infant and child mortality risks are greatest for births of order seven or higher (which are generally to older mothers).

Table 8.8 Infant and Childhood Mortality by Selected Demographic Characteristics for the Period 1978-1988, Egypt DHS, 1988

Demographic Characteristic	Infant Mortality (1q0) 1978-1988	Childhood Mortality (4q1) 1978-1988	Under Age 5 Mortality (5q0) 1978-1988
Sex of Child			
Male	95.1	38.1	129.6
Female	93.4	46.2	135.3
Mother's Age at Birth			
Less than 20	130.8	60.9	183.8
20-29	88.4	37.1	122.2
30-39	87.3	42.5	126.1
40-49	95.6	39.6	131.5
Birth Order			
First	90.8	29.6	117.7
2-3	82.2	36.7	115.9
4-6	93.4	48.4	137.4
7 or Higher	125.6	57.4	175.8
Interval Since Previous Birth			
Less than 2 Years	153.1	76.1	217.5
2-3 Years	57.8	30.3	86.3
4 Years or more	39.1	18.2	56.6

Note: Includes events occurring in the period up to but excluding the month of interview

The strong influence of length of the preceding birth interval on childhood mortality is well documented. Table 8.8 shows that the most significant differentials in both infant and child mortality are associated with the length of the preceding birth interval. Under-five mortality is almost four times higher when the interval between the child and his next older sibling is under two years than for intervals of four years or more. Infant mortality decreases from 153 deaths per thousand births for birth intervals of less than two years to around 40 per thousand for birth intervals of four years or more. These differentials suggest that mortality risks for Egyptian children are substantially reduced when the interval between births increases.

8.4 CAUSES OF DEATH

In the EDHS, an effort was made to obtain general information on the types of illness which preceded the death of nonsurviving children born during the five year period before the survey. To collect these data, a mother whose child had died was asked if the child experienced specific symptoms or illnesses during the 7-day period prior to death,

Table 8.9 Percent of Nonsurviving Children Born During the Five Years Before the Survey by the Symptom or Illness the Mother Reports the Child Had Before Death, According to the Age of the Child at Death, Egypt DHS, 1988

Symptom/ Illness	Age at Death			
	Less than 1 Month	1-11 Months	12 Months or More	Total
Diarrhea	7.5	57.0	48.5	28.6
Watery Stools	6.9	52.4	42.1	26.1
Cough	8.1	33.4	28.3	18.6
Difficulty Breathing	20.8	32.7	36.5	31.0
Convulsions	30.5	NA	NA	NA
Not Nursing	32.9	NA	NA	NA
Tetanus	9.3	1.1	5.2	8.1
Measles	0.7	4.6	10.6	3.9
Fever	3.0	3.5	5.0	3.7
Child Premature	1.3	1.3	0.8	1.8
Accident	1.0	3.1	3.7	2.1
Number of Deaths	329	241	150	719

NA = Not applicable

including: diarrhea, cough, difficulty breathing and measles. If the child had had diarrhea, the mother was asked if the child's stool was watery. The mother also was asked whether the child had had any other illness prior to death. For children dying during the first month of life, questions were asked about whether the child had experienced convulsions and difficulty in nursing, two symptoms of neonatal tetanus.

The results presented in Table 8.9 suggest that diarrhea continues to be a major cause of child deaths. Over one-quarter of the mothers reported that their child had had diarrhea during the week before death, and more than 80 percent of the children who had diarrhea had watery stools, indicating that dehydration may have been a factor in their death. Cough was a symptom associated with one in five child deaths, while one in three who died had difficulty breathing prior to death. According to the mother, one in ten children 12 months and over had measles during the week prior to their death.

As expected, the proportion of children reported to have diarrhea, respiratory infection symptoms or measles is much higher among children who died following the neonatal period. For children dying during the first month of life, one in ten mothers specifically mentioned neonatal tetanus as a cause of death. Symptoms associated with tetanus--convulsions and inability to nurse--were reported by almost one in three mothers.

The results in Table 8.9 indicate that many child deaths may be preventable. Deaths associated with diarrheal illness can be prevented through the use of oral rehydration therapy (ORT), which is widely known in Egypt (see Chapter 9). Early detection and treatment of acute lower respiratory illness also would contribute to a reduction in mortality. Finally, there is a need to encourage mothers to obtain tetanus injections during pregnancy, since a number of deaths during the first month of life appear to be associated with this preventable disease.

Chapter 9

MATERNAL AND CHILD HEALTH

This chapter focuses on issues relating to the health and well-being of Egyptian children and their mothers. First, it examines a number of indicators of the care mothers receive during pregnancy and childbirth, which affect not only their health and survival but also that of their children. Then it looks at the extent to which children have been immunized against preventable diseases and on the prevalence and treatment practices associated with other major childhood illnesses. Finally, the current nutritional status of children is described.

9.1 MATERNAL CARE INDICATORS

In Egypt, one of the priorities of the Ministry of Health is the provision of medical care during pregnancy and at delivery, which is essential to the health and survival of both the mother and her infant. To measure the level of care received during pregnancy, mothers of children born on or after January 1983 were asked in the EDHS if they had seen anyone for a prenatal checkup prior to the birth and, for those who had a prenatal checkup, if they had sought such care on a regular basis or only when they had some medical problem. They were also asked if they had received a tetanus toxoid injection during pregnancy. Immunity against tetanus is passed on to the baby and protects the child from neonatal tetanus, a common cause of neonatal mortality in Egypt. Mothers were also asked about where they had given birth to children born during the five-year period before the survey.

Prenatal Care and Tetanus Toxoid Coverage

Table 9.1 provides information on prenatal health care indicators for births occurring in the five-year period before the EDHS. Women giving birth during the period had prenatal checkups for only one in two births. Such care is not routinely sought but is obtained in the majority of cases only because the mother experienced medical problems. Among those who received prenatal care, regular checkups were reported for only one in four births. In almost all cases, prenatal care was provided by a doctor. Tetanus toxoid injections were not commonly given during pregnancy; mothers received this injection for only 11 percent of the births.

The age of the mother is not closely associated with any of the prenatal care indicators. Prenatal care is, however, more frequent in the case of urban births, particularly those to mothers living in the Urban Governorates, than rural births. Urban women are also more likely than rural women to routinely seek prenatal care. Regular

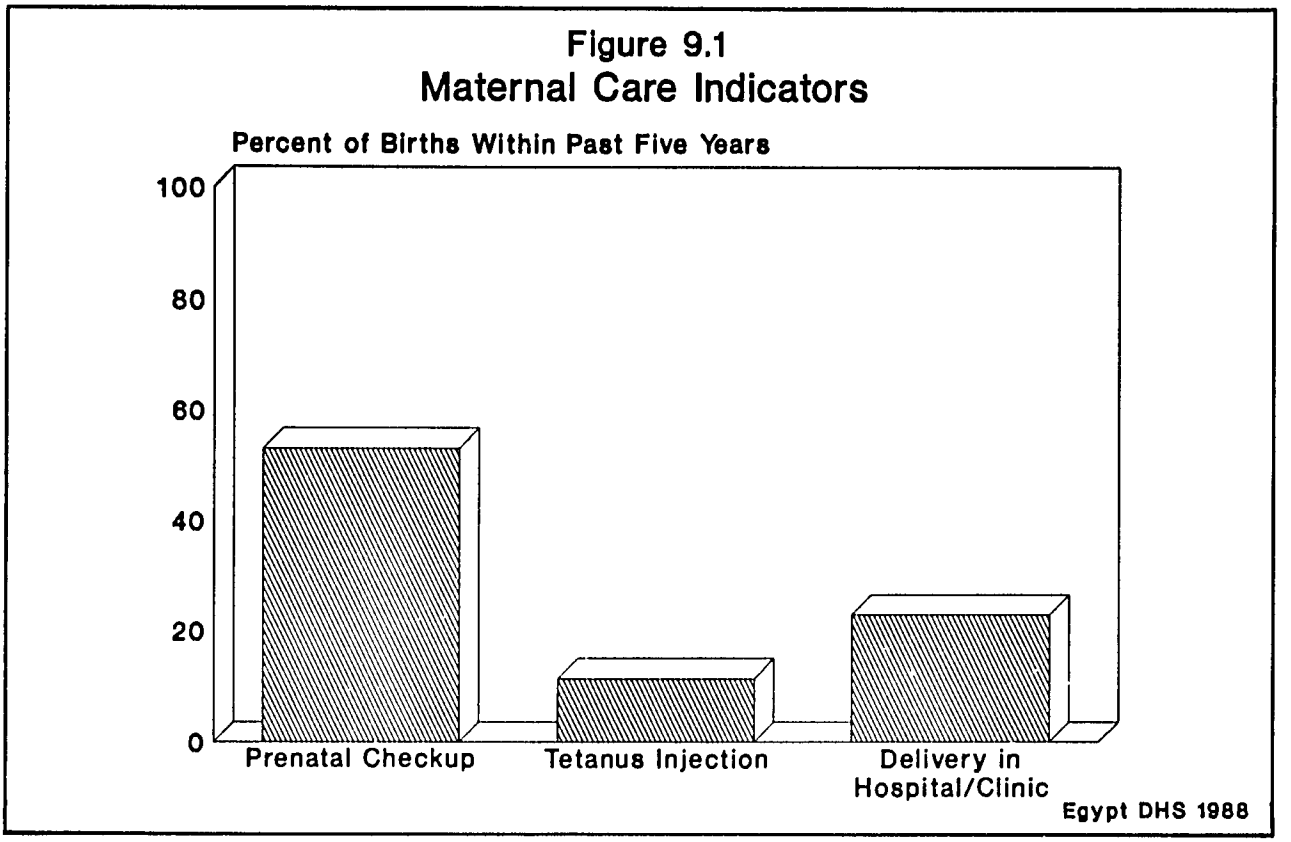
Table 9.1 Among Births in the Five Years Before the Survey, Percent Whose Mother Received Prenatal Care by Reason for Care and Type of Health Personnel Providing Care, and Percent Whose Mother Received a Tetanus Toxoid Injection, According to Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Received Prenatal Care			Prenatal Care Provider(1)		Received Tetanus Toxoid Injection	Number of Births
	Any Care	Regular Checkup	Medical Problem	Doctor	Trained Nurse		
Age							
15-29	52.7	13.0	39.8	52.4	0.2	12.2	4,743
30-49	53.2	15.5	37.7	52.9	0.2	10.4	3,881
Urban-Rural Residence							
Urban	69.2	27.4	41.8	68.7	0.2	12.6	3,522
Rural	41.7	4.9	36.8	41.5	0.2	10.6	5,103
Place of Residence							
Urban Governorates	74.7	33.8	40.6	74.1	0.2	8.5	1,640
Lower Egypt	45.8	9.4	36.4	45.6	0.2	13.1	3,511
Urban	64.0	22.1	41.9	63.6	0.1	14.8	868
Rural	40.1	5.2	34.6	39.6	0.2	12.5	2,643
Upper Egypt	49.9	9.5	40.4	49.7	0.2	11.1	3,473
Urban	64.7	21.4	43.3	64.3	0.3	17.3	1,013
Rural	43.7	4.6	39.1	43.5	0.2	8.6	2,459
Education Level							
No Education	41.8	5.2	36.6	41.5	0.3	9.3	4,538
Less than Primary	55.2	10.1	45.1	54.8	0.1	12.8	2,044
Primary through Secondary	66.1	21.9	44.2	65.1	0.3	13.4	719
Completed Secondary/Higher	80.8	46.7	34.1	80.7	0.1	15.3	1,321
Work Status							
Working for Cash	69.7	37.0	32.7	69.5	0.1	15.4	911
Working, Not Paid in Cash	37.6	3.7	33.9	37.5	0.1	10.4	780
Not Working	52.4	12.3	40.3	52.1	0.2	11.0	6,933
Interested in Work	59.0	16.1	42.9	58.9	0.1	13.8	2,035
Not Interested in Work	49.7	10.7	39.2	49.3	0.3	9.9	4,898
Total	53.0	14.1	38.9	52.6	0.2	11.4	8,624

(1) If respondent cited more than one provider, the most qualified provider was recorded.

prenatal checkups occurred prior to only 5 percent of rural births compared with 27 percent of urban births. Surprisingly, the small differential between Lower Egypt and Upper Egypt in the percent of births in which prenatal care was received favors Upper Egypt in both urban and rural areas.

The more educated a mother, the more likely it is that regular prenatal care was received prior to delivery. For example, births to women with a secondary education are twice as likely to have benefited from some prenatal care and almost ten times as likely to have had routine checkups as births to women with no education. Employment status



has a similar effect. A much larger proportion of births are preceded by routine medical care if the mother is working for cash than if she is not.

There is comparatively little variation in the percent of births in which the mother received a tetanus toxoid injection during pregnancy. The level of coverage for urban births (13 percent) is, for instance, only two percentage points higher than rural coverage. The slightly lower coverage in the Urban Governorates than in Lower and Upper Egypt is somewhat surprising. Rather than a true difference, it may reflect a greater tendency of mothers in the latter two regions to confuse a tetanus injection with other injections. In addition, a tetanus toxoid campaign sponsored by the Ministry of Health took place during the EDHS fieldwork, which may have affected the regional differentials.

Place of and Assistance at Delivery

Women are even less likely to have medical assistance for delivery than they are to receive medical care during pregnancy (Figure 9.1). Table 9.2 shows that 77 percent of all births in the last five years took place in their own or another home, and only 23 percent occurred in a hospital or clinic. Mothers were assisted at delivery by a doctor or a trained nurse/midwife in only one in three births, while almost 60 percent of all deliveries were assisted by a traditional birth attendant (daya).

Table 9.2 Among Births in the Five Years Before the Survey, Percent Distribution by Place of Delivery and by Person Assisting With Delivery, According to Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Place of Delivery				Person Assisting With Delivery					Number of Births
	Own Home	An-other Home	Hos-pital/ Clinic	Other	Doctor	Nurse	Daya(1)	Rela-tive/ Other	No One	
Age										
15-29	69.3	9.0	21.3	0.5	26.5	6.3	59.5	6.3	1.4	4,743
30-49	70.5	4.3	25.0	0.3	29.4	7.4	55.9	5.1	2.1	3,881
Urban-Rural Residence										
Urban	52.4	6.7	40.5	0.4	45.9	11.1	38.7	3.4	0.9	3,522
Rural	81.9	7.0	10.8	0.3	15.3	3.8	71.2	7.4	2.4	5,103
Place of Residence										
Urban Governorates	45.2	4.8	49.4	0.5	53.9	11.0	30.0	4.4	0.9	1,640
Lower Egypt	76.0	5.6	18.1	0.3	24.3	6.8	62.3	5.4	1.2	3,511
Urban	59.1	6.2	34.2	0.5	42.1	12.3	41.6	3.0	1.0	868
Rural	81.5	5.4	12.8	0.3	18.4	4.9	69.1	6.3	1.2	2,643
Upper Egypt	75.2	9.1	15.3	0.4	19.1	4.8	66.6	6.7	2.8	3,473
Urban	58.2	10.1	31.5	0.2	36.4	10.5	50.2	2.1	0.8	1,013
Rural	82.2	8.7	8.7	0.3	11.9	2.5	73.3	8.6	3.7	2,459
Education Level										
No Education	80.3	6.5	12.9	0.3	15.8	4.3	69.9	7.7	2.3	4,538
Less than Primary	71.0	7.7	20.7	0.6	26.5	7.7	58.4	5.9	1.5	2,044
Primary through Secondary	58.0	10.3	31.0	0.6	39.2	9.6	48.3	1.9	1.0	719
Completed Secondary/Higher	38.3	5.1	56.4	0.2	64.9	12.5	21.1	1.2	0.3	1,321
Work Status										
Working for Cash	46.3	6.1	47.3	0.3	54.5	12.3	30.7	1.8	0.7	911
Working, Not Paid in Cash	85.2	4.2	10.2	0.3	13.9	4.1	71.8	5.8	1.4	780
Not Working	71.2	7.3	21.1	0.4	25.8	6.4	59.9	6.0	1.8	6,933
Interested in Work	65.7	8.0	26.0	0.2	32.2	7.3	55.7	3.6	1.2	2,035
Not Interested in Work	73.5	7.0	19.1	0.5	23.2	6.0	61.6	7.0	2.1	4,898
Total	69.8	6.9	22.9	0.4	27.8	6.8	57.9	5.7	1.8	8,624

(1) Traditional birth attendant

Although the majority of births occur at home, there are noticeable differences between subgroups. Almost nine in ten deliveries take place in the home in rural areas compared with only around three in five deliveries in urban areas. Three times as many deliveries were assisted by a doctor or trained nurse in urban areas as in rural areas. Medically assisted deliveries are somewhat more common in the Urban Governorates than in other urban areas; however, even for births occurring in the Urban Governorates, around one-half took place at home, and one-third were assisted by a daya or relative. Between Lower and Upper Egypt, only minor differences are observed, for urban and rural areas.

Both the proportion of deliveries taking place in health facilities and those assisted by a doctor tend to increase with the mother's education level. Births to women with secondary education are four times as likely as births to women with no education to occur in a hospital or clinic setting or to be assisted by trained medical personnel. Overall, only 13 percent of births to women with no education take place in a health facility, and 20 percent are delivered with the assistance of medical personnel. Work status also is related to these maternal care indicators, with working mothers more likely to deliver in a hospital or clinic setting and to be assisted by trained personnel than women in the other work status categories.

9.2 IMMUNIZATION

One of the primary mechanisms for improving child survival is increasing the proportion of children immunized against the major preventable childhood diseases. Information on the immunization status of children was obtained in two ways in the EDHS. First, mothers were asked general questions designed to determine if their children under age 5 had received drops or an injection to protect against disease. Mothers were also asked whether they had a birth record; if the mother had a record, the interviewer asked to see it and obtained the dates on which the child had received immunizations against: tuberculosis (BCG); polio; diphtheria, whooping cough and tetanus (DPT); and measles. One dose each of BCG and measles vaccines and three doses of polio and DPT vaccines are needed to establish immunity to the disease. Children are expected to complete this primary schedule of immunizations during the first year of life.

Table 9.3 shows the percent of all children under age 5 who were reported by their mother as receiving drops or an injection to protect against disease. Overall, 90 percent were reported to have received drops, an injection or both. As expected, the proportion

Table 9.3 Percent of Children Under Age 5 Reported by Mother As Having Received Drops or an Injection to Prevent Disease by Age of Child, Egypt DHS, 1988

Age in Months	Drops and Injection	Drops Only	Injection Only	Number of Children
Less than 6	36.6	5.5	9.3	748
6-11	69.5	10.8	5.9	779
12-17	81.6	7.4	3.5	896
18-23	84.7	6.6	3.1	696
24-59	87.0	5.3	2.6	4,792
Total	79.7	6.2	3.7	7,912

Table 9.4 Percent of Children 12-23 Months Reported by Mother As Having Received Drops or an Injection to Prevent Disease by Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Drops and Injection	Drops Only	Injection Only	Number of Children
Sex				
Male	84.9	6.2	3.7	814
Female	81.0	7.9	2.9	779
Age of Mother				
15-29	85.7	5.8	2.8	980
30-49	78.6	8.9	4.1	612
Urban-Rural Residence				
Urban	88.1	6.2	2.3	690
Rural	79.1	7.7	4.1	902
Place of Residence				
Urban Governorates	91.8	4.7	2.8	327
Lower Egypt	86.4	5.7	2.4	656
Urban	86.8	6.0	2.0	166
Rural	86.2	5.6	2.6	490
Upper Egypt	74.6	9.7	4.5	610
Urban	83.1	8.9	1.7	198
Rural	70.6	10.1	5.9	413
Education Level				
No Education	77.7	8.0	3.9	769
Less than Primary	82.7	10.1	2.6	374
Primary through Secondary	93.6	1.0	2.2	150
Completed Secondary/Higher	91.5	3.6	3.3	300
Work Status				
Working for Cash	88.5	5.6	2.9	179
Working, Not Paid in Cash	74.4	11.6	3.7	143
Not Working	83.2	6.7	3.3	1,271
Interested in Work	87.3	6.0	2.4	385
Not Interested in Work	81.4	7.0	3.7	886
Total	83.0	7.0	3.3	1,593

reported by the mother to have been immunized increases with the age of the child from around 50 percent among children 0-5 months to over 90 percent among children 12-59 months.

Differentials in the proportion immunized according to the mother's report are presented in Table 9.4. In order to obtain some insight into immunization coverage at the time of the interview, the differentials are presented only for children 12-23 months, since they are the group who should have completed the primary schedule of immunizations most recently. According to the mother's report, immunization coverage was highest in

Table 9.5 Among Children Under Age 5, Percent Having a Birth Record Seen by the Interviewer and, Among Children with a Birth Record, Percent Receiving Various Immunizations by Age of the Child, Egypt DHS, 1988

Age in Months	Among Children Under Age 5, Percent with Birth Record	Among Children with Birth Records, Percent Receiving: BCG	DPT 1	DPT 2	DPT 3	Polio 1	Polio 2	Polio 3	Measles	All (1)	Number of Children
< 6	52.9	47.6	47.9	14.0	0.0	45.1	13.2	0.0	0.0	0.0	748
6-11	62.4	64.0	78.6	65.9	44.9	73.2	60.5	27.2	27.2	19.0	779
12-17	57.9	59.6	76.7	67.7	56.2	71.1	63.9	61.8	61.8	40.0	896
18-23	63.9	52.3	67.8	59.5	43.7	65.8	54.6	61.6	61.6	28.6	696
24-59	49.5	47.4	60.6	50.7	40.9	57.2	47.0	46.5	46.5	27.3	4,792
Total	53.3	51.3	64.2	52.0	39.7	60.6	48.3	43.4	43.4	25.5	7,912

(1) BCG, at least 3 doses of DPT and polio and measles

the Urban Governorates (99 percent) and lowest in rural areas in Upper Egypt (87 percent).

The EDHS attempted to verify the mother's report. Table 9.5 indicates that birth records were available for around one-half of the children. The records were somewhat more likely to be available for children 6-23 months than for other children. Immunization information from the birth records is used to obtain the estimates of coverage for specific vaccines shown in Tables 9.5 and 9.6.

The results suggest that few children under age 5 have completed the primary schedule of immunizations. Only one-fourth of the children who had a birth record had received one dose of BCG and measles and three doses of polio and DPT. Looking at specific vaccines, about one-half of children with records had received a BCG immunization, and 43 percent had received a measles immunization. Coverage rates are over 60 percent for the first dose of DPT and polio, but fall to around 40 percent for the third doses of these vaccines. There is some evidence that coverage is improving over time, since the percent immunized against various diseases is inversely associated with the age of the child among children 12-59 months. Children under 12 months are still receiving the primary schedule of immunizations, so the rates are expected to be somewhat lower for these children than older children.

Differentials in the immunization coverage estimates derived from birth records are examined in Table 9.6. Again, the rates are presented only for children 12-23 months, since they are the group which should have completed the schedule of primary immunizations most recently. There are only small differentials by sex of the child or age of the mother. Urban-rural residence and place of residence are more closely associated with

Table 9.6 Among Children 12-23 Months, Percent Having a Birth Record Seen by the Interviewer and, Among Children with a Birth Record, Percent Receiving Various Immunizations by Selected Background Characteristics, Egypt DHS, 1988

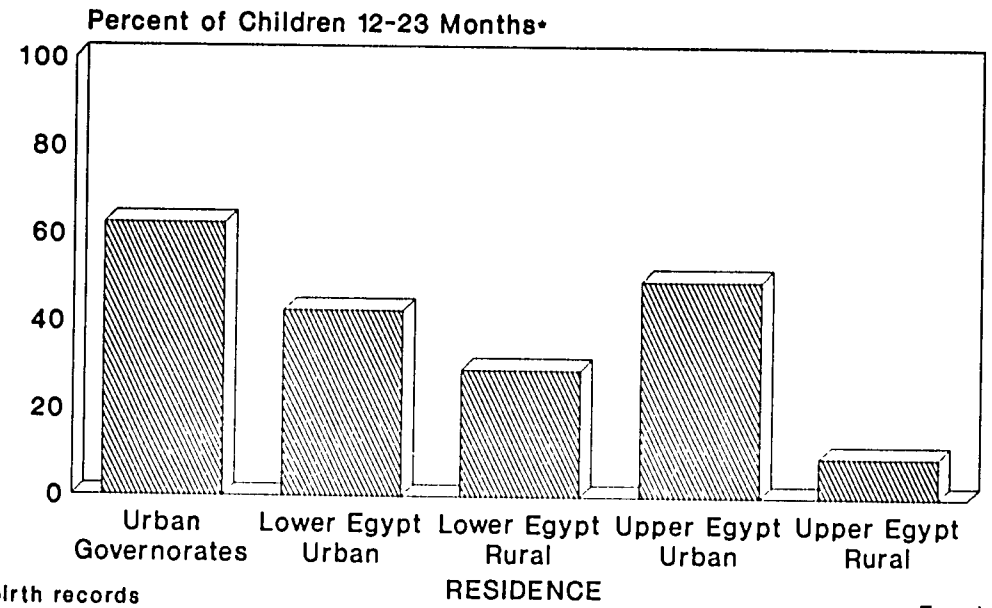
Background Characteristic	Among Children 12-23 Months, Percent with Birth Record	Among Children with Birth Records, Percent Receiving:									Number of Children
		BCG	DPT 1	DPT 2	DPT 3	Polio 1	Polio 2	Polio 3	Measles	All (1)	
Sex											
Male	60.6	58.6	74.7	65.4	52.7	71.2	60.7	50.7	62.5	37.0	814
Female	60.4	53.8	70.4	62.4	48.1	66.0	58.4	45.6	60.8	32.4	779
Age											
15-29	64.0	54.3	74.4	64.9	51.0	70.2	61.0	49.2	63.1	34.5	980
30-49	54.9	59.8	69.1	62.1	49.4	65.7	56.9	46.4	59.1	35.2	612
Urban-Rural											
Urban	60.6	80.1	88.1	81.3	69.9	82.9	73.8	65.2	79.5	53.7	690
Rural	60.4	37.9	60.7	50.6	35.5	57.8	48.7	35.3	48.0	20.2	902
Residence											
Urban Gov.	59.4	93.2	91.3	86.9	76.5	87.5	79.3	71.4	86.6	62.4	327
Lower Egypt	62.8	57.1	73.0	64.5	49.1	69.0	60.8	46.6	63.0	32.7	656
Urban	66.0	74.8	88.4	77.6	64.8	82.6	68.7	57.7	75.6	42.6	166
Rural	61.6	50.7	67.4	59.7	43.4	64.1	58.0	42.6	58.5	29.1	490
Upper Egypt	58.7	35.2	62.0	50.9	37.8	58.0	47.5	37.5	46.7	22.1	610
Urban	58.0	63.2	82.4	75.4	63.4	75.3	69.4	61.6	71.3	49.5	198
Rural	59.0	22.0	52.4	39.4	25.8	49.9	37.2	26.2	35.1	9.2	413
Education											
No Educ.	56.6	43.5	62.8	53.4	40.7	60.5	51.6	40.7	49.1	25.2	769
< Prim.	65.1	56.8	75.5	66.5	50.0	71.2	60.1	46.8	68.2	35.2	374
Prim.-Sec	68.4	68.0	84.3	74.7	57.3	77.8	67.2	54.0	74.3	40.0	150
Sec. +	60.8	79.5	85.5	79.8	70.6	79.6	73.8	64.8	76.1	53.9	300
Work Status											
Work for Cash	60.7	70.8	80.5	75.6	61.0	74.4	67.4	54.9	71.3	43.1	179
Work No Cash	55.3	51.5	62.9	49.8	34.7	57.9	50.1	36.1	44.2	22.4	143
Not Working	61.0	54.6	72.4	63.7	50.5	68.9	59.4	48.5	62.1	34.7	1,271
Interested	62.5	66.2	79.0	68.9	56.9	74.0	65.3	54.4	68.3	46.4	385
Not Inter.	60.4	49.5	69.5	61.4	47.7	66.7	56.8	45.9	59.4	29.6	886
Total	60.5	56.2	72.6	63.9	50.4	68.7	59.6	48.2	61.7	34.7	1,593

(1) BCG, at least 3 doses of DPT and polio and measles

the likelihood that a child will be immunized. For example, in rural areas, only 20 percent of children 12-23 months with a birth record have received the complete primary course of immunizations compared with more than 50 percent in urban areas. By place of residence, the proportion reported as fully immunized on a birth record varies from 9 percent in rural Upper Egypt to 62 percent in the Urban Governorates (Figure 9.2).

The mother's educational attainment is positively related to the coverage rates. The proportion fully immunized varies from around 25 percent among children whose mothers

Figure 9.2
Percent Fully Immunized
by Place of Residence



* with birth records

Egypt DHS 1988

have never attended school to 54 percent among children whose mothers have a secondary education. Children of mothers who work for cash or are interested in paid employment are also more likely to have been immunized than children of other mothers.

9.3 DIARRHEAL DISEASE AND TREATMENT

Diarrheal disease is among the leading causes of infant and child deaths in Egypt. In the EDHS, information was collected on whether children under age 5 had experienced an episode of diarrhea during three time periods before the interview: 24 hours, 7 days and since Ramadan 1988 (approximately five-seven months before the interview). The latter period was selected in order to include the summer months, a peak period for diarrheal disease. The accuracy of this information is, of course, affected by the mother's subjective evaluation of whether the child experienced diarrhea. Longer durations may also suffer from recall errors, with mothers being likely to forget episodes of diarrhea occurring further back in time, especially if they were not serious. Comparison of the 24-hour and 7-day rates with the rate since Ramadan must take into account not only recall issues but the fact that diarrheal prevalence varies by season. Fieldwork for the EDHS took place during the winter, when diarrhea occurs less frequently. If interviews had taken place in the summer, it is expected that the 24-hour and 7-day prevalence rates would have been higher.

Table 9.7 Percent of Children Under Age 5 Having a Diarrhea Episode Within the Past 24 Hours, 7 Days or Since the Preceding Ramadan, by Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Percent of Children Under With Diarrhea in: 24 Hours	7 Days	Since Ramadan	Number of Children
Age of Child (in Months)				
Less than 6	12.2	21.4	35.7(a)	748
6-11	17.1	33.9	67.0	779
12-17	10.7	28.4	68.5	896
18-23	10.2	22.7	59.5	696
24-59	3.1	8.9	29.0	4,792
Sex				
Male	7.4	16.8	42.9	4,057
Female	6.3	15.1	38.0	3,854
Age of Mother				
15-29	8.0	18.5	44.2	3,315
30-49	5.5	12.9	36.1	3,596
Urban-Rural Residence				
Urban	6.0	15.6	40.3	3,314
Rural	7.4	16.3	40.6	3,597
Place of Residence				
Urban Governorates	5.5	14.8	37.4	1,549
Lower Egypt	7.4	15.9	39.5	3,252
Urban	7.2	16.2	41.2	811
Rural	7.4	15.9	38.9	2,441
Upper Egypt	7.0	16.6	43.1	3,110
Urban	6.0	16.4	44.4	954
Rural	7.4	16.7	42.6	2,156
Education Level				
No Education	6.9	16.4	39.7	4,087
Less than Primary	7.5	16.6	42.0	1,871
Primary through Secondary	6.9	16.6	44.6	680
Completed Secondary/Higher	5.8	13.4	38.6	1,274
Work Status				
Working for Cash	6.5	13.5	37.7	867
Working, Not Paid in Cash	7.1	16.2	43.3	700
Not Working	6.9	16.3	40.6	6,345
Interested in Work	8.3	18.7	45.3	1,879
Not Interested in Work	6.3	15.3	38.6	4,466
Total	6.8	16.0	40.5	7,912

(a) Number of cases affected by censoring

Table 9.7 shows the prevalence of diarrheal disease for the three time periods according to the age of the child. Overall, seven percent of children under age five were reported to have had an episode of diarrhea in the 24 hours before the interview, 16

percent during the seven-day period before the interview and 40 percent since Ramadan. For all three time periods, children under age 2 are twice as likely to have had an episode of diarrhea than children age 2 and above. The lower prevalence among older children can be attributed to the greater degree of natural immunity to infections which cause diarrhea that older children have acquired due to longer exposure. Only minor differences in diarrhea prevalence are observed for other characteristics presented in Table 9.7.

Table 9.8 looks at differentials in the proportion of children under age 5 whose mothers report medical advice was sought and the proportions of children given various treatments during the last episode of diarrhea occurring within seven days of the interview. The proportions are not additive since advice may have been obtained from more than one health provider or more than one treatment used. Table 9.8 shows that private doctors play a key role in treating diarrhea. Private doctors were consulted in the case of about one in three children suffering an episode of diarrhea in the seven days before the survey, government health services were consulted in about one in seven cases, and pharmacies were consulted for advice in about one in eleven cases.

The proportions seeking advice from various providers vary little by the sex of the child or the age of the mother, although private doctors are consulted somewhat more frequently when a male child has diarrhea. The proportion of cases in which a private physician is consulted is somewhat higher in urban areas than in rural areas as is the proportion of cases in which advice was sought from a pharmacy. By place of residence, the proportion consulting a private physician varies from 26 percent in Upper Egypt to 35 percent in Lower Egypt. Somewhat surprisingly, the proportion consulting a physician in both urban and rural Lower Egypt is somewhat higher than in the Urban Governorates. The proportion consulting private physicians increases with the education of the mother, while the proportion consulting government health services decreases as the level of the mother's education increases. Working mothers are also much more likely to consult private physicians about a diarrhea episode than other mothers.

Looking at the treatment information, oral rehydration therapy (ORT) was used in one in four cases, other types of medicines were used in one in two cases, and in four percent of the cases the child was given fluids intravenously. Considering the differentials in proportions given various treatments, males are somewhat more likely than females to have received ORT. ORT was also used more frequently (and other medicines somewhat less frequently) to treat episodes of diarrhea among rural children, particularly in Lower Egypt, and among children whose mothers had less than a secondary education.

Finally, the last column in Table 9.8 presents information on the proportion of children having diarrhea in the last seven days who were not given any treatment and did not benefit from medical advice. Overall, nothing was done in one-third of the episodes. The proportion of cases in which no action was taken was greater in rural areas, especially in Upper Egypt, than in urban areas. The fact that 40 percent of mothers in rural Upper Egypt took no action when their children had diarrhea indicates the need for increased attention to health education in this region, especially in view of the high infant and child

Table 9.8 Among Children Under Age 5 Having a Diarrhea Episode In the Past Seven Days, Percent With Advice Sought from Various Health Care Providers, Percent Receiving Various Treatments and Percent With No Opinion Sought and No Treatment Given, by Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Percent With Advice Sought from:			Percent Treated With:			Percent With No Opinion Sought or Treatment Given	Number of Children
	Gov't. Health Services	Private Doctor	Pharmacy	ORT	Medicine	Intravenous Fluids		
Age of Child (in Months)								
Less than 6	15.2	34.8	5.3	22.3	55.1	1.7	39.4	748
6-11	14.3	35.7	7.8	37.4	62.8	4.7	26.1	779
12-17	12.4	40.1	9.2	38.7	63.6	5.6	28.2	896
18-23	20.6	25.7	9.1	30.5	52.2	2.1	32.6	696
24-59	15.0	22.6	10.9	19.1	51.1	3.9	39.4	4,792
Sex								
Male	13.1	33.8	9.5	31.0	57.9	4.3	32.2	4,057
Female	17.3	27.2	8.4	26.0	55.3	3.5	35.1	3,854
Age of Mother								
15-29	15.3	32.7	8.2	28.3	59.0	2.9	32.8	3,315
30-49	14.6	27.6	10.4	29.2	52.8	5.7	34.8	3,596
Urban-Rural Residence								
Urban	14.5	33.3	11.5	22.4	65.9	3.4	27.3	3,314
Rural	15.4	29.1	7.3	33.0	50.4	4.3	37.8	3,597
Place of Residence								
Urban Governorates	15.0	32.5	10.4	22.4	69.0	1.9	26.1	1,549
Lower Egypt	16.2	35.2	9.8	36.0	54.6	5.2	33.1	3,252
Urban	16.0	40.9	13.2	31.2	62.5	5.1	26.6	811
Rural	16.3	33.2	8.6	37.6	51.9	5.2	35.3	2,441
Upper Egypt	13.9	25.7	7.6	24.2	53.4	3.5	37.3	3,110
Urban	12.5	28.2	11.7	15.0	64.1	4.1	29.8	954
Rural	14.5	24.6	5.8	28.1	48.8	3.2	40.5	2,156
Education Level								
No Education	16.6	28.5	9.0	30.5	51.0	4.5	36.9	4,087
Less than Primary	17.4	27.3	8.4	30.0	52.1	4.3	34.8	1,871
Primary through Secondary	10.6	36.6	7.6	27.1	69.1	3.2	21.4	680
Completed Secondary/Higher	7.7	42.1	10.9	20.0	79.1	1.5	26.3	1,274
Work Status								
Working for Cash	6.9	40.0	11.9	27.0	72.2	4.5	28.1	867
Working, Not Paid in Cash	15.3	31.0	15.1	27.8	50.1	6.2	38.0	700
Not Working	15.7	29.6	8.0	29.0	55.5	3.6	33.8	6,345
Interested in Work	18.5	31.4	7.2	28.5	58.9	4.4	30.5	1,879
Not Interested in Work	14.6	28.9	8.4	29.2	54.0	3.2	35.2	4,466
Total	15.0	30.8	9.0	28.7	56.7	3.9	33.5	7,912

Note: Percents may add to more than 100, since advice may have been sought from more than one source and more than one treatment may have been given.

ORT = Oral Rehydration Therapy

mortality in the region. Since mothers who never attended school or did not complete the primary level are more likely to do nothing than other mothers, health education efforts must also be planned for an illiterate audience.

Table 9.9 shows that the campaign to make women aware of **mahloul el-gaffaf** (the local term for oral rehydration therapy (ORT)) has been very successful, with 96 percent of mothers of children under age 5 saying that they had heard of ORT. One in seven mothers was able to show the interviewer an ORS (Oral Rehydration Salt) packet. Large differentials in the proportions of mothers with packets available in the home were observed among subgroups. Younger mothers, educated mothers, urban mothers and mothers working for cash were much more likely to have a packet available than other mothers.

Table 9.9 Among Mothers of Children Under Age 5, Percent Who Know About Oral Rehydration Therapy (ORT), and Percent Who Have an ORS Packet Available in the Home, by Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Knows About ORT	Has ORT Packet	Number of Mothers
Age			
15-29	96.4	15.2	2,672
30-49	96.7	11.8	2,509
Urban-Rural Residence			
Urban	97.3	16.2	2,294
Rural	95.9	11.3	2,887
Place of Residence			
Urban Governorates	98.4	16.1	1,097
Lower Egypt	96.1	13.0	2,128
Urban	95.0	17.1	566
Rural	96.6	11.5	1,562
Upper Egypt	95.8	12.6	1,957
Urban	97.3	15.7	632
Rural	95.1	11.2	1,325
Education Level			
No Education	95.6	9.8	2,590
Less than Primary	97.5	13.0	1,202
Primary through Secondary	97.1	15.0	470
Completed Secondary/Higher	97.6	23.9	918
Work Status			
Working for Cash	97.5	22.4	621
Working, Not Paid in Cash	95.2	9.6	438
Not Working	96.4	12.6	4,122
Interested in Work	97.0	13.9	1,264
Not Interested in Work	96.2	12.0	2,858
Total	96.5	13.5	5,181

9.4 ACUTE RESPIRATORY INFECTION AND TREATMENT

As the previous chapter indicated, a substantial number of child deaths in Egypt are preceded by illnesses in which the child is reported to have suffered from coughing and difficulty breathing, symptoms of acute respiratory infection (ARI). Table 9.10 looks at the prevalence of cough and cough with difficulty breathing among children under age five during the month before the survey. As with the information on the prevalence of diarrhea, these data may be affected by problems of recall and differences in the mother's perception of whether her child had a cough or a cough accompanied by difficult breathing. The prevalence estimates also are influenced by the fact that the data were collected in the winter months, when children are more likely to contract respiratory infections.

Overall, 43 percent of children under age 5 were reported to have a cough, and, in nearly half the cases, mothers also reported the child had difficulty breathing. Children 6-23 months were somewhat more likely to have had a cough than younger and older children, and the prevalence of cough with difficulty breathing peaks among children 6-11 months. Only minor differences in the prevalence of these symptoms are observed by sex of the child or the age of the mother. Urban-rural residence and place of residence are associated, however, with the proportion of children having a cough and the proportion reported as experiencing difficulty breathing. Urban children are more likely than rural children to have had a cough. The proportion of children with a cough and difficulty breathing increases with the mother's education, suggesting that educated mothers may be more likely to observe and report symptoms than other mothers.

Table 9.10 also shows the proportion of children with symptoms of respiratory illness for whom medical advice was sought from various health care providers. The proportions are not additive since more than one provider may have been consulted during the illness. As with diarrhea, mothers appear to be more likely to turn to private physicians for assistance in treating respiratory infections in their children. Private physicians were consulted in one in three cases of cough and government health services and pharmacies were consulted in around one in ten cases.

There were substantial differences in the proportion of cases of respiratory illness in which private physicians were consulted by residence. For example, urban mothers whose child had a cough were 50 percent more likely to report consulting a private physician about the cough than rural mothers (45 percent vs. 29 percent, respectively). By place of residence, the proportion of cases in which the advice of a private physician was sought varies from only 20 percent of cases in rural Upper Egypt to 50 percent in the Urban Governorates. Education was positively associated with the likelihood that a private physician would be consulted about a child's cough. Children of mothers with a secondary education were more than twice as likely to have benefited from advice from a private physician as children of mothers who never attended school.

Table 9.10 Among Children Under Age 5, Percent Having a Cough and Percent Having a Cough with Difficulty Breathing Within the Month Before the Interview, and, Among All Children With a Cough, Percent With Advice Sought from Various Health Care Providers by Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Percent of All Children Having:		Among Children with Cough, Percent with Advice Sought from:			Number of Children
	Cough Only	Cough with Difficulty Breathing	Government Health Services	Private Doctor	Pharmacy	
Age of Child (in Months)						
Less than 6	19.5	18.0	8.7	40.8	9.6	748
6-11	22.6	28.9	10.6	43.3	5.7	779
12-17	26.0	23.1	12.2	39.3	6.5	896
18-23	27.2	23.2	12.1	32.8	8.0	696
24-59	22.7	18.2	9.7	35.3	9.0	4,792
Sex						
Male	22.4	21.8	9.8	38.5	8.5	4,057
Female	23.9	18.6	10.8	35.2	7.9	3,854
Age						
15-29	22.6	22.4	10.9	37.5	8.8	4,315
30-49	23.8	17.6	9.5	36.2	7.4	3,596
Urban-Rural Residence						
Urban	29.2	22.5	9.9	45.2	8.1	3,314
Rural	18.8	18.7	10.7	28.7	8.4	4,597
Place of Residence						
Urban Governorates	30.4	22.0	9.7	50.0	7.3	1,549
Lower Egypt	19.6	23.5	11.2	37.5	10.0	3,252
Urban	25.7	24.5	11.0	43.9	10.0	811
Rural	17.6	23.2	11.3	34.9	9.9	2,441
Upper Egypt	23.3	15.9	9.6	27.6	6.8	3,110
Urban	30.2	21.5	9.2	38.4	7.6	954
Rural	20.2	13.5	9.9	20.3	6.2	2,156
Education Level						
No Education	19.2	17.8	11.8	26.9	8.6	4,087
Less than Primary	23.5	22.1	12.7	34.8	7.6	1,871
Primary through Secondary	24.2	25.2	8.0	48.7	9.3	680
Completed Secondary/Higher	35.0	22.7	5.6	54.9	7.7	1,274
Work Status						
Working for Cash	32.7	20.8	7.2	50.4	7.9	867
Working, Not Paid in Cash	18.0	20.9	10.4	28.2	7.9	700
Not Working	22.4	20.1	10.8	35.0	8.3	6,345
Interested in Work	23.4	25.3	12.3	41.8	8.4	1,879
Not Interested in Work	22.0	17.9	10.1	32.2	8.2	4,466
Total	23.2	20.2	10.3	36.9	8.2	7,912

9.5 NUTRITIONAL STATUS OF CHILDREN

One of the primary health components of the EDHS was the assessment of the nutritional status of Egyptian children, through the collection of the height (recumbent length) and weight for all children age 3-36 months of women interviewed in the survey. Using these data as well as information on the child's age in months obtained in the birth history, the following standard indices of physical growth are used to describe the nutritional status of children:

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

Height-for-age is a measure of past nutritional status. Low height for age, also known as stunting, is due to chronic inadequate food intake. **Weight-for-height** is a measure of current nutritional status. Low weight-for-height, also referred to as wasting, indicates current/acute malnutrition and is the result of recent inadequate food intake. Weight is a measure of both the skeletal and muscle tissues; **weight-for-age**, therefore, is a composite indicator and does not distinguish between chronic and acute malnutrition. The cross-tabulation of **height-for-age by weight-for-height**, known as the Waterlow table, highlights the relationship between chronic undernutrition (stunting) and acute undernutrition (wasting). It enables the identification of the most seriously malnourished segment in the population--those who are both stunted and wasted.

Quality of the Anthropometric Measures

The validity of these indices depends on a number of factors, including: (1) the accuracy of the measurements, (2) the coverage of children and (3) the accuracy of the data on age for the children measured. With regard to reliability of the height and weight measures, the EDHS allocated considerable time and resources to the training and supervision of the staff responsible for collecting anthropometric data (see Chapter 1). Generally, the anthropometric data appear to be internally consistent. Only 43 cases are excluded from tabulation because the measurements were improbable for the child's age, indicating that they were taken or recorded incorrectly.

The quality of the anthropometric data is also affected by the coverage of eligible children. Children were identified as eligible for anthropometric measurements if they were 3-36 months old and their mother was a respondent in the survey. Thus, measurements were not collected for children whose mothers were dead, institutionalized, or, for some other reason, not interviewed in the EDHS. In addition, measurements were not obtained for eight percent of eligible children because they were ill, sleeping, away from the household, or the mother refused.

Another important factor affecting the anthropometric data is the accuracy of the ages reported for children. Information on a child's exact birth date or age in months is needed for accurate estimation of the anthropometric indices. If a child's true age is a few months younger than his reported age, his nutritional status may be misclassified. To ensure that age data were obtained accurately, interviewers were instructed to probe if the respondent failed to give the exact birth date of any of her children. At the end of the interview, the field editor reviewed the data on birth history to identify households having eligible children which were to be visited by the anthropometric measurer. Any problem with a child's birth date noted by the field editor was resolved at this point. Special attention also was given to birth dates during the office editing and computer validation stages. Generally, the age data are complete for eligible children; only six percent lack detailed information on birth dates and, therefore, are not included in the analysis.[1]

Table 9.11 Percent Distribution of Measured Children by Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Percent
Sex	
Male	52.4
Female	47.6
Age of Child (in Months)	
3-11	28.4
12-23	35.2
24-35	36.4
Previous Birth Interval	
First Birth	21.6
Less 2 Years	24.2
2-3 Years	38.2
4 or More Years	16.0
Place of Residence	
Urban Governorates	23.3
Lower Egypt	39.7
Urban	10.6
Rural	29.1
Upper Egypt	37.0
Urban	11.7
Rural	25.3
Education Level	
No Education	46.6
Less than Primary	32.6
Primary through Secondary	14.9
Completed Secondary/Higher	5.9
Total Percent	100.0
Number of Children	1,907

In summary, tabulations of the height and weight measurements include only 1,907 (84 percent) of the 2,263 eligible children. The nutritional status of these children is likely to differ somewhat from that of children for whom anthropometric measures are not available. However, despite the number of children who are excluded, either because the anthropometric measurements are missing or not of good quality, the findings below may be taken as generally descriptive of the nutrition status of Egyptian children. Table 9.11 shows the percent distribution of measured children by selected background characteristics.

Use of a Reference Population

In order to facilitate comparisons with other Egyptian data on nutrition and with results from DHS surveys in other countries, the EDHS nutritional status data are

[1] The proportion in rural Upper Egypt was around 15 percent.

analyzed using the National Center for Health Statistics/Centers for Disease Control (NCHS/CDC) International Reference Population, as recommended by the World Health Organization. For each of the anthropometric indices, the results are expressed in terms of the percent of Egyptian children falling into various standard deviation categories away from the median for the international reference population. The use of the international reference population is based on the finding that well-nourished children of all population groups for which data exist follow very similar growth patterns.

The variation in height and weight of a population of well-nourished children is expected to approximate a normal distribution around the median for the reference population. Thus, 68 percent of well-nourished children should fall within one standard deviation (SD) above or below the median height or weight for children the same age in the reference population, 27 percent should fall between 1 and 2 SD above or below the median and 4.6 percent should fall 2 or more SD from the median. In considering the extent of malnutrition in a population, it is the percent falling 2 or more SD below the median that is of concern. For any of the nutritional status indicators, the extent to which the percent of children falling into that category exceeds the expected percentage (2.3 percent) is an indication that the population has been experiencing serious nutritional deficiencies.

Height-for-Age

Height-for-age is a measure of linear growth. Retardation in linear growth does not result from a short-term episode of nutritional deficiency but rather is a consequence of a long period of inadequate nutrition. In effect, if a child is chronically malnourished, he/she will become stunted, i.e., short for his/her age. According to a WHO working group report, stunting signifies "slowing in skeletal growth. The growth rate may be reduced from birth, but a significant degree of stunting, representing the accumulated consequences of retarded growth, may not be evident for some years. Stunting is frequently found to be associated with poor overall economic conditions, especially mild to moderate, chronic or repeated infection, as well as inadequate nutrient intake" (World Health Organization Working Group, 1986).

Table 9.12 shows the distribution of children age 3-36 months who fall into various standard deviation categories from the reference population median in terms of height-for-age. Children who fall 2 or more SD below the reference population median are considered to be moderately to severely stunted. Among Egyptian children, 31 percent are in this category, more than ten times the level expected in a population of well-fed children (2.3 percent).

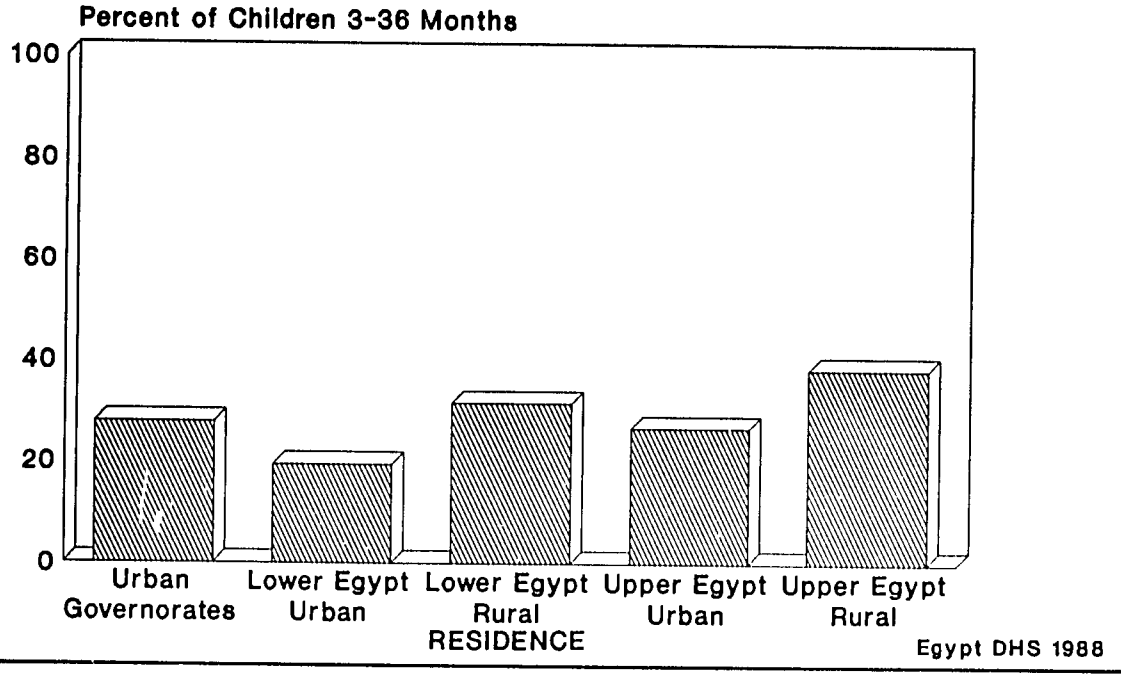
There is little difference in stunting according to the sex of the child. Looking at the age of the child, stunting is least prevalent among children under 1 year, when most children are still being breastfed. Stunting peaks at 36 percent among children 12-23 months. This is the age at which Egyptian mothers are weaning their babies, leaving them dependent on family meals which often provide inadequate amounts of nutrients and may

Table 9.12 Percent Distribution of Children 3-36 Months by Standard Deviation Category of Height-for-age Using the NCHS/CDC/WHO International Reference Population, According to Selected Background Characteristics, Egypt DHS 1988

Background Characteristic	Standard Deviation from the Median of the NCHS/CDC/WHO Reference Population: -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	Total	Number of Children
EXPECTED IN REFERENCE POPULATION	0.1	2.2	13.6	68.2	13.6	2.3	100.0	--
Sex								
Male	12.3	18.4	29.7	34.8	2.8	1.9	100.0	999
Female	11.7	19.3	28.2	37.6	2.5	0.7	100.0	908
Age of Child (in Months)								
3-11	7.0	15.3	22.7	47.6	5.9	1.4	100.0	538
12-23	14.1	22.4	29.8	31.2	1.1	1.5	100.0	704
24-36	13.9	17.9	33.3	32.1	1.7	1.1	100.0	665
Previous Birth Interval								
First Birth	12.7	16.1	25.1	42.1	2.9	1.1	100.0	405
Less than 2 Years	14.4	20.1	31.3	30.5	2.5	1.2	100.0	463
2-3 Years	12.0	20.1	29.5	35.0	1.7	1.7	100.0	728
4 or More Years	7.7	17.5	29.5	39.5	4.9	0.9	100.0	310
Birth Status								
Single Birth	12.2	18.4	29.1	36.2	2.7	1.4	100.0	1,861
Multiple Birth	4.9	35.2	25.2	34.8	0.0	0.0	100.0	46
Diarrhea Status(1)								
Had Diarrhea	14.1	19.9	24.8	36.8	3.2	1.2	100.0	456
No Diarrhea	11.4	18.5	30.3	35.9	2.5	1.4	100.0	1,451
Urban-Rural Residence								
Urban	8.9	16.6	27.5	41.6	4.1	1.4	100.0	844
Rural	14.5	20.6	30.3	31.8	1.6	1.2	100.0	1,063
Place of Residence								
Urban Governorates	12.4	15.4	25.8	40.9	3.8	1.8	100.0	415
Lower Egypt	11.7	16.6	30.5	37.8	2.1	1.2	100.0	769
Urban	4.4	15.0	28.7	46.7	4.9	0.2	100.0	196
Rural	14.3	17.2	31.1	34.7	1.1	1.6	100.0	573
Upper Egypt	12.1	23.1	29.3	31.7	2.7	1.2	100.0	723
Urban	6.5	20.2	29.4	38.4	3.9	1.7	100.0	233
Rural	14.8	24.5	29.2	28.5	2.1	0.9	100.0	490
Education Level								
No Education	13.1	22.4	29.9	31.0	2.6	1.0	100.0	891
Less than Primary	13.5	15.4	31.7	35.6	2.3	1.6	100.0	626
Primary through Secondary	8.9	14.9	22.5	48.9	2.7	2.2	100.0	280
Completed Secondary/Higher	3.8	19.7	22.7	48.1	5.0	0.7	100.0	110
Total	12.0	18.8	29.0	36.1	2.7	1.3	100.0	1,907

(1) Had diarrhea in the seven-day period before the interview

Figure 9.3
Percent Stunted by Place of Residence



contain contaminants. This is also the age when babies become mobile and interested in ingesting whatever is available in their environment, exposing them to infection, especially diarrhea.

The adverse effect of closely spaced births is apparent. Children born four or more years after an older sibling are much less likely to be stunted than other children. Multiple births experience a greater degree of stunting than single births.

Children who had diarrhea during the seven days preceding the interview were somewhat more likely to be stunted compared with those who did not have diarrhea in that period. Although height is not affected by current illness, recurrent diarrhea could be a contributing factor to chronic malnutrition and hence, stunted growth.

Rural children are more likely than urban children to show signs of chronic malnourishment; 35 percent of rural children are stunted compared with 26 percent of urban children. Within rural areas, stunting is more common among children in Upper Egypt than in Lower Egypt. Children living in the Urban Governorates are considerably more likely to be stunted compared with those living in urban areas in Lower Egypt and slightly more likely to be stunted than children living in urban areas in Upper Egypt (Figure 9.3). The mother's educational level is closely associated with the proportion of stunted children. Around one in four children whose mother completed primary school or higher are stunted, while the figure for children whose mother attended but did not

complete primary school is 29 percent. The proportion of stunted children whose mother did not have any formal education is even higher (36 percent).

In 1978, a national survey of the nutritional status of Egyptian children 6 months to six years of age was conducted to provide data on the prevalence and regional distribution of protein energy malnutrition and anemia, and some of their principal correlates. The survey found that the prevalence of stunting ranged from 38 to 43 percent in different urban areas (Nutrition Institute, 1978). Comparison of this finding with the EDHS results suggests that there may have been an improvement in nutritional status during the 10-year period between the surveys. However, results from the two surveys are not directly comparable due to the different age ranges.

Weight-for-height

Weight-for-height is a measure of body mass in relation to body length. Children are considered to be wasted if they are too thin, i.e., their weight is extremely low in comparison with their height. Since age is not a variable included in this index, weight-for-height is not influenced by any possible misreporting of the child's age. Wasting may result either from failure to gain weight or from weight loss. It may be precipitated by infection or some other household crisis and usually occurs in situations where the family food supply is limited and the food intake of children is low or where infections are severe and prolonged. There are several biological differences between wasting and stunting. Stunting is a slower process than wasting. Wasting can develop rapidly and under favorable conditions can be reversed rapidly. On the other hand, linear growth is a one-way process; a child can fail to gain height but cannot lose it (World Health Organization, 1986).

The distribution of children falling into various standard deviation categories away from the median of the reference population is presented in Table 9.13. Again, the proportion of children who are 2 SD or more below the reference median are considered wasted or acutely undernourished. The proportion of Egyptian children in the wasted category is 1.1 percent, somewhat less than the international reference population. While this indicator distinguishes those who are acutely malnourished, it does not identify those who are already stunted and, as a consequence, have weight which is proportional to their stunted height. This could explain the low rate of wasting as opposed to stunting.

Weight-for-age

Weight-for-age is a composite index which reflects long-term chronic undernutrition and recent acute undernutrition. Table 9.14 shows the distribution of children age 3-36 months who fall into various standard deviation categories away from the median of the reference population in terms of weight-for-age. Among Egyptian children, 13 percent fall into this category, nearly six times the proportion in the reference population.

Table 9.13 Percent Distribution of Children 3-36 Months by Standard Deviation Category of Weight-for-height Using the NCHS/CDC/WHO International Reference Population, According to Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Standard Deviation from the Median of the NCHS/CDC/WHO Reference Population: -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	Total	Number of Children
EXPECTED IN REFERENCE POPULATION	0.1	2.2	13.6	68.2	13.6	2.3	100.0	--
Sex								
Male	0.1	1.3	8.8	72.5	14.4	2.8	100.0	999
Female	0.1	0.7	8.7	73.7	13.4	3.4	100.0	908
Age of Child (in Months)								
3-11	0.4	1.2	9.3	69.0	15.5	4.6	100.0	538
12-23	0.0	1.6	12.2	71.6	11.6	3.0	100.0	704
24-36	0.0	0.2	4.7	78.0	15.1	2.0	100.0	665
Previous Birth Interval								
First Birth	0.0	1.4	6.1	74.3	13.5	4.7	100.0	405
Less than 2 Years	0.2	1.1	9.6	73.7	13.1	2.3	100.0	463
2-3 Years	0.2	0.8	10.5	72.5	13.6	2.4	100.0	728
4 or More Years	0.0	0.7	6.8	72.0	16.4	4.0	100.0	310
Birth Status								
Single Birth	0.1	1.0	8.7	73.1	14.0	3.1	100.0	1,861
Multiple Birth	0.0	0.0	12.1	73.1	9.9	4.9	100.0	46
Diarrhea Status(1)								
Had Diarrhea	0.5	1.4	11.5	71.1	11.9	3.7	100.0	456
No Diarrhea	0.0	0.9	7.9	73.7	14.6	2.9	100.0	1,451
Urban-Rural Residence								
Urban	0.1	1.2	8.2	71.5	15.8	3.1	100.0	844
Rural	0.1	0.8	9.2	74.3	12.5	3.1	100.0	1,063
Place of Residence								
Urban Governorates	0.0	0.3	9.1	71.6	17.3	1.7	100.0	415
Lower Egypt								
Urban	0.0	0.2	3.4	74.6	15.7	6.1	100.0	196
Rural	0.2	0.2	8.0	72.6	14.2	4.8	100.0	573
Upper Egypt								
Urban	0.5	3.6	10.7	68.9	13.2	3.1	100.0	233
Rural	0.0	1.6	10.6	76.3	10.4	1.1	100.0	490
Education Level								
No Education	0.2	1.0	8.6	74.9	12.6	2.6	100.0	891
Less than Primary	0.0	1.2	9.5	72.3	13.4	3.5	100.0	626
Primary through Secondary	0.0	0.9	6.0	70.6	18.8	3.7	100.0	280
Completed Secondary/Higher	0.0	0.0	12.2	69.0	15.7	3.2	100.0	110
Total	0.1	1.0	8.7	73.1	13.9	3.1	100.0	1,907

(1) Had diarrhea in the seven-day period before the interview

Table 9.14 Percent Distribution of Children 3-36 Months by Standard Deviation Category of Weight-for-age Using the NCHS/CDC/WHO International Reference Population, According to Selected Background Characteristics, Egypt DHS, 1988

Background Characteristic	Standard Deviation from the Median of the NCHS/CDC/WHO Reference Population: -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	Total	Number of Children
EXPECTED IN REFERENCE POPULATION	0.1	2.2	13.6	68.2	13.6	2.3	100.0	--
Sex								
Male	2.6	11.1	27.2	52.9	5.3	0.9	100.0	999
Female	2.5	10.6	29.9	51.1	4.5	1.4	100.0	908
Age of Child (in Months)								
3-11	3.2	9.4	22.1	56.0	7.7	1.7	100.0	538
12-23	3.1	13.7	36.1	41.6	4.2	1.2	100.0	704
24-36	1.4	9.0	25.6	59.9	3.5	0.6	100.0	665
Previous Birth Interval								
First Birth	1.7	7.1	29.6	54.9	4.8	1.9	100.0	405
Less than 2 Years	4.8	10.8	27.4	52.1	4.1	0.7	100.0	463
2-3 Years	2.3	12.9	29.2	49.3	5.4	0.8	100.0	728
4 or More Years	0.7	11.0	26.9	54.6	5.3	1.5	100.0	310
Birth Status								
Single Birth	2.6	10.8	28.3	52.4	4.9	1.1	100.0	1,861
Multiple Birth	2.4	14.6	36.1	37.6	6.9	2.4	100.0	46
Diarrhea Status(1)								
Had Diarrhea	3.8	12.6	30.2	47.6	4.2	1.6	100.0	456
No Diarrhea	2.2	10.3	27.9	53.5	5.2	1.0	100.0	1,451
Urban-Rural Residence								
Urban	1.1	7.8	28.2	55.7	6.0	1.1	100.0	844
Rural	3.7	13.3	28.7	49.1	4.1	1.2	100.0	1,063
Place of Residence								
Urban Governorates	0.5	7.3	31.3	54.4	5.5	1.0	100.0	415
Lower Egypt	2.9	9.3	24.0	56.4	5.7	1.7	100.0	769
Urban	1.0	4.5	19.8	64.7	7.9	2.2	100.0	196
Rural	3.6	10.9	25.5	53.6	4.9	1.5	100.0	573
Upper Egypt	3.2	14.5	31.6	46.1	3.8	0.7	100.0	723
Urban	2.3	11.4	30.0	50.6	5.4	0.4	100.0	233
Rural	3.7	16.0	32.4	44.0	3.1	0.8	100.0	490
Education Level								
No Education	3.4	12.9	29.5	48.3	5.0	0.9	100.0	891
Less than Primary	2.5	11.3	29.2	51.5	4.4	1.1	100.0	626
Primary through Secondary	1.0	5.1	23.4	61.7	6.6	2.2	100.0	280
Completed Secondary/Higher	0.0	6.1	29.3	60.9	2.8	0.8	100.0	110
Total	2.5	10.8	28.5	52.1	4.9	1.1	100.0	1,907

(1) Had diarrhea in the seven-day period before the interview

Table 9.15 Weight-for-height Standard Deviation Categories Cross-Tabulated by Height-for-age Standard Deviation Categories, Using the NCHS/CDC/WHO International Reference Population, Egypt DHS, 1988

	Weight-for-height	
Height-for-age	Not Wasted	Wasted
Not Stunted	68.3	1.0
Stunted	30.7	0.2

As with the height-for-age index, the proportion falling 2 SD or more below the reference population median is greater among children 12-23 months and those born less than three years after an older sibling, twins or triplets and children who had diarrhea in the seven days before the interview, than among other children. The proportion among children in rural areas (17 percent) is nearly double that in urban areas (9 percent). The EDHS results also show that the proportion of children whose weight is extremely low for their age is lower in rural areas in Lower Egypt (14 percent) than in rural areas in Upper Egypt (20 percent). The differential between urban areas in Upper and Lower Egypt is even more striking; only six percent of children living in urban areas in Lower Egypt fall in the category 2 SD or more below the median for the reference population, compared with 14 percent in Upper Egypt. The prevalence of children with low weight is also higher in the Urban Governorates than in urban Lower Egypt. A similar pattern of regional differentials was observed in the height-for-age data. Finally, the population of underweight children decreases with the mother's level of education, from 16 percent among women with no education to six percent among women who completed secondary school or higher.

Height-for-age by Weight-for-height

The relationship between stunting and wasting, or chronic undernutrition and acute undernutrition, is presented in Table 9.15. Less than one percent of children age 3-36 months are both stunted and wasted. These children fall 2 SD or more below the median of the reference population on both height-for-age and weight-for-height. Although this suggests again that few Egyptian children are acutely malnourished, it is important to note that 31 percent of all children are stunted but not wasted. Such children suffer from hidden undernutrition because they do not look undernourished; they are short but are more or less normal in terms of their weight-for-height, so they just look small.

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Appendix A

SURVEY STAFF

Appendix A

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Appendix B

SAMPLE DESIGN

Appendix B

SAMPLE DESIGN

The main objective of the Egypt Demographic and Health Survey sample design is to provide reliable estimates of fertility and mortality and of the use of contraceptive methods at the national level, for urban and rural areas and for three geographic units (the Urban Governorates, Lower Egypt and Upper Egypt). In addition, separate contraceptive prevalence estimates were desired for each of 21 governorates. To achieve these objectives, a three-stage probability sample was implemented. The first stage involved the selection of 228 primary sampling units (shiakhas/towns in urban areas and villages in rural areas). The second stage included the selection of two segments within each selected primary sampling unit. The third and final stage consisted of the selection of a sample households living in those segments.

Household data were to be collected from all households in the sample, and individual questionnaires were to be completed for all ever-married women 15-49 who were present in the household during the night before the interview. To obtain information on maternal mortality, a special module was administered during the household interview in a subsample of one-half of the total sample. Data on weight and length of children 3-36 months born to women interviewed in the EDHS in the subsample were also obtained in order to obtain insight into the nutrition status of Egyptian children.

The following describes in detail the EDHS sample design. A description of the field activities involved in the implementation of the design is included in Chapter 1 of this report.

B.1 COVERAGE OF THE SAMPLE

Egypt is divided into 26 governorates. The EDHS was carried out in only 21 of these governorates. The five Frontier Governorates (Red Sea, New Valley, Matruh and North and South Sinai) were excluded from coverage in the EDHS because it would have required disproportionate resources to survey the dispersed population in these governorates. The net effect on national estimates of excluding these governorates is negligible because of their small size.

B.2 SAMPLE SIZE

A criterion in determining the sample size for the EDHS was the necessity for the number of ever-married women interviewed in the survey from relevant subpopulations to

be sufficiently large to allow for meaningful analysis. The target sample was fixed at 11,250 interviews of ever-married women age 15-49, who were expected to be found in around 12,500 households. The size of the target sample was set based on an assumption of a non-response rate of 10 percent.

The target sample was generally divided among the governorates in proportion to their size. In five governorates (Port Said, Suez, Ismailia, Damietta and Aswan), the sample design called for more households to be selected than the would have been sampled if a strictly proportional allocation had been observed; the decision to oversample in these governorates was made in order to obtain a sufficient number of households to allow for governorate-level contraceptive prevalence estimates.

B.3 SAMPLE FRAME

In selecting the EDHS sample, shiakhas/towns in urban areas and villages in rural areas constituted the frame of the primary sampling units (PSUs). A list of shiakhas and villages grouped by governorate was prepared using preliminary results from 1986 Egyptian census, which were provided by the Central Agency for Public Mobilization and Statistics. In order to provide for implicit stratification by geographic location, the lists of shiakhas and villages within each governorate from which the first-stage units selected were arranged in serpentine order geographically, beginning from the northwest corner of the governorate, using the map of each governorate. In preparing the lists, any unit with a total population of less than 270 as reported in 1986 Census was combined with a neighboring PSU in the same governorate.

For the second stage selection, a frame was required only for the PSUs selected during the first stage. Before carrying out the second stage of selection, maps were obtained for these PSUs.

B.4 SAMPLE SELECTION

First Stage

In this stage a total of 228 PSUs were selected from 21 governorates (108 shiakhas/towns and 120 villages). A list of PSUs allocated according to governorate and residential sector (urban/rural) is given in Table B.1. Figure B.1 shows the geographic distribution of the 228 sampling units selected in the EDHS.

Within each governorate and residential sector (urban/rural), the sample of PSUs was selected systematically with probabilities proportional to the 1986 Census population in the group using the equation:

$$P_1 = aM_i / \Sigma_i M$$

where:

a = the total number of PSUs to be selected from the governorate-residential sector;
M_i = 1/270-th of the total population in the PSU rounded to the nearest whole integer;
$\Sigma_i M_i$ = the sum of the M_i values for all PSUs in the governorate-residential sector.

Second Stage

At the second stage, two segments were selected from each PSU (i.e., a total of 456 segments). In order to select the segments, detailed maps for each selected PSU were obtained and divided into approximately equal-sized segments. In the segmentation process, a main requirement was that the resulting segments have well-defined boundaries. After the segmentation operation was completed, the segments were listed in a serpentine order by geographic location within the PSU, beginning from the Northwest corner of the PSU.

In order to obtain a measure of size for each segment, different procedures were adopted in urban and rural areas. For urban PSUs, a quick count operation was carried out in order to obtain an estimate of the size of each segment (For a description of the quick count operation, see Chapter 1). For rural PSUs, an estimate of the number of households in each segment was obtained by measuring on the village maps the proportion of the total residential area within the village included in the segment and multiplying that figure by 1/5-th of the village population reported in the 1986 Census. Any segment with less than 15 households was combined with the next segment.

Two segments then were selected systematically from each PSU with probability proportional to size using the following equation:

$$P_2 = 2M^{*}_{ij} / (\Sigma_j M^{*}_{ij})$$

where:

M^{*}_{ij} = 1/27-th of the estimated number of households assigned to the j-th segment in the i-th PSU;
$\Sigma_j M^{*}_{ij}$ = the sum of the measures of sizes for all segments in the i-th PSU.

Third Stage

A list of all households living within each of the segments selected at the second stage was prepared for third stage sample selection (See Chapter 1 for a description of the household listing). Using the household lists, a systematic sample of households was selected, with the selection interval:

$$I = (aM_i/\Sigma_i M_i)\ (2M^*_{ij}/\Sigma_j M^*_{ij})/f^*$$

where:

f^* = kf, the overall sampling fraction for each governorate

and

f = 11,250/10,279,000=0.0011, the overall sampling fraction based on proportional sampling with an initial sample size of 10,000 adjusted by a 10 percent non-response

k = factor (1, 2, 3, 4, or 5) used to adjust the overall sampling fraction in governorates which were oversampled.

During the sample implementation in rural PSUs, there was frequently significant variation between the target and actual number of households. This was largely due to the imprecision in assigning measures of size in some rural PSUs, since some of the maps used were 10 years old. In terms of the overall sample, the deviations in the rural sample were not a major problem. However, in five governorates, the overall sample size fell below the number of households that was considered necessary to provide reliable estimates of the contraceptive prevalence rate, one of EDHS goals. In four of these governorates (Damietta, Kafr El-Sheikh, Fayoum and Beni Suef), the final stage selection procedures were adjusted to increase the sample take from the segments already selected for the EDHS to provide the number of households needed for prevalence estimates. In the fifth governorate (Ismailia), additional segments were selected and listed; the sample drawn from these additional segments was only used in preparing separate prevalence estimates for the governorate and was not included in estimating figures for Egypt as a whole.

Weighting of the Sample Results

In order to obtain the estimates presented in this report, the sample cases (households and eligible women) are weighted to take into account oversampling in eight governorates (Port Said, Suez, Ismailia, Damietta, Aswan, Kafr El-Sheikh, Fayoum and Beni Suef). The weights were standardized so that the weighted number of completed cases at the national level is equal to the unweighted total.

Table B.1 List of Primary Sampling Units by Governorate, Egypt DHS, 1988

URBAN GOVERNORATES

Cairo

Assad
El-Ezab
El-Zawia El-Hamraa Masaken
EL-Masaken El-Amiria El-Shamalia
Ain Shams
El-Salam El-Sharkia
El-Montaza
Masaken El-Amiria El-Ganoubia
Tosson
Sidy Madian
El-Tounsi
Abo-El-Seoud And EL-Madabegh
El-Essawia
El-Massara El-Baled

Borham
EL-Zawia El-Hamraa El-Balad
El-Zayton El-Gharbia
El-Mataria El-Gharbia
El-Zahraa And Masaken El-Helmia
El-Nozha
El-Koba
El-Shamashergy
Mohamed Mazher
El-Soultan Barkouk
Souk El-Selah
Fom EL-Khalig And Dir El-Nahas
Ezbat Nafae
Helwan El-Sharkia

Alexandria

El-Dekhila
El-Riada
Dona El-Gadida
El-Seouf kebly
El-Amriah Sharek
Ragheb Basha
El-Wardian Shark

El-Ibrahimia Bahary
El-Akssa And Bakous
San Stefano
El-Mohagrin
El-Sobhia And Ezbat Sharkes
Gheit El-Enab Sharky

Port Said

El-Galaa
El-Manakh
El-Ezab
El-Kaboutty

Adly
El-Abassy
Port Fouad

Suez

Faisal
El-Ganaien
Kism Thales El-Arbain

El-Sabah
Kism Thales El-Arbain
Kism Rabia EL-Arbain

LOWER EGYPT

Damietta

Urban

- Kism Awel
- Faraskour City

Rural

- El-Mohamdia
- El-Sawalem
- Shat El-Sheikh Dorgham
- Ezab El-Basarta
- Kafr El-Arab

Dakahlia

Urban

- El-Mataria City
- Kism Awel Meet Talkha
- Kism Kafr El-Bedmas
- Meet Ghamr City

Rural

- Hafeer Shehab El-Din
- El-Gamamla
- El-Nahda El-Gadida
- Kafr Abo-Zekry
- Traanis El-Baher
- Bahout
- El-KHazendar
- Meet Demsis And Kafr Abo-Garag
- Shoubra Sendy
- Beshla
- Meet Mohsen

Sharkia

Urban

- Abo-Kabeer City
- EL-Eshara
- Belbeis City

Rural

- El-Manasafour
- Shenait El-Garaboua
- El-Malakeain El-Baharia
- El-Haggagin El-Mostagada
- Kafr El-Olmaa
- Mobasher
- Shoubak Basta
- El-Mahmodia
- Kesheik
- Meet Gaber
- Shalshalamon

Kalyubia

Urban

- Banha El-Gadida
- El-Kanater El-Khairia
- Bahtim
- Mostorod
- Bigam

Rural

- Tesfa
- Marsafa and Kafr Ahmed Hashesh
- Monshaa El-Keram
- Kafr El-Amaar
- Kronfil
- Abo-Zabal

Kafr El-Sheikh

Urban

Desouk City	Biala City

Rural

Sad Khamis	El-Hema
El-Kafr El-Gadid	Shaba
El-Marazik	

Gharbia

Urban

Naser	Moustafa Moustafa El-Agroudy
Koubry El-Mahata	Tanta Khareg El-Kerdon

Rural

El-Sheen	El-Moatamdia
Mahalat Mohsen	El-Aishaa
Eshenaway	Ekhnaway El-Zalaka
Mahalat Rouh	Kafr Ekhsha

Menoufia

Urban

Berket El-Sabaa City	Menouf City

Rural

Kafr El-Saddat	Hourin
Meet Baraa And Kafr El Shaheed	Melig
Balmusht	Heat
El-Barania	Sarawa

Behera

Urban

Kafr El Dawar	Rashid City

Rural

Shoubra	Ezab Dafasho
El-Sahel	El-Nakhla El-Baharia
El-Nameria	El-Basatin
Nediba	El-Ibrahimia
Abo-Hamada	El-Khatatba
Kom Sherik	

Ismailia

Urban

Hai El-Sheikh Zaid	Manshet El-Shouhada
El-Tal El-Kabir City	

Rural

Abo-Sower Balad	Nefisha
El-Kassassin El-Gadida	

UPPER EGYPT

Giza

Urban

- El-Mounira
- Meet Okbaa
- Monshaa Elian
- Sakiet Meky
- El-Ayaat City
- Abdel-Naim
- Boulak El-Dakrour
- El-Haram
- Monshet El-Bakary

Rural

- El-Sabil
- Warak El-Arab
- Zahran And Gaber
- El-Kedaia
- Safet El-Laban
- Nazlet El-Ashter
- Kafr Hamed

Beni-Suef

Urban

- El-Mermah And El-Ezab
- El-Fashn City

Rural

- Efwa
- Sanour
- Mazoura
- Bani Addi
- Bani Ahmed

Fayoum

Urban

- Sanoures City
- Kism Thany El-Fayoum

Rural

- El-Mashrek Kebly
- Dar El-Salam
- Garado
- El-Kabas El-Gadida
- Siala

Menya

Urban

- Maghagha City
- Kism Rabaa

Rural

- Gaziret Sharouna
- Marzouk
- Zawiat Soultan
- El-Ashmounin
- Nazlet El-Badrman
- El-Sheikh Fadel
- Tahha El-Aamidaa
- El-Sembelawein
- Ezbet Galal

Assuit

Urban

Dairout City	Sheiakha Thania
El-Walidia	

Rural

Kaser Hedar	Mounshat Khashaba
El-Hamam	Beni Hussein
El-Wasta	Bakour
El-Nawamis	

Souhag

Urban

Tema City	
El-Kabtsh	

Rural

Gaziret Shandwil	El-Harga Bahry
El-Sheikh Youssef	El-Anbaria
Awlad Yehia Bahry	El-Tolihat
El-Attamna	Sahel Tahta

Qena

Urban

Kism Thalth	Armant city

Rural

Kousir Bakhanes	El-Kaser
El-Sabriat	El-Salhia
El-Hela	El-Zawaida
El-Rayayna	Kiman El-Mataana

Aswan

Urban

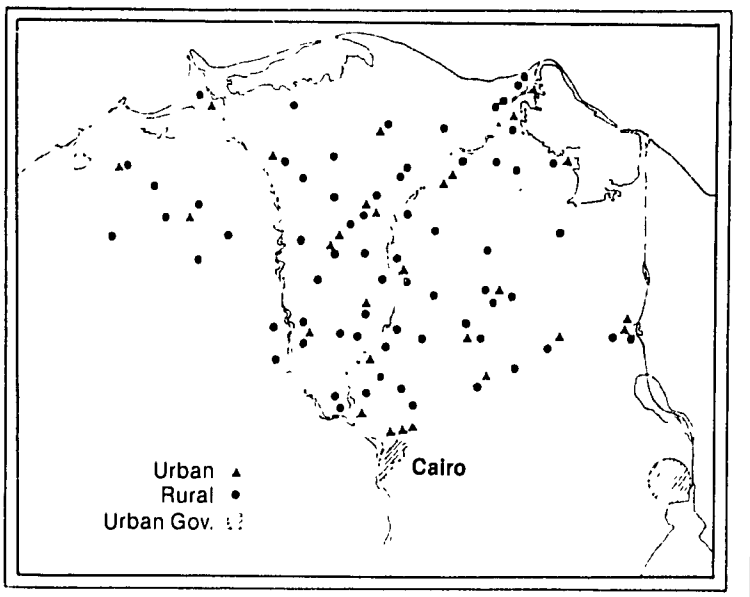
Kom Ombo City	Sheiakha Thania
Mantekat Khazan Asswan	

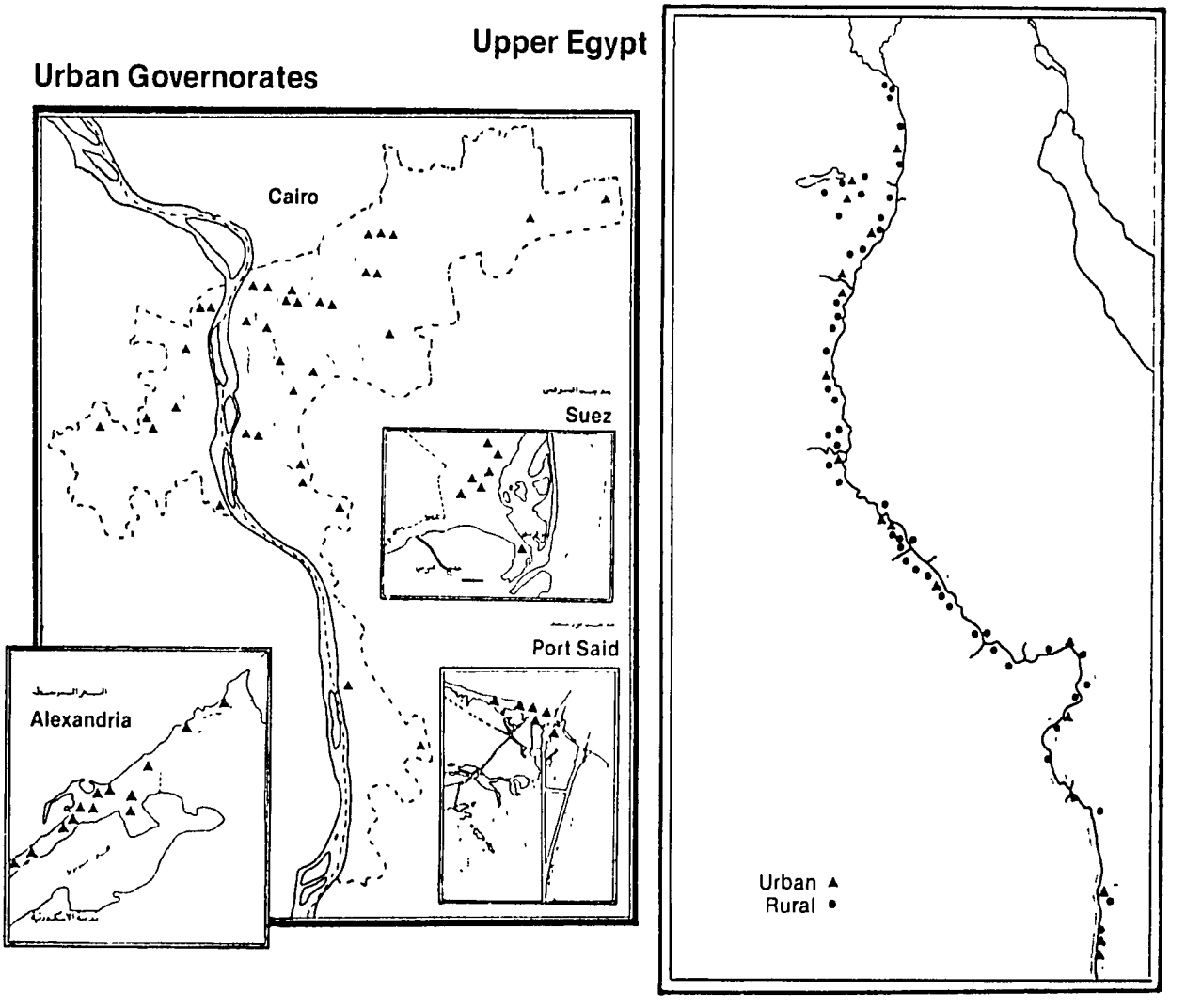
Rural

El-Ramady Bahry	El-Madik
El-Mansouria	El-Koubania

Figure B.1

Distribution of Sampling Points Egypt Demographic and Health Survey, 1988





Appendix C

SAMPLING ERRORS

Appendix C

SAMPLING ERRORS

Sampling error is defined as the difference between the actual value for any variable measured in a survey and the value estimated by the survey. The estimates from a sample survey are affected by two types of errors: (1) sampling error and (2) non-sampling error. Non-sampling error is the result of mistakes made in carrying out data collection and data processing, including the failure to locate and interview the correct household, errors in the way questions are asked, and data entry errors, etc. Although efforts were made during the implementation of the EDHS to minimize this type of error, non-sampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling error is a measure of the variability between all possible samples that could have been selected from the same population using the same design and expected size. For the entire population and for large subgroups, the EDHS sample is generally sufficiently large to provide reliable estimates; for such populations, the sampling error is small. However, for small subgroups, sampling errors may be larger and, thus, affect the reliability of the data.

Sampling error is usually measured in terms of the standard error for a particular statistic (mean, percentage, ratio, etc.), i.e., the square root of the variance. The standard error can be used also to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic as measured in 95 percent of all possible samples with the same design will fall within a range of plus or minus two times the standard error for that statistic.

The computations required to provide sampling errors for survey estimates which are based on a complex sample design like that used for the EDHS survey are more complicated than those based on simple random samples. The computer package CLUSTERS was used to assist in computing the sampling errors with the proper statistical methodology. The CLUSTERS program treats any percentage or average as a ratio estimate, r=y/x, where y represents the total sample value for variable y and x represents the total number of cases in the group or subgroup under consideration.

To compute the variance the package makes use of the formula:

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

where:

z_{hi} = $y_{hi} - rx_{hi}$;
z_h = $y_h - rx_h$;
H = the number of strata;
n_h = the number of cases in stratum h;
y_{hi} = the sum of the values of variable y in cluster i in the h-th stratum;
x_{hi} = the sum of the number of cases in cluster i in the h-th stratum; and
f = the overall sampling fraction, which is so small that the CLUSTERS program ignores it.

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 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. CLUSTERS also computes the relative error and confidence limits for estimates.

Sampling errors are presented below for selected variables considered to be of major interest. Results are presented for the whole country, for urban and rural areas, for the Urban Governorates, Lower Egypt (urban-rural), Upper Egypt (urban-rural) and for women in three broad age groups. For each variable, the type of statistic (mean or proportion) and the base population are given in Table C.1. For each variable, Tables C.2-C.5 present the value of the statistic, its standard error, the number of unweighted and weighted cases, the design effect, the relative standard errors, and the 95 percent confidence limits.

In general, the relative standard error for most estimates for the country as a whole is small, which means that the EDHS results are reliable. There are some differentials in the relative standard error for the estimates by region and age groups. For example, for the variable, the proportion ever using a contraceptive method, the relative standard error as a percent of the estimated proportion for the whole country, for urban areas and for rural areas are 2.5 percent, 1.7 percent and 4.1 percent, respectively.

The confidence interval has the following interpretation. The mean ideal number of children among all women giving a numeric response is 2.883 and its standard error is 0.027. Therefore, to obtain the upper bound of the 95 percent confidence limit, twice the standard error, i.e., .054, is added to the sample mean while to obtain the lower bound, the same amount is subtracted from the mean. There is a high probability (95 percent) that the true mean ideal number of children falls within the interval of 2.828 and 2.938.

Table C.1 List of Variables for Which Sampling Errors Are Calculated, Egypt DHS, 1988

	VARIABLE	ESTIMATE	BASE POPULATION
URBAN	Urban	Proportion	Ever-married women
EDUC	Secondary education (7+ years)	Proportion	Ever-married women
BREASTF	Length of breastfeeding	Mean	Births in 3 years before survey
AMENOR	Length of amenorrhea	Mean	Births in 3 years before survey
ABSTAIN	Length of postpartum abstinence	Mean	Births in 3 years before survey
KMETHOD	Knowing a modern contraceptive method	Proportion	Currently married women
KSOURCE	Knowing source for any modern method	Proportion	Currently married women
EVUSE	Ever used any method	Proportion	Currently married women
CUSE	Currently using any method	Proportion	Currently married women
CUPILL	Currently using pill	Proportion	Currently married women
CUIUD	Currently using IUD	Proportion	Currently married women
CUCOND	Currently using condom	Proportion	Currently married women
NOMORE	Wanting no more children	Proportion	Currently married women
DELAY	Wanting to delay at least 2 years	Proportion	Currently married women
IDEAL	Ideal number of children	Mean	Currently married women
TETANUS	Received tetanus injection	Proportion	Births in 5 years before survey
MDCARE	Received medical attention at birth	Proportion	Births in 5 years before survey
DIAR24	Had diarrhea in 24-hour period before survey	Proportion	Children 1-59 months
DIAR1W	Had diarrhea in 1-week period before survey	Proportion	Children age 1-59 months
ORST	Had ORS treatment for diarrhea	Proportion	Children with diarrhea in 1-week period before survey
EVBORN	Children ever born	Mean	Ever-married women
SURVIV	Children surviving	Mean	Ever-married women
HCARD	Having health card	Proportion	Children 12-23 months
BCG	Received BCG vaccination	Proportion	Children 12-23 months with cards
DPT3	Received DPT vaccination (3 doses)	Proportion	Children 12-23 months with cards
POLIO3	Received Polio vaccination (3 doses)	Proportion	Children 12-23 months with cards
MEASLES	Received Measles vaccination	Proportion	Children 12-23 months with cards

Table C.2 Sampling Errors - Entire Sample, Egypt DHS, 1988

Variable	Value (R)	Standard Error (SE)	Unweighted Number	Weighted Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
URBAN	.483	.020	8911.0	8911.0	3.834	.042	.443	.524
EDUC	.164	.012	8911.0	8911.0	3.017	.072	.141	.188
BREASTF	17.336	.285	5177.0	5218.3	1.237	.016	16.766	17.905
AMENOR	8.182	.250	5177.0	5218.3	1.244	.031	7.682	8.683
ABSTAIN	3.225	.172	5177.0	5218.3	1.198	.053	2.882	3.569
KMETHOD	.982	.002	8219.0	8220.9	1.323	.002	.978	.986
KSOURCE	.959	.004	8219.0	8220.9	1.656	.004	.952	.966
EVUSE	.595	.015	8219.0	8220.9	2.700	.025	.566	.624
CUSE	.378	.012	8219.0	8220.9	2.267	.032	.354	.403
CUPILL	.153	.007	8219.0	8220.9	1.664	.043	.140	.166
CUIUD	.158	.008	8219.0	8220.9	1.886	.048	.142	.173
CUCOND	.024	.002	8219.0	8220.9	1.316	.092	.020	.028
NOMORE	.605	.008	8219.0	8220.9	1.503	.013	.589	.621
DELAY	.119	.004	8219.0	8220.9	1.105	.033	.111	.126
IDEAL	2.883	.027	6913.0	6875.5	1.644	.009	2.828	2.938
TETANUS	.114	.008	8549.0	8630.1	1.831	.067	.099	.129
MDCARE	.346	.016	8549.0	8630.1	2.491	.046	.314	.378
DIAR24	.068	.003	7858.0	7913.8	1.047	.045	.062	.074
DIAR1W	.157	.005	7858.0	7913.8	1.140	.031	.148	.167
ORST	.286	.016	1230.0	1245.3	1.181	.055	.255	.318
EVBORN	4.017	.044	8911.0	8911.0	1.456	.011	3.929	4.105
SURVIV	3.290	.032	8911.0	8911.0	1.367	.010	3.226	3.353
HCARD	.605	.012	1567.0	1592.8	.987	.020	.581	.630
BCG	.562	.026	950.0	964.2	1.615	.046	.510	.615
DPT3	.504	.023	950.0	964.2	1.416	.046	.458	.550
POLIO3	.482	.022	950.0	964.2	1.337	.045	.439	.526
MEASLES	.617	.024	950.0	964.2	1.541	.040	.568	.666

Table C.3 Sampling Errors by Urban-Rural Residence, Egypt DHS, 1988

Variable	Value (R)	Standard Error (SE)	Unweighted Number	Weighted Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
				URBAN				
URBAN	1.000	.000	4409.0	4304.9	.000	.000	1.000	1.000
EDUC	.280	.022	4409.0	4304.9	3.185	.077	.237	.323
BREASTF	15.480	.416	2180.0	2134.1	1.174	.027	14.648	16.313
AMENOR	5.959	.324	2180.0	2134.1	1.153	.054	5.311	6.606
ABSTAIN	2.660	.223	2180.0	2134.1	1.100	.084	2.214	3.107
KMETHOD	.995	.002	4103.0	4005.7	1.694	.002	.991	.999
KSOURCE	.988	.003	4103.0	4005.7	1.740	.003	.983	.994
EVUSE	.770	.013	4103.0	4005.7	2.038	.017	.743	.797
CUSE	.518	.014	4103.0	4005.7	1.796	.027	.490	.546
CUPILL	.184	.009	4103.0	4005.7	1.547	.051	.165	.203
CUIUD	.230	.011	4103.0	4005.7	1.630	.047	.209	.252
CUCOND	.043	.004	4103.0	4005.7	1.176	.087	.035	.050
NOMORE	.652	.008	4103.0	4005.7	1.118	.013	.635	.668
DELAY	.118	.006	4103.0	4005.7	1.182	.051	.106	.130
IDEAL	2.647	.029	3701.0	3607.4	1.612	.011	2.589	2.705
TETANUS	.126	.012	3587.0	3523.0	1.746	.095	.102	.149
MDCARE	.571	.026	3587.0	3523.0	2.444	.045	.519	.622
DIAR24	.060	.004	3383.0	3315.4	.968	.067	.052	.068
DIAR1W	.155	.007	3383.0	3315.4	1.062	.044	.141	.169
ORST	.225	.021	519.0	514.0	1.108	.093	.183	.266
EVBORN	3.606	.066	4409.0	4304.9	1.750	.018	3.475	3.737
SURVIV	3.093	.049	4409.0	4304.9	1.640	.016	2.995	3.191
HCARD	.606	.019	698.0	690.4	1.046	.032	.567	.645
BCG	.801	.029	424.0	418.3	1.476	.036	.744	.859
DPT3	.699	.029	424.0	418.3	1.307	.041	.641	.757
POLIO3	.652	.026	424.0	418.3	1.132	.040	.599	.704
MEASLES	.795	.026	424.0	418.3	1.343	.033	.742	.848
				RURAL				
URBAN	.000	.000	4502.0	4606.1	.000	.000	.000	.000
EDUC	.056	.007	4502.0	4606.1	1.974	.121	.043	.070
BREASTF	18.620	.338	2997.0	3084.2	1.116	.018	17.944	19.296
AMENOR	9.721	.307	2997.0	3084.2	1.108	.032	9.108	10.334
ABSTAIN	3.616	.241	2997.0	3084.2	1.215	.067	3.134	4.098
KMETHOD	.969	.003	4116.0	4215.2	1.168	.003	.963	.976
KSOURCE	.931	.006	4116.0	4215.2	1.467	.006	.919	.943
EVUSE	.428	.018	4116.0	4215.2	2.280	.041	.393	.464
CUSE	.245	.012	4116.0	4215.2	1.788	.049	.221	.269
CUPILL	.124	.009	4116.0	4215.2	1.661	.069	.107	.141
CUIUD	.088	.008	4116.0	4215.2	1.702	.085	.073	.103
CUCOND	.006	.001	4116.0	4215.2	.928	.181	.004	.009
NOMORE	.561	.012	4116.0	4215.2	1.592	.022	.536	.585
DELAY	.119	.005	4116.0	4215.2	1.031	.044	.109	.130
IDEAL	3.143	.041	3212.0	3268.1	1.462	.013	3.061	3.226
TETANUS	.106	.010	4962.0	5107.1	1.892	.094	.086	.126
MDCARE	.191	.014	4962.0	5107.1	2.033	.072	.163	.218
DIAR24	.074	.004	4475.0	4598.5	1.089	.059	.065	.083
DIAR1W	.159	.007	4475.0	4598.5	1.192	.042	.146	.173
ORST	.330	.022	711.0	731.3	1.177	.066	.286	.373
EVBORN	4.401	.043	4502.0	4606.1	.925	.010	4.315	4.487
SURVIV	3.474	.037	4502.0	4606.1	1.044	.011	3.400	3.547
HCARD	.605	.016	869.0	902.4	.938	.026	.574	.636
BCG	.379	.034	526.0	545.9	1.599	.089	.311	.447
DPT3	.355	.032	526.0	545.9	1.550	.091	.291	.420
POLIO3	.353	.032	526.0	545.9	1.539	.091	.288	.417
MEASLES	.480	.034	526.0	545.9	1.567	.071	.412	.549

Table C.4 Sampling Errors by Place of Residence, Egypt DHS, 1988

Variable	Value (R)	Standard Error (SE)	Unweighted Number	Weighted Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
			URBAN GOVERNORATES					
URBAN	1.000	.000	2279.0	2141.4	.000	.000	1.000	1.000
EDUC	.288	.030	2279.0	2141.4	3.196	.105	.227	.348
BREASTF	14.196	.557	1053.0	975.2	1.086	.039	13.081	15.311
AMENOR	5.326	.446	1053.0	975.2	1.128	.084	4.434	6.218
ABSTAIN	2.612	.354	1053.0	975.2	1.205	.136	1.904	3.319
KMETHOD	.997	.001	2129.0	1996.5	1.169	.001	.995	.000
KSOURCE	.994	.002	2129.0	1996.5	1.378	.002	.989	.998
EVUSE	.812	.010	2129.0	1996.5	1.222	.013	.792	.833
CUSE	.560	.015	2129.0	1996.5	1.399	.027	.530	.590
CUPILL	.169	.012	2129.0	1996.5	1.429	.069	.146	.192
CUIUD	.268	.013	2129.0	1996.5	1.395	.050	.241	.295
CUCOND	.050	.005	2129.0	1996.5	1.079	.102	.040	.060
NOMORE	.660	.010	2129.0	1996.5	.988	.015	.639	.680
DELAY	.119	.010	2129.0	1996.5	1.425	.084	.099	.139
IDEAL	2.572	.034	1934.0	1812.2	1.411	.013	2.504	2.640
TETANUS	.085	.010	1751.0	1640.4	1.280	.118	.065	.105
MDCARE	.648	.032	1751.0	1640.4	2.211	.050	.584	.713
DIAR24	.055	.006	1657.0	1549.1	1.019	.105	.043	.066
DIAR1W	.147	.010	1657.0	1549.1	1.098	.066	.127	.166
ORST	.225	.031	243.0	227.5	1.121	.136	.164	.286
EVBORN	3.451	.092	2279.0	2141.4	1.832	.027	3.267	3.634
SURVIV	3.005	.070	2279.0	2141.4	1.716	.023	2.866	3.144
HCARD	.594	.029	347.0	326.9	1.099	.049	.536	.653
BCG	.932	.013	205.0	194.2	.754	.014	.905	.958
DPT3	.765	.031	205.0	194.2	1.059	.041	.703	.828
POLIO3	.714	.030	205.0	194.2	.943	.042	.655	.774
MEASLES	.866	.025	205.0	194.2	1.061	.029	.816	.917
			LOWER EGYPT					
URBAN	.291	.019	3446.0	3504.9	2.480	.066	.252	.329
EDUC	.148	.015	3446.0	3504.9	2.496	.102	.118	.178
BREASTF	17.563	.328	2038.0	2096.5	.894	.019	16.907	18.219
AMENOR	8.059	.373	2038.0	2096.5	1.158	.046	7.314	8.805
ABSTAIN	2.746	.222	2038.0	2096.5	1.044	.081	2.302	3.190
KMETHOD	.990	.002	3169.0	3229.8	1.019	.002	.986	.993
KSOURCE	.980	.003	3169.0	3229.8	1.185	.003	.974	.986
EVUSE	.637	.014	3169.0	3229.8	1.689	.023	.608	.666
CUSE	.412	.013	3169.0	3229.8	1.530	.032	.385	.439
CUPILL	.192	.012	3169.0	3229.8	1.651	.060	.169	.216
CUIUD	.162	.010	3169.0	3229.8	1.577	.064	.141	.182
CUCOND	.018	.003	3169.0	3229.8	1.213	.160	.012	.023
NOMORE	.678	.010	3169.0	3229.8	1.260	.015	.657	.699
DELAY	.103	.005	3169.0	3229.8	.965	.051	.093	.114
IDEAL	2.696	.028	2690.0	2723.2	1.233	.010	2.640	2.752
TETANUS	.131	.013	3413.0	3511.4	1.860	.099	.105	.157
MDCARE	.310	.017	3413.0	3511.4	1.780	.056	.276	.345
DIAR24	.074	.005	3167.0	3252.3	1.019	.067	.064	.084
DIAR1W	.157	.008	3167.0	3252.3	1.195	.051	.141	.174
ORST	.358	.026	494.0	512.0	1.123	.071	.307	.409
EVBORN	4.063	.053	3446.0	3504.9	1.100	.013	3.957	4.169
SURVIV	3.390	.043	3446.0	3504.9	1.146	.013	3.304	3.476
HCARD	.628	.017	630.0	655.7	.893	.027	.593	.662
BCG	.571	.036	399.0	411.5	1.430	.063	.500	.643
DPT3	.491	.033	399.0	411.5	1.318	.067	.425	.557
POLIO3	.466	.034	399.0	411.5	1.346	.072	.399	.534
MEASLES	.630	.039	399.0	411.5	1.577	.061	.553	.707

Table C.4 (continued) Sampling Errors by Place of Residence, Egypt DHS, 1988

Variable	Value (R)	Standard Error (SE)	Unweighted Number	Weighted Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
			LOWER EGYPT - URBAN					
URBAN	1.000	.000	1035.0	1018.6	.000	.000	1.000	1.000
EDUC	.318	.046	1035.0	1018.6	3.190	.145	.226	.411
BREASTF	15.198	.605	541.0	536.1	.832	.040	13.989	16.407
AMENOR	5.634	.545	541.0	536.1	.980	.097	4.545	6.724
ABSTAIN	2.405	.359	541.0	536.1	.928	.149	1.687	3.122
KMETHOD	.998	.002	963.0	951.7	.989	.002	.995	1.001
KSOURCE	.993	.002	963.0	951.7	.923	.002	.988	.998
EVUSE	.785	.014	963.0	951.7	1.044	.018	.758	.813
CUSE	.545	.025	963.0	951.7	1.574	.046	.494	.595
CUPILL	.242	.024	963.0	951.7	1.764	.101	.194	.291
CUIUD	.212	.020	963.0	951.7	1.531	.095	.172	.252
CUCOND	.040	.008	963.0	951.7	1.315	.207	.024	.057
NOMORE	.704	.015	963.0	951.7	.996	.021	.675	.734
DELAY	.117	.006	963.0	951.7	.607	.054	.104	.129
IDEAL	2.504	.043	871.0	858.7	1.406	.017	2.418	2.589
TETANUS	.148	.025	878.0	868.2	1.695	.171	.097	.199
MDCARE	.543	.045	878.0	868.2	2.163	.082	.454	.632
DIAR24	.072	.010	823.0	810.9	1.020	.132	.053	.091
DIAR1W	.162	.015	823.0	810.9	1.114	.093	.132	.192
ORST	.312	.039	127.0	131.4	.920	.124	.234	.389
EVBORN	3.441	.099	1035.0	1018.6	1.396	.029	3.242	3.639
SURVIV	3.002	.072	1035.0	1018.6	1.242	.024	2.859	3.145
HCARD	.660	.035	166.0	165.9	.958	.053	.590	.731
BCG	.748	.059	111.0	109.5	1.380	.079	.630	.866
DPT3	.648	.052	111.0	109.5	1.167	.080	.544	.752
POLIO3	.577	.048	111.0	109.5	1.028	.082	.482	.672
MEASLES	.756	.063	111.0	109.5	1.515	.084	.629	.882
			LOWER EGYPT - RURAL					
URBAN	.000	.000	2411.0	2486.3	.000	.000	.000	.000
EDUC	.078	.011	2411.0	2486.3	1.950	.136	.057	.099
BREASTF	18.376	.392	1497.0	1560.5	.927	.021	17.591	19.160
AMENOR	8.892	.451	1497.0	1560.5	1.167	.051	7.991	9.794
ABSTAIN	2.863	.274	1497.0	1560.5	1.082	.096	2.314	3.412
KMETHOD	.986	.002	2206.0	2278.1	1.016	.003	.981	.991
KSOURCE	.975	.004	2206.0	2278.1	1.184	.004	.967	.983
EVUSE	.575	.017	2206.0	2278.1	1.657	.030	.540	.610
CUSE	.356	.013	2206.0	2278.1	1.254	.036	.331	.382
CUPILL	.172	.012	2206.0	2278.1	1.461	.068	.148	.195
CUIUD	.141	.012	2206.0	2278.1	1.626	.086	.117	.165
CUCOND	.008	.002	2206.0	2278.1	.846	.196	.005	.012
NOMORE	.667	.013	2206.0	2278.1	1.315	.020	.641	.694
DELAY	.097	.007	2206.0	2278.1	1.084	.070	.084	.111
IDEAL	2.784	.033	1819.0	1864.5	1.119	.012	2.718	2.851
TETANUS	.125	.015	2535.0	2643.2	1.898	.119	.095	.155
MDCARE	.234	.021	2535.0	2643.2	2.037	.089	.192	.275
DIAR24	.074	.006	2344.0	2441.4	1.017	.078	.063	.086
DIAR1W	.156	.009	2344.0	2441.4	1.213	.060	.137	.175
ORST	.374	.031	367.0	380.6	1.165	.084	.311	.437
EVBORN	4.318	.057	2411.0	2486.3	.935	.013	4.205	4.432
SURVIV	3.549	.049	2411.0	2486.3	1.036	.014	3.451	3.646
HCARD	.616	.019	464.0	489.9	.859	.031	.578	.655
BCG	.507	.045	288.0	302.0	1.531	.089	.417	.598
DPT3	.434	.044	288.0	302.0	1.483	.100	.347	.521
POLIO3	.426	.044	288.0	302.0	1.489	.102	.339	.513
MEASLES	.585	.048	288.0	302.0	1.623	.082	.489	.680

Table C.4 (continued) Sampling Errors by Place of Residence, Egypt DHS, 1988

Variable	Value (R)	Standard Error (SE)	Unweighted Number	Weighted Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
				UPPER EGYPT				
URBAN	.351	.026	3186.0	3264.7	3.076	.074	.299	.403
EDUC	.101	.013	3186.0	3264.7	2.479	.131	.074	.127
BREASTF	18.540	.451	2086.0	2146.5	1.245	.024	17.637	19.443
AMENOR	9.600	.356	2086.0	2146.5	1.094	.037	8.888	10.312
ABSTAIN	3.972	.307	2086.0	2146.5	1.242	.077	3.357	4.586
KMETHOD	.963	.004	2921.0	2994.7	1.259	.005	.954	.971
KSOURCE	.913	.008	2921.0	2994.7	1.501	.009	.897	.929
EVUSE	.404	.026	2921.0	2994.7	2.811	.063	.353	.455
CUSE	.221	.016	2921.0	2994.7	2.148	.075	.188	.254
CUPILL	.100	.010	2921.0	2994.7	1.765	.098	.080	.120
CUIUD	.079	.006	2921.0	2994.7	1.242	.078	.067	.092
CUCOND	.014	.003	2921.0	2994.7	1.271	.200	.008	.019
NOMORE	.490	.014	2921.0	2994.7	1.527	.029	.461	.518
DELAY	.135	.006	2921.0	2994.7	.982	.046	.122	.147
IDEAL	3.341	.052	2289.0	2340.1	1.492	.016	3.236	3.446
TETANUS	.111	.013	3385.0	3478.3	1.909	.116	.085	.137
MDCARE	.239	.014	3385.0	3478.3	1.558	.060	.210	.267
DIAR24	.070	.005	3034.0	3112.5	1.081	.072	.060	.080
DIAR1W	.163	.008	3034.0	3112.5	1.102	.047	.147	.178
ORST	.241	.024	493.0	505.8	1.227	.101	.193	.290
EVBORN	4.339	.057	3186.0	3264.7	1.040	.013	4.224	4.453
SURVIV	3.369	.046	3186.0	3264.7	1.128	.014	3.276	3.462
HCARD	.588	.021	590.0	610.1	1.033	.036	.546	.629
BCG	.352	.039	346.0	358.5	1.534	.112	.273	.430
DPT3	.378	.036	346.0	358.5	1.393	.096	.306	.451
POLIO3	.375	.037	346.0	358.5	1.426	.099	.301	.449
MEASLES	.467	.036	346.0	358.5	1.354	.078	.394	.540
				UPPER EGYPT - URBAN				
URBAN	1.000	.000	1095.0	1144.9	.000	.000	1.000	1.000
EDUC	.231	.038	1095.0	1144.9	3.006	.166	.154	.307
BREASTF	17.734	.758	586.0	622.8	1.150	.043	16.218	19.250
AMENOR	7.229	.650	586.0	622.8	1.162	.090	5.929	8.529
ABSTAIN	2.957	.452	586.0	622.8	1.108	.153	2.053	3.860
KMETHOD	.987	.006	1011.0	1057.5	1.792	.006	.975	.000
KSOURCE	.974	.009	1011.0	1057.5	1.744	.009	.956	.991
EVUSE	.676	.040	1011.0	1057.5	2.749	.060	.595	.757
CUSE	.415	.030	1011.0	1057.5	1.917	.072	.356	.475
CUPILL	.160	.014	1011.0	1057.5	1.189	.086	.133	.188
CUIUD	.176	.017	1011.0	1057.5	1.421	.097	.141	.210
CUCOND	.031	.006	1011.0	1057.5	1.153	.202	.019	.044
NOMORE	.590	.019	1011.0	1057.5	1.214	.032	.552	.627
DELAY	.116	.011	1011.0	1057.5	1.058	.092	.095	.137
IDEAL	2.923	.062	896.0	936.6	1.478	.021	2.799	3.047
TETANUS	.173	.024	958.0	1014.4	1.566	.141	.124	.221
MDCARE	.468	.039	958.0	1014.4	1.906	.084	.390	.546
DIAR24	.060	.007	903.0	955.4	.849	.115	.046	.073
DIAR1W	.162	.012	903.0	955.4	.937	.072	.139	.186
ORST	.151	.038	149.0	155.1	1.264	.250	.075	.226
EVBORN	4.042	.116	1095.0	1144.9	1.381	.029	3.811	4.273
SURVIV	3.338	.091	1095.0	1144.9	1.415	.027	3.156	3.520
HCARD	.580	.037	185.0	197.6	1.038	.064	.505	.655
BCG	.632	.074	108.0	114.6	1.601	.117	.484	.779
DPT3	.634	.068	108.0	114.6	1.485	.108	.498	.771
POLIO3	.616	.067	108.0	114.6	1.447	.109	.482	.751
MEASLES	.713	.054	108.0	114.6	1.247	.076	.605	.821

Table C.4 (continued) Sampling Errors by Place of Residence, Egypt DHS, 1988

Variable	Value (R)	Standard Error (SE)	Unweighted Number	Weighted Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
			UPPER EGYPT - RURAL					
URBAN	.000	.000	2091.0	2119.8	.000	.000	.000	.000
EDUC	.030	.007	2091.0	2119.8	1.841	.228	.017	.044
BREASTF	18.869	.555	1500.0	1523.7	1.280	.029	17.760	19.979
AMENOR	10.569	.403	1500.0	1523.7	1.020	.038	9.764	11.374
ABSTAIN	4.387	.365	1500.0	1523.7	1.198	.083	3.657	5.117
KMETHOD	.949	.006	1910.0	1937.1	1.180	.006	.937	.961
KSOURCE	.880	.011	1910.0	1937.1	1.472	.012	.858	.902
EVUSE	.256	.024	1910.0	1937.1	2.451	.096	.207	.305
CUSE	.115	.014	1910.0	1937.1	1.978	.126	.086	.144
CUPILL	.067	.011	1910.0	1937.1	1.858	.159	.046	.088
CUIUD	.027	.004	1910.0	1937.1	1.141	.158	.018	.035
CUCOND	.004	.002	1910.0	1937.1	1.060	.382	.001	.007
NOMORE	.435	.017	1910.0	1937.1	1.464	.038	.402	.468
DELAY	.145	.007	1910.0	1937.1	.885	.049	.131	.159
IDEAL	3.620	.078	1393.0	1403.5	1.559	.021	3.465	3.775
TETANUS	.086	.014	2427.0	2463.8	2.031	.165	.057	.114
MDCARE	.144	.015	2427.0	2463.8	1.719	.102	.115	.174
DIAR24	.074	.007	2131.0	2157.1	1.175	.090	.061	.087
DIAR1W	.163	.010	2131.0	2157.1	1.169	.060	.143	.182
ORST	.282	.030	344.0	350.7	1.191	.105	.222	.341
EVBORN	4.499	.065	2091.0	2119.8	.907	.014	4.369	4.629
SURVIV	3.386	.053	2091.0	2119.8	.999	.016	3.280	3.492
HCARD	.591	.025	405.0	412.6	1.030	.043	.541	.642
BCG	.220	.039	238.0	243.9	1.447	.176	.143	.298
DPT3	.258	.043	238.0	243.9	1.519	.167	.172	.344
POLIO3	.262	.043	238.0	243.9	1.513	.164	.176	.348
MEASLES	.351	.044	238.0	243.9	1.416	.125	.264	.439

Table C.5 Sampling Errors by Age Group, Egypt DHS, 1988

Variable	Value (R)	Standard Error (SE)	Unweighted Number	Weighted Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
				AGE 15-24				
URBAN	.329	.024	1820.0	1838.8	2.188	.073	.281	.377
EDUC	.165	.013	1820.0	1838.8	1.520	.080	.139	.191
BREASTF	18.335	.481	1580.0	1596.5	1.154	.026	17.374	19.297
AMENOR	8.122	.393	1580.0	1596.5	1.072	.048	7.337	8.907
ABSTAIN	3.596	.267	1580.0	1596.5	.968	.074	3.061	4.131
KMETHOD	.976	.003	1767.0	1784.9	.840	.003	.970	.982
KSOURCE	.947	.006	1767.0	1784.9	1.149	.006	.935	.959
EVUSE	.329	.016	1767.0	1784.9	1.397	.048	.297	.360
CUSE	.200	.012	1767.0	1784.9	1.300	.062	.175	.224
CUPILL	.091	.008	1767.0	1784.9	1.218	.092	.074	.107
CUIUD	.086	.008	1767.0	1784.9	1.225	.095	.070	.102
CUCOND	.004	.002	1767.0	1784.9	.993	.368	.001	.007
NOMORE	.260	.011	1767.0	1784.9	1.080	.043	.237	.282
DELAY	.316	.012	1767.0	1784.9	1.063	.037	.293	.340
IDEAL	2.809	.042	1544.0	1549.8	1.366	.015	2.724	2.893
TETANUS	.123	.010	2194.0	2226.4	1.238	.084	.103	.144
MDCARE	.309	.017	2194.0	2226.4	1.390	.055	.275	.343
DIAR24	.091	.007	1990.0	2013.4	1.059	.076	.078	.105
DIAR1W	.201	.010	1990.0	2013.4	1.127	.052	.180	.222
ORST	.308	.023	401.0	404.7	.973	.075	.262	.354
EVBORN	1.463	.033	1820.0	1838.8	1.108	.023	1.397	1.529
SURVIV	1.297	.030	1820.0	1838.8	1.147	.023	1.237	1.357
HCARD	.631	.023	512.0	523.4	1.100	.037	.584	.678
BCG	.516	.037	327.0	330.3	1.329	.071	.442	.590
DPT3	.498	.035	327.0	330.3	1.271	.070	.428	.568
POLIO3	.478	.037	327.0	330.3	1.357	.078	.403	.552
MEASLES	.616	.033	327.0	330.3	1.242	.054	.550	.683
				AGE 25-34				
URBAN	.510	.024	3246.0	3225.7	2.740	.047	.462	.558
EDUC	.222	.015	3246.0	3225.7	2.072	.068	.192	.253
BREASTF	16.646	.372	2571.0	2571.5	1.169	.022	15.901	17.391
AMENOR	8.307	.349	2571.0	2571.5	1.230	.042	7.609	9.006
ABSTAIN	2.999	.242	2571.0	2571.5	1.234	.081	2.515	3.482
KMETHOD	.986	.002	3099.0	3079.5	1.197	.003	.981	.991
KSOURCE	.969	.004	3099.0	3079.5	1.149	.004	.962	.976
EVUSE	.643	.016	3099.0	3079.5	1.835	.025	.612	.675
CUSE	.418	.014	3099.0	3079.5	1.550	.033	.390	.445
CUPILL	.169	.009	3099.0	3079.5	1.274	.051	.152	.187
CUIUD	.189	.010	3099.0	3079.5	1.394	.052	.169	.208
CUCOND	.027	.004	3099.0	3079.5	1.311	.140	.020	.035
NOMORE	.636	.010	3099.0	3079.5	1.182	.016	.616	.657
DELAY	.121	.006	3099.0	3079.5	1.054	.051	.109	.134
IDEAL	2.777	.031	2645.0	2613.8	1.309	.011	2.715	2.840
TETANUS	.117	.010	4376.0	4388.4	1.597	.082	.098	.137
MDCARE	.363	.018	4376.0	4388.4	1.960	.051	.326	.399
DIAR24	.063	.004	4044.0	4044.9	.986	.062	.055	.071
DIAR1W	.150	.006	4044.0	4044.9	1.040	.040	.138	.162
ORST	.257	.019	605.0	607.2	1.002	.073	.219	.294
EVBORN	3.431	.056	3246.0	3225.7	1.534	.016	3.318	3.543
SURVIV	2.940	.043	3246.0	3225.7	1.475	.015	2.853	3.026
HCARD	.598	.018	786.0	794.5	1.049	.031	.561	.635
BCG	.599	.033	472.0	474.9	1.454	.055	.533	.666
DPT3	.519	.029	472.0	474.9	1.244	.055	.462	.577
POLIO3	.503	.027	472.0	474.9	1.153	.053	.450	.557
MEASLES	.625	.031	472.0	474.9	1.359	.049	.563	.686

Table C.5 (continued) Sampling Errors by Age Group, Egypt DHS, 1988

Variable	Value (R)	Standard Error (SE)	Unweighted Number	Weighted Number	Design Effect	Relative Error	Confidence Limits R-2SE	Confidence Limits R+2SE
				AGE 35-49				
URBAN	.534	.020	3845.0	3846.5	2.452	.037	.494	.573
EDUC	.115	.013	3845.0	3846.5	2.560	.115	.089	.141
BREASTF	17.506	.524	1026.0	1050.3	.956	030	16.457	18.554
AMENOR	7.968	.452	1026.0	1050.3	.999	.057	7.063	8.872
ABSTAIN	3.216	.354	1026.0	1050.3	1.110	.110	2.508	3.925
KMETHOD	.981	.003	3353.0	3356.5	1.062	.003	.975	.986
KSOURCE	.956	.005	3353.0	3356.5	1.416	.005	.946	.966
EVUSE	.692	.016	3353.0	3356.5	2.020	.023	.659	.724
CUSE	.437	.014	3353.0	3356.5	1.688	.033	.409	.466
CUPILL	.171	.008	3353.0	3356.5	1.290	.049	.154	.188
CUIUD	.167	.009	3353.0	3356.5	1.431	.055	.149	.185
CUCOND	.032	.003	3353.0	3356.5	1.118	.107	.025	.038
NOMORE	.760	.010	3353.0	3356.5	1.292	.013	.741	.779
DELAY	.011	.002	3353.0	3356.5	.976	.162	.007	.014
IDEAL	3.027	.040	2724.0	2711.9	1.307	.013	2.948	3.106
TETANUS	.097	.008	1979.0	2015.2	1.013	.082	.081	.112
MDCARE	.349	.021	1979.0	2015.2	1.689	.061	.307	.392
DIAR24	.056	.005	1824.0	1855.5	1.002	.098	.045	.066
DIAR1W	.126	.008	1824.0	1855.5	1.061	.067	.109	.143
ORST	.325	.037	224.0	233.3	1.164	.115	.251	.400
EVBORN	5.729	.085	3845.0	3846.5	1.849	.015	5.559	5.900
SURVIV	4.536	.056	3845.0	3846.5	1.622	.012	4.423	4.649
HCARD	.578	.034	269.0	274.9	1.116	.058	.511	.646
BCG	.547	.041	151.0	159.0	1.016	.075	.465	.630
DPT3	.474	.041	151.0	159.0	.998	.086	.393	.555
POLIO3	.428	.039	151.0	159.0	.968	.091	.350	.506
MEASLES	.596	.044	151.0	159.0	1.086	.073	.509	.683

Appendix D

SURVEY QUESTIONNAIRES

EGYPT DEMOGRAPHIC AND HEALTH SURVEY

HOUSEHOLD SCHEDULE

IDENTIFICATION	
GOVERNORATE ..... PSU/SEGMENT NO. ..... KISM/MARKAZ..... BUILDING NO. ..... SHIAKHA/VILLAGE ..... HOUSE NO. ..... URBAN ....1 RURAL ....2 HOUSEHOLD NO. ..... MATERNAL MRT/ANTHROPOMETRY SUBSAMPLE YES..1 NO..2 NAME OF HOUSEHOLD HEAD ..... ADDRESS IN DETAIL	GOVERNORATE ☐☐ PSU/SEGMENT NO. ☐☐☐☐☐☐ HOUSEHOLD NO. ☐☐☐ SUBSAMPLE ☐

INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
DATE				MONTH ☐☐ YEAR ☐☐
TEAM				☐☐
INTERVIEWER'S NAME				☐☐
LENGTH OF HOUSEHOLD INTERVIEW (MINUTES)				☐☐☐
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 EDITOR	OFFICE EDITOR	CODER	DATA ENTRY OPERATOR
NAME				
DATE				
SIGNATURE				
	☐☐	☐☐	☐☐	☐☐

☐ ADDRESSED CHECKED ☐ HOUSEHOLD REVISITED

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	RELATIONSHIP TO HOUSEHOLD HEAD				RESIDENCE		SEX
001	002	006	007	008	009	010	011	012
	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. AFTER LISTING NAMES, ASK QUESTIONS 003-005 TO BE SURE THAT YOU HAVE A COMPLETE LISTING. THEN GO ON TO 006-024.	What is (NAME)'s relationship to the head of the household?	Generation Number FOR CODER	Couple Number FOR CODER	Relationship to Head FOR CODER	Does (NAME) usually live here?	Was (NAME) present last night?	Is (NAME) male or female?
						YES NO	YES NO	M F
01			☐	☐	☐☐	1 2	1 2	1 2
02			☐	☐	☐☐	1 2	1 2	1 2
03			☐	☐	☐☐	1 2	1 2	1 2
04			☐	☐	☐☐	1 2	1 2	1 2
05			☐	☐	☐☐	1 2	1 2	1 2
06			☐	☐	☐☐	1 2	1 2	1 2
07			☐	☐	☐☐	1 2	1 2	1 2
08			☐	☐	☐☐	1 2	1 2	1 2
09			☐	☐	☐☐	1 2	1 2	1 2
10			☐	☐	☐☐	1 2	1 2	1 2

IF MORE THAN 10 HOUSEHOLD MEMBERS, RECORD ADDITIONAL NAMES ON CONTINUATION SHEET. TICK HERE IF CONTINUATION SHEET USED. ☐

Just to make sure that I have a complete listing:

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

004 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 ☐

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

AGE	MARITAL STATUS	ELIGIBLE WOMEN	EDUCATIONAL STATUS			
	ONLY FOR PERSONS FIFTEEN YEARS AND OLDER		ONLY FOR THOSE THREE YEARS AND OLDER	ONLY FOR PERSONS ATTENDING SCHOOL IN PAST OR CURRENTLY		ONLY FOR PERSONS NEVER ATTENDING SCHOOL OR NOT COMPLETING PRIMARY
013	014	015	016	017	018	019
How old was (NAME) at his/ her last birthday?	What is (NAME)'s current marital status? 1 MARRIED 2 WIDOWED 3 DIVORCED 4 SIGNED CONTRACT BUT NOT YET CONSUMMATED FIRST MARRIAGE 5 NEVER MARRIED	CIRCLE LINE NUMBER FOR WOMEN ELIGIBLE FOR INTERVIEW, I.E., MARRIED, WIDOWED OR DIVORCED WOMEN 15-49 YEARS OLD PRESENT IN THE HOUSEHOLD LAST NIGHT	Has (NAME) attended school in the past or is he/ she currently going to school? 1 YES, IN PAST 2 YES, CURRENTLY 3 NO, NEVER ATTENDED	What was the highest LEVEL that he/she was admitted to? 1 NURSERY 2 PRIMARY 3 PREPARATORY 4 SECONDARY 5 UPPER INTERMEDIATE 6 UNIVERSITY 7 MORE THAN UNIVERSITY	What was the highest GRADE that he/she successfully completed at that level?	Can (NAME) read a newspaper or a letter, for example?
IN YEARS				LEVEL	GRADE	YES NO
☐☐	☐	01	1 2 3	☐	☐	1 2
☐☐	☐	02	1 2 3	☐	☐	1 2
☐☐	☐	03	1 2 3	☐	☐	1 2
☐☐	☐	04	1 2 3	☐	☐	1 2
☐☐	☐	05	1 2 3	☐	☐	1 2
☐☐	☐	06	1 2 3	☐	☐	1 2
☐☐	☐	07	1 2 3	☐	☐	1 2
☐☐	☐	08	1 2 3	☐	☐	1 2
☐☐	☐	09	1 2 3	☐	☐	1 2
☐☐	☐	10	1 2 3	☐	☐	1 2

TOTAL NUMBER ELIGIBLE WOMEN ☐☐

024 COUNT THE NUMBER OF ELIGIBLE WOMEN FOR WHOM LINE NUMBERS NUMBERS ARE CIRCLED IN 015. ENTER THE TOTAL IN THE BOXES AT THE BOTTOM OF THE COLUMN IN 015. THEN GO TO 025.

OCCUPATION		WORK STATUS	
ONLY FOR PERSONS TWELVE YEARS AND OLDER		ONLY FOR PERSONS 12 YEARS AND OLDER WHO WORK	
020	021	022	023
What is the main work that (NAME) does?	OCCUPATIONAL GROUP FOR CODER	Did (NAME) work during the last month?	Is (NAME) usually paid in cash or in kind for the work he/she does? 1 CASH 2 KIND 3 BOTH 4 NOT PAID
		YES NO	
_____	☐☐	1 2	1 2 3 4
_____	☐☐	1 2	1 2 3 4
_____	☐☐	1 2	1 2 3 4
_____	☐☐	1 2	1 2 3 4
_____	☐☐	1 2	1 2 3 4
_____	☐☐	1 2	1 2 3 4
_____	☐☐	1 2	1 2 3 4
_____	☐☐	1 2	1 2 3 4
_____	☐☐	1 2	1 2 3 4
_____	☐☐	1 2	1 2 3 4

025 CHECK THE COVER TO DETERMINE IF THE HOUSEHOLD IS INCLUDED IN THE MATERNAL MORTALITY/ANTHROPOMETRY SUBSAMPLE AND MARK THE APPROPRIATE RESPONSE BELOW. THEN FOLLOW THE SKIP INSTRUCTIONS.

YES ☐ → NO ☐ ——>034

MATERNAL MORTALITY

ASK QUESTIONS OF ALL PERSONS AGED 15 YEARS AND OLDER PRESENT IN THE HOUSEHOLD THE DAY OF THE INTERVIEW. AFTER COMPLETING THE QUESTIONS FOR ALL ELIGIBLE RESPONDENTS, GO ON TO QUESTION 034.

	026	027	028	029	030	031	032	033	033A
	CIRCLE LINE NO. AND RECORD NAMES OF ALL PERSONS AGED 15 AND OLDER. IF PRESENT IN HOUSEHOLD, COMPLETE 027-033A AS APPROPRIATE. IF THE ELIGIBLE PERSON IS NOT PRESENT, OBTAIN INFORMATION FROM ANOTHER HOUSEHOLD MEMBER IF POSSIBLE. IF CANNOT OBTAIN INFORMATION FROM ANYONE ELSE, ENTER '97' IN 027 AND CONTINUE WITH NEXT ELIGIBLE PERSON.	How many sisters have you (he/she) ever had who were born to the same mother? IF NONE ENTER '00' AND SKIP TO 033A.	How many of these sisters born to the same mother were married at any time? IF NONE ENTER '00' AND SKIP TO 033A.	How many of these ever-married sisters are still alive? IF NONE ENTER '00'.	How many of these ever-married sisters have died? IF NONE ENTER '00' AND SKIP TO 033A.	How many of these ever-married sisters died while they were pregnant? IF NONE ENTER '00'.	How many of these ever-married sisters died while they were giving birth? IF NONE ENTER '00'.	How many of these ever-married sisters died within six weeks after the end of a pregnancy? IF NONE ENTER '00'.	ENTER THE CODE IN THE BOX FOR THE PERSON ANSWERING QUESTIONS 027-033. 1 ELIGIBLE RESP 2 RESP'S BROTHER 3 RESP'S SISTER 4 OTHER RELATIVE 5 OTHER NON-RELATIVE
NO.	NAME	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	CODE
01		☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐
02		☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐
03		☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐
04		☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐
05		☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐
06		☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐
07		☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐
08		☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐
09		☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐
10		☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐	☐

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
034	What type of dwelling unit does your household live in?	APARTMENT.....01 FREE STANDING HOUSE.....02 OTHER _____.03 (SPECIFY)	
035	Is your dwelling owned by your household or not?	OWNED.....01 OWNED JOINTLY.....02 RENTED.....03 OTHER _____.04 (SPECIFY)	
036	MAIN MATERIAL OF THE FLOOR.	PARQUET OR POLISHED WOOD.....1 TILE (CERAMIC, CEMENT, ETC).....2 WOOD AND TILE.....3 CEMENT.....4 EARTH/SAND.....5 OTHER _____.6 (SPECIFY)	
037	How many rooms are there in your dwelling (excluding bathroom(s), kitchen, and stairway areas)?	NUMBER OF ROOMS..... ☐☐	
038	Is there a special room used only for cooking inside or outside your dwelling?	YES, INSIDE DWELLING.....1 YES, OUTSIDE DWELLING.....2 NO.....3	
039	Is the place used for cooking shared with other households?	YES.....1 NO.....2	
040	Does the dwelling unit have electrical connections in all or only part of the dwelling unit?	YES, IN ALL.....1 YES, IN PART.....2 HAS NO ELECTRICAL CONNECTIONS...3	
041	What is the major source of drinking water for members of your household?	TAP.....01 WELL WITH PUMP.....02 WELL WITHOUT PUMP.....03 TANKER TRUCK/OTHER VENDOR.....04 NILE/CANALS.....05 OTHER _____.06 (SPECIFY)	
042	Where is the major source of the water that you use for drinking located?	WITHIN DWELLING ITSELF.....1 OUTSIDE DWELLING WITHIN SAME BUILDING.....2 IN COURTYARD.....3 ELSEWHERE _____..4 (SPECIFY)	
043	Do you buy your drinking water from the government or from a private source?	GOVERNMENT.....1 PRIVATE SOURCE.....2 OBTAIN FREE.....3	
044	How long does it take you to go to the source, get water and come back?	MINUTES..... ☐☐☐ ON PREMISES.....966	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
045	Do you obtain water for household use other than drinking (e.g., handwashing, cooking, etc) from the same source?	YES.....1 NO.....2	——>048
046	What is the major source of water for household use other than drinking?	TAP.....01 WELL WITH PUMP.....02 WELL WITHOUT PUMP.....03 TANKER TRUCK/OTHER VENDOR.....04 NILE/CANALS.....05 OTHER _____.06 (SPECIFY)	
047	Where is the major source of the water that you use for household use other than drinking located?	WITHIN DWELLING ITSELF.....1 OUTSIDE DWELLING WITHIN SAME BUILDING.....2 IN COURTYARD.....3 ELSEWHERE _____..4 (SPECIFY)	
048	Does your household use water which you have stored for regular use?	YES.....1 NO.....2	
049	What kind of toilet facilities does the household have?	MODERN.....1 TRADITIONAL WITH TANK FLUSH.....2 TRADITIONAL WITH BUCKET FLUSH...3 PIT.....4 BUCKET.....5 OTHER _____.6 (SPECIFY) NO FACILITIES.....7——>053	>051
050	Is the toilet linked to a public sewer, a canal (river) or a pit?	PUBLIC SEWER.....1 CANAL/RIVER.....2 PIT.....3	
051	Where are the toilet facilities located?	WITHIN DWELLING ITSELF.....1 OUTSIDE DWELLING WITHIN SAME BUILDING.....2 IN COURTYARD.....3 ELSEWHERE _____..4 (SPECIFY)	
052	Do you share the toilet facilities with any other household?	YES.....1 NO.....2	
053	Are any of the following items found in the dwelling unit: A radio with cassette recorder? A black and white television? A color television? A video?	YES NO RADIO WITH CASSETTE.....1 2 BLACK AND WHITE TELEVISION.1 2 COLOR TELEVISION.....1 2 VIDEO 1 2	
054	Are any of the following appliances found in the dwelling unit: An electric fan? A sewing machine? A refrigerator? A gas/electric cooking stove? A water heater? A washing machine?	YES NO ELECRIC FAN.....1 2 SEWING MACHINE.....1 2 REFRIGERATOR.....1 2 GAS/ELECTRIC COOKING STOVE.1 2 WATER HEATER.....1 2 WASHING MACHINE.....1 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
055	Do you or any member of your household own any of the following: Bicycle? Motorcycle? Private car? Transport equipment (truck, van, bus, etc.)? Residential buildings other than the dwelling unit? Commercial/industrial buildings (shop, factory, etc)? Farm land? Other land? Livestock (horses, goats, sheep, etc.)? Poultry? Farm implements (tractors, etc.)?	YES NO BICYCLE.....1 2 MOTORCYCLE.....1 2 PRIVATE CAR.....1 2 TRANSPORT EQUIPMENT.....1 2 OTHER RESIDENTIAL UNITS....1 2 COMMERCIAL/INDUST BLDNGS...1 2 FARM LAND.....1 2 NONFARM LAND.....1 2 LIVESTOCK.....1 2 POULTRY.....1 2 FARM IMPLEMENTS.....1 2	

OBSERVATIONS

THANK THE RESPONDENT FOR PARTICIPATING IN THE SURVEY. FILL IN THE APPROPRIATE RESPONSES IN QUESTIONS QUESTIONS 056-057. BE SURE TO REVIEW THE QUESTIONNAIRE FOR COMPLETENESS BEFORE LEAVING THE HOUSEHOLD.

056	RECORD THE LINE NUMBER OF THE RESPONDENT FOR THE HOUSEHOLD INTERVIEW.	LINE NUMBER..... ☐☐
057	DEGREE OF COOPERATION.	POOR.....1 FAIR.....2 GOOD.....3 VERY GOOD.....4

058 INTERVIEWER'S COMMENTS:

_____

_____

059 FIELD EDITOR'S COMMENTS:

_____

_____

060 SUPERVISOR'S COMMENTS:

_____

_____

061 OFFICE EDITOR'S COMMENTS:

_____

_____

EGYPT DEMOGRAPHIC AND HEALTH SURVEY

WOMAN QUESTIONNAIRE

IDENTIFICATION	
GOVERNORATE ..... PSU/SEGMENT NO.	GOVERNORATE ☐☐
KISM/MARKAZ..... BUILDING NO.	PSU/SEGMENT NO. ☐☐☐☐☐☐
SHIAKHA/VILLAGE ..... HOUSE NO.	HOUSEHOLD NO. ☐☐☐
URBAN ....1 RURAL ....2 HOUSEHOLD NO.	SUBSAMPLE ☐
MATERNAL MRT/ANTHROPOMETRY SUBSAMPLE YES..1 NO..2	
NAME OF HOUSEHOLD HEAD	
ADDRESS IN DETAIL	
NAME OF WOMAN	LINE NUMBER
LINE NUMBER OF WOMAN	☐☐

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

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

	FIELD EDITOR	OFFICE EDITOR	CODER	DATA ENTRY OPERATOR
NAME				
DATE				
SIGNATURE				
	☐☐	☐☐	☐☐	☐☐

SECTION 1. RESPONDENT'S BACKGROUND

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
101	RECORD THE TIME.	HOUR..... ☐☐ MINUTES..... ☐☐	
102	How old were you at your last birthday?	AGE IN COMPLETED YEARS..... ☐☐	
103	In what month and year were you born? COMPARE AND CORRECT 102 AND/OR 103 IF INCONSISTENT.	MONTH..... ☐☐ DON'T KNOW MONTH.....98 YEAR..... ☐☐ DON'T KNOW YEAR.....98	
104	Are you now married, widowed or divorced?	MARRIED.....1 WIDOWED.....2 DIVORCED.....3	
105	How many times have you been married?	NO. TIMES MARRIED..... ☐	
106	In what month and year did you first enter into a marriage contract?	MONTH..... ☐☐ DON'T KNOW MONTH.....98 YEAR..... ☐☐ DON'T KNOW YEAR.....98	→108
107	How old were you when you first entered into a marriage contract?	AGE..... ☐☐	
108	In what month and year did your first husband and you begin to live together (consummate your marriage)?	MONTH..... ☐☐ DON'T KNOW MONTH.....98 YEAR..... ☐☐ DON'T KNOW YEAR.....98	→110
109	How old were you when your first husband and you began to live together (consummate your marriage)?	AGE..... ☐☐	
110	Have you attended school in the past or are you currently attending school?	YES, ATTENDED IN THE PAST.....1 YES, ATTENDING CURRENTLY.....2 NO, NEVER ATTENDED.....3	→112

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
111 111A	What was the highest level to which you were admitted at school? CIRCLE CODE FOR LEVEL. What was the highest grade which you successfully completed at that level? ENTER GRADE IN BOX.	LEVEL GRADE PRIMARY.....1 ☐ PREPARATORY.....2 ☐ SECONDARY.....3 ☐ UPPER INTERMEDIATE.....4 ☐ UNIVERSITY.....5 ☐ MORE THAN UNIVERSITY_____..6 ☐ (SPECIFY)	→114
112	Can you read a newspaper, a magazine or a letter, for example?	YES.....1 NO.....2	→115
113	Can you write a letter, for example?	YES.....1 NO.....2	
114	Do you usually read a newspaper or magazine at least once per week?	YES.....1 NO.....2	
115	How many hours on average do you listen to the radio each day? IF LISTENS LESS THAN ONE HOUR, ENTER '00'.	NUMBER OF HOURS PER DAY.... ☐☐ ALL OF THE TIME.....96 NEVER.....97 NOT SURE/DON'T KNOW.....98	
116	How many hours on average do you watch television each day? IF WATCHES LESS THAN ONE HOUR, ENTER '00'.	NUMBER OF HOURS PER DAY.... ☐☐ ALL OF THE TIME.....96 NEVER.....97 NOT SURE/DON'T KNOW.....98	
117	What is your religion?	MOSLEM.....1 CHRISTIAN.....2 OTHER_____.3 (SPECIFY)	
118	Before you married your (first) husband, did you yourself ever do any work for which you were paid in cash?	YES.....1 NO.....2	→121
119	When you were working then, what did you do with most of the money that you earned?	MOST TO FAMILY.....1 MOST FOR SELF.....2 DIVIDED EQUALLY BETWEEN SELF AND FAMILY.....3 OTHER_____.4 (SPECIFY)	
120	Was the money used mainly to prepare for marriage?	YES, MAINLY FOR MARRIAGE PREPARATION.....1 NO, FOR OTHER THINGS.....2	
121	Since you were first married, have you ever done any work for cash?	YES.....1 NO.....2	→125
122	Are you now doing any work for cash?	YES.....1 NO.....2	→125
123	What do you do with most of the money that you earn?	MOST TO FAMILY.....1 MOST FOR SELF.....2 DIVIDE EQUALLY BETWEEN SELF AND FAMILY.....3 OTHER_____.4 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
124	In this work, do you work on your own, for a family member, or for someone else or some other organization?	ON HER OWN.....1 FOR A FAMILY MEMBER.....2 FOR SOMEONE ELSE/SOME OTHER ORGANIZATION.....3	→127
125	Do you assist any family member in his/her work?	YES.....1 NO.....2	→127
126	Do you assist someone not in the family in his/her	YES.....1 NO.....2	→131
127	What kind of work do you mainly do? WRITE THE RESPONSE EXACTLY AS GIVEN.	_____ ☐☐	
128	In this work, are you in contact only with family members, or only with persons not in the family, or with both?	FAMILY MEMBERS ONLY.....1 NONFAMILY ONLY.....2 BOTH.....3	
129	How many hours did you work in the past week?	HOURS WORKED..... ☐☐	
130	CHECK 122: NOT WORKING FOR CASH ☐ → 131 WORKING FOR CASH ☐		→132
131	If a good opportunity was available, would you like to work for cash in the future?	YES.....1 NO.....2	
132	Would you approve or disapprove of your daughter(s) working if a good opportunity for earning cash was available? IF ANSWER IS "HAS NO DAUGHTER", PROBE: If you had a daughter, would you approve or disapprove of her working if a good opportunity for earning cash	APPROVE.....1 DISAPPROVE.....2 NOT SURE/DON'T KNOW.....8	
133	How long have you been living continuously in (NAME OF MOTHER VILLAGE OR CITY IN WHICH INTERVIEW OCCURS)? IF LESS THAN ONE YEAR, ENTER '00'.	NO. YEARS..... ☐☐ ALWAYS.....96 VISITOR.....97	→201 →135
134	Just before you moved here, did you live in a village in a town, in Cairo or in Alexandria?	VILLAGE.....1 TOWN.....2 CAIRO.....3 ALEXANDRIA.....4	
135	For most of the time until you were 12 years old, did you live in a village, in a town, in Cairo or in Alexandria?	VILLAGE.....1 TOWN.....2 CAIRO.....3 ALEXANDRIA.....4	

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 had a live birth?	YES.....1 NO.....2	——>206
202	Do you have any sons or daughters to whom you have given birth and who are now living at home 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 to whom you have given birth and who are alive but do not live at home 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, AND 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 ☐ v NO ☐ -> PROBE AND CORRECT 201-209 AS NECESSARY		
210	CHECK 208: ONE OR MORE BIRTHS ☐ v NO BIRTHS ☐		——>222

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 213. RECORD TWINS ON SEPARATE LINES AND MARK WITH A BRACKET. IF THERE ARE MORE THAN SEVEN BIRTHS CONTINUE RECORDING THE NAMES ON THE NEXT PAGE. THEN ASK 214 THROUGH 219 AS APPROPRIATE FOR EACH BIRTH. AFTER RECORDING THE ANSWERS TO QUESTIONS 214-219 FOR ALL THE BIRTHS THE WOMAN HAS HAD, GO TO 220.

212 LINE NO.	213 What name was given to your (first, next) baby?	214 Is (NAME) a boy or a girl?	215 In what month and year was (NAME) born? PROBE: What is his/her birthday? OR: In what season?	216 Is (NAME) still alive?	217 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.	218 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	219 IF ALIVE: Is he/she living with you?
01	_____ (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 218)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2 (GO TO NEXT BIRTH)
02	_____ (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 218)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2 (GO TO NEXT BIRTH)
03	_____ (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 218)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2 (GO TO NEXT BIRTH)
04	_____ (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 218)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2 (GO TO NEXT BIRTH)
05	_____ (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 218)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2 (GO TO NEXT BIRTH)
06	_____ (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 218)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2 (GO TO NEXT BIRTH)
07	_____ (NAME)	BOY 1 GIRL 2	MONTH... YEAR....	YES 1 NO 2 → (GO TO 218)	DAYS.....1 MONTHS...2 YEARS....3 (GO TO NEXT BIRTH)	AGE IN YEARS..	YES 1 NO 2 (GO TO NEXT BIRTH)

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

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

NUMBERS ARE SAME ☐ ↓ NUMBERS ARE DIFFERENT ☐→ (PROBE AND RECONCILE)

INTERVIEWER: FOR EACH LIVE BIRTH: YEAR OF BIRTH IS RECORDED
FOR EACH LIVE CHILD: CURRENT AGE IS RECORDED
FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED ☐☐☐

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
221	In addition to the pregnancies which ended in live births, have you had any other pregnancy which ended in a miscarriage, still birth or an abortion? PROBE: Any pregnancy which lasted only a few weeks or months?	YES.....1 NO.....2	——>223 ——>226
222	Have you had any pregnancy which ended in a miscarriage, still birth or abortion? PROBE: Any other pregnancy which lasted only a few weeks or months?	YES.....1 NO.....2	——>226
223	How many pregnancies ended in still births? IF NONE, ENTER '00'.	STILL BIRTHS..... ☐☐	
224	How many pregnancies ended in miscarriages and abortions? IF NONE, ENTER '00'.	MISCARRIAGES/ABORTIONS.... ☐☐	
225	SUM 223 AND 224 AND ENTER TOTAL BELOW: Just to be sure that I have this right you had TOTAL _____ pregnancies which ended in miscarriages, still births or abortions. Is that correct? YES ☐ NO ☐ (PROBE AND CORRECT 221 TO 224 AS NECESSARY)		
226	Are you pregnant now?	YES.....1 NO.....2 NOT SURE/DON'T KNOW.....8	->232
227	For how many months have you been pregnant?	MONTHS..... ☐☐	
228	Did you see anyone for a check on this pregnancy?	YES.....1 NO.....2	——>231
229	Whom did you see? PROBE FOR TYPE OF PERSON AND RECORD MOST QUALIFIED.	DOCTOR.....1 TRAINED NURSE.....2 DAYA.....3 OTHER_____.4 (SPECIFY)	
230	Was it a routine (regular) checkup or did you only go because there was some medical problem?	ROUTINE CHECKUP.....1 WENT BECAUSE OF MEDICAL PROBLEM.2 OTHER_____.3 (SPECIFY)	
231	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 NOT SURE/DON'T KNOW.....8	>233
232	How long ago did your last menstrual period start?	DAYS AGO.....1 ☐☐ WEEKS AGO.....2 ☐☐ MONTHS AGO.....3 ☐☐ YEARS AGO.....4 ☐☐ BEFORE LAST BIRTH.....969 NEVER MENSTRUATED.....979	——>234
233	At what age did you have your first menstrual period?	AGE..... ☐☐	
234	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 to be careful to avoid 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_____.6 (SPECIFY) NOT SURE/DON'T KNOW.....8	

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 IT IS NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 OR 2 CIRCLED IN 302, ASK 303-305 BEFORE GOING ON 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? (WRITE THE RESPONSE AS GIVEN AND THEN ENTER THE CODE FROM BELOW)	305 In your opinion, what is the main problem, if any, with using (METHOD)? (WRITE THE RESPONSE AS GIVEN AND THEN ENTER THE CODE FROM BELOW)
01 PILL Women can take a pill every day.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	RESPONSE ☐☐	RESPONSE ☐☐
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	RESPONSE ☐☐	RESPONSE ☐☐
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	RESPONSE ☐☐	RESPONSE ☐☐
05 FOAM/JELLY Women can place a sponge, suppository, jelly or cream inside them before intercourse.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	RESPONSE ☐☐	RESPONSE ☐☐
06 CONDOM Men can use a rubber sheath during sexual intercourse.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	RESPONSE ☐☐	RESPONSE ☐☐
07 FEMALE STERILIZATION Women can deliberately chose to have an operation to avoid having any more children.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	RESPONSE ☐☐	RESPONSE ☐☐
08 MALE STERILIZATION Men can deliberately chose to have an operation to avoid having any more children.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	RESPONSE ☐☐	RESPONSE ☐☐
09 WITHDRAWAL Men can be careful and pull out before climax.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 → ☐☐ NO.....2		RESPONSE ☐☐
10 SAFE PERIOD 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 safe period? ☐☐ RESPONSE	RESPONSE ☐☐
11 PROLONGED BREASTFEEDING Women can prolong the time that they breastfeed their babies to delay the next pregnancy.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 → ☐☐ NO.....2		RESPONSE ☐☐
12 ANY OTHER METHODS? Have you heard of any other ways or methods that women or men can use to avoid pregnancy? (SPECIFY)	YES/SPONT.....1 NO.....3 (ASK 303-305 FOR EACH METHOD FOR WHICH A 1 OR 2 IS CIRCLED IN 302)	YES.....1 NO.....2	CODES FOR 304 01 GOVERNMENT FP CLINIC 02 PRIVATE VOLUNTARY FP CLINIC 03 GOVERNMENT MCH CENTER 04 GOVERNMENT HOSPITAL 05 PRIVATE DOCTOR/CLINIC 06 PHARMACY 07 HOME DELIVERED 08 OTHER (SPECIFY) 13 NOWHERE 98 NOT SURE/DON'T KNOW	CODES FOR 305 02 NOT EFFECTIVE 04 HUSBAND DISAPPROVES 05 OTH RELAT DISAPPROVE 06 RELIGIOUS PROHIBITIONS 07 SIDE EFFECTS FOR WOMAN 08 SIDE EFFECTS FOR CHILD 09 METHOD PERMANENT 11 DIFFICULT TO OBTAIN 12 COSTS TOO MUCH 13 INCONVENIENT TO USE 18 OTHER (SPECIFY) 96 NO PROBLEM 98 NOT SURE/DON'T KNOW

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
306	CHECK 303: NOT A SINGLE "YES" (NEVER USED) ☐ v / AT LEAST ONE (EVER USED) ☐		→309
307	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES.....1 NO.....2	→401
308	What have you used or done? _____ (SPECIFY) CHECK AND CORRECT 302-303 AND OBTAIN INFORMATION FOR 304 TO 306 AS NECESSARY.		
309	How many living children, if any, did you have when you first did something or used a method to avoid getting pregnant? IF NONE, CIRCLE CODE '00'.	NUMBER OF CHILDREN..... ☐☐ NONE.....00	→311
310	How many living sons did you have? How many living daughters did you have? IF NONE, ENTER '00'.	NUMBER OF SONS..... ☐☐ NUMBER OF DAUGHTERS..... ☐☐	
311	When you first began to use family planning, did you want to have another child but at a later time or did you want no more children at all?	WANTED CHILD LATER.....1 DID NOT WANT ANOTHER CHILD.....2 OTHER _____.....3	
312	Did you talk about family planning with your husband before first using it?	YES.....1 NO.....2	
313	Would you say that the use of family planning for the first time was mainly your idea, mainly your husband's idea, or a joint idea?	MAINLY RESPONDENT'S IDEA.....1 MAINLY HUSBAND'S IDEA.....2 JOINT IDEA.....3	
314	Before you decided to use family planning for the first time, did you talk about whether you should use family planning with any of the following persons: your mother? your husband's mother? your sister(s) or your husband's sister(s)? other relatives (Specify)? friends/neighbors? a doctor? anyone else (Specify)?	YES NO RESP MOTHER.....1 2 HUSBAND'S MOTHER.....1 2 RESP/HUSB'S SISTER(S).....1 2 OTHER RELATIVES.....1 2 v _____ (SPECIFY) FRIENDS/NEIGHBORS.....1 2 A DOCTOR.....1 2 OTHER.....1 2 v _____ (SPECIFY)	
315	What was the first family planning method that you and your husband ever used?	PILL.....01 IUD.....02 INJECTIONS.....03 NORPLANT.....04 FOAM/JELLY.....05 CONDOM.....06 FEMALE STERILIZATION.....07 MALE STERILIZATION.....08 WITHDRAWAL.....09 SAFE PERIOD.....10 PROLONGED BREASTFEEDING.....11 OTHER _____.....12 (SPECIFY)	→317 →318

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
316	Who obtained the first cycle of pills that you and your husband ever used?	HOME DELIVERED.....1 RESPONDENT.....2 HUSBAND.....3 OTHER_____..4 (SPECIFY)	——>318
317	Where did you (or your husband) obtain (FIRST METHOD USED) the first time that you ever used it?	GOVERNMENT FP CLINIC.....01 PRIVATE VOLUNTARY FP CLINIC....02 GOVERNMENT MCH CENTER.....03 GOVERNMENT HOSPITAL.....04 PRIVATE DOCTOR/CLINIC.....05 PHARMACY.....06 OTHER_____.08 (SPECIFY) NOT SURE/DON'T KNOW.....98	
318	Did you talk with your husband about which particular method to use before you began using (FIRST METHOD USED)?	YES.....1 NO.....2	
319	Would you say that the choice to use (FIRST METHOD USED) the first time was mainly your choice, mainly your husband's choice or a joint choice?	MAINLY RESPONDENT'S CHOICE.....1 MAINLY HUSBAND'S CHOICE.....2 JOINT CHOICE.....3	
320	Before you decided to adopt (FIRST METHOD USED) for the first time, did you seek advice about which particular method to use from any of the following persons: a doctor? your mother? your husband's mother? your sister(s) or your husband's sister(s)? other relatives (Specify)? friends/neighbors? anyone else (Specify)?	YES NO A DOCTOR.....1 2 RESP MOTHER.....1 2 HUSBAND'S MOTHER.....1 2 RESP/HUSB'S SISTER(S).....1 2 OTHER RELATIVES.....1 2 (SPECIFY) FRIENDS/NEIGHBORS.....1 2 OTHER.....1 2 (SPECIFY)	
321	CHECK 104: CURRENTLY MARRIED ☐ ↓ WIDOWED/DIVORCED ☐		——>401
322	CHECK 226: NOT PREGNANT OR UNSURE ☐ ↓ PREGNANT ☐		——>401
323	Are you currently doing something or using any method to avoid getting pregnant?	YES.....1 NO.....2	——>401
324	Which method are you using?	PILL.....01 IUD.....02 INJECTIONS.....03 NORPLANT.....04 FOAM/JELLY.....05 CONDOM.....06 FEMALE STERILIZATION.....07 MALE STERILIZATION.....08 WITHDRAWAL.....09 SAFE PERIOD.....10 PROLONGED BREASTFEEDING.....11 OTHER_____.12 (SPECIFY)	——>344 ——>352 ——>401

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
325	CHECK 315: FIRST METHOD EVER USED WAS NOT PILL ☐ ↓ FIRST METHOD EVER USED WAS PILL ☐		→328
326	Now I would like to ask some questions about the first time you ever used the pill. Who obtained the first cycle of pills that you used then--you or your husband?	HOME DELIVERED.....1 RESPONDENT.....2 HUSBAND.....3 OTHER_____..4 (SPECIFY)	→328
327	Where did you (or your husband) obtain the pill the first time that you ever used it?	GOVERNMENT FP CLINIC.....01 PRIVATE VOLUNTARY FP CLINIC....02 GOVERNMENT MCH CENTER.....03 GOVERNMENT HOSPITAL.....04 PRIVATE DOCTOR/CLINIC.....05 PHARMACY.....06 OTHER_____.08 (SPECIFY) NOT SURE/DON'T KNOW.....98	
328	Now I would like to ask some questions about the brand of pill that you are using now. Please show me the cycle (packet) of pills that you actually are using now. RECORD NAME OF BRAND EXACTLY AS SHOWN ON CYCLE (PACKET).	BRAND NAME _____ ☐☐ NOT ABLE TO SHOW.....97	→332
329	COUNT AND RECORD THE TOTAL NUMBER OF PILLS IN THE ENTIRE CYCLE (PACKET) REGARDLESS OF THE PILLS ALREADY TAKEN.	21 .....1 28 2	
330	OBSERVE SEQUENCE IN WHICH PILLS TAKEN FROM CYCLE (PACKET) AND CIRCLE CORRECT CODE.	PILLS MISSING IN SEQUENCE.....1 PILLS MISSING OUT OF SEQUENCE...2 NO PILLS MISSING.....3	→333
331	Why haven't you been taking the pills (in sequence)?	NOT NECESSARY TO TAKE IN SEQUENCE.....01 FOLLOWED INSTRUCTIONS ON PACKET/GIVEN BY SOURCE.....02 JUST STARTING CYCLE.....03 TAKE ONLY AS NEEDED.....04 HUSBAND AWAY/ILL.....05 OTHER_____.06 (SPECIFY)	→333
332	Why don't you have a cycle (packet) of pills available?	HAS PERIOD, DOESN'T NEED YET...01 COST TOO MUCH TO BUY CYCLE.....02 FORGOT TO BUY NEXT CYCLE.....03 RESTING FROM PILL.....04 HUSBAND AWAY/ILL.....05 MISPLACED/CAN'T FIND.....06 OTHER_____.07 (SPECIFY)	
333	At any time in the past month, have you experienced any of the following (READ EACH PROBLEM): Had side effects or illness? Had spotting or bleeding more than once? Period did not come when expected? Ran out of pills? Forgot to take pill or misplaced package? Any other problem (Specify)?	YES NO SIDE EFFECTS/ILLNESS.....1 2 SPOTTING/BLEEDING.....1 2 PERIOD DID NOT COME.....1 2 RAN OUT OF PILLS.....1 2 FORGOT TO TAKE/MISPLACED...1 2 OTHER.....1 2 ↓ _____ (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
334	At any time in the past month, did you fail to take a pill for even one day because of the problems that you mentioned or for any other reason: IF YES: What was the main reason you stopped taking the pill?	SIDE EFFECTS/ILLNESS.....01 SPOTTING/BLEEDING.....02 PERIOD DID NOT COME.....03 RAN OUT OF PILLS.....04 FORGOT TO TAKE/MISPLACED.....05 HUSBAND AWAY.....06 OTHER_____.07 (SPECIFY) NEVER STOPPED TAKING PILL.....97	
335	How many days ago did you take the last pill? IF RESPONSE IS TODAY, ENTER '00' DAYS AGO.	NUMBER DAYS AGO..... ☐☐ MORE THAN 30 DAYS AGO.....97 NOT SURE/DON'T KNOW.....98	→338
336	CHECK 335: MORE THAN 2 DAYS AGO ☐ ↓ 2 DAYS AGO OR LESS ☐		→338
337	Why haven't you taken the pills in the last few days?	WAITING TO START NEXT CYCLE....01 DOESN'T HAVE CYCLE.....02 TAKE ONLY AS NEEDED.....03 FORGOT TO TAKE .....04 RESTING FROM PILL.....05 HUSBAND AWAY/ILL.....06 OTHER_____.07 (SPECIFY)	
338	After you finished your last pill cycle (packet), when did (will) you start the next cycle (packet)? WRITE RESPONSE EXACTLY AS GIVEN BELOW AND THEN CIRCLE THE APPROPRIATE CODE. _____	DAY AFTER PERIOD ENDED.....01 FIVE DAYS AFTER PERIOD BEGAN...02 DAY AFTER FINISHING 1ST PACKET.03 SEVEN DAYS AFTER FINISHING 1ST PACKET.....04 OTHER_____.05 (SPECIFY)	
339	Just about everyone misses taking the pill sometime. What do you do when you forget to take one pill?	TOOK ONE PILL THE NEXT DAY.....01 TOOK TWO PILLS THE NEXT DAY.....02 USED ANOTHER METHOD.....03 OTHER_____.04 (SPECIFY) NEVER FORGOT.....97 NOT SURE/DON'T KNOW.....98	
340	During the past twelve months whenever you obtained the pill, have you always gotten the same brand or have you sometimes obtained another brand?	ALWAYS SAME BRAND.....1 SOMETIMES DIFFERENT BRAND.....2 OTHER_____.3 (SPECIFY) NOT SURE/DON'T KNOW.....8	
341	How many cycles (packets) of the pill do you usually get when you obtain the pill?	NUMBER OF CYCLES..... ☐☐ NOT SURE/DON'T KNOW.....98	
342	How much does one cycle of pills usually cost you?	COST (IN PIASTRES)..... ☐☐☐ NOT SURE/DON'T KNOW.....998	
343	Would you buy a cycle of pills if it cost: (IF YES, CONTINUE WITH NEXT AMOUNT. IF NO, SKIP TO 351 FOR AMOUNT 'MORE THAN 2 POUNDS', SKIP TO 351 IF YES OR NO). 25 piastres per cycle? 50 piastres per cycle? 75 piastres per cycle? 1 pound per cycle? 2 pounds per cycle? More than 2 pounds per cycle?	YES NO 25 PIASTRES.....1 2 50 PIASTRES.....1 2 75 PIASTRES.....1 2 1 POUND.....1 2 →351 2 POUNDS.....1 2 >2 POUNDS.....1 2 →351	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
344	How can a woman know that the IUD is correctly placed without making a special trip to the clinic/doctor?	FEEL THREAD WITH FINGER.....1 OTHER_____...2 (SPECIFY) NOT SURE/DON'T KNOW.....8	
345	Where was the IUD which you are using now inserted?	GOVERNMENT FP CLINIC.....01 PRIVATE VOLUNTARY FP CLINIC....02 GOVERNMENT MCH CENTER.....03 GOVERNMENT HOSPITAL.....04 PRIVATE DOCTOR/CLINIC.....05 OTHER_____..08 (SPECIFY) NOT SURE/DON'T KNOW.....98	→348
346	Now I would like to get some information on what you thought about the service you received at (PLACE WHERE IUD WAS INSERTED). Did it cost too much? Was the staff courteous? Did you have to wait too long? Were you satisfied with the information that you were given about the IUD? Was the clinic (facility) clean and well maintained? Was there anything (else) that you did not like about the services that you received?	YES NO COST TOO MUCH.....1 2 STAFF COURTEOUS.....1 2 WAIT TOO LONG.....1 2 SATISFIED WITH INFO.....1 2 CLEAN AND WELL MAINTAINED..1 2 OTHER _____..1 2 (SPECIFY)	
347	How much did it cost to have the IUD inserted? RECORD RESPONSE IN POUNDS, ROUNDING DOWN TO THE NEAREST POUND.	COST (IN POUNDS)..... ☐☐☐ NOT SURE/DON'T KNOW.....998	
348	Did you get the IUD at the place where you had it inserted or did you get it somewhere else?	YES, FROM SAME PLACE.....1 NO, FROM SOMEWHERE ELSE.....2	→401
349	Where did you get the IUD from?	GOVERNMENT FP CLINIC.....01 PRIVATE VOLUNTARY FP CLINIC....02 GOVERNMENT MCH CENTER.....03 GOVERNMENT HOSPITAL.....04 PRIVATE DOCTOR/CLINIC.....05 PHARMACY.....06 OTHER_____..08 (SPECIFY) NOT SURE/DON'T KNOW.....98	
350	How much did it cost to get the IUD at (PLACE WHERE IUD WAS BOUGHT)? RECORD RESPONSE IN POUNDS, ROUNDING DOWN TO THE NEAREST POUND.	COST (IN POUNDS)..... ☐☐☐ NOT SURE/DON'T KNOW.....998	→401
351	Now I would like to ask some questions about the last cycle (packet) of the pill which you bought. Who obtained the pill the last time?	HOME DELIVERED.....1 RESPONDENT.....2 HUSBAND.....3 OTHER_____..4 (SPECIFY)	→401
352	Where did you (or your husband) obtain (CURRENT METHOD) the last time?	GOVERNMENT FP CLINIC.....01 PRIVATE VOLUNTARY FP CLINIC....02 GOVERNMENT MCH CENTER.....03 GOVERNMENT HOSPITAL.....04 PRIVATE DOCTOR/CLINIC.....05 PHARMACY.....06 OTHER_____..08 (SPECIFY) NOT SURE/DON'T KNOW.....98	→401

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
353	Now I would like to get some information on what you thought about the service you received at (PLACE WHERE CURRENT METHOD WAS OBTAINED). Did it cost too much? Was the staff courteous? Did you have to wait too long? Were you satisfied with the information that you were given about the method? Was the clinic (facility) clean and well maintained? Was there anything (else) that you did not like about the services that you received?	YES NO COST TOO MUCH.....1 2 STAFF COURTEOUS.....1 2 WAIT TOO LONG.....1 2 SATISFIED WITH INFO.....1 2 CLEAN AND WELL MAINTAINED..1 2 OTHER _____..1 2 (SPECIFY)	

SECTION 4. CONTRACEPTIVE USE HISTORY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
401	CHECK 226: NOT PREGNANT OR UNSURE ☐	PREGNANT ☐	>422
402	CHECK 306: EVER USED ANY METHOD ☐	NEVER USED A METHOD ☐	>421
403	CHECK 323 AND 324: CURRENTLY USING CONTRACEPTION ☐ _____ (WRITE METHOD)	NOT CURRENTLY USING CONTRACEPTION ☐	>414
404	Now I would like to ask you some questions about the length of time that you have been using your (CURRENT METHOD) without interruption. In what month and year did you begin the most recent period of continuous use of (CURRENT METHOD)?	DATE MONTH..... ☐☐ DK MONTH.....98 YEAR..... ☐☐ DK YEAR.....98	>406
405	How long have you been using (CURRENT METHOD) (this time) without interruption?	DURATION: MONTHS..... ☐☐ YEARS..... ☐☐	
406	Have you experienced any problems from using (CURRENT METHOD)?	YES.....1 NO.....2	>408
407	What is the main problem you experienced?	METHOD FAILED/NOT EFFECTIVE....02 HUSBAND DISAPPROVED.....04 OTH REL DISAPPROVED.....05 SIDE EFFECTS FOR RESPONDENT....07 SIDE EFFECTS FOR CHILD.....08 METHOD PERMANENT.....09 DIFFICULT TO OBTAIN.....11 COSTS TOO MUCH.....12 INCONVENIENT TO USE.....13 OTHER_____..19 (SPECIFY) NOT SURE/DON'T KNOW.....98	
408	Since your last birth (you married), have you used any other method or done anything else before (CURRENT METHOD) to avoid getting pregnant?	YES.....1 NO.....2	>421
409	Which was the last method you used (BEFORE CURRENT METHOD)?	PILL.....01 IUD.....02 INJECTIONS.....03 NORPLANT.....04 FOAM/JELLY.....05 CONDOM.....06 MALE STERILIZATION.....08 WITHDRAWAL.....09 SAFE PERIOD.....10 PROLONGED BREASTFEEDING.....11 OTHER_____.12 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
410	In what month and year did you start using (METHOD BEFORE CURRENT) (the last time)?	DATE MONTH..... ☐☐ DK MONTH.....98 YEAR..... ☐☐ DK YEAR.....98	→412
411	How long after your last birth (you married) did you start using (METHOD BEFORE CURRENT) (the last time)?	MONTHS..... ☐☐ YEARS..... ☐☐	
412	For how long had you been using (METHOD BEFORE CURRENT) before you stopped using it (the last time)?	DURATION MONTHS..... ☐☐ YEARS..... ☐☐	
413	What was the main reason you stopped using (METHOD BEFORE CURRENT) then?	TO GET PREGNANT/WANTED CHILD...01 METHOD FAILED/NOT EFFECTIVE....02 HUSBAND DISAPPROVED.....04 OTH RELATIVES DISAPPROVE.....05 RELIGIOUS PROHIBITIONS.....06 SIDE EFFECTS FOR RESP.....07 SIDE EFFECTS FOR CHILD.....08 DIFFICULT TO OBTAIN.....11 COSTS TOO MUCH.....12 INCONVENIENT TO USE.....13 DECIDED TO USE ANOTHER METHOD..14 FATALISTIC.....15 INFREQUENT SEX.....16 OTHER_____..19 (SPECIFY) NOT SURE/DON'T KNOW.....98	→421
414	CHECK 208: ANY BIRTHS? YES ☐ ↓ NO ☐		→416
415	Now I would like to ask questions about the last time that you used a family planning method. Since your last birth have you done anything or used any method to avoid getting pregnant?	YES.....1 NO.....2	→421
416	Which was the last family planning method that you used?	PILL.....01 IUD.....02 INJECTIONS.....03 NORPLANT.....04 FOAM/JELLY.....05 CONDOM.....06 MALE STERILIZATION.....08 WITHDRAWAL.....09 SAFE PERIOD.....10 PROLONGED BREASTFEEDING.....11 OTHER_____.12 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
417	In what month and year did you start using (METHOD) (last time)?	DATE MONTH..... ☐☐ DK MONTH.....98 YEAR..... ☐☐ DK YEAR.....98	→419
418	How long after your last birth did you start using (METHOD) (the last time)?	MONTHS..... ☐☐ YEARS..... ☐☐	
419	For how long had you been using (METHOD) before you stopped using it (last time)?	DURATION MONTHS..... ☐☐ YEARS..... ☐☐	
420	What was the main reason you stopped using (METHOD) then?	TO GET PREGNANT/WANTED CHILD...01 METHOD FAILED/NOT EFFECTIVE....02 HUSBAND DISAPPROVED.....04 OTH RELATIVES DISAPPROVE.....05 RELIGIOUS PROHIBITIONS.....06 SIDE EFFECTS FOR RESP.....07 SIDE EFFECTS FOR CHILD.....08 DIFFICULT TO OBTAIN.....11 COSTS TOO MUCH.....12 INCONVENIENT TO USE.....13 DECIDED TO USE ANOTHER METHOD..14 FATALISTIC.....15 INFREQUENT SEX.....16 OTHER_____..19 (SPECIFY) NOT SURE/DON'T KNOW.....98	
421	CHECK 215: HAD BIRTH SINCE JANUARY 1983 ☐ ↓ NO BIRTH SINCE JANUARY 1983 ☐		→501

422 FILL IN INFORMATION IN 423 TO 425. THEN USING THE INFORMATION ENTERED IN 423 AND 424 COMPLETE THE TABLE ON THE TOP OF THE NEXT PAGE. ASK 426-434 AS APPROPRIATE FOR THE INTERVAL BEFORE A CURRENT PREGNANCY (IF THE RESPONDENT IS PREGNANT) EACH BIRTH INTERVAL (PERIOD BETWEEN SUCCESSIVE BIRTHS).

423 CHECK 226 FOR PREGNANCY STATUS

424 CHECK 215 FOR BIRTHS OCCURRING SINCE JANUARY 1983. IF THE WOMAN HAD ONE OR MORE BIRTHS SINCE JANUARY 1983, CHECK 212, 213 AND 216. BEGINNING WITH THE LAST BIRTH, RECORD THE LINE NUMBER, NAME AND STATUS OF ALL BIRTHS AT THE TOP OF THE APPROPRIATE COLUMNS BELOW. RECORD THE NAMES OF TWINS IN THE SAME COLUMN AND TREAT AS ONE BIRTH.

	423	424			
		☐☐	☐☐	☐☐	☐☐
425 CHECK 306: EVER USED METHOD ☐ → (ASK 426-434 FOR EACH COLUMN) NEVER USED METHOD ☐ → (ASK 433 FOR EACH COLUMN)	CURRENTLY PREGNANT YES ☐ NO ☐ →	LAST BIRTH NAME ______ ALIVE ☐ DEAD ☐	NEXT-TO-LAST BIRTH NAME ______ ALIVE ☐ DEAD ☐	SECOND-FROM-LAST NAME ______ ALIVE ☐ DEAD ☐	THIRD-FROM-LAST NAME ______ ALIVE ☐ DEAD ☐
426 Now I would like to get some more information about your use of family planning during the last five years. FOR INTERVAL BEFORE A CURRENT PREGNANCY, ASK: Before you became pregnant (but after you had NAME OF LAST BIRTH), did you do anything or use any method, even for a short time, to avoid getting pregnant? FOR EACH BIRTH INTERVAL ASK: In the interval before you gave birth to NAME (but after you had NAME OF PRECEDING BIRTH), did you do anything, or use any method, even for a short time, to avoid getting pregnant?	YES..............1 NO...............2 (SKIP TO 433)	YES............1 NO.............2 (SKIP TO 433)	YES............1 NO.............2 (SKIP TO 433)	YES............1 NO.............2 (SKIP TO 433)	YES............1 NO.............2 (SKIP TO 433)
427 What was the last method you used then?	PILL............01 IUD.............02 INJECTIONS......03 NORPLANT........04 FOAM/JELLY......05 CONDOM..........06 MALE STER.......08 WITHDRAWAL......09 SAFE PERIOD.....10 PROLNGD BRSTFDNG 11 OTHER ________ 12 (SPECIFY)	PILL..........01 IUD...........02 INJECTIONS....03 NORPLANT......04 FOAM/JELLY....05 CONDOM........06 MALE STER.....08 WITHDRAWAL....09 SAFE PERIOD...10 PROLNGD BRFD..11 OTHER ______.12 (SPECIFY)	PILL..........01 IUD...........02 INJECTIONS....03 NORPLANT......04 FOAM/JELLY....05 CONDOM........06 MALE STER.....08 WITHDRAWAL....09 SAFE PERIOD...10 PROLNGD BRFD..11 OTHER ______.12 (SPECIFY)	PILL..........01 IUD...........02 INJECTIONS....03 NORPLANT......04 FOAM/JELLY....05 CONDOM........06 MALE STER.....08 WITHDRAWAL....09 SAFE PERIOD...10 PROLNGD BRFD..11 OTHER ______.12 (SPECIFY)	PILL..........01 IUD...........02 INJECTIONS....03 NORPLANT......04 FOAM/JELLY....05 CONDOM........06 MALE STER.....08 WITHDRAWAL....09 SAFE PERIOD...10 PROLNGD BRFD..11 OTHER ______.12 (SPECIFY)

THE HEADINGS AT THE TOP OF THE TABLE BELOW SHOULD BE THE SAME AS THOSE IN THE TABLE ON THE PRECEDING PAGE. WHEN RECORDING RESPONSES, BE SURE THAT YOU ENTER THE ANSWERS IN THE CORRECT COLUMN.

LINE NUMBER FROM 212	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
	CURRENTLY PREGNANT YES [ ] NO [ ] →	LAST BIRTH NAME________ ALIVE [ ] DEAD [ ]	NEXT-TO-LAST BIRTH NAME________ ALIVE [ ] DEAD [ ]	SECOND-FROM-LAST NAME________ ALIVE [ ] DEAD [ ]	THIRD-FROM-LAST NAME________ ALIVE [ ] DEAD [ ]
428 In what month and year did you start using (METHOD) then?	DATE MONTH...... [ ][ ] DK MONTH........98 YEAR....... [ ][ ] (SKIP TO 430) DK YEAR.........98	DATE MONTH..... [ ][ ] DK MONTH.......98 YEAR...... [ ][ ] (SKIP TO 430) DK YEAR........98	DATE MONTH..... [ ][ ] DK MONTH.......98 YEAR...... [ ][ ] (SKIP TO 430) DK YEAR........98	DATE MONTH..... [ ][ ] DK MONTH.......98 YEAR...... [ ][ ] (SKIP TO 430) DK YEAR........98	DATE MONTH..... [ ][ ] DK MONTH.......98 YEAR...... [ ][ ] (SKIP TO 430) DK YEAR........98
429 How long after the birth (NAME OF PRECEDING BIRTH) did you begin to use (METHOD) then?	MONTHS........ [ ][ ] YEARS......... [ ][ ]	MONTHS.... [ ][ ] YEARS..... [ ][ ]	MONTHS.... [ ][ ] YEARS..... [ ][ ]	MONTHS.... [ ][ ] YEARS..... [ ][ ]	MONTHS.... [ ][ ] YEARS..... [ ][ ]
430 For how long had you been using (METHOD) before you stopped using it then?	DURATION MONTHS........ [ ][ ] YEARS......... [ ][ ]	DURATION MONTHS.... [ ][ ] YEARS..... [ ][ ]	DURATION MONTHS.... [ ][ ] YEARS..... [ ][ ]	DURATION MONTHS.... [ ][ ] YEARS..... [ ][ ]	DURATION MONTHS.... [ ][ ] YEARS..... [ ][ ]
431 Did you become pregnant while you were still using LAST METHOD)?	YES................1 (SKIP TO 434) NO.................2	YES............1 (SKIP TO 434) NO.............2	YES............1 (SKIP TO 434) NO.............2	YES............1 (SKIP TO 434) NO.............2	YES............1 (SKIP TO 434) NO.............2
432 What was the main reason you stopped using (LAST METHOD)?	TO GET PREGNANT...01 (GO TO NEXT COLUMN OR, IF NO BIRTH, GO TO 501) METHOD FAILED.....02 HUSB DISAPPR......04 OTH REL DISAPPR...05 RELIGIOUS PROHIB..06 SIDE EFFECTS-RESP.07 SIDE EFFECTS-CHLD.08 DIFF TO OBTAIN....11 COSTS TOO MUCH....12 INCONVENT TO USE..13 TO USE OTH METH...14 FATALISTIC........15 INFREQUENT SEX....16 OTHER__________.19 (SPECIFY) DON'T KNOW........98	TO GET PREG...01 (GO TO NEXT COL OR, IF NO OTHER BIRTH, GO TO 501) METH FAILED...02 HUSB DISAPRVD.04 OTH REL DISAP.05 RELIG PROHIB..06 SIDE EFFT RSP.07 SIDE EFFT CHD.08 DIFF TO OBT...11 COST TOO MUCH.12 INCONVENIENT..13 USE OTH METH..14 FATALISTIC....15 INFREQ SEX....16 OTHER_______.19 (SPECIFY) DON'T KNOW....98	TO GET PREG...01 (GO TO NEXT COL OR, IF NO OTHER BIRTH, GO TO 501) METH FAILED...02 HUSB DISAPRVD.04 OTH REL DISAP.05 RELIG PROBHIB.06 SIDE EFFT RSP.07 SIDE EFFT CHD.08 DIFF TO OBT...11 COST TOO MUCH.12 INCONVENIENT..13 USE OTH METH..14 FATALISTIC....15 INFREQ SEX....16 OTHER_______.19 (SPECIFY) DON'T KNOW....98	TO GET PREG...01 (GO TO NEXT COL OR, IF NO OTHER BIRTH, GO TO 501) METH FAILED...02 HUSB DISAPRVD.03 OTH REL DISAP.04 RELIG PROBHIB.05 SIDE EFFT RSP.06 SIDE EFFT CHD.08 DIFF TO OBT...11 COST TOO MUCH.12 INCONVENIENT..13 USE OTH METH..14 FATALISTIC....15 INFREQ SEX....16 OTHER_______.19 (SPECIFY) DON'T KNOW....98	TO GET PREG...01 (GO TO 501) METH FAILED...02 HUSB DISAPRVD.04 OTH REL DISAP.05 RELIG PROBHIB.06 SIDE EFFT RSP.07 SIDE EFFT CHD.08 DIFF TO OBT...11 COST TOO MUCH.12 INCONVENIENT..13 USE OTH METH..14 FATALISTIC....15 INFREQ SEX....16 OTHER_______.19 (SPECIFY) DON'T KNOW....98

THE HEADINGS AT THE TOP OF THE TABLE BELOW SHOULD BE THE SAME AS THOSE IN THE TABLE ON THE PRECEDING PAGE. WHEN RECORDING RESPONSES, BE SURE THAT YOU ENTER THE ANSWERS IN THE CORRECT COLUMN.

LINE NUMBER FROM 212	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
	CURRENTLY PREGNANT YES [ ] NO [ ] →	LAST BIRTH NAME____ ALIVE [ ] DEAD [ ]	NEXT-TO-LAST BIRTH NAME____ ALIVE [ ] DEAD [ ]	SECOND-FROM-LAST NAME____ ALIVE [ ] DEAD [ ]	THIRD-FROM-LAST NAME____ ALIVE [ ] DEAD [ ]
433 At the time you became pregnant (with NAME), 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 (ALL GO TO 426 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 501)	THEN...........1 LATER..........2 NO MORE........3 (ALL GO TO 426 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 501)	THEN...........1 LATER..........2 NO MORE........3 (ALL GO TO 426 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 501)	THEN...........1 LATER..........2 NO MORE........3 (ALL GO TO 426 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 501)	THEN...........1 LATER..........2 NO MORE........3 (ALL GO TO 501)
434 Did you want to have that child but at a later time, or not have another child at all?	HAVE CHILD LATER...1 NOT HAVE CHILD.....2 (ALL GO TO 426 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 501)	HAVE LATER.....1 NOT HAVE CHILD.2 (ALL GO TO 426 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 501)	HAVE LATER.....1 NOT HAVE CHILD.2 (ALL GO TO 426 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 501)	HAVE LATER.....1 NOT HAVE CHILD.2 (ALL GO TO 426 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 501)	HAVE LATER.....1 NOT HAVE CHILD.2 (ALL GO TO 501)

SECTION 5: FAMILY PLANNING AND CHILDBEARING ATTITUDES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
501	CHECK 104: CURRENTLY MARRIED ☐ → WIDOWED/ DIVORCED ☐		>513
502	CHECK 226: NOT PREGNANT OR UNSURE ☐ → PREGNANT ☐		>506
503	CHECK 323 AND 324: NOT CURRENTLY USING CONTRACEPTION ☐ → CURRENTLY USING CONTRACEPTION ☐		>511
504	If you became 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	>506
505	What is the main reason that you are not using a method to avoid pregnancy?	OPPOSED TO FAMILY PLANNING.....03 HUSBAND DISAPPROVES.....04 OTHER REL DISAPPROVE.....05 RELIGIOUS PROHIBITIONS.....06 SIDE EFFECTS FOR RESP.....07 SIDE EFFECTS FOR CHILD.....08 LACK OF KNOWLEDGE.....10 DIFFICULT TO OBTAIN METH(S)....11 COST TOO MUCH.....12 INCONVENIENT TO USE.....13 FATALISTIC.....15 INFREQUENT SEX.....16 POSTPARTUM/BREASTFEEDING.....17 MENOPAUSAL/SUBFECUND.....18 OTHER _____ (SPECIFY) .19 NOT SURE/DON'T KNOW.....98	
506	Do you intend to use a method to avoid pregnancy at any time in the future?	YES.....1 NO.....2 NOT SURE/DON'T KNOW.....8	>510
507	Which method would you prefer to use?	PILL.....01 IUD.....02 INJECTIONS.....03 NORPLANT.....04 FOAM/JELLY.....05 CONDOM.....06 FEMALE STERILIZATION.....07 MALE STERILIZATION.....08 WITHDRAWAL.....09 SAFE PERIOD.....10 PROLONGED BREASTFEEDING.....11 OTHER _____ (SPECIFY) .12 NOT SURE/DON'T KNOW.....98	
508	When do you plan to begin using (METHOD)?	WITHIN NEXT 12 MONTHS/1 YEAR....1 WITHIN NEXT 2-3 YEARS.....2 AFTER THREE YEARS OR MORE.....3 NOT SURE/DON'T KNOW.....8	
509	How many additional children would you like to have before using (METHOD)? IF NONE, WRITE '00'.	NUMBER..... ☐☐	
510	Have you ever talked about family planning with your husband?	YES.....1 NO.....2	>512
511	How often have you talked with your husband about family planning in the last twelve months?	NEVER.....1 ONCE.....2 TWO TO THREE TIMES.....3 FOUR TIMES OR MORE.....4	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
512	In your opinion, in general, does your husband approve or disapprove of couples using a method to avoid pregnancy?	APPROVES.....1 CONDITIONALLY APPROVES.....2 DISAPPROVES.....3 NOT SURE/DON'T KNOW.....8	
513	In general, do you approve or disapprove of a couple using a method to avoid pregnancy?	APPROVE.....1 CONDITIONALLY APPROVE.....2 DISAPPROVE.....3 NOT SURE/DON'T KNOW.....8	>515
514	In your opinion, how many children should a woman have before her husband and she begin to use family planning?	NUMBER..... ☐☐ SHOULD NOT USE.....96 NOT SURE/DON'T KNOW.....98	
515	If a couple has had the number of children that they want, do you think that it is acceptable for the woman to have an operation to prevent her from becoming pregnant again if her husband agrees?	ACCEPTABLE.....1 SOMETIMES ACCEPTABLE.....2 NOT ACCEPTABLE.....3 NOT SURE/DON'T KNOW.....8	
516	In the last month, have you heard a show or message about family planning on the radio?	YES.....1 NO.....2	>518
517	How many times did you hear a family planning show or message on the radio during the past month?	ONCE.....1 TWO OR THREE TIMES.....2 MORE THAN THREE TIMES.....3	
518	In the last month, have you seen a show or message about family planning on the television?	YES.....1 NO.....2	>524
519	How many times did you see a family planning show or message on television during the past month?	ONCE.....1 TWO OR THREE TIMES.....2 MORE THAN THREE TIMES.....3	
520	What was the last show or message about family planning which you saw on television?	ABU-KTIR FAMILY.....01 WAHID FAMILY.....02 OM EL-HANA FAMILY.....03 FARAHAT FAMILY.....04 AZIZA AND HER MOTHER.....05 PHYSICIAN AND THE AMBULANCE....06 SANA AND HER DAUGHTER.....07 SANA AND BRIDE AND BRIDEGROOM..08 SANA AND EARLY PREGNANCIES.....09 SANA AND LATE PREGNANCIES.....10 SANA AND THE PILL.....11 SANA AND OTHER METHODS (IUD, FOAM AND TABLETS).....12 SANA AND MEDICAL ADVICE.....13 OTHER _____.14 (SPECIFY) NOT SURE/DON'T KNOW.....98	>524
521	What did you particularly like about this show or message?	ADVICE ABOUT SPACING CHILDREN..01 ADVICE ABOUT WAITING TO MARRY UNTIL GIRL IS OLDER.....02 ADVICE ABOUT USING PILL.....03 ADVICE ABOUT EFFICIENT METHODS.04 ADVICE ABOUT FINANCIAL BENEFITS OF SMALL FAMILIES...05 OTHER ADVICE_____..06 (SPECIFY) PROMOTED UNDERSTANDING OF FP...10 SHOW UNDERSTOOD BY ILLITERATE..11 LIKED ACTORS/ACTRESSES.....12 SHOW INTERESTING/FUNNY.....13 OTHER_____.14 (SPECIFY) LIKED EVERYTHING.....96 DISLIKED EVERYTHING.....97 NOT SURE/DON'T KNOW.....98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
522	What did you particularly dislike about this show or message?	MOTHER'S BELIEF DAUGHTER SHOULD HAVE MANY CHILDREN.....01 MOTHER'S INTERFERENCE IN DAUGHTER'S BUSINESS.....02 MOTHER'S ARGUMENT THAT MANY CHILDREN MEAN WEALTH.....03 SHOW BIASED AGAINST LARGE FAMILIES.....04 FORCED TO WATCH SHOW CONTRARY TO OWN OPINIONS/VALUES.....05 ACTRESS'S ROLE REQUIRES HER TO ALWAYS DEMAND AGREEMENT WITH HER VIEWPOINT.....06 DISLIKED ACTORS/ACTRESSES.....07 OTHER _____.08 (SPECIFY) DISLIKED EVERYTHING.....96 LIKED EVERTHING.....97 NOT SURE/DON'T KNOW.....98	
523	Do you agree with all of the information which got from the show or message? IF NO: With what don't you agree?	DISAGREE THAT MORE CHILDREN REQUIRE GREATER EFFORT/TIME..01 DISAGREE THAT LACK OF FINANCIAL RESOURCES IS GOOD REASON FOR HAVING FEWER CHILDREN.....02 OTHER _____.03 (SPECIFY) DISAGREES WITH EVERYTHING.....96 AGREES WITH EVERYTHING.....97 NOT SURE/DON'T KNOW.....98	
524	On what (other) topics related to family planning would you like more information to be provided?	MORE INFORMATION ABOUT PILL....01 MORE INFORMATION ABOUT IUD.....02 MORE INFORMATION ABOUT OTHER METHODS_____.03 (SPECIFY) MORE INFORMATION ABOUT BENEFITS OF FAMILY PLANNING _____.04 (SPECIFY) OTHER _____.05 (SPECIFY) NOT SURE/DON'T KNOW.....98	
525	CHECK 104: CURRENTLY MARRIED ☐ ↓ WIDOWED/DIVORCED ☐		→536
526	CHECK 226: NOT PREGNANT OR UNSURE ☐ ↓ PREGNANT ☐		→528
527	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——>531 NO MORE.....2——>529 SAYS SHE CAN'T GET PREGNANT.....3——>536 UNDECIDED/DON'T KNOW.....8——>530	
528	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——>531 NO MORE.....2 UNDECIDED/DON'T KNOW.....8——>530	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
529	Would you say that you definitely do not want to have (more) children, or are you not sure?	DEFINITELY NO MORE.....1 NOT SURE.....2	>533
530	Are you more inclined toward having a (another) child or toward not having a (another) child?	HAVE ANOTHER.....1 NOT HAVE ANOTHER.....2 UNDECIDED/DON'T KNOW.....8	>532 >533
531	Would you say that you definitely want a (another) child, or are you not sure?	DEFINITELY MORE.....1 NOT SURE.....2	
532	How long would you like to wait from now before the birth of a (another) child?	DURATION MONTHS.....1 YEARS.....2 NOT SURE/DON'T KNOW.....989	
533	CHECK 226: NOT PREGNANT OR UNSURE ☐ ↓ PREGNANT ☐		>535
534	In your opinion, would your husband like to have a (another) child or would he prefer not to have any (more) children?	HAVE ANOTHER.....1 NO MORE.....2 UNDECIDED/DON'T KNOW.....8	>536
535	In your opinion, in addition to the child you are expecting, would your husband like to have a (another) child or would he prefer not to have any (more) children?	HAVE ANOTHER.....1 NO MORE.....2 UNDECIDED/DON'T KNOW.....8	
536	CHECK 202 AND 204: NO LIVING CHILDREN ☐ ↓ HAS LIVING CHILDREN ☐		>538
537	If you could choose exactly the number of children to have in your whole life, how many would that be?	NUMBER..... ☐☐ OTHER ANSWER _____ (SPECIFY) ..96 NOT SURE/DON'T KNOW.....98	>539 >540
538	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?	NUMBER..... ☐☐ OTHER ANSWER _____ (SPECIFY) ..96 NOT SURE/DON'T KNOW.....98	>539 >540
539	How many boys would that be? And how many girls would that be? IF NONE, ENTER '00'.	BOYS ..... ☐☐ GIRLS..... ☐☐ OTHER ANSWER _____ (SPECIFY) ..96 NOT SURE/DON'T KNOW.....98	
540	CHECK 104: CURRENTLY MARRIED ☐ ↓ WIDOWED/ DIVORCED ☐		>544

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
541	Have you ever talked to your husband about the exact number of children that he would have liked?	YES.....1 NO.....2	
542	If your husband could choose exactly the number of children to have in his life (without regard to the number of children that you may already have), how many do you think that would be?	NUMBER..... ☐☐ OTHER ANSWER _____ (SPECIFY) ..96 NOT SURE/DON'T KNOW.....98	>544
543	How many boys would that be? And how many girls would that be? IF NONE, ENTER '00'.	BOYS ..... ☐☐ GIRLS..... ☐☐ OTHER ANSWER _____ (SPECIFY) .96 NOT SURE/DON'T KNOW.....98	
544	In your opinion, how many children should your daughter have (regardless of the number that she may already have)? IF RESPONSE IS 'HAS NO DAUGHTER' ASK: If you were to have a daughter, in your opinion, how children should she have?	NUMBER..... ☐☐ OTHER ANSWER _____ (SPECIFY) ..96 NOT SURE/DON'T KNOW.....98	>546
545	How many boys? And how many girls? IF NONE, ENTER '00'.	BOYS ..... ☐☐ GIRLS..... ☐☐ OTHER ANSWER _____ (SPECIFY) .96 NOT SURE/DON'T KNOW.....98	
546	In your opinion, what is the most suitable age for a girl to marry?	AGE..... ☐☐ OTHER ANSWER _____ (SPECIFY) .96 NOT SURE/DON'T KNOW.....98	

SECTION 6. HUSBAND'S AND PARENTS' STATUSES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
601	Now I have some questions about your (most recent) husband. Has your husband attended school in the past or is he currently attending school?	YES, ATTENDED IN THE PAST.....1 YES, ATTENDING CURRENTLY.....2 NO, NEVER ATTENDED.....3 NOT SURE/DON'T KNOW.....8	>603
602 602A	What was the highest level to which he was admitted at school? CIRCLE CODE FOR LEVEL. What was the highest grade which he completed at that level? ENTER GRADE IN BOX.	LEVEL GRADE PRIMARY.....1 ☐ PREPARATORY.....2 ☐ SECONDARY.....3 ☐ UPPER INTERMEDIATE.....4 ☐ UNIVERSITY.....5 ☐ MORE THAN UNIVERSITY_____..6 ☐ (SPECIFY) DON'T KNOW LEVEL.....88	>605
603	Can he read a newspaper or a letter, for example?	YES.....1 NO.....2 NOT SURE/DON'T KNOW.....8	>605
604	Can (could) he write a letter, for example?	YES.....1 NO.....2 NOT SURE/DON'T KNOW.....8	
605	What kind of work does (did) your husband mainly do? WRITE THE RESPONSE EXACTLY AS GIVEN.	_____ ☐☐ _____ _____	
606	CHECK 605: DOES (DID) NOT WORK IN AGRICULTURE ☐ WORKS (WORKED) IN AGRICULTURE ☐		>608
607	Does (did) he earn a regular wage or salary?	YES.....1 NO.....2 NOT SURE/DON'T KNOW.....8	>610
608	Does (did) your husband work mainly on his or family land, or on someone else's land?	HIS/FAMILY LAND.....1 SOMEONE ELSE'S LAND.....2	>610
609	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	
610	Is (was) your husband your first cousin or other blood relative or isn't he related to you at all?	YES, FIRST COUSIN.....1 YES, OTHER RELATIVE.....2 NO, NOT A RELATIVE.....3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
611	Now I would like to ask some questions about your parents and the parents of your (first) husband. Is your mother still alive? Is your father still alive? Is your (first) husband's mother still alive? Is your (first) husband's father still alive?	YES NO DK RESPONDENT'S MOTHER..1 2 8 RESPONDENT'S FATHER..1 2 8 FIRST HUSBAND'S MOTHER.....1 2 8 FIRST HUSBAND'S FATHER.....1 2 8	
612	CHECK 611: AT LEAST ONE PARENT NOT LIVING OR DON'T KNOW ☐ ALL PARENTS ALIVE ☐		>614
613	Was (MENTION PARENTS NOT ALIVE NOW OR DK) alive at the time you began living together with your (first) husband?	YES NO DK RESPONDENT'S MOTHER.1 2 8 RESPONDENT'S FATHER.1 2 8 FIRST HUSBAND'S MOTHER.....1 2 8 FIRST HUSBAND'S FATHER.....1 2 8	
614	At the time you first married, did you and your first husband have your own home, or did you begin by living in someone else's home for at least six months?	HAD OWN HOME.....1 LIVED IN SOMEONE ELSE'S HOME FOR AT LEAST SIX MONTHS.....2 LIVED IN SOMEONE ELSE'S HOME FOR LESS THAN 6 MONTHS.....3	>616 >618
615	At the time of your (first) marriage, did anyone else live with you and your husband for at least six months?	YES.....1 NO.....2	>618
616	Were you living together with any of the following persons for at least six months after you (first) married: Your mother? Any other relatives of yours? Your (first) husband's mother? Any other relatives of your (first) husband? Anyone else (not a relative)?	YES NO RESP'S MOTHER.....1 2 RESP'S OTHER RELATIVES.....1 2 (FIRST) HUSB'S MOTHER.....1 2 OTH RELATIVES (FIRST) HUSB.1 2 OTHER _____.1 2 (SPECIFY)	
617	For about how many years did you live together at that time?	YEARS..... ☐☐ UP TO THE PRESENT.....96	
618	In how many different places have you lived for six months or more since you were first married including this place?	NUMBER OF LOCALITIES..... ☐☐	
619	CHECK 104: CURRENTLY MARRIED ☐ WIDOWED/ DIVORCED ☐		>630
620	Now I would like to talk with you about a different topic. In general if a wife disagrees with her husband should she keep quiet or speak up?	KEEP QUIET.....1 SPEAK UP.....2 NOT SURE/DON'T KNOW.....8	
621	Do you think a wife respects a husband more if he insists she accept his opinion in everything or if he listens to and accepts her opinions?	INSISTS ON HIS OPINION.....1 LISTENS AND ACCEPTS HER OPINION.2 NOT SURE/DON'T KNOW.....3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
622	In your home, does your point of view carry the same weight as your husband's, less weight than his point of view or isn't it taken into account at all?	SAME WEIGHT AS HUSBAND.....1 LESS WEIGHT THAN HUSBAND.....2 NOT TAKEN INTO ACCOUNT AT ALL...3 OTHER_____..4 (SPECIFY)	
623	Who should have the last word on the following---the husband, the wife, both, or someone else?		

	HUSB	WIFE	BOTH	OTHER
Visits to friends or relatives?	VISITS FRD/RL.1	2	3	4
Household budget?	HSHLD BUDGET..1	2	3	4
Lending or borrowing?	LEND/BORROW...1	2	3	4
Having another child?	HAVING CHILD..1	2	3	4
Children's education?	CHILD'S EDUC..1	2	3	4
Children's marriage plans?	CHILD'S MARR..1	2	3	4
Use of family planning methods?	FAM PL USE... 1	2	3	4

624	Do you go out with your husband to purchase major household items/clothing?	YES.....1 NO.....2	——>626
625	How often do you go out with him?	MORE THAN ONCE PER MONTH.....1 ONCE PER MONTH.....2 ONCE EVERY TWO MONTHS.....3 ONCE EVERY SIX MONTHS.....4 SELDOM.....5	
626	Does your husband allow you to go out alone or with your children buy household items?	YES ALONE.....1 YES WITH CHILDREN.....2 NOT ALLOWED.....3 OTHER_____..4 (SPECIFY)	
627	Do you go out with your husband to visit relatives or friends?	YES.....1 NO.....2	——>629
628	How often do you go out with him?	MORE THAN ONCE PER MONTH.....1 ONCE PER MONTH.....2 ONCE EVERY TWO MONTHS.....3 ONCE EVERY SIX MONTHS.....4 SELDOM.....5	
629	Does your husband allow you to go out alone or with your children visit relatives or friends?	YES ALONE.....1 YES WITH CHILDREN.....2 NOT ALLOWED.....3 OTHER_____..4	
630	How often do you visit with relatives, either in your or in their homes?	DAILY.....1 WEEKLY.....2 BIWEEKLY.....3 MONTHLY.....4 LESS THAN ONCE PER MONTH.....5	
631	Some say a woman's place is at home and she should not work. Do you agree or disagree?	AGREE.....1 DISAGREE.....2 NOT SURE/DON'T KNOW.....8	

701 CHECK 215:

ONE OR MORE LIVE BIRTHS SINCE JANUARY 1983 [ ] ↓ NO LIVE BIRTHS SINCE JANUARY 1983 [ ] → (SKIP TO 848)

702 CHECK 212, 213 AND 216 AND ENTER THE NAME, LINE NUMBER, AND SURVIVAL STATUS OF EACH BIRTH SINCE JANUARY 1983 AT THE TOP OF THE TABLE BELOW, BEGINNING WITH THE LAST BIRTH. RECORD NAMES OF TWINS IN SEPARATE COLUMNS. COPY THE SAME INFORMATION AT THE TOP OF THE TABLES ON THE FOLLOWING THREE PAGES. THEN ASK QUESTIONS 703-712 AS APPROPRIATE FOR BIRTH SINCE 1983 REGARDLESS OF THE SURVIVAL STATUS. COMPLETE ALL QUESTIONS FOR ONE BIRTH BEFORE GOING ON TO THE NEXT BIRTH.

LINE NUMBER FROM 212	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST	THIRD-FROM-LAST
NAME FROM 213	NAME ________	NAME ________	NAME ________	NAME ________
SURVIVAL STATUS FROM 216	ALIVE [ ] DEAD [ ]	ALIVE [ ] DEAD [ ]	ALIVE [ ] DEAD [ ]	ALIVE [ ] DEAD [ ]
703 When you were pregnant with (NAME), did you see anyone for a check on the pregnancy?	YES..............1 NO...............2 (SKIP TO 706)←	YES..............1 NO...............2 (SKIP TO 706)←	YES..............1 NO...............2 (SKIP TO 706)←	YES..............1 NO...............2 (SKIP TO 706)←
704 Whom did you see? PROBE FOR TYPE OF PERSON AND RECORD MOST QUALIFIED.	DOCTOR...........1 TRAINED NURSE/ MIDWIFE..........2 DAYA.............3 OTHER________..4 (SPECIFY)	DOCTOR...........1 TRAINED NURSE/ MIDWIFE..........2 DAYA.............3 OTHER________..4 (SPECIFY)	DOCTOR...........1 TRAINED NURSE/ MIDWIFE..........2 DAYA.............3 OTHER________..4 (SPECIFY)	DOCTOR...........1 TRAINED NURSE/ MIDWIFE..........2 DAYA.............3 OTHER________..4 (SPECIFY)
705 Did you regularly have checkups during that pregnancy or did you only have the checkup(s) because there was some medical problem?	REGULAR CHECKUPS..1 CHECKUP FOR MEDICAL PROBLEM..2 OTHER________..3 (SPECIFY)	REGULAR CHECKUPS..1 CHECKUP FOR MEDICAL PROBLEM..2 OTHER________..3 (SPECIFY)	REGULAR CHECKUPS..1 CHECKUP FOR MEDICAL PROBLEM..2 OTHER________..3 (SPECIFY)	REGULAR CHECKUPS..1 CHECKUP FOR MEDICAL PROBLEM..2 OTHER________..3 (SPECIFY)
706 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 NOT SURE/DK.......8	YES ....1 NO...............2 NOT SURE/DK.......8	YES..............1 NO...............2 NOT SURE/DK.......8	YES..............1 NO...............2 NOT SURE/DK.......8
707 Where did you give birth to this child?	AT HOME..........1 AT ANOTHER HOUSE..2 HOSPITAL/CLINIC...3 OTHER________..4 (SPECIFY)	AT HOME..........1 AT ANOTHER HOUSE..2 HOSPITAL/CLINIC...3 OTHER________..4 (SPECIFY)	AT HOME..........1 AT ANOTHER HOUSE..2 HOSPITAL/CLINIC...3 OTHER________..4 (SPECIFY)	AT HOME..........1 AT ANOTHER HOUSE..2 HOSPITAL/CLINIC...3 OTHER________..4 (SPECIFY)
708 Who assisted with the delivery of (NAME)? PROBE FOR THE TYPE OF PERSON AND RECORD THE MOST QUALIFIED.	DOCTOR...........1 TRAINED NURSE/ MIDWIFE..........2 DAYA.............3 RELATIVE.........4 OTHER________..5 (SPECIFY) NO ONE...........6	DOCTOR...........1 TRAINED NURSE/ MIDWIFE..........2 DAYA.............3 RELATIVE.........4 OTHER________..5 (SPECIFY) NO ONE...........6	DOCTOR...........1 TRAINED NURSE/ MIDWIFE..........2 DAYA.............3 RELATIVE.........4 OTHER________..5 (SPECIFY) NO ONE...........6	DOCTOR...........1 TRAINED NURSE/ MIDWIFE..........2 DAYA.............3 RELATIVE.........4 OTHER________..5 (SPECIFY) NO ONE...........6
709 Has your menstrual period resumed since the birth of (NAME)?	YES..............1 NO...............2 (SKIP TO 711)←			
710 How many months after the birth of (NAME) did your period return?	MONTHS....... [ ][ ] NOT RETURNED.....96	MONTHS....... [ ][ ] NEVER RETURNED...96 (ALL SKIP TO 712)	MONTHS....... [ ][ ] NEVER RETURNED...96 (ALL SKIP TO 712)	MONTHS....... [ ][ ] NEVER RETURNED...96 (ALL SKIP TO 712)

THE HEADINGS IN THIS TABLE SHOULD BE EXACTLY THE SAME AS THOSE IN 702. WHEN RECORDING THE RESPONSES TO QUESTIONS FOR A BIRTH, CHECK TO BE SURE THAT YOU ARE ENTERING THE ANSWERS IN THE APPROPRIATE COLUMN.

LINE NUMBER FROM 212	☐☐	☐☐	☐☐	☐☐
	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST	THIRD-FROM-LAST
NAME FROM 213	NAME _____	NAME _____	NAME _____	NAME _____
SURVIVAL STATUS FROM 216	ALIVE ☐ DEAD ☐	ALIVE ☐ DEAD ☐	ALIVE ☐ DEAD ☐	ALIVE ☐ DEAD ☐
711 Have you resumed sexual relations since the birth of (NAME)?	YES (OR PREGN.)...1 NO.. .....2 (GO TO 703 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 713)			
712 How many months after the birth of (NAME) did you resume sexual relations?	MONTHS..... ☐☐ 40 DAYS.....96 (ALL GO TO 703 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, ALL GO TO 713)	MONTHS..... ☐☐ 40 DAYS.....96 (ALL GO TO 703 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, ALL GO TO 713)	MONTHS..... ☐☐ 40 DAYS.....96 (ALL GO TO 703 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, ALL GO TO 713)	MONTHS..... ☐☐ 40 DAYS.....96 (ALL GO TO 713)

713 THE HEADINGS IN THIS TABLE SHOULD BE EXACTLY THE SAME AS THOSE IN 702. ASK QUESTIONS 714-733 AS APPROPRIATE FOR ALL BIRTHS. COMPLETE ALL QUESTIONS FOR ONE BIRTH BEFORE GOING ON TO THE NEXT BIRTH. WHEN RECORDING THE RESPONSES TO QUESTIONS FOR A BIRTH, CHECK TO BE SURE THAT YOU ARE ENTERING THE ANSWERS IN THE APPROPRIATE COLUMN.

LINE NUMBER FROM 212	☐☐	☐☐	☐☐	☐☐
	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST	THIRD-FROM-LAST
NAME FROM 213	NAME _____	NAME _____	NAME _____	NAME _____
SURVIVAL STATUS FROM 216	ALIVE ☐ DEAD ☐	ALIVE ☐ DEAD ☐	ALIVE ☐ DEAD ☐	ALIVE ☐ DEAD ☐
714 Now I would like to ask some questions about breastfeeding. Did you ever feed (NAME) at the breast?	YES.....1 (SKIP TO 717) NO.....2	YES.....1 (SKIP TO 720) NO.....2	YES.....1 (SKIP TO 720) NO.....2	YES.....1 (SKIP TO 720) NO.....2
715 Why did you never breastfeed (NAME)?	CHILD SICK.....02 CHILD DIED.....03 CHILD REFUSED....04 MOTHER SICK.....05 NO/INSFFCNT MILK.06 USING PILL.....08 PREFERRED BOTTLE.09 OTHER_____.10 (SPECIFY)	CHILD SICK.....02 CHILD DIED.....03 CHILD REFUSED....04 MOTHER SICK.....05 NO/INSFFCNT MILK.06 USING PILL. .....08 PREFERRED BOTTLE.09 OTHER_____.10 (SPECIFY)	CHILD SICK.....02 CHILD DIED.....03 CHILD REFUSED....04 MOTHER SICK.....05 NO/INSFFCNT MILK.06 USING PILL.....08 PREFERRED BOTTLE.09 OTHER_____.10 (SPECIFY)	CHILD SICK.....020 CHILD DIED.....03 CHILD REFUSED....04 MOTHER SICK.....05 NO/INSFFCNT MILK.06 USING PILL.....08 PREFERRED BOTTLE.09 OTHER_____.10 (SPECIFY)
716 CHECK 715:	CHILD DIED BEFORE BREASTFEEDING....1 (GO TO 714 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 801) OTHER.....2 (SKIP TO 722)	CHILD DIED BEFORE BREASTFEEDING....1 (GO TO 714 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 801) OTHER.....2 (SKIP TO 722)	CHILD DIED BEFORE BREASTFEEDING....1 (GO TO 714 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 801) OTHER.....2 (SKIP TO 722)	CHILD DIED BEFORE BREASTFEEDING....1 (SKIP TO 801) OTHER.....2 (SKIP TO 722)

THE HEADINGS IN THIS TABLE SHOULD BE EXACTLY THE SAME AS THOSE IN 702. WHEN RECORDING THE RESPONSES TO QUESTIONS FOR A BIRTH, CHECK TO BE SURE THAT YOU ARE ENTERING THE ANSWERS IN THE APPROPRIATE COLUMN.

LINE NUMBER FROM 212	☐☐	☐☐	☐☐	☐☐
NAME FROM 213 SURVIVAL STATUS FROM 216	LAST BIRTH NAME ____ ALIVE ☐ DEAD ☐	NEXT-TO-LAST BIRTH NAME ____ ALIVE ☐ DEAD ☐	SECOND-FROM-LAST NAME ____ ALIVE ☐ DEAD ☐	THIRD-FROM-LAST NAME ____ ALIVE ☐ DEAD ☐
717 Are you still breast-feeding (NAME)? IF DEAD, CIRCLE '2'.	YES...............1 NO (OR DEAD)......2 (SKIP TO 720)			
718 How many times did you breastfeed (NAME) last night between sundown and sunrise?	TIMES........☐☐			
719 How many times did you breastfeed (NAME) yesterday during daylight hours?	TIMES........☐☐ (SKIP TO 723)			
720 How many months did you breastfeed (NAME)?	MONTHS.......☐☐ UNTIL DEATH......96 (SKIP TO 730)	MONTHS.......☐☐ UNTIL DEATH......96 (SKIP TO 730)	MONTHS.......☐☐ UNTIL DEATH......96 (SKIP TO 730)	MONTHS.......☐☐ UNTIL DEATH......96 (SKIP TO 730)
721 Why did you stop breastfeeding (NAME)?	CHILD REACHED WEANING AGE....01 CHILD SICK.......02 CHILD DIED.......03 CHILD REFUSED....04 MOTHER SICK......05 NO/INSFFCNT MILK.06 PREGNANT.........07 USING PILL.......08 PREFERRED BOTTLE.09 OTHER________.10 (SPECIFY)	CHILD REACHED WEANING AGE....01 CHILD SICK.......02 CHILD DIED.......03 CHILD REFUSED....04 MOTHER SICK......05 NO/INSFFCNT MILK.06 PREGNANT.........07 USING PILL.......08 PREFERRED BOTTLE.09 OTHER________.10 (SPECIFY)	CHILD REACHED WEANINC AGE....01 CHILD SICK.......02 CHILD DIED.......03 CHILD REFUSED....04 MOTHER SICK......05 NO/INSFFCNT MILK.06 PREGNANT.........07 USING PILL.......08 PREFERRED BOTTLE.09 OTHER________.10 (SPECIFY)	CHILD REACHED WEANING AGE....01 CHILD SICK.......02 CHILD DIED.......03 CHILD REFUSED....04 MOTHER SICK......05 NO/INSFFCNT MILK.06 PREGNANT.........07 USING PILL.......08 PREFERRED BOTTLE.09 OTHER________.10 (SPECIFY)
722 CHECK SURVIVAL STATUS RECORDED IN HEADING AT THE TOP OF THIS TABLE	CHILD ALIVE.......1 CHILD DIED........2 (SKIP TO 730)	CHILD ALIVE.......1 CHILD DIED........2 (SKIP TO 730)	CHILD ALIVE.......1 CHILD DIED........2 (SKIP TO 730)	CHILD ALIVE.......1 CHILD DIED........2 (SKIP TO 730)
723 Now I would like to ask some questions about the foods or liquids you are giving (gave) your child. How many months after (NAME'birth did you give him/her milk other than breatmilk? IF LESS THAN I MONTH, ENTER '00'.	MONTHS......☐☐ NOT YET GIVEN....96 (SKIP TO 725)	MONTHS......☐☐ NOT YET GIVEN....96 (SKIP TO 725)	MONTHS......☐☐ NOT YET GIVEN....96 (ALL SKIP TO 725)	MONTHS......☐☐ NOT YET GIVEN....96 (ALL SKIP TO 725)
724 Is (NAME) receiving any of the following types of milk regularly: fresh milk/full cream (gamoosa, cow, goat)? pasteurized milk (in (carton, bottle, plastic bags)? powdered milk for infants? other powdered milk? canned milk? any other type of milk?	YES NO FRESH MLK/CRM..1 2 PAST'RIZED MLK.1 2 POWDERED MILK FOR INFANTS...1 2 OTH PWDRD MLK..1 2 CANNED MILK....1 2 OTHER MLK......1 2 ________ (SPECIFY)	YES NO FRESH MLK/CRM..1 2 PAST'RIZED MLK.1 2 POWDERED MILK FOR INFANTS...1 2 OTH PWDRD MLK..1 2 CANNED MILK....1 2 OTHER MLK......1 2 ________ (SPECIFY)		

THE HEADINGS IN THIS TABLE SHOULD BE EXACTLY THE SAME AS THOSE IN 702. WHEN RECORDING THE RESPONSES TO QUESTIONS FOR A BIRTH, CHECK TO BE SURE THAT YOU ARE ENTERING THE ANSWERS IN THE APPROPRIATE COLUMN.

	LINE NUMBER FROM 212	☐☐	☐☐	☐☐	☐☐
		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST	THIRD-FROM-LAST
	NAME FROM 213	NAME _____	NAME _____	NAME _____	NAME _____
	SURVIVAL STATUS FROM 216	ALIVE ☐ DEAD ☐	ALIVE ☐ DEAD ☐	ALIVE ☐ DEAD ☐	ALIVE ☐ DEAD ☐
725	How many months after (NAME)'s birth did you first give him/her other liquids? IF LESS THAN 1 MONTH, ENTER '00'.	MONTHS..... ☐☐ NOT YET GIVEN....96 (SKIP TO 727)<—	MONTHS..... ☐☐ NOT YET GIVEN....96 (SKIP TO 727)<—	MONTHS..... ☐☐ NOT YET GIVEN....96 (ALL SKIP TO 727)	MONTHS..... ☐☐ NOT YET GIVEN....96 (ALL SKIP TO 727)
726	Is (NAME) receiving any of the following liquids regularly: sugar water? tea with sugar? rice water? herbal drinks (halba, karawya, etc)? any other liquids?	YES NO SUGAR WATER....1 2 TEA WITH SUGAR.1 2 RICE WATER.....1 2 HERBAL DRINKS..1 2 OTHER LQDS.....1 2 (SPECIFY)	YES NO SUGAR WATER....1 2 TEA WITH SUGAR.1 2 RICE WATER.....1 2 HERBAL DRINKS..1 2 OTHER LQDS.....1 2 (SPECIFY)		
727	CHECK 723 TO 726:	EITHER MILK AND/OR OTHER LIQUIDS GIVEN ☐ NEITHER MILK NOR OTHER LIQUIDS GIVEN ☐ (ALL GO TO 714 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 801) <—	EITHER MILK AND/OR OTHER LIQUIDS GIVEN ☐ NEITHER MILK NOR OTHER LIQUIDS GIVEN ☐ (ALL GO TO 714 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 801) <—	EITHER MILK AND/OR OTHER LIQUIDS GIVEN ☐ (SKIP TO 729)<— NEITHER MILK NOR OTHER LIQUIDS GIVEN ☐ (ALL GO TO 714 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 801) <—	EITHER MILK AND/OR OTHER LIQUIDS GIVEN ☐ (SKIP TO 729)<— NEITHER MILK NOR OTHER LIQUIDS GIVEN ☐ (SKIP TO 801)<—
728	Are any of the milks or other liquids your child drinks given in a bottle with a nipple?	YES.....1 NO.....2 NOT SURE/DK.....8	YES.....1 NO.....2 NOT SURE/DK.....8		
729	How many months after (NAME'S) birth did you first give him/her solid or semi-solid food?	MONTHS..... ☐☐ NOT YET GIVEN....96 (ALL GO TO 714 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, GO TO 801)	MONTHS..... ☐☐ NOT YET GIVEN....96 (ALL GO TO 714 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, GO TO 801)	MONTHS..... ☐☐ NOT YET GIVEN....96 (ALL GO TO 714 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, GO TO 801)	MONTHS..... ☐☐ NOT YET GIVEN....96 (ALL GO TO 801)
730	How many months after (NAME)'s birth did you first give him/her milk other than breastmilk? IF LESS THAN 1 MONTH, ENTER '00'.	MONTHS..... ☐☐ CHILD DIED BEFORE GIVEN 97	MONTHS..... ☐☐ CHILD DIED BEFORE GIVEN 97	MONTHS..... ☐☐ CHILD DIED BEFORE GIVEN 97	MONTHS..... ☐☐ CHILD DIED BEFORE GIVEN 97

THE HEADINGS IN THIS TABLE SHOULD BE EXACTLY THE SAME AS THOSE IN 702. WHEN RECORDING THE RESPONSES TO QUESTIONS FOR A BIRTH, CHECK TO BE SURE THAT YOU ARE ENTERING THE ANSWERS IN THE APPROPRIATE COLUMN.

LINE NUMBER FROM 212	☐☐	☐☐	☐☐	☐☐
	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST	THIRD-FROM-LAST
NAME FROM 213	NAME ______	NAME ______	NAME ______	NAME ______
SURVIVAL STATUS FROM 216	ALIVE ☐ DEAD ☐	ALIVE ☐ DEAD ☐	ALIVE ☐ DEAD ☐	ALIVE ☐ DEAD ☐
731 How many months after (NAME)'s birth did you first give him/her other liquids? IF LESS THAN 1 MONTH, ENTER '00'.	MONTHS...... ☐☐ CHILD DIED BEFORE GIVEN 97	MONTHS...... ☐☐ CHILD DIED BEFORE GIVEN 97	MONTHS...... ☐☐ CHILD DIED BEFORE GIVEN 97	MONTHS...... ☐☐ CHILD DIED BEFORE GIVEN 97
732 CHECK 730 and 731:	EITHER MILK AND/OR OTHER LIQUIDS GIVEN ☐ NEITHER MILK NOR OTHER LIQUIDS GIVEN ☐ (ALL GO TO 714 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 801)	EITHER MILK AND/OR OTHER LIQUIDS GIVEN ☐ NEITHER MILK NOR OTHER LIQUIDS GIVEN ☐ (ALL GO TO 714 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 801)	EITHER MILK AND/OR OTHER LIQUIDS GIVEN ☐ NEITHER MILK NOR OTHER LIQUIDS GIVEN ☐ (ALL GO TO 714 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 801)	EITHER MILK AND/OR OTHER LIQUIDS GIVEN ☐ NEITHER MILK NOR OTHER LIQUIDS GIVEN ☐ (SKIP TO 801)
733 How many months after (NAME'S) birth did you first give him/her solid or semi-solid food?	MONTHS...... ☐☐ CHILD DIED BEFORE GIVEN ....97 (ALL GO TO 714 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, GO TO 801)	MONTHS...... ☐☐ CHILD DIED BEFORE GIVEN ....97 (ALL GO TO 714 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, GO TO 801)	MONTHS...... ☐☐ CHILD DIED BEFORE GIVEN ....97 (ALL GO TO 714 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, GO TO 801)	MONTHS...... ☐☐ CHILD DIED BEFORE GIVEN ....97 (ALL GO TO 801)

SECTION 8. CHILD HEALTH AND CAUSE OF DEATH

801 CHECK 215:

ONE OR MORE LIVE BIRTHS SINCE JANUARY 1983 [ ] (v)   NO LIVE BIRTHS SINCE JANUARY 1983 [ ] > (SKIP TO 848)

CHECK 212, 213 AND 216 AND ENTER THE NAME, LINE NUMBER, AND SURVIVAL STATUS OF EACH BIRTH SINCE JANUARY 1983 AT THE TOP OF THE TABLE BELOW, BEGINNING WITH THE LAST BIRTH. RECORD NAMES OF TWINS IN SEPARATE COLUMNS. COPY THE SAME INFORMATION AT THE TOP OF THE TABLES ON THE FOLLOWING THREE PAGES. YOU SHOULD RECORD THE NAMES OF DEAD AS WELL AS LIVING CHILDREN EVEN THOUGH QUESTIONS 803-821 WILL BE ASKED ONLY FOR LIVING CHILDREN.

AFTER THE TABLE HEADINGS ARE COMPLETE, ASK QUESTIONS 802-821 FOR EACH LIVING CHILD. COMPLETE ALL QUESTIONS FOR ONE LIVING CHILD BEFORE GOING ON TO THE NEXT CHILD. REMEMBER TO SKIP QUESTIONS 803-821 FOR DEAD CHILDREN. AFTER ASKING QUESTIONS 802-812 FOR ALL LIVING CHILDREN, GO ON TO QUESTION 822.

LINE NUMBER FROM 212	[ ][ ]	[ ][ ]	[ ][ ]	[ ][ ]
	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST	THIRD-FROM-LAST
NAME FROM 213	NAME________	NAME________	NAME________	NAME________
SURVIVAL STATUS FROM 216	ALIVE [ ] DEAD [ ] →	ALIVE [ ] DEAD [ ] →	ALIVE [ ] DEAD [ ] →	ALIVE [ ] DEAD [ ] (GO TO 822)
802 Now I would like to ask some questions about any illnesses your child has had recently. Has (NAME) had diarrhea in the last seven days?	YES....1 (SKIP TO 804) NO....2 NOT SURE/DK....8	YES....1 (SKIP TO 804) NO....2 NOT SURE/DK....8	YES....1 (SKIP TO 804) NO....2 NOT SURE/DK....8	YES....1 (SKIP TO 804) NO....2 NOT SURE/DK....8
803 Has (NAME) had diarrhea since the start of the fasting month this year? IF YES: In what month did (NAME) have his/her most recent episode of diarrhea? SPECIFY CALENDAR MONTH	YES____ [ ][ ] (SPECIFY) (SKIP TO 806) NO....2 (GO TO 802 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 822) NOT SURE/DK....8	YES____ [ ][ ] (SPECIFY) (SKIP TO 806) NO....2 (GO TO 802 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 822) NOT SURE/DK....8	YES____ [ ][ ] (SPECIFY) (SKIP TO 806) NO....2 (GO TO 802 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 822) NOT SURE/DK....8	YES____ [ ][ ] (SPECIFY) (SKIP TO 806) NO....2 (SKIP TO 822) NOT SURE/DK....8
804 I would like some information about (NAME)'s last episode of diarrhea. How many days ago did the diarrhea start? IF LESS THAN 24 HOURS, CIRCLE '00'.	DAYS.... [ ][ ] LESS THAN 24 HOURS....00 (SKIP TO 807)	DAYS.... [ ][ ] LESS THAN 24 HOURS....00 (SKIP TO 807)	DAYS.... [ ][ ] LESS THAN 24 HOURS....00 (SKIP TO 807)	DAYS.... [ ][ ] LESS THAN 24 HOURS....00 (SKIP TO 807)
805 Has (NAME) had diarrhea in the last 24 hours?	YES....1 (SKIP TO 807) NO....2	YES....1 (SKIP TO 807) NO....2	YES....1 (SKIP TO 807) NO....2	YES....1 (SKIP TO 807) NO....2
806 For how many days did (NAME) have diarrhea during the most recent episode? IF LESS THAN 24 HOURS ENTER '00'.	DAYS.... [ ][ ]	DAYS.... [ ][ ]	DAYS.... [ ][ ]	DAYS.... [ ][ ]

THE HEADINGS IN THIS TABLE SHOULD BE EXACTLY THE SAME AS THOSE IN 802. WHEN RECORDING THE RESPONSES TO QUESTIONS FOR A CHILD, CHECK TO BE SURE THAT YOU ARE ENTERING THE ANSWERS IN THE APPROPRIATE COLUMN.

LINE NUMBER FROM 212	☐☐	☐☐	☐☐	☐☐
	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST	THIRD-FROM-LAST
NAME FROM 213	NAME_____	NAME_____	NAME_____	NAME_____
SURVIVAL STATUS FROM 216	ALIVE ☐ DEAD ☐	→ALIVE ☐ DEAD ☐	→ALIVE ☐ DEAD ☐	→ALIVE ☐ DEAD ☐
807 In your opinion was (is) the most recent episode of diarrhea (NAME) had mild or severe?	MILD.....1 SEVERE.....2 NOT SURE/DK.....8	MILD.....1 SEVERE.....2 NOT SURE/DK.....8	MILD.....1 SEVERE.....2 NOT SURE/DK.....8	(GO TO 822) MILD.....1 SEVERE.....2 NOT SURE/DK.....8
808 Were (are) the stools watery or just soft?	WATERY.....1 JUST SOFT.....2 NOT SURE/DK.....8	WATERY.....1 JUST SOFT.....2 NOT SURE/DK.....8	WATERY.....1 JUST SOFT.....2 NOT SURE/DK.....8	WATERY.....1 JUST SOFT.....2 NOT SURE/DK.....8
809 Was (is) there blood in the stools?	YES.....1 NO.....2 NOT SURE/DK.....8	YES.....1 NO.....2 NOT SURE/DK.....8	YES.....1 NO.....2 NOT SURE/DK.....8	YES.....1 NO.....2 NOT SURE/DK.....8
810 Did (NAME) also experience vomiting?	YES.....1 NO.....2 NOT SURE/DK.....8	YES.....1 NO.....2 NOT SURE/DK.....8	YES.....1 NO.....2 NOT SURE/DK.....8	YES.....1 NO.....2 NOT SURE/DK.....8
811 Did (NAME) also experience dehydration?	YES.....1 NO.....2 NOT SURE/DK.....8	YES.....1 NO.....2 NOT SURE/DK.....8	YES.....1 NO.....2 NOT SURE/DK.....8	YES.....1 NO.....2 NOT SURE/DK.....8
812 During the most recent episode of diarrhea, did (NAME) show any of these other symptoms:	YES NO	YES NO	YES NO	YES NO
thirsty?	THIRSTY.....1 2	THIRSTY.....1 2	THIRSTY.....1 2	THIRSTY.....1 2
listlessness?	LISTLESNESS....1 2	LISTLESNESS....1 2	LISTLESNESS....1 2	LISTLESNESS....1 2
sunken eyes?	SUNKEN EYES....1 2	SUNKEN EYES....1 2	SUNKEN EYES....1 2	SUNKEN EYES....1 2
wrinkled skinfold?	WRNK SKINFOLD..1 2	WRNK SKINFOLD..1 2	WRNK SKINFOLD..1 2	WRNK SKINFOLD..1 2
cold hands?	COLD HANDS.....1 2	COLD HANDS.....1 2	COLD HANDS.....1 2	COLD HANDS.....1 2
sunken top of head?	SUNKEN TOP OF HEAD.....1 2	SUNKEN TOP OF HEAD.....1 2	SUNKEN TOP OF HEAD.....1 2	SUNKEN TOP OF HEAD.....1 2
813 There are many kinds of things parents do to treat children with diarrhea. During the most recent episode, was (NAME) given:	YES NO	YES NO	YES NO	YES NO
mahloul el-gaffaf?	MAHLOUL EL-GAFFAF.....1 2	MAHLOUL EL-GAFFAF.....1 2	MAHLOUL EL-GAFFAF.....1 2	MAHLOUL EL-GAFFAF.....1 2
other medicine(s)?	MEDICINE.....1 2 (SPECIFY)	MEDICINE.....1 2 (SPECIFY)	MEDICINE.....1 2 (SPECIFY)	MEDICINE.....1 2 (SPECIFY)
intravenous fluids?	INTRAVEN'S FLD.1 2	INTRAVEN'S FLD.1 2	INTRAVEN'S FLD.1 2	INTRAVEN'S FLD.1 2

THE HEADINGS IN THIS TABLE SHOULD BE EXACTLY THE SAME AS THOSE IN 802. WHEN RECORDING THE RESPONSES TO QUESTIONS FOR A CHILD, CHECK TO BE SURE THAT YOU ARE ENTERING THE ANSWERS IN THE APPROPRIATE COLUMN.

LINE NUMBER FROM 212	☐☐	☐☐	☐☐	☐☐
NAME FROM 213	LAST BIRTH NAME__________	NEXT-TO-LAST BIRTH NAME__________	SECOND-FROM-LAST NAME__________	THIRD-FROM-LAST NAME__________
SURVIVAL STATUS FROM 216	ALIVE ☐ DEAD ☐	>ALIVE ☐ DEAD ☐	>ALIVE ☐ DEAD ☐	>ALIVE ☐ DEAD ☐ (GO TO 822)
814 During the most recent episode of diarrhea (NAME) had, did you stop, decrease, continue without change, or increase:	STOPPED / DECREASED / INCREASED / NO CHANGE / NOT GIVEN	STOPPED / DECREASED / INCREASED / NO CHANGE / NOT GIVEN	STOPPED / DECREASED / INCREASED / NO CHANGE / NOT GIVEN	STOPPED / DECREASED / INCREASED / NO CHANGE / NOT GIVEN
breastfeeding?	BRST....1 2 3 4 5	BRST....1 2 3 4 5	BRST....1 2 3 4 5	BRST....1 2 3 4 5
other milk?	OTH MLK 1 2 3 4 5	OTH MLK 1 2 3 4 5	OTH MLK 1 2 3 4 5	OTH MLK 1 2 3 4 5
other liquids?	OTH LQD.1 2 3 4 5	OTH LQD.1 2 3 4 5	OTH LQD.1 2 3 4 5	OTH LQD.1 2 3 4 5
solid/semi-solid food?	FOOD....1 2 3 4 5	FOOD....1 2 3 4 5	FOOD....1 2 3 4 5	FOOD....1 2 3 4 5
815 Was the opinion of any of the following sought during the episode:	YES NO	YES NO	YES NO	YES NO
government health services?	GOV'T HEALTH SERVICES.....1 2	GOV'T HEALTH SERVICES.....1 2	GOV'T HEALTH SERVICES.....1 2	GOV'T HEALTH SERVICES.....1 2
private doctor?	PRV DCTR.......1 2	PRV DCTR.......1 2	PRV DCTR.......1 2	PRV DCTR.......1 2
pharmacy?	PHARMACY.......1 2	PHARMACY.......1 2	PHARMACY.......1 2	PHARMACY.......1 2
relatives or friends?	RELS/FRNDS.....1 2	RELS/FRNDS.....1 2	RELS/FRNDS.....1 2	RELS/FRNDS.....1 2
anyone else (Specify)?	OTHER..........1 2 __________ (SPECIFY)	OTHER..........1 2 __________ (SPECIFY)	OTHER..........1 2 __________ (SPECIFY)	OTHER..........1 2 __________ (SPECIFY)
816 CHECK 815:	CONSULTED GOVT HEALTH SRV/PR DOCTR ☐ DID NOT CONSULT GOVT HLTH SRV/ PR DOCTOR ☐ (SKIP TO 818)<	CONSULTED GOVT HEALTH SRV/PR DOCTR ☐ DID NOT CONSULT GOVT HLTH SRV/ PR DOCTOR ☐ (SKIP TO 818)<	CONSULTED GOVT HEALTH SRV/PR DOCTR ☐ DID NOT CONSULT GOVT HLTH SRV/ PR DOCTOR ☐ (SKIP TO 818)<	CONSULTED GOVT HEALTH SRV/PR DOCTR ☐ DID NOT CONSULT GOVT HLTH SRV/ PR DOCTOR ☐ (SKIP TO 818)<
817 Did the doctor you consulted prescribe any of the following even if you did not use it in treating the diarrhea:	YES NO	YES NO	YES NO	YES NO
mahloul el-gaffaf?	MAHL'L EL-GAF..1 2	MAHL'L EL-GAF..1 2	MAHL'L EL-GAF..1 2	MAHL'L EL-GAF..1 2
other medicine(s)?	MEDICINE.......1 2 __________ (SPECIFY)	MEDICINE.......1 2 __________ (SPECIFY)	MEDICINE.......1 2 __________ (SPECIFY)	MEDICINE.......1 2 __________ (SPECIFY)
anything else?	OTHER..........1 2 __________ (SPECIFY)	OTHER..........1 2 __________ (SPECIFY)	OTHER..........1 2 __________ (SPECIFY)	OTHER..........1 2 __________ (SPECIFY)

THE HEADINGS IN THIS TABLE SHOULD BE EXACTLY THE SAME AS THOSE IN 802. WHEN RECORDING THE RESPONSES TO QUESTIONS FOR A CHILD, CHECK TO BE SURE THAT YOU ARE ENTERING THE ANSWERS IN THE APPROPRIATE COLUMN.

LINE NUMBER FROM 212	☐☐	☐☐	☐☐	☐☐
	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST	THIRD-FROM-LAST
NAME FROM 213	NAME______	NAME______	NAME______	NAME______
SURVIVAL STATUS FROM 216	ALIVE ☐ DEAD ☐ →	ALIVE ☐ DEAD ☐ →	ALIVE ☐ DEAD ☐ →	ALIVE ☐ DEAD ☐ (GO TO 822)
818 CHECK 813:	GAVE MAHLOUL EL-GAFFAF ☐ DID NOT GIVE MAHLOUL EL-GAFFAF ☐ (GO TO 802 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 822)	GAVE MAHLOUL EL-GAFFAF ☐ DID NOT GIVE MAHLOUL EL-GAFFAF ☐ (GO TO 802 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 822)	GAVE MAHLOUL EL-GAFFAF ☐ DID NOT GIVE MAHLOUL EL-GAFFAF ☐ (GO TO 802 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 822)	GAVE MAHLOUL EL-GAFFAF ☐ DID NOT GIVE MAHLOUL EL-GAFFAF ☐ (SKIP TO 822)
819 How many days after the most recent episode of diarrhea began, did you start to give (NAME) mahloul el-gaffaf? IF LESS THAN 24 HOURS ENTER '00'.	DAYS......... ☐☐	DAYS......... ☐☐	DAYS......... ☐☐	DAYS......... ☐☐
820 On the first day you gave the mahloul el-gaffaf, how many packets did you give (NAME)? IF LESS THAN ONE, ENTER '00'.	NUMBER....... ☐☐	NUMBER....... ☐☐	NUMBER....... ☐☐	NUMBER....... ☐☐
821 For how many days did you continue to give the mahloul el-gaffaf to (NAME)? IF LESS THAN 24 HOURS ENTER '00'.	DAYS......... ☐☐ (GO TO 802 FOR NEXT BIRTH, OR, IF NO OTH BIRTH, GO TO 822)	DAYS......... ☐☐ (GO TO 802 FOR NEXT BIRTH, OR, IF NO OTH BIRTH, GO TO 822)	DAYS......... ☐☐ (GO TO 802 FOR NEXT BIRTH, OR, IF NO OTH BIRTH, GO TO 822)	DAYS......... ☐☐ (GO TO 822)

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
822	Have you heard about mahloul el-gaffaf?	YES............................1 NO.............................2	 →825
823	Do you know how to prepare the mahloul el-gaffaf?	YES............................1 NO.............................2	
824	Do you have any packets of mahloul el-gaffaf in the house? IF YES: May I see one?	YES, SHOWN.....................1 YES, NOT SHOWN.................2 NO.............................3	

825 THE HEADINGS IN THIS TABLE SHOULD BE EXACTLY THE SAME AS THOSE IN 802. COPY THE SAME INFORMATION AT THE TOP OF THE FOLLOWINC PAGE.

AFTER THE TABLE HEADINGS ARE COMPLETE, ASK QUESTIONS 826-836 FOR EACH LIVING CHILD. COMPLETE ALL QUESTIONS FOR ONE LIVING CHILD BEFORE GOING ON TO THE NEXT CHILD. REMEMBER TO SKIP QUESTIONS 826-836 FOR DEAD CHILDREN. AFTER ASKING QUESTIONS 826-836 FOR ALL LIVING CHILDREN, GO ON TO QUESTION 837.

LINE NUMBER FROM 212	☐☐	☐☐	☐☐	☐☐
	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST	THIRD-FROM-LAST
NAME FROM 213	NAME_____	NAME_____	NAME_____	NAME_____
SURVIVAL STATUS FROM 216	ALIVE ☐ DEAD ☐	→ALIVE ☐ DEAD ☐	→ALIVE ☐ DEAD ☐	→ALIVE ☐ DEAD ☐
826 Did (NAME) have a cough at any time during the past month?	YES.....1 NO.....2 (SKIP TO 831) NOT SURE/DK.....8	YES.....1 NO.....2 (SKIP TO 831) NOT SURE/DK.....8	YES.....1 NO.....2 (SKIP TO 831) NOT SURE/DK.....8	(GO TO 837) YES.....1 NO.....2 (SKIP TO 831) NOT SURE/DK.....8
827 For how many days did the (NAME) have the cough the last time? IF LESS THAN 24 HOURS ENTER '00'.	DAYS..... ☐☐	DAYS..... ☐☐	DAYS..... ☐☐	DAYS..... ☐☐
828 Did (NAME) also experience difficulty breathing when he/she had the cough?	YES.....1 NO.....2 NOT SURE/DK.....8	YES.....1 NO.....2 NOT SURE/DK.....8	YES.....1 NO.....2 NOT SURE/DK.....8	YES.....1 NO.....2 NOT SURE/DK.....8
829 When (NAME) had the cough did you ask anyone's opinion on how to treat it?	YES.....1 NO.....2 (SKIP TO 831) NOT SURE/DK.....8	YES.....1 NO.....2 (SKIP TO 831) NOT SURE/DK.....8	YES.....1 NO.....2 (SKIP TO 831) NOT SURE/DK.....8	YES.....1 NO.....2 (SKIP TO 831) NOT SURE/DK.....8
830 Did you seek the opinion of any of the following:	YES NO	YES NO	YES NO	YES NO
government health services?	GOV'T HEALTH SERVICES.....1 2	GOV'T HEALTH SERVICES.....1 2	GOV'T HEALTH SERVICES.....1 2	GOV'T HEALTH SERVICES.....1 2
private doctor?	PRV DCTR.....1 2	PRV DCTR.....1 2	PRV DCTR.....1 2	PRV DCTR.....1 2
pharmacy?	PHARMACY.....1 2	PHARMACY.....1 2	PHARMACY.....1 2	PHARMACY.....1 2
relatives or friends?	RELS/FRNDS.....1 2	RELS/FRNDS.....1 2	RELS/FRNDS.....1 2	RELS/FRNDS.....1 2
anyone else (Specify)?	OTHER.....1 2	OTHER.....1 2	OTHER.....1 2	OTHER.....1 2
	(SPECIFY)	(SPECIFY)	(SPECIFY)	(SPECIFY)
831 Did (NAME) ever have the measles?	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2

THE HEADINGS IN THIS TABLE SHOULD BE EXACTLY THE SAME AS THOSE IN 825. WHEN RECORDING THE RESPONSES TO QUESTIONS FOR A CHILD, CHECK TO BE SURE THAT YOU ARE ENTERING THE ANSWERS IN THE APPROPRIATE COLUMN.

	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST	THIRD-FROM-LAST
LINE NUMBER FROM 212	☐☐	☐☐	☐☐	☐☐
NAME FROM 213	NAME_____	NAME_____	NAME_____	NAME_____
SURVIVAL STATUS FROM 216	ALIVE ☐ DEAD ☐	>ALIVE ☐ DEAD ☐	> ALIVE ☐ DEAD ☐	> ALIVE ☐ DEAD ☐ (GO TO 837)
832 Has (NAME) ever been given drops in the mouth for protecting against illness and not for curing?	YES.....1 NO.....2 (SKIP TO 834) NOT SURE/DK.....8	YES.....1 NO.....2 (SKIP TO 834) NOT SURE/DK.....8	YES.....1 NO.....2 (SKIP TO 834) NOT SURE/DK.....8	YES.....1 NO.....2 (SKIP TO 834) NOT SURE/DK.....8
833 How many times has (NAME) been given these drops?	NUMBER..... ☐	NUMBER..... ☐	NUMBER..... ☐	NUMBER..... ☐
834 Has (NAME) ever been given injection for protecting against illness and not for curing?	YES.....1 NO.....2 NO SURE/DK.....8	YES.....1 NO.....2 NO SURE/DK.....8	YES.....1 NO.....2 NO SURE/DK.....8	YES.....1 NO.....2 NO SURE/DK.....8
835 Do you have a birth certificate for (NAME)? IF YES: May I see it, please?	YES, SEEN.....1 YES, NOT SEE.....2 (GO TO 825 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 837) NO CARD.....3	YES, SEEN.....1 YES, NOT SEEN.....2 (GO TO 825 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 837) NO CARD.....3	YES, SEEN.....1 YES, NOT SEEN.....2 (GO TO 825 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 837) NO CARD.....3	YES, SEEN.....1 YES, NOT SEEN.....2 (SKIP TO 837) NO CARD.....3
836 RECORD DATES OF IMMUNIZATIONS FROM BIRTH CARD. CIRCLE '1' IF THERE IS NO RECORD THE IMMUNIZATION WAS GIVEN. CIRCLE '2' IF IMMUNIZATION GIVEN BUT NO DATE IS RECORDED.	NO RECORD DATE DA MO YR	NO RECORD DATE DA MO YR	NO RECORD DATE DA MO YR	NO RECORD DATE DA MO YR
BCG	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐
POLIO 1	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐
DPT 1	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐
POLIO 2	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐
DPT 2	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐
POLIO 3	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐
DPT 3	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐
MEASLES	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐	1 2 ☐☐ ☐☐ ☐☐
	(GO TO 825 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, GO TO 837)	(GO TO 825 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, GO TO 837)	(GO TO 825 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, GO TO 837)	(GO TO 837)

837 THE HEADINGS IN THIS TABLE SHOULD BE EXACTLY THE SAME AS THOSE IN 802. COPY THE SAME INFORMATION AT THE TOP OF THE FOLLOWING PAGE. NOTE THAT, UNLIKE QUESTIONS 802-821 AND 826-836, QUESTIONS 838-847 ARE TO BE ASKED ABOUT DEAD NOT LIVING CHILDREN.
COMPLETE ALL QUESTIONS FOR ONE DEAD CHILD BEFORE GOING ON TO THE NEXT CHILD. REMEMBER TO SKIP QUESTIONS 838-847 FOR LIVING CHILDREN. AFTER ASKING QUESTIONS 838-847 FOR ALL DEAD CHILDREN, GO ON TO QUESTION 848.

LINE NUMBER FROM 212	☐☐	☐☐	☐☐	☐☐
	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST	THIRD-FROM-LAST
NAME FROM 213	NAME________	NAME________	NAME________	NAME________
SURVIVAL STATUS FROM 216	ALIVE ☐ (→) DEAD ☐ ↓	ALIVE ☐ (→) DEAD ☐ ↓	ALIVE ☐ (→) DEAD ☐ ↓	ALIVE ☐ (→(GO TO 852)) DEAD ☐ ↓
838 Now I would like to ask a few questions about (NAME OF DEAD CHILD). Did he/she die in the last 12 months?	YES....1 NO....2	YES....1 NO....2	YES....1 NO....2	YES....1 NO....2
839 Did (NAME OF DEAD CHILD) have diarrhea during the seven days before his/her death	YES....1 NO....2 (SKIP TO 841)<	YES....1 NO....2 (SKIP TO 841)<	YES....1 NO....2 (SKIP TO 841)<	YES....1 NO....2 (SKIP TO 841)<
840 Did (NAME) have watery stools?	YES....1 NO....2	YES....1 NO....2	YES....1 NO....2	YES....1 NO....2
841 In the seven days before his/her death, did (NAME) have cough?	YES....1 NO....2	YES....1 NO....2	YES....1 NO....2	YES....1 NO....2
842 In the seven days before his/her death, did (NAME) have difficulty breathing?	YES....1 NO....2	YES....1 NO....2	YES....1 NO....2	YES....1 NO....2
843 In the seven days before his/her death, did (NAME) have any of the following: measles? any other illness (Specify)? an accident?	YES NO MEASLES....1 2 OTHER ILLNESS..1 2 ________ (SPECIFY) ACCIDENT....1 2	YES NO MEASLES....1 2 OTHER ILLNESS..1 2 ________ (SPECIFY) ACCIDENT....1 2	YES NO MEASLES....1 2 OTHER ILLNESS..1 2 ________ (SPECIFY) ACCIDENT....1 2	YES NO MEASLES....1 2 OTHER ILLNESS..1 2 ________ (SPECIFY) ACCIDENT....1 2
844 During the period of illness before his/her death, was (NAME) examined by a doctor?	YES....1 NO....2	YES....1 NO....2	YES....1 NO....2	YES....1 NO....2
845 CHECK 217:	CHILD LESS THAN ONE MONTH OLD AT DEATH ☐ CHILD OLDER THAN ONE MONTH AT DEATH ☐ (GO TO 838 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 848)	CHILD LESS THAN ONE MONTH OLD AT DEATH ☐ CHILD OLDER THAN ONE MONTH AT DEATH ☐ (GO TO 838 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 848)	CHILD LESS THAN ONE MONTH OLD AT DEATH ☐ CHILD OLDER THAN ONE MONTH AT DEATH ☐ (GO TO 838 FOR NEXT BIRTH, OR, IF NO OTHER BIRTH, SKIP TO 848)	CHILD LESS THAN ONE MONTH OLD AT DEATH ☐ CHILD OLDER THAN ONE MONTH AT DEATH ☐ (SKIP TO 848)
846 Before his/her death, did (NAME) have convulsions?	YES....1 NO....2	YES....1 NO....2	YES....1 NO....2	YES....1 NO....2
847 Was (NAME) nursing normally until he/she became ill?	YES....1 NO....2	YES....1 NO....2	YES....1 NO....2	YES....1 NO....2

OBSERVATIONS

THANK THE RESPONDENT FOR HER PARTICIPATION IN THE SURVEY. FILL IN THE APPROPRIATE RESPONSES IN QUESTIONS 848-853. BE SURE TO REVIEW THE QUESTIONNAIRE FOR COMPLETENESS BEFORE LEAVING THE HOUSEHOLD.

848	RECORD THE TIME.	HOUR..... ☐☐ MINUTES..... ☐☐
849	DEGREE OF COOPERATION.	POOR.....1 FAIR.....2 GOOD.....3 VERY GOOD.....4
850	INTERVIEWED RESPONDENT ALONE OR WITH OTHERS PRESENT PART OR ALL OF THE INTERVIEW.	ALONE.....1——>853 OTHERS PRESENT DURING PART OF THE INTERVIEW.....2 OTHERS PRESENT DURING ALL OF THE INTERVIEW.....3
851	MARK WHETHER ANY OF THE FOLLOWING WERE PRESENT DURING THE INTERVIEW. CHILDREN? OTHER WOMEN? HUSBAND? OTHER MALES?	YES NO CHILDREN.....1 2 OTHER WOMEN.....1 2 HUSBAND.....1 2 OTHER MALES.....1 2
852	DID ANY OF THE PERSONS PRESENT INTERFERE WITH THE INTERVIEW?	YES.....1 NO.....2

853 INTERVIEWER'S COMMENTS:

_____

_____

_____

854 FIELD EDITOR'S COMMENTS:

_____

_____

_____

855 SUPERVISOR'S COMMENTS:

_____

_____

_____

856 OFFICE EDITOR'S COMMENTS:

_____

_____

_____

SECTION 9. WEIGHT AND LENGTH

INTERVIEWER: IN 901-904, RECORD THE LINE NUMBERS, NAMES, SEX AND BIRTH DATES OF LIVING CHILDREN BORN SINCE JANUARY 1, 1985, STARTING WITH THE YOUNGEST CHILD. CHECK AGE IN 906-906 AND IDENTIFY CHILDREN 0-36 MONTHS OF AGE. RECORD LENGTH AND WEIGHT IN 907 AND 908. MEASURE ONE CHILD COMPLETELY (BOTH LENGTH AND WEIGHT) BEFORE GOING ON TO THE NEXT CHILD.

	[1] YOUNGEST LIVING CHILD	[2] NEXT-TO-YOUNGEST LIVING CHILD	[3] SECOND-TO-YOUNGEST LIVING CHILD
901 LINE NO. FROM 212	☐☐	☐☐	☐☐
902 NAME FROM 213	_____ (NAME)	_____ (NAME)	_____ (NAME)
903 SEX FROM 214	BOY..... 1 GIRL..... 2	BOY..... 1 GIRL..... 2	BOY..... 1 GIRL..... 2
904 DATE OF BIRTH FROM 215	MONTH.... ☐☐ YEAR..... ☐☐	MONTH.... ☐☐ YEAR..... ☐☐	MONTH.... ☐☐ YEAR..... ☐☐

905 CHECK AGE AND MARK RESPONSE IN 906. IF FULL BIRTH DATE IS NOT AVAILABLE AND THE CHILD IS THREE YEARS OLD OR LESS ACCORDING TO QUESTION 218, THEN MARK 'YES' IN 906.

906 CHECK AGE: 0-35 MONTHS?	YES ☐ NO ☐ →	YES ☐ NO ☐ →	YES ☐ NO ☐ → 909
907 LENGTH (in cms)	☐☐☐.☐	☐☐☐.☐	☐☐☐.☐
908 WEIGHT (in kgs)	☐☐.☐	☐☐.☐	☐☐.☐
908A CLOTHED WHEN WEIGHED	UNDER-WEAR ONLY: YES ☐ NO ☐ → (SPECIFY)	UNDER-WEAR ONLY: YES ☐ NO ☐ → (SPECIFY)	UNDER-WEAR ONLY: YES ☐ NO ☐ → (SPECIFY)
909 STATE REASON UNABLE TO RECORD	☐☐ _____	☐☐ _____	☐☐ _____

910 NAME OF MEASURER: _____ ☐☐ NAME OF ASSISTANT: _____ ☐☐

OBSERVATIONS

THANK THE RESPONDENT FOR HER CHILD(REN)'S PARTICIPATION. FILL IN THE APPROPRIATE RESPONSES IN QUESTIONS 911-912. BE SURE TO REVIEW THE QUESTIONS 901-910 FOR COMPLETENESS BEFORE LEAVING THE HOUSEHOLD.

911	DEGREE OF COOPERATION.	POOR.....1 FAIR.....2 GOOD.....3 VERY GOOD.....4

912 MEASURER'S COMMENTS:

913 FIELD EDITOR'S COMMENTS:

914 SUPERVISOR'S COMMENTS:

915 OFFICE EDITOR'S COMMENTS: