Jordan

Jordan Population and Family Health Survey 1990

Department of Statistics
Ministry of Health

DHS
Demographic and Health Surveys
IRD/Macro International Inc.

THE HASHEMITE KINGDOM OF JORDAN

Jordan Population and Family Health Survey 1990

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This report summarizes the findings of the 1990 Jordan Population and Family Health Survey (JPFHS) conducted by the Jordan Department of Statistics. IRD/Macro International Inc. provided technical assistance. Funding was provided by the U.S. Agency for International Development.

The JPFHS is part of the worldwide Demographic and Health Surveys (DHS) program, which is designed to collect data on fertility, family planning, and maternal and child health. Additional information on the Jordan survey may be obtained from the Department of Statistics, P.O. Box 2015, Jubhaiha Street, Amman, Jordan (Telephone 962-6-842171; Fax 962-6-833518). Additional information about the DHS program may be obtained by writing to: DHS, IRD/Macro International Inc., 8850 Stanford Boulevard, Suite 4000, Columbia MD 21045, USA (Telephone 410-290-2800; Telex 198116; Fax 410-290-2999).

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PREFACE

The Department of Statistics takes pleasure in presenting the principal report for the Jordan Population and Family Health Survey, 1990. This survey was undertaken by the Department of Statistics in collaboration with the Ministry of Health and IRD/Macro International Inc. under the international Demographic and Health Surveys (DHS) program. IRD/Macro International provided funding as well as technical assistance. Additional funds were provided by the United States Agency for International Development (USAID)/Amman.

The survey covered a national sample of about 16,300 households. This sample was used to collect information on households, including basic demographic characteristics, education, health insurance, and basic information to measure unemployment. Half of the sample (also nationally representative and covering all sample clusters) was used to identify ever-married women of childbearing age for the individual interview. Information collected from these women covered the areas of fertility and fertility preference, family planning, breastfeeding and nutrition, child health, immunization, morbidity and mortality.

The Department of Statistics would like to thank all the agencies that participated in this survey, whose support brought this work to success, especially IRD/Macro International, USAID, the Ministry of Health, and all the households that cooperated with the DOS survey staff by providing the required information. I hope that the information in this report will be useful to those interested in policy formulation and decision making in the health and population areas.

Dr. Abdulhadi Alawin
Director General of Statistics

ACKNOWLEDGMENTS

The Jordan Population and Family Health Survey (JPFHS) was successfully conducted with fieldwork taking place September through December 1990. The success of the survey was made possible by the keen and dedicated participation of a large number of persons, and it is not possible to thank each and every one of them individually.

The National Committee for the JPFHS under the directorship of Dr. Abdulhadi Alawin, Director General of the Department of Statistics, has given valuable suggestions to the survey design, particularly in the areas of maternal and child health. I would like to acknowledge the participation of Drs. Abdallah Hamdan, Fuad El-Ayed, Akef El-Azab and Mr. Abdulrahim Ma'itah in the preparation of this report. The survey would not have materialized without the participation throughout the survey activities of the project team at the Department of Statistics, particularly Mr. Kamal Saleh, Mr. Abdelhadi Kharabsheh and Ms. Ekhlas Aranki.

I would also like to thank the USAID/Amman for providing funds for the survey, and in particular Mr. P.E. Balakrishnan, Chief of the Office of Population, Health and Nutrition, for his keen interest and continued assistance.

Thanks are also extended to the UNFPA for assisting the Department of Statistics in establishing the mapping unit, which had an important role in the sampling work for the survey.

The survey benefited from the assistance extended by the Demographic and Health Surveys (DHS) program, especially for providing funds for the survey and through a number of DHS staff who made visits to Jordan during the project. I would like to thank Mr. Martin Vaessen for his assistance and encouragement; Dr. Mohamed Ayad for his assistance at all stages of the survey, including the preparation of the survey reports; Dr. Ann Way for her involvemnent during the preparation of the project documents; and Dr. Alfredo Aliaga for designing the survey sample and supervising the sample selection. I would also like to thank Mr. Guillermo Rojas, for providing assistance in data processing and the tabulation of survey results. Ms. Anne Cross, Drs. Ties Boerma, Jerry Sullivan and Sidney Moore made significant contributions in improving this report. Ms. Kaye Mitchell and Mr. Robert Wolf are acknowledged for their contribution to the production of the survey report. Special thanks go to Ms. Sri Poedjastoeti, DHS Country Monitor, for her invaluable contributions and helpful advice throughout the various stages of the survey.

Last but not least, the field workers, field editors, supervisors and coordinators who were employed by this project should be commended for their tireless efforts to obtain data of notable quality.

Dr. Abdallah Abdel Aziz Zou'bi
Survey Director

SUMMARY AND RECOMMENDATIONS

The Jordan Population and Family Health Survey (JPFHS) was carried out by the Department of Statistics between September and December 1990. Financial and technical assistance were provided by IRD/Macro International Inc. under a contract with the United States Agency for International Development (USAID)/Washington. The USAID/Amman provided partial financial support for the survey.

The JPFHS was designed to provide information on levels and trends of fertility, infant and child mortality, and family planning. The survey also gathered information on breastfeeding, maternal and child health care, the nutritional status of children under five, as well as the characteristics of households and household members. The survey covered a nationally representative sample of 8,333 households and a total of 6,461 ever-married women between the ages of 15 and 49.

A. CURRENT STATUS AND PROGRESS

Fertility

- The JPFHS documents that significant progress has been made in relation to the fertility of women in Jordan. The total fertility rate for the five-year period prior to the survey indicates that on average, women have 5.6 children by the end of their reproductive years. This figure represents a reduction of 15 percent over the preceding seven-year period (from 1983 to 1990). The total fertility rate was 7.7 in the 1976 Jordan Fertility Survey (JFS) and 6.6 in the 1983 Fertility and Family Health Survey (JFFHS).

- There are large differences in fertility by educational attainment of the women. Women who have attended more than secondary schooling can expect to have 4 children in their lifetime, while women with no education have close to 7 children.

- Further decline in fertility can be expected in the future. Approximately 50 percent of currently married women in Jordan do not want any more children. If the desired family size were achieved, the fertility rate would be only 3.9 children per woman, or 30 percent less than the current rate.

Family Planning

- A major portion of the decline in fertility can be attributed to the increasing use of family planning, especially modern methods. Results from the survey indicate that 40 percent of currently married women are using a method of family planning (including 5 percent of women who use prolonged breastfeeding as a method of contraception). This is an increase of 35 percent since 1983, when the contraceptive prevalence rate was 26 percent (which does not include users of prolonged breastfeeding). Two-thirds of women use modern methods, particularly the IUD (15 percent), female sterilization (6 percent), and pill (5 percent).

- Widespread knowledge of family planning is also supportive of further fertility decline. Virtually all currently married women know a method of contraception. Women generally feel it is acceptable to have family planning messages broadcast on radio and television.

- Married women living in large cities are twice as likely to use modern contraception as women in rural areas.

- Contraceptive use increases with parity; currently married women who have no living children have the lowest level of use; women with four or more children have the highest level of use.

Other Fertility Determinants

- The JPFHS data show that women in Jordan are marrying at increasingly older ages. The differentials in age at first marriage by region and type of residence are small. However, women who have attended more than secondary education marry on average almost 6 years later than women with no education.

- In addition to marriage patterns, the risk of pregnancy is affected by *postpartum amenorrhea*, the period after childbirth when menstruation has not yet returned; *postpartum abstinence*, the period when sexual activity has not yet been resumed; and *breastfeeding*. On average, women start menstruating again 7 months after childbirth; sexual relations are resumed a little over 2 months after childbirth; and women breastfeed their children for 13 months.

- Taking into account the effects of postpartum amenorrhea and abstinence, a women is not at risk of pregnancy for an average of 7 months after delivering a baby.

- The protection from pregnancy conferred by postpartum amenorrhea, abstinence, and breastfeeding is one month shorter for women living in large cities than for rural women. It is two months shorter for women who have attended more than secondary education than for women who have no education.

Future Use of Family Planning

- Four in ten married women who are not currently using contraception say that they intend to adopt a family planning method some time in the future.

- Close to half of the women who expressed an intention to use contraception in the future said they would prefer to use the IUD. The next most popular method is the pill.

Fertility Preferences

- On average, the ideal number of children for women is 4.4. There is little variation by residence, however, women 15-19 years want an average of more than one child less than women 45-49; women who have attended more than secondary school want one child less than women who have no education.

- The JPFHS documents that seven in ten women who are using contraception do so to stop childbearing.

Maternal and Child Health

- As indicated by the survey results, Jordan has made considerable progress in providing health care to pregnant women and their children. For 80 percent of births in the past five years, the mothers received at least one pregnancy checkup from medically trained personnel.

- Four of five births in the past five years were delivered in a hospital. In the seven years between 1983 and 1990, hospitals have become popular as a place of delivery.

- Forty percent of the births in the five years preceding the survey were to women who had a tetanus toxoid injection during pregnancy. This is a substantial improvement over coverage in 1983, when the injection was received for only 9 percent of births.

- The JPFHS found that 88 percent of children 12-23 months of age in Jordan have been vaccinated against DPT, polio and measles. However, less than one in five received a BCG vaccination.

- Nine percent of children under five had diarrhea in the two weeks preceding the survey. Of these children, four in ten were given oral rehydration therapy in the form of a solution prepared from ORS packets.

- In the JPFHS, all children born since January 1985 were weighed and measured. Nineteen percent of children under five are short for their age (stunted)—a measure of chronic undernutrition; 6 percent are underweight for their age.

Infant and Child Mortality

- The infant and child mortality rates for the five-year period preceding the survey are 34 and 39 deaths per 1,000 births respectively.

- While there is no significant difference in infant mortality by urban-rural residence, children of mothers who have attended more than secondary education have a greater probability of surviving in the first year of life than children of mothers who have no education.

CONTINUING CHALLENGES

- Despite the increase in the use of family planning methods and the apparent decline in fertility, the Jordan Population and Family Health Survey reveals a number of continuing challenges. The major concern is that, although fertility levels are declining, over 20 percent of births in the five years preceding the survey were not wanted when they occurred. If these unwanted births had been prevented, women would have had an average of 3.9 births, instead of 5.6 births.

- Almost one-quarter of currently married women reported that they wanted to delay the next birth or wanted to stop childbearing, but were not using a contraceptive method. This situation is defined as *unmet need of family planning*. Eight percent of married women are in need of family planning to delay the next birth, while 15 percent are in need to limit further childbearing.

- To delay, and in many cases to prevent a birth is an important decision, which influences the health of children. Four of five births occurring in the five years preceding the survey were at high risk either because the mother was too young (under age 18), too old (age 35 and over), had many prior births (3 or more), or the interval since the previous birth was too short (less than two years).

- The JPFHS provides information on the reasons women give for discontinuing use of various family planning methods. Having become pregnant, wanting to become pregnant, and side effects of methods were the most frequently cited reasons for discontinuing the use of contraception. Pill and IUD users were most concerned about the side effects, while method failure was the major problem reported by users of traditional methods.

- The major (potential) barrier to use of family planning by married women who are not using contraception is the desire to have children and the difficulty in becoming pregnant.

C. RECOMMENDATIONS

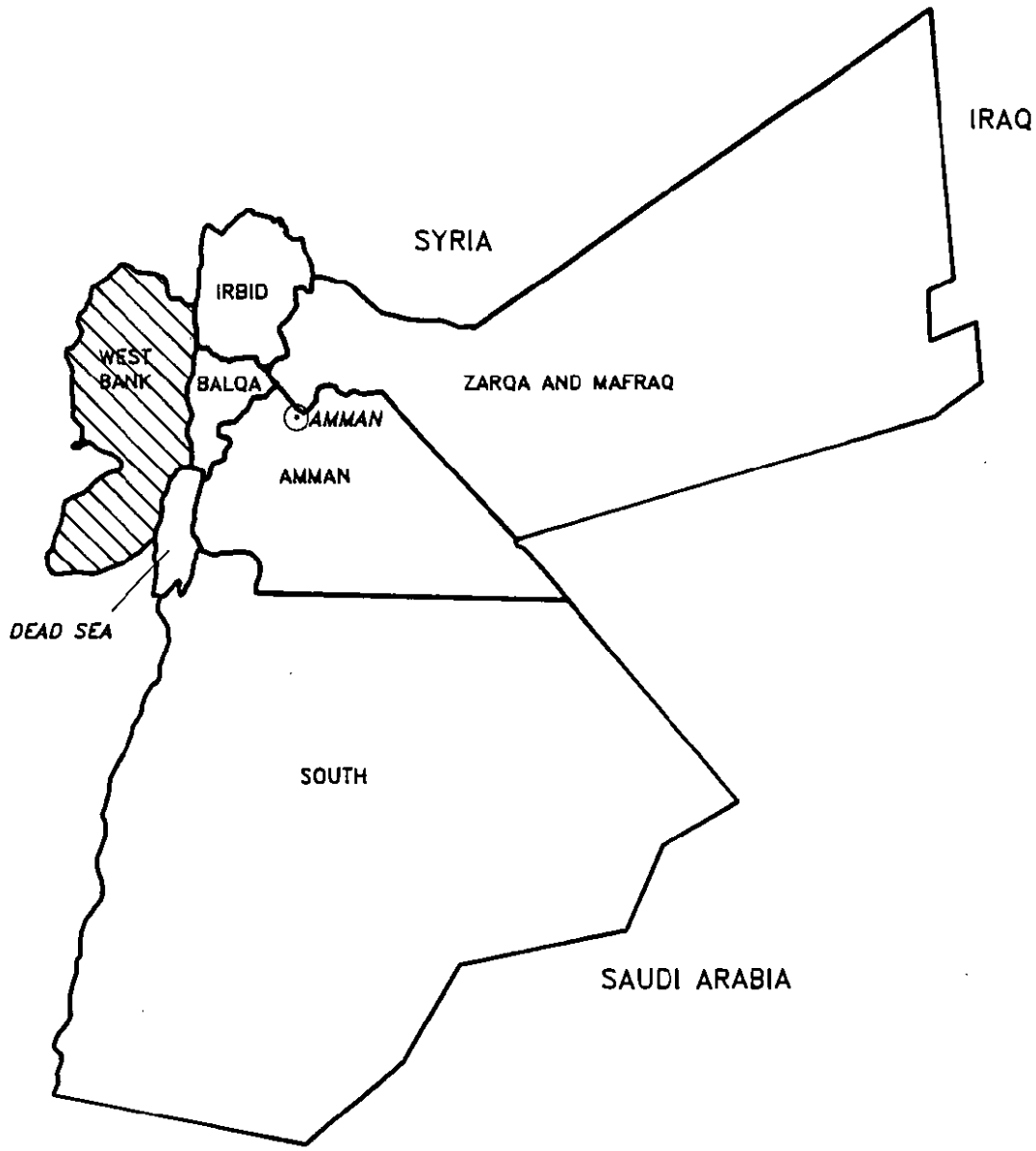
The results of the 1990 JPFHS demonstrate that the maternal and child health (MCH) programs in Jordan have good coverage in providing antenatal and delivery care to women of reproductive age. The survey indicates that the utilization of MCH services has increased, along with knowledge and use of family planning. However, the survey data also suggest that there is room for improvement in a number of areas.

- Additional effort is needed in information and education on the benefits of adopting family planning for the purpose of delaying or limiting childbearing. These efforts should cover topics such as: sources of family planning services, the monthly reproductive cycle, and side effects associated with certain methods.

- Potential users should be counseled on the most appropriate method for their age, fertility intentions, and personal situation.

- Emphasis should be placed on the health benefits for mothers and children of practicing traditional methods such as prolonged breastfeeding.

JORDAN


IRAQ
SYRIA
IRBID
WEST BANK
BALQA
ZARQA AND MAFRAQ
AMMAN
AMMAN
DEAD SEA
SOUTH
SAUDI ARABIA

CHAPTER 1

INTRODUCTION

1.1 HISTORY, GEOGRAPHY, AND ECONOMY

Jordan, one of the most modern countries in the Middle East, is almost entirely land-locked. The port of Aqaba in the far south is Jordan's only outlet to the sea. Palestine separates it from the Mediterranean, while Saudi Arabia lies to the south and east, Iraq to the northeast, and Syria to the north. The total area of the country is about 89,000 square kilometers.

The country was part of the Ottoman Empire until 1921 when it gained its independence. It was declared a political entity known as "Transjordan" in 1923. In 1950, Transjordan and the West Bank were united, and assumed the current name of the Hashemite Kingdom of Jordan. In 1967, the West Bank and Gaza Strip were occupied by Israeli forces, causing a massive influx of migrants to the East Bank. The West Bank was excluded from the Kingdom in 1988 upon the desires of the Arab states to facilitate the establishment of the Palestinian state.

The country is divided into 8 governorates, which are organized into three regions: Irbid and Mafraq in the Northern region; Amman, Zarqa, and Balqa in the Central region; and Karak, Tafielah, and Ma'an in the Southern region. The major cities are Amman, Zarqa, and Irbid. There are three agricultural development regions that divide the country longitudinally from north to south. These are the Jordan Valley, the highlands, and the semidesert *badia*. The geographical distribution of the population is determined mainly by rainfall patterns and methods of cultivation, in addition to business and manufacturing. More than 80 percent of the population are concentrated in one-eighth of the total land area, mainly in the uplands of the northwest. Ninety-six percent of Jordanians are Muslims; about 4 percent are Christians (Department of Statistics, 1984a).

The most serious problem facing the government after the 1991 Gulf War was the return of large numbers of Jordanian nationals who had been working in the Gulf countries. By the end of 1990, their number was estimated to reach 300,000, most of whom came from Kuwait. In addition, some 90,000 refugees (primarily from Bangladesh, Egypt, Sri Lanka, and the Philippines) crossed into Jordan from neighboring countries. These people came mostly from Kuwait and Saudi Arabia. The sudden increase in the population has created problems regarding food, housing, employment, and education.

1.2 POPULATION

Size, Growth, and Structure

Prior to 1952, there was no organized attempt to study the population of the East Bank of Jordan, except for rough estimates based on registers compiled by the United Nations Relief and Welfare Agency (UNRWA). The 1952 Housing Census produced information about the population (then estimated at 586,000 persons), as well as about the housing situation. The first population census, which was carried out in 1961, found 900,000 persons living in the East Bank. As a result of the establishment of the state of Israel in 1948 and the 1967 Arab-Israeli War, which caused the occupation of the West Bank and Gaza Strip, a large number of Palestinians moved to the East Bank. The population increased from 2.13 million in 1979 (Department of Statistics, 1982) to 3.45 million in 1990 (National Population Commission, 1991), an average increase of 4.3 percent annually. At this rate, the population can be expected to double in 16 years.

The Jordanian population is highly urbanized. More than 70 percent of the population live in localities of more than 5,000 inhabitants. These localities are concentrated in the three largest, most urban governorates, Amman, Zarqa and Irbid, which are named after the three largest cities. Twenty-five percent of the population live in the capital, Amman; while Zarqa and Irbid cities are inhabited by more than 10 and 5 percent of the country's population, respectively.

Results of the Health, Nutrition, Manpower, and Poverty Survey conducted in 1987 (Department of Statistics, 1989a) indicate that the age structure of the population has changed considerably since 1979, primarily as a result of changes in fertility, mortality, and migration. The proportion of population under 15 years of age declined from 57 percent in 1979 to 46 percent in 1987, while the proportion age 65 or over increased from 2.8 percent in 1979 to 3 percent in 1987.

Fertility

Fertility has been declining in Jordan since the mid-1970s. Studies have found that the total fertility rate declined from 7.7 children per woman in 1976, to 7.1 in 1981, to 6.6 in 1983. The estimated crude birth rate, based on births registered with the Department of Civil Status and Passports, was 50 births per thousand population in the early 1970s, and 34 births per thousand population in 1990 (Department of Statistics, 1991).

Mortality

Mortality has been declining even faster than fertility. The crude death rate, estimated at 19 deaths per thousand population in the 1950s, had declined to 12 per thousand two decades later. In 1990, the crude death rate was estimated to be 7 deaths per thousand population (Department of Statistics, 1991). Another measure of mortality, the infant mortality rate, was estimated at 125 deaths per thousand live births for the period 1951-1955. After twenty years, it had declined by half to 67 per thousand (Abdel Aziz, 1983) and in 1980-1987 it was estimated to be 49 deaths per thousand live births (Zou'bi, 1989).

Internal Migration and Urbanization

The most recent information on internal migration is obtained from the 1986 Internal Migration Survey (Department of Statistics, 1989b). According to this survey 6 percent of the population are lifetime migrants and 9 percent are current migrants. Lifetime migrants are calculated based on place of birth, while current migrants are calculated based on last place of residence. The study was limited to the East Bank, with the governorates as geographic units. Forced migration from the West Bank and Gaza Strip was not included.

Internal migration has generally taken place over short distances and occurs mainly in the Central region. The movement of people from rural to urban areas is an important factor in the rapidly increasing population density in urban areas. A typical migration pattern is for people to move from a village to an urban center in the same governorate, then move to another urban center in another governorate.

International Migration

International migration in Jordan flows in two directions. There has always been considerable population movement from Jordan to the Gulf States; at the same time, people are coming into Jordan from Egypt, Syria and Asia, mainly from Sri Lanka and the Philippines.

The Gulf crisis brought back an estimated 300,000 Jordanians from the Gulf States, particularly from Kuwait. The large influx of people created problems of unemployment and poverty, and a general worsening of the standard of living.

1.3 HEALTH POLICY AND PROGRAMS

Health Policy and Strategy

The national health policy is based on the principle that all citizens have the right to health services. The Ministry of Health is committed to making health services available, accessible, and acceptable in all communities, and seeks to ensure equitable distribution of these services. The objective of the government is to achieve "Health for all by the year 2000," in accordance with the guidelines set forth by the World Health Organization. To meet this objective, the government has given priority to the health sector and developed a national health strategy. This strategy is aimed at creating a comprehensive health care system, utilizing both public and private service providers, and covering all levels of care from preventive care to tertiary and rehabilitative care. The health sector's goal in improving the health status and the quality of life is twofold: to reduce the probability of becoming ill, and to increase the probability of recovery.

Health Plans and Programs

Recognizing that investment in socioeconomic development is vital to improving the quality of life and the standard of living, the government of Jordan has, in its health programs, focused on the following areas:

1. Coordination of primary, secondary, and tertiary health service delivery, in order to improve the efficiency of the health system and to avoid duplication among health providers and the waste of resources;

2. Health manpower development to raise standards in all health manpower categories and to maintain quality standards throughout the system;

3. Facility development by upgrading the existing health centers and hospitals, and building new facilities as needed;

4. Improve efficiency in expenditures without affecting the quality of services.

Short-term and long-term plans have been developed to improve the health care system and the delivery of services to the population.

1.4 OBJECTIVES OF THE SURVEY

The 1990 Jordan Population and Family Health Survey (JPFHS) was carried out as part of the Demographic and Health Survey (DHS) program. The Demographic and Health Surveys is assisting governments and private agencies in the implementation of household surveys in developing countries. The main objectives of the project include: a) providing decision makers with a data base and analyses useful for informed policy choices, b) expanding the international population and health data base, c) advancing survey methodology, and d) developing skills and resources necessary to conduct high quality demographic and health surveys in the participating countries.

The JPFHS was specifically aimed at providing information on fertility, family planning, and infant and child mortality. The questionnaires also gathered information on breastfeeding, maternal and child health care and nutritional status, as well as the characteristics of households and household members. The Jordan Population and Family Health Survey will provide policy makers and planners with important information for use in formulating programs and policies related to reproductive behavior and health.

1.5 ORGANIZATION OF THE SURVEY

The JPFHS is a national sample survey designed to collect data on ever-married women of reproductive age. The areas covered include: demographic and socioeconomic characteristics, marriage and reproduction, antenatal care, breastfeeding and child care, fertility preferences, and nutritional status of children under five years of age. The survey was funded primarily by the United States Agency for International Development (USAID) as part of the worldwide DHS program. The Jordan DHS survey was conducted by the Department of Statistics (DOS) in collaboration with the Ministry of Health.

The national director for the JPFHS was the Director General of Statistics; the survey director was the Chief of the National Household Survey Division (Department of Statistics). A national advisory committee was established to provide guidelines for the planning and implementation of the survey. The committee carried out its tasks by holding periodic meetings, particularly during the design stages of the survey. The committee consisted of representatives from various agencies associated with population and health issues. In addition to the Department of Statistics and the Ministry of Health, there were representatives from the Ministry of Planning, the University of Jordan, the Jordan University of Science and Technology, the National Population Committee, and the Jordan Family Planning and Protection Association. A representative from the USAID mission in Amman maintained close contact with the national advisory committee and the survey director.

The survey was executed in three stages; the first was the preparatory stage, which involved mapping, the listing of housing units, and the design and implementation of sampling procedures. At the same time, the survey questionnaires were developed, pretested, and finalized. All of these activities were completed in September 1990. The second stage was the interviewing and collection of data. This was carried out by 11 teams, each consisting of one supervisor, one field editor, three interviewers, and one person to do the anthropometric measurements. Each team was provided with a vehicle and driver. Data collection took place from October through December 1990. The last stage involved data processing, evaluation, and analysis. Data entry started soon after the beginning of the fieldwork, and continued until May 1991. The Gulf crisis had an impact on the second phase of the data processing, delaying the publication of the preliminary report.

Sample Design and Implementation

The sample for the JPFHS survey was selected to be representative of the major geographical regions, as well as the nation as a whole. The survey adopted a stratified, multi-stage sampling design. In each governorate, localities were classified into 9 strata according to the estimated population size in 1989. The sampling design also allowed for the survey results to be presented according to major cities (Amman, Irbid and Zarqa), other urban localities, and the rural areas. Localities with fewer than 5,000 people were considered rural.

For this survey, 349 sample units were drawn, containing 10,708 housing units for the individual interview. Since the survey used a separate household questionnaire, the Department of Statistics doubled the household sample size and added a few questions on labor force, while keeping the original individual sample intact. This yielded 21,172 housing units. During fieldwork for the household interview, it was found that 4,359 household units were ineligible either because the dwelling was vacant or destroyed, the household was absent during the team visit, or some other reason. There were 16,296 completed household interviews out of 16,813 eligible households, producing a response rate of 96.9 percent.

The completed household interviews yielded 7,246 women eligible for the individual interview, of which 6,461 were successfully interviewed, producing a response rate of 89.2 percent. The sample design

is described in Appendix A, and a discussion of the sampling errors for selected variables is presented in Appendix B.

Questionnaires

The 1990 JPFHS utilized two questionnaires, one for the household interview and the other for individual women (see Appendix D). Both questionnaires were developed first in English and then translated into Arabic. The household questionnaire was used to list all members of the sample households, including usual residents as well as visitors. For each member of the household, basic demographic and socioeconomic characteristics were recorded and women eligible for the individual interview were identified. To be eligible for individual interview, a woman had to be a usual member of the household (part of the de jure population), ever-married, and between 15 and 49 years of age. The household questionnaire was expanded from the standard DHS-II model questionnaire to facilitate the estimation of adult mortality using the orphanhood and widowhood techniques. In addition, the questionnaire obtained information on polygamy, economic activity of persons 15 years of age and over, family type, type of insurance covering the household members, country of work in the summer of 1990 which coincided with the Gulf crisis, and basic data for the calculation of the crude birth rate and the crude death rate. Additional questions were asked about deceased women if they were ever-married and age 15-49, in order to obtain information for the calculation of maternal mortality indices.

The individual questionnaire is a modified version of the standard DHS-II model "A" questionnaire. Experience gained from previous surveys, in particular the 1983 Jordan Fertility and Family Health Survey, and the questionnaire developed by the Pan Arab Project for Child Development (PAPCHILD), were useful in the discussions on the content of the JPFHS questionnaire. A major change from the DHS-II model questionnaire was the rearrangement of the sections so that the marriage section came before reproduction; this allowed the interview to flow more smoothly. Questions on children's cause of death based on verbal autopsy were added to the section on health, which, due to its size, was split into two parts. The first part focused on antenatal care and breastfeeding; the second part examined measures for prevention of childhood diseases and information on the morbidity and mortality of children born since January 1985. As questions on sexual relations were considered too sensitive, they were replaced by questions about the husband's presence in the household during the specified time period; this served as a proxy for recent sexual activity.

The JPFHS individual questionnaire consists of nine sections:

- Respondent's background and household characteristics
- Marriage
- Reproduction
- Contraception
- Breastfeeding and health
- Immunization, morbidity, and child mortality
- Fertility preferences
- Husband's background, residence, and woman's work
- Height and weight of children

The questionnaires used in the JPFHS survey are reproduced in Appendix D.

Pretest

The household and individual questionnaires were pretested in July 1990 in a number of urban and rural clusters. All senior staff members of the survey organization participated in this activity. The field staff

for the pretest was made up of female university graduates hired through the government recruitment office. To assist in the survey activities, particularly in regard to obtaining health information, the Ministry of Health provided a number of staff nurses.

Pretest training, which lasted three weeks, involved class discussion and field practice. Staff from the Ministry of Health and the Jordan Family Planning and Protection Agency were invited to give talks on their respective area of expertise. The pretest teams were also trained to carry out supervisory tasks, since they were expected to act as supervisors or field editors during the main fieldwork. Anthropometric measurements were not included in the pretest because the scales and boards were not available. The pretest revealed some minor problems in the questionnaire skip patterns, which were corrected.

Fieldwork Activities

Prior to the main survey fieldwork, mapping was carried out and the enumeration areas/blocks were selected. During this process, buildings and dwelling units in the areas were listed and numbered. The selected clusters were identified and marked with large signs on the buildings forming the corners of the clusters. In the same activity, housing units were documented, along with the name of the owner/tenant of the unit, or household and the name of the household head. A large proportion (almost 17 percent) of the housing units were vacant. These activities were completed in between September 26 and October 10, 1990.

Fieldworkers for the main survey were hired through the government recruitment office. At the time of hiring, they were informed about the type of work they would be expected to do. All the interviewers had college degrees. Supervisors and field editors were selected from those who participated in the pretest. They were retained by the Department of Statistics after the pretest to assist in sampling activities.

Training of field workers was done in two stages; the first was training for the household interview. More than one hundred people participated in this activity. The household survey was carried out in September (ahead of the individual interview) to provide the government with much-needed data for planning purposes, particularly regarding employment and persons who returned from the Gulf countries. It should be noted that the fieldwork started after the crisis in the Gulf region began.

The training of interviewers and supervisors for the individual questionnaire lasted three weeks and was carried out concurrently at two training centers. One site was the Statistical Training Center in Amman, part of the Department of Statistics; the other was the regional statistical office in Irbid. The training was conducted by Dr. Abdallah Zou'bi, the Survey Director, Mr. Kamal Saleh, a senior demographer, and Dr. Mohamed Ayad of IRD/Macro International. Much of the training consisted of lectures on how to conduct the interviews and how to fill out the questionnaires. Practice interviewing was done in the third week of training. Staff from the Ministry of Health and the Jordan Family Planning and Protection Agency were invited to speak on issues related to their activities.

The main survey fieldwork was carried out from October to December 1990. Each of the 11 field teams was made up of one supervisor, one field editor, three interviewers, and one anthropometrist. The teams were equipped with scales and measuring boards to collect information on the height and weight of children. A vehicle was assigned to each team. All teams started working in Amman, Zarqa, Irbid, and Balqa and were stationed in the respective governorates. In other governorates teams were formed from the field staff who had worked in Amman, Irbid and Zarqa. Data collection in these governorates was carried out in the first week of November through the end of December 1990.

Data Processing Activities

Data processing started almost immediately after the field work began. Field editors checked the questionnaires for completeness and consistency. Supervisors also checked completed questionnaires on a sample basis with more emphasis in the first few days of the fieldwork. Questionnaires were then sent to the central office in Amman, where they were again hand edited and the open-ended questions were coded.

Data entry started one week after the beginning of fieldwork, using eight microcomputers. The process of data entry, editing and cleaning was done with ISSA (Integrated System for Survey Analysis) programs specially designed for DHS surveys. These activities took place through the first week of March 1991. Under normal circumstances, the DHS data processing specialist would have made a trip to Jordan toward the end of the fieldwork, to identify problems associated with data entry and editing, and to work on tabulations for the preliminary report. However, due to the Gulf crisis in early 1991, this trip was delayed. Instead, the survey data were sent to the DHS office in Columbia, Maryland, and it was not until May 1991 that preparations for the preliminary report were begun.

Results of the Household and Individual Interviews

Table 1.1 is a summary of the results from the household and individual interviews by type of residence. In the JPFHS, there are three residential categories: large cities, other urban areas, and rural areas. The table shows the number of households sampled, the number that were found, and the number that were successfully interviewed. For the individual interview, the number of eligible women found in the selected households and the number of women successfully interviewed are presented. The data indicate a high response rate for the household interview (96.9 percent), and a lower rate for the individual interview (89.2 percent). Women in large cities have a slightly lower response rate (88.6 percent) than those in other areas. Most of the nonresponse for the individual interview was due to the absence of respondents and the postponement of interviews which were incomplete.

Table 1.1 Results of the household and individual interviews

Number of households, number of individual interviews and response rates, by urban-rural residence, Jordan 1990

Result	Residence			Total
	Large city	Other urban	Rural	
Household interviews				
Number of housing units sampled	8034	7043	6095	21172
Number of households found	6580	5505	4728	16813
Number of households interviewed	6391	5318	4587	16296
Household response rate	97.1	96.6	97.0	96.9
Individual interviews				
Number of eligible women	2756	2407	2083	7246
Number of eligible women interviewed	2441	2143	1877	6461
Individual response rate	88.6	89.0	90.1	89.2

CHAPTER 2

CHARACTERISTICS OF HOUSEHOLDS AND RESPONDENTS

This chapter describes the general characteristics of the sample population, including age and sex composition, residence, education, housing facilities, and exposure to mass media. The data are presented for various subgroups of the population. When combined with data from other sources, the information can be used to monitor changes over time.

Another purpose of the chapter is to describe the environment in which the respondents and their children live. The characteristics which are highlighted are those that particularly influence nuptiality, fertility, contraceptive behavior, maternal care and child morbidity and mortality.

The questionnaire for the Jordan Population and Family Health Survey (JPFHS) included two questions distinguishing between the *de jure* population (persons who usually live in the selected household) and the *defacto* population (persons who spent the night before the interview in the household). It was found, however, that the difference between them was small, and since sample selection for the JPFHS was based on the de jure population, and past demographic surveys were based on de jure populations, tabulations for the JPFHS household data were carried out based on the de jure population only.

2.1 POPULATION BY AGE AND SEX

In many developing countries, data on age are affected by errors such as misstatement and preference for or avoidance of certain digits. In order to improve age reporting in cases where age is not given, the interviewers were instructed to ask for legal documents, such as an identity card, birth certificate, or health card for pre-school children. The survey results indicated that not only age, but month and year of birth are widely recognized. Of the total population covered in the survey (more than 111,000), only 7 cases did not have age recorded. Also, the distribution of the population by single years of age (see Figure 2.1) indicates that although there is some preference for ages ending in 0 or 5, the problem is limited in extent.

Table 2.1 shows the percent distribution of the population by age and sex, according to urban-rural residence. The table serves two purposes. The first is to show the effects of past demographic trends on the population and to give an indication of their future trends. The second is to describe the context in which a variety of demographic processes are operating.

Experience indicates that age reporting in some populations suffers from problems of age heaping or age preference, which means that respondents tend to report ages with a particular terminal digit. The extent of age heaping or digit preference is usually investigated using the Myers' Index (Shryock and Siegel, 1973) which provides a summary measure and identifies the digits which are preferred or avoided by the respondents. Results from the 1990 JPFHS survey indicate that the quality of age reporting in Jordan is very good. On a scale of 0 to 180, males scored 5 and females 7. These figures show that age reporting in the 1990 survey is better than that in previous surveys. In the 1983 Jordan Fertility and Family Health Survey (JFFHS), the indices were 12 for males and 15 for females, and in the 1976 Jordan Fertility Survey (JFS) the indices were 42 for males and 49 for females (Abdel Aziz et al., 1983). Analysis of the JPFHS data indicated a preference for reporting ages ending with "0" and "5", at the expense of ages with terminal digits of "1" and "9" (see Figure 2.1).

Figure 2.1
Male and Female Population by Single Years of Age
Jordan, 1990

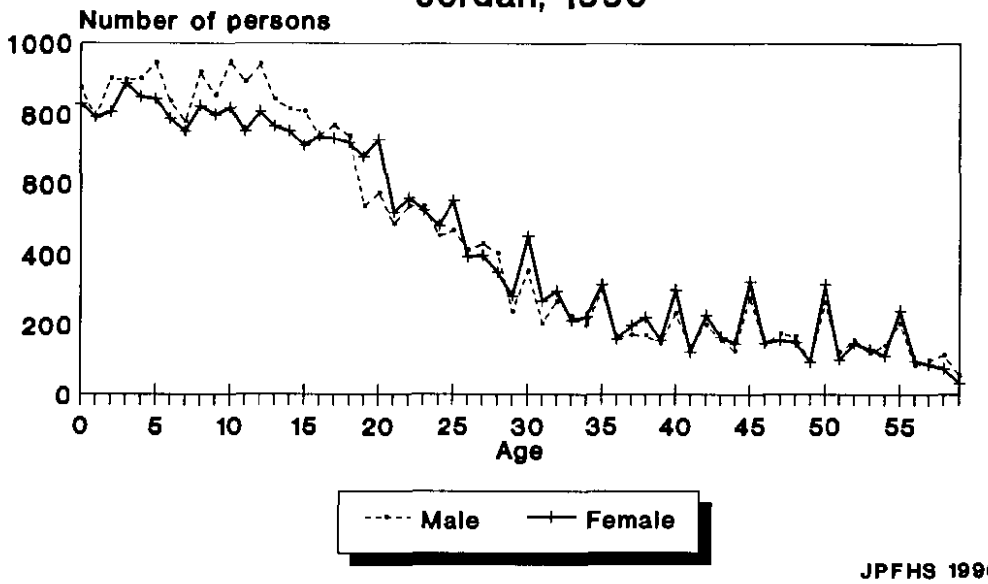
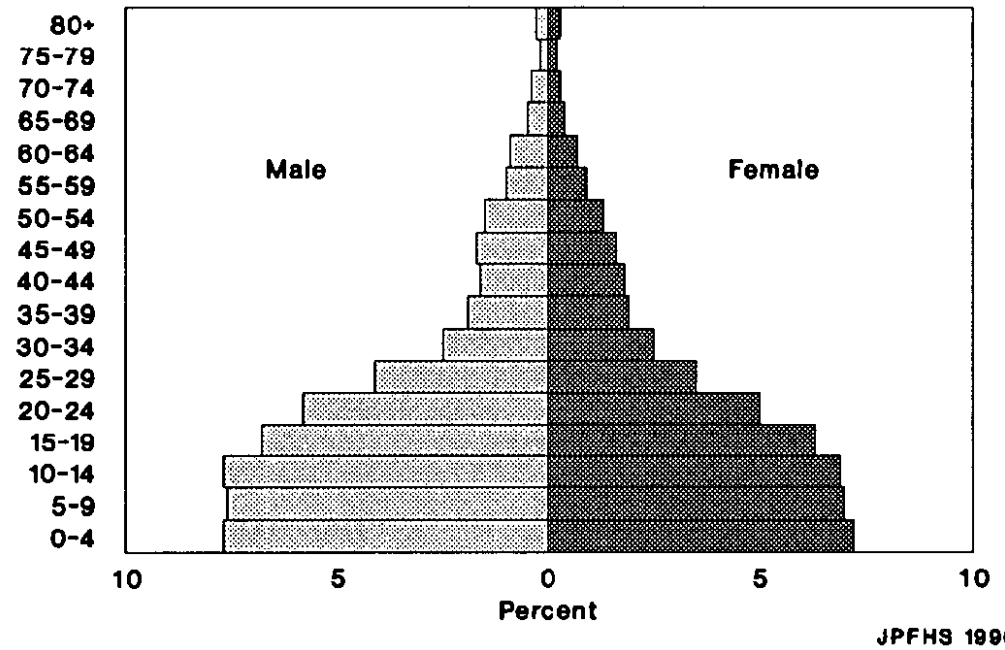


Table 2.1 Household population by age, residence and sex

Percent distribution of the de jure household population by five-year age group, according to sex and urban-rural residence, Jordan 1990

	Large city			Other urban			Rural			Total		
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	13.4	13.8	13.6	14.8	15.4	15.1	16.5	16.7	16.6	14.7	15.1	14.9
5-9	13.3	13.4	13.3	14.8	15.3	15.1	16.1	15.8	15.9	14.5	14.7	14.6
10-14	13.7	13.8	13.7	15.1	14.3	14.7	15.8	15.1	15.5	14.7	14.3	14.5
15-19	13.3	13.1	13.2	13.0	13.4	13.2	12.9	12.9	12.9	13.1	13.2	13.1
20-24	12.1	11.2	11.6	11.2	10.6	10.9	9.9	9.4	9.7	11.2	10.5	10.9
25-29	8.7	7.8	8.3	7.7	7.2	7.4	6.6	6.5	6.6	7.8	7.3	7.5
30-34	4.9	5.5	5.2	5.0	5.1	5.1	4.4	4.8	4.6	4.8	5.2	5.0
35-39	3.7	3.9	3.8	3.4	4.0	3.7	3.5	3.9	3.7	3.6	3.9	3.7
40-44	3.4	3.9	3.7	3.1	3.6	3.3	2.8	3.4	3.1	3.1	3.7	3.4
45-49	3.6	3.7	3.6	3.3	3.0	3.2	2.8	3.0	2.9	3.3	3.3	3.3
50-54	3.1	3.1	3.1	2.7	2.6	2.7	2.5	2.8	2.6	2.8	2.8	2.8
55-59	2.3	2.3	2.3	1.9	1.7	1.8	1.7	1.5	1.6	2.0	1.9	1.9
60-64	1.9	1.7	1.8	1.5	1.5	1.5	1.5	1.4	1.5	1.7	1.6	1.6
65-69	1.2	1.1	1.1	0.8	0.9	0.9	1.0	0.8	0.9	1.0	0.9	1.0
70-74	0.7	0.7	0.7	0.6	0.7	0.7	0.9	0.8	0.8	0.7	0.7	0.7
75-79	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
80 +	0.5	0.6	0.5	0.6	0.5	0.6	0.8	0.6	0.7	0.6	0.6	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	23022	21359	44381	19333	17901	37234	15709	14135	29844	58065	53394	111459

Figure 2.2
Population Pyramid of Jordan



In Jordan, there are more males than females. The overall ratio of males to females is 109, or 109 males for every 100 females. This is a slightly higher ratio than that reported for the 1983 JFFHS survey (108). The large percentage of children under 15 years of age is an indicator of high fertility. The proportion under age 15 is consistently higher for rural populations and for males. The population pyramid for Jordan (see Figure 2.2) shows the wide-base pattern typical of countries in which fertility is high.

2.2 POPULATION BY AGE FROM OTHER SOURCES

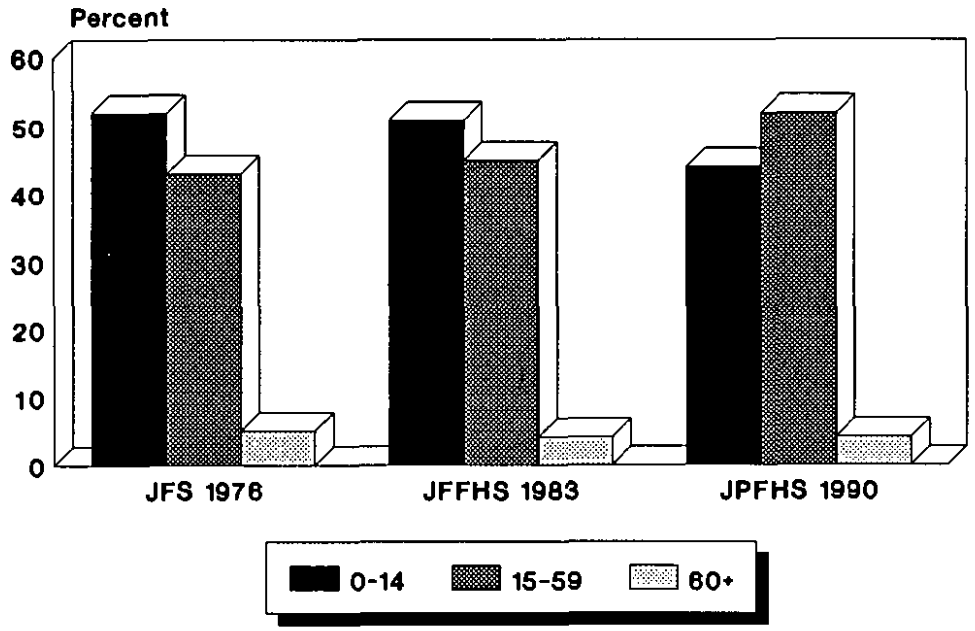
Table 2.2 and Figure 2.3 present a comparison of broad age groups for three surveys: the 1976 JFS, the 1983 JFFHS, and the 1990 JPFHS. The percentage of the population under 15 years of age declined substantially between 1983 and 1990. As a result, the percentage in the 15-59 shows an increase. This pattern is typical of populations that are experiencing a fertility decline. The change in the age structure is favorable in economic terms, assuming that those who are in the productive ages are economically active. The dependency ratio, calculated as the ratio of persons in the "dependent" ages (under 15 and 60 and over) to those in the "economically active" ages (15-59) based on these figures, decreases from 130 in 1976, to 123 in 1983, and 94 in 1990.

Table 2.2 Population by age from selected sources

Percent distribution of the de jure population by broad age groups, selected sources, Jordan 1976-1990

Age group	JFS 1976	JFFHS 1983	JPFHS 1990
Less than 15	52.0	51.2	44.0
15-60	43.4	44.8	51.6
60+	4.5	4.0	4.3
Total	100.0	100.0	100.0

Figure 2.3
Population by Broad Age Groups



2.3 HOUSEHOLD COMPOSITION

Table 2.3 provides information on the size and composition of the sampled households. Household characteristics affect the social and economic well-being of the members of the household. Large household size may be associated with crowding, which can lead to unfavorable health conditions. Single-parent families, especially if they are headed by females, usually have limited financial resources. Information on household composition can also be examined in terms of the number of generations present, since multi-generation households are distinct from single-generation households in a number of ways. In the JPFHS, instead of asking the relationship of each household member to the head-of-household, relationship among members was recorded. This information is used to construct family classifications which are comparable to other data sources.

Large households are common in Jordan. The average number of members (usual residents) in a household is nearly 7. Households in major cities are smaller than those in other urban areas, which are in turn, smaller than rural households. The difference in household size between the large cities and rural areas is almost one person. Thirty-two percent of households are comprised of 9 or more persons. The figure is higher (39 percent) in rural areas, and lower in large cities (25 percent).

The majority of households in Jordan (71 percent) are nuclear families (parents and children) (see Table 2.3). With slight variation, households in large cities are more likely to be nuclear, or nuclear with unmarried relatives, while in the rural areas the households tend to be either nuclear or consist of ever-married relatives. One in eight families in large cities is a nuclear family with unmarried relatives, which may indicate difficulty in finding separate housing for relatives.

Table 2.3 Household composition

Percent distribution of households by size of household and family type, according to urban-rural residence, Jordan 1990

Characteristic	Residence			Total
	Large city	Other urban	Rural	
Number of usual members				
0	0.0	0.0	0.1	0.0
1	2.9	2.7	3.0	2.9
2	8.4	7.9	8.1	8.2
3	8.4	8.1	6.2	7.7
4	10.3	9.1	7.5	9.2
5	11.9	9.3	9.0	10.4
6	13.1	9.5	8.9	10.9
7	10.9	9.8	10.5	10.5
8	9.2	9.2	8.1	8.9
9+	24.9	34.3	38.7	31.5
Total	100.0	100.0	100.0	100.0
Mean size of household	6.4	7.1	7.3	6.9
Family type				
Single person	2.8	2.7	3.0	2.8
Single parent with child(ren)	6.3	4.8	4.8	5.4
Parents with children	69.6	71.0	73.3	71.0
Parents with children and unmarried relatives	12.0	5.9	5.9	8.5
Two ever-married siblings with or without children	1.7	1.5	1.1	1.5
Two ever-married relatives with or without children	3.3	6.4	7.3	5.3
Three or more ever-married relatives with or without children	3.0	5.7	3.2	3.9
Unrelated	1.3	2.1	1.3	1.5
Not classifiable	0.0	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0

2.4 LEVEL OF EDUCATION OF THE HOUSEHOLD POPULATION

Education is an important variable affecting demographic behavior. Higher education is usually associated with greater knowledge and use of health practices and family planning methods. The education system in Jordan has been in place for a long time. Basic education is free and compulsory, starting at age six and lasting for 10 years. A further two-year period, known as the secondary cycle, is virtually free (Battelle Human Affairs Research Centers, 1980). In the JPFHS, questions on education were asked for persons five years of age and older. They included literacy, highest level of education attended and highest grade completed at that level, and whether the person was still in school at the time of the survey. These data can be used to generate school enrollment rates.

Table 2.4 presents data on the educational composition of the population reported in the household questionnaire. An important observation is that women have less education than men. More than 90 percent

Table 2.4 Educational level of the household population

Percent distribution of the de jure male and female household populations age five and over by highest level of education attended, according to selected background characteristics, Jordan 1990

Background characteristic	Level of education						Number of persons	Median number of years
	No education	Primary	Secondary	More than secondary	Missing	Total		
MALE								
Age								
5-9	1.6	56.7	0.0	0.0	41.7	100.0	8436	2.8
10-14	0.9	72.2	26.4	0.0	0.5	100.0	8553	5.9
15-19	1.5	7.8	87.4	3.3	0.1	100.0	7616	9.6
20-24	2.7	7.4	60.2	29.6	0.1	100.0	6486	12.1
25-29	4.2	9.2	50.5	36.1	0.1	100.0	4533	12.4
30-34	5.6	13.7	49.1	31.6	0.0	100.0	2778	11.5
35-39	9.1	17.9	49.0	23.8	0.1	100.0	2067	9.6
40-44	11.0	24.6	44.4	19.8	0.1	100.0	1822	9.1
45-49	16.3	29.2	38.1	16.4	0.0	100.0	1901	7.7
50-54	31.6	33.3	25.4	9.7	0.0	100.0	1633	5.7
55-59	41.2	36.9	16.2	5.7	0.0	100.0	1153	4.3
60-64	50.9	35.4	10.6	3.1	0.0	100.0	971	1.0
65+	71.8	20.7	5.7	1.8	0.0	100.0	1571	0.7
Missing/Don't know	65.5	34.5	0.0	0.0	0.0	100.0	3	0.8
Residence								
Large city	6.3	30.3	40.8	16.2	6.5	100.0	19931	8.4
Other urban	8.0	32.7	40.0	12.1	7.1	100.0	16477	7.6
Rural	12.0	33.7	38.9	6.9	8.5	100.0	13115	6.7
Region								
Amman	7.5	30.9	39.8	15.0	6.8	100.0	19394	8.1
Zarqa + Mafraq	8.2	32.5	41.4	10.8	7.2	100.0	9926	7.6
Irbid	8.6	31.9	40.4	11.7	7.4	100.0	12237	7.6
Balqa	10.1	33.0	38.8	10.6	7.6	100.0	3312	7.2
South	10.6	35.2	37.7	7.7	8.7	100.0	4654	6.7
Total	8.4	32.0	40.0	12.4	7.2	100.0	49523	7.7
FEMALE								
Age								
5-9	1.7	56.7	0.0	0.0	41.6	100.0	7852	2.8
10-14	1.6	70.9	27.0	0.0	0.5	100.0	7647	5.9
15-19	3.0	9.3	82.4	5.3	0.0	100.0	7030	9.8
20-24	5.3	9.3	54.6	30.7	0.1	100.0	5607	12.2
25-29	9.6	13.7	50.3	26.4	0.1	100.0	3877	11.2
30-34	18.1	22.6	41.5	17.8	0.0	100.0	2766	8.4
35-39	33.4	25.1	31.8	9.7	0.0	100.0	2106	6.2
40-44	48.6	25.4	19.9	6.0	0.1	100.0	1966	2.5
45-49	65.0	19.5	12.9	2.5	0.0	100.0	1747	0.8
50-54	81.5	11.2	5.9	1.4	0.0	100.0	1504	0.6
55-59	85.2	9.6	4.0	1.2	0.0	100.0	994	0.6
60-64	88.7	6.7	3.9	0.7	0.0	100.0	832	0.6
65+	93.4	4.2	1.8	0.5	0.1	100.0	1385	0.5
Missing/Don't know	100.0	0.0	0.0	0.0	0.0	100.0	8	0.5
Residence								
Large city	15.2	29.6	37.7	11.3	6.2	100.0	18416	7.1
Other urban	17.9	30.9	34.0	9.3	7.9	100.0	15137	6.4
Rural	25.7	32.4	28.9	4.6	8.5	100.0	11770	4.9
Region								
Amman	16.2	29.8	36.7	10.6	6.8	100.0	18157	6.9
Zarqa + Mafraq	18.6	33.0	33.4	7.5	7.5	100.0	8832	6.1
Irbid	20.3	30.6	33.8	7.8	7.5	100.0	11143	6.1
Balqa	22.6	31.4	30.0	8.2	7.9	100.0	3064	5.6
South	24.6	30.5	29.0	7.8	8.2	100.0	4127	5.3
Total	18.8	30.8	34.2	8.9	7.3	100.0	45322	6.3

of the males in Jordan have had some schooling, while just over 80 percent of the females have attended school. Furthermore, men are likely to stay in school longer than women.

The figures for median number of years of schooling (see Table 2.4) indicate that public education has a long history in Jordan. Men age 50-54 have a median of 6 years of education (equivalent to completing primary school), while women in the same age cohort have less than one year. Among persons age 35-39 years, the median duration of schooling for men is close to 10 years, whereas women have a little more than 6 years. For persons 25-34 the gap has narrowed, and finally disappears for those under 25 years of age.

The level of education is closely associated with residence. In the large cities, a greater proportion of the population have attended higher education than in the rest of the country. The governorates of Amman, Zarqa and Mafraq, and Irbid lead in terms of overall educational attainment.

2.5 SCHOOL ENROLLMENT

Table 2.5 shows the proportion of the household population age 6-24 years enrolled in school, by age, sex and residence. Although the differentials are small, the data support the association of educational enrollment with residence. Large cities have the highest level of educational enrollment, followed by other urban areas, and rural areas.

School enrollment differentials by gender vary according to age. For boys and girls age 6-10 years there is virtually no difference in enrollment. However, as age increases, the gap between males and females widens, and by age 21-24 the enrollment rate for females is only half that for males.

Table 2.5 School enrollment

Percentage of the de jure household population age 6-24 years enrolled in school by age group, sex, and urban-rural residence, Jordan 1990

	Male				Female				Total			
Age group	Large city	Other urban	Rural	Total	Large city	Other urban	Rural	Total	Large city	Other urban	Rural	Total
6-10	97.2	97.5	96.6	97.1	97.7	97.5	95.6	97.0	97.5	97.5	96.1	97.1
11-15	93.2	93.7	93.5	93.4	93.5	92.1	87.1	91.2	93.3	92.9	90.5	92.4
6-15	95.2	95.6	95.1	95.3	95.6	94.9	91.5	94.2	95.4	95.3	93.4	94.8
16-20	54.2	51.7	44.8	50.9	54.3	50.3	41.9	49.8	54.2	51.0	43.4	50.4
21-24	15.5	11.5	8.3	12.5	8.0	6.2	3.6	6.4	12.1	9.1	6.2	9.7

2.6 HOUSING CHARACTERISTICS

In the JPFHS, information on housing characteristics was collected in the individual questionnaire rather than in the household questionnaire. Thus, a sampled household is represented by the number of eligible women interviewed in the household. Households for which no individual interview was completed are, therefore, not included in the analysis.

Table 2.6 presents the distribution of households by housing characteristics. Electricity is widely available; only 3 percent of households do not have electricity. The percentage varies from 10 percent in rural areas to less than 1 percent in the large cities. Virtually all households in Jordan have piped water; this is particularly true in large cities and urban areas where water is piped into the houses. In rural areas, although 80 percent of the households have water piped into the house, 8 percent have water piped into the yard only.

Almost all houses in Jordan are built of permanent materials such as stone, brick, and concrete. Brick is used in more than 50 percent of the houses; another third of the houses are built with concrete. This pattern is the same in cities and rural areas, although, cut stone is more popular in urban areas. In large cities, one in five dwellings is made of cut stone alone or cut stone combined with concrete.

The large size of households in Jordan can be seen in Table 2.6. The mean number of persons per sleeping room is 4 for the country as a whole; this number varies from 3.7 in large cities to 4.5 in rural areas. Almost half of the households have 3 to 4 persons per sleeping room, 29 percent have 1 or 2 persons, and one in six households has 5 to 6 persons per sleeping room. These figures indicate the extent of crowdedness in the household.

Table 2.6 Housing characteristics

Percent distribution of households by housing characteristics, according to urban-rural residence, Jordan 1990

Housing characteristics	Residence			Total
	Large city	Other urban	Rural	
Electricity				
Yes	99.5	98.9	90.0	96.8
No	0.5	1.1	10.0	3.2
Total	100.0	100.0	100.0	100.0
Source of drinking water				
Piped into residence	97.6	92.9	80.1	91.5
Piped into yard, plot	0.7	2.3	8.0	3.1
Public tap	1.1	2.2	3.1	2.0
River, spring, dam	0.0	0.0	1.1	0.3
Tanker truck, vendor	0.4	1.5	2.9	1.4
Well	0.1	1.0	4.1	1.5
Other	0.0	0.1	0.5	0.2
Total	100.0	100.0	100.0	100.0
Building type				
Cut stone	6.5	3.7	1.0	4.1
Cut stone+concrete	14.0	8.2	2.0	9.0
Concrete	33.6	29.9	36.2	33.1
Brick	44.7	55.9	55.9	51.3
Mud brick	1.0	1.4	3.8	1.9
Zinc/metal	0.1	0.3	0.6	0.3
Other	0.1	0.7	0.5	0.4
Total	100.0	100.0	100.0	100.0
Persons per sleeping room				
1-2	34.1	29.8	21.6	29.4
3-4	47.2	45.8	44.0	45.9
5-6	12.6	14.8	21.7	15.7
7+	6.2	9.6	12.7	9.0
Total	100.0	100.0	100.0	100.0
Mean	3.7	4.0	4.5	4.0
Number	2465	1953	1573	5990

2.7 PRESENCE OF DURABLE GOODS IN THE HOUSEHOLD

Jordan is a modernized society, and most of the population enjoy the convenience of electrical appliances (see Table 2.7). About 82 percent of the households have a refrigerator, 88 percent have a radio, and television sets are present in 91 percent of households. There are some differences between the large cities and rural areas, particularly regarding the presence of a refrigerator. Ninety-one percent of households in the large cities had a refrigerator, whereas, only 66 percent of rural households had a refrigerator.

A telephone is available in 34 percent of the households; this figure ranges from 43 in the large cities to 21 percent in rural areas.

Table 2.7 Household durable goods

Percentage of households possessing various durable consumer goods, by urban-rural residence, Jordan 1990

Item	Residence			Total
	Large city	Other urban	Rural	
Radio	92.2	88.2	81.4	88.1
Television	94.4	92.7	84.3	91.2
Refrigerator	90.9	82.3	66.2	81.6
Video player	27.2	15.6	6.9	18.1
Telephone	42.7	33.3	20.8	33.9
Air conditioner	2.3	4.2	1.7	2.7
Bicycle	0.5	0.8	0.8	0.7
Motorcycle	0.3	0.2	0.9	0.4
Private car	29.2	24.0	13.9	23.5
Commercial car	3.7	2.8	1.5	2.8
Pick-up truck	4.3	7.0	11.0	6.9
Other transport	1.5	2.2	2.4	2.0
Number of households	2465	1953	1573	5990

2.8 AGE STRUCTURE OF RESPONDENTS TO THE INDIVIDUAL QUESTIONNAIRE

Table 2.8 presents the distribution of respondents to the individual questionnaire by selected background characteristics, including age, marital status, and residence. Knowledge of date of birth among respondents is widespread. Among women who completed the individual interview, 73 percent gave the month and year of birth, and another 26 percent were able to report their age. Age information was missing for less than one percent of the respondents.

The distribution of ever-married women by age group is shown in Table 2.8. Less than 6 percent of women are under 20 years of age, about 37 percent are age 20 to 29, 32 percent are age 30 to 39, and the rest (25 percent) are 40 or over. Except for the youngest age group, the age structure for ever-married women in 1990 is similar to that in 1976. Compared with data from the 1983 JFFHS, however, the age structure in 1990 is younger. The proportion of women under 35 years of age is larger in the 1990 survey than in the 1983 survey. Likewise, the proportion in the older age cohorts is smaller in the 1990 survey than in the 1983 survey.

Among ever-married women, the percent distribution by marital status has remained constant since 1976 (Department of Statistics, 1979); more than 95 percent are currently married, while the rest are either separated, divorced or widowed. However, comparison of the data from the 1990 JPFHS with data from previous surveys (not shown) regarding the proportion of ever-married women, indicates that the percentage of women in the population who are married is decreasing gradually in almost all age groups. Among women in the 15-19 age group, for example, more than 30 percent were married according to the 1972 National Fertility Survey (Department of Statistics, 1976). This percentage declined to 20 percent in 1976, 13 percent in 1983, and 11 percent in 1990. By age 30, when almost all women would have been married, the percentage was 96 in 1972, 90 in 1983, and 89 in 1990.

The population of Jordan is highly urbanized (see Table 2.8). Forty-one percent of the sample population reside in the major cities of Amman, Zarqa and Irbid, and another 33 percent live in other urban areas; only one in four Jordanians resides in the rural areas. The distribution of the population by governorate emphasizes the degree of urbanization. The three southern governorates (Karak, Ma'an and Tafielah), have small populations and are largely rural. Due to their small size, the three governorates were grouped together under the category "South" to obtain reliable estimates. Mafraq, another small largely rural governorate, was combined with Zarqa for the same reason. Overall, 84 percent of the population live in the governorates with the largest populations—Amman, Irbid, and Zarqa and Mafraq.

The weighted and unweighted numbers of women in the sample are presented in Table 2.8. The unweighted numbers of women in the major governorates (Amman, Irbid, and Zarqa and Mafraq) are smaller than the weighted numbers; the opposite is true in rural areas (Balqa and the South). This is because of oversampling in the five smaller governorates (Balqa, Karak, Ma'an, Mafraq, and Tafielah). The difference between the weighted and unweighted numbers can be seen in the distribution by governorate. For example, in Balqa, although the weighted number of women is 433, in reality the data were collected from 762 women. Oversampling was done in order to provide a sufficient number of women upon which to base estimates.

Table 2.8 Background characteristics of respondents

Percent distribution of ever-married women by selected background characteristics, Jordan 1990

Background characteristic	Weighted percent	Number of women	
		Weighted	Un-weighted
Age			
15-19	5.6	359	353
20-24	16.6	1073	1082
25-29	20.3	1313	1329
30-34	17.6	1138	1128
35-39	14.8	959	946
40-44	13.4	866	878
45-49	11.7	755	745
Marital status			
Married	95.5	6168	6181
Divorced	1.6	102	101
Widowed	2.8	180	172
Separated	0.2	11	7
Education			
No education	23.5	1516	1645
Primary	22.5	1456	1400
Secondary	43.5	2811	2741
More than secondary	10.5	677	675
Residence			
Large city	40.8	2635	2441
Other urban	33.0	2133	2143
Rural	26.2	1693	1877
Region			
Amman	39.2	2530	2166
Zarqa + Mafraq	20.6	1334	1277
Irbid	24.0	1549	1307
Balqa	6.7	433	762
South	9.5	615	949
Total	100.0	6461	6461

2.9 RESPONDENT'S LEVEL OF EDUCATION

Table 2.9 presents an overview of the relationship between level of education and selected background characteristics of the respondents. About 24 percent of women have never been enrolled in formal education, 23 percent have some primary education, 44 percent have some preparatory or secondary education, and 11 percent have more than secondary education.

The distribution of women by level of education and age shows the expected pattern: the percentage of women who have no education and those who have only primary education increases with age, while the percentage who have secondary education decreases with age. More than half of women under age 30 have completed secondary school, and up to 17 percent have higher education.

Women in large cities and other urban areas are more likely to have higher education than their rural counterparts. There is a pronounced difference in women's educational attainment by governorate. In the governorate of Amman, 18 percent of women have no education, whereas, in the South, the proportion is 37 percent. The gap is narrower for primary and secondary education. The larger percentage of women with higher education in certain governorates may be due in part to the greater availability of higher education facilities there.

Table 2.9 Level of education

Percent distribution of ever-married women by highest level of education attended, according to selected background characteristics, Jordan 1990

Background characteristic	Level of education				Total	Number of women
	No education	Primary	Secondary	More than secondary		
Age						
15-19	3.7	15.2	78.2	2.9	100.0	359
20-24	6.1	11.7	67.9	14.2	100.0	1073
25-29	9.2	18.0	55.4	17.4	100.0	1313
30-34	15.4	26.0	44.8	13.7	100.0	1138
35-39	28.5	32.3	31.1	8.1	100.0	959
40-44	45.2	29.9	21.0	3.9	100.0	866
45-49	63.2	23.2	11.3	2.4	100.0	755
Residence						
Large city	14.2	21.7	51.4	12.7	100.0	2635
Other urban	22.3	23.9	42.7	11.1	100.0	2133
Rural	39.4	22.2	32.2	6.3	100.0	1693
Region						
Amman	17.7	23.6	47.9	10.8	100.0	2530
Zarqa + Mafraq	24.1	23.6	43.3	9.0	100.0	1334
Irbid	24.2	22.3	42.5	11.0	100.0	1549
Balqa	33.9	22.1	34.9	9.0	100.0	433
South	36.6	16.9	34.8	11.8	100.0	615
Total	23.5	22.5	43.5	10.5	100.0	6461

In the JPFHS, women who had never gone to school and women whose highest level of education was primary school were asked if they could read. About 7 percent of women who had never been to school and 83 percent of women who had some primary school education declared that they could read written materials (data not shown).

2.10 EXPOSURE TO MASS MEDIA

The exposure of women to television, radio, and newspapers is shown in Table 2.10. Half of the women in the sample watch television frequently, and 39 percent listen to the radio; only 11 percent read newspapers frequently. Although exposure to mass media varies little across age groups, younger women are slightly more likely to be exposed to mass media than older women. As expected, there is a positive association between newspaper reading and education; a greater proportion of the women with secondary or higher education read newspapers than those with less education. The same pattern is present for television viewing and listening to the radio, although women with higher schooling seem to do these activities to a lesser extent than women in other education groups.

The relationship between residence and exposure to mass media varies depending on the type of media. Women in the large cities are more likely to read the newspaper (15 percent) than women in rural areas (5 percent); however, rural women are more likely to watch television (52 percent) than women in large cities (46 percent). The extent to which women listen to the radio does not vary substantially by residence. The same is true for differentials by governorate.

Table 2.10 Access to mass media

Percentage of women who frequently read a newspaper, watch television, or listen to the radio, by selected background characteristics, Jordan 1990

Background characteristic	Read newspaper frequently	Watch television frequently	Listen to radio frequently	Number of women
Age				
15-19	13.4	55.8	45.6	359
20-24	10.3	56.2	45.8	1073
25-29	13.2	50.8	41.9	1313
30-34	11.6	50.6	38.6	1138
35-39	10.6	45.8	36.9	959
40-44	10.0	42.6	31.4	866
45-49	7.4	41.3	30.7	755
Education				
No education	0.3	37.8	25.0	1516
Primary	7.0	49.4	36.8	1456
Secondary	16.1	55.0	46.8	2811
More than secondary	21.9	48.2	40.3	677
Residence				
Large city	14.7	46.4	38.1	2635
Other Urban	11.1	50.0	40.3	2133
Rural	4.9	51.7	37.7	1693
Region				
Amman	13.6	44.2	38.2	2530
Zarqa + Mafraq	11.3	45.6	36.9	1334
Irbid	8.2	61.4	41.5	1549
Balqa	6.9	43.3	40.5	433
South	9.3	48.8	36.6	615
Total	10.9	49.0	38.7	6461

CHAPTER 3

FERTILITY

The Jordan Population and Family Health Survey (JPFHS) collected information on past, current and cumulative fertility. In this survey, a series of questions about live births was asked to obtain data pertaining to fertility. Based on the experience gained from past surveys, the wording and sequence of the questions were designed so as to reduce errors commonly found in such surveys. Basically, data were collected in two sections. First, each woman was asked a series of questions on the number of her sons and daughters living with her, the number living elsewhere, and the number who may have died. Next, for each live birth, the sex, age, whether the birth was single or multiple, whether the child was living in the household or away, and survival status were asked. For dead children, the age at death was recorded. As an indicator of future fertility, information was collected on whether currently married women were pregnant at the time of the interview.

Experience in using birth histories to estimate fertility levels and trends has found that underreporting of children ever born and displacement of children's dates of birth are common in many countries. Underreporting of children affects estimates of fertility levels, while misreporting of children's date of birth distorts fertility trends over time. With regard to the latter, one of the characteristics of the 1990 JPFHS is the high quality of age and date reporting. As noted earlier, virtually all women knew their age. The same is true for age at marriage and date of marriage. With regard to the children's age and date of birth reporting, both month and year of birth are documented for 98 percent of all births recorded in the birth history; for the rest, either age or year of birth is given. This information lends confidence in the quality of the basic data used in the estimation of fertility measures.

Because the fertility rates presented in this chapter are all based on direct measures derived from the birth history section of the JPFHS, two potential drawbacks require some attention. First, only surviving women were interviewed in the survey. This would only bias the rates if mortality of women of childbearing age were high and if fertility of surviving and nonsurviving women differed significantly, neither of which is the case in Jordan. The limitation of the survey respondents to ever-married women presents another potential bias. However, since births in Jordan occur within marriage, the number of births to single women is negligible. Although information on fertility was obtained only from ever-married women, estimates can be made for all women (regardless of marital status) using information in the household questionnaire; these estimates assume that women who have never been married have had no children.

3.1 LEVELS AND DIFFERENTIALS IN FERTILITY

Fertility Levels

Table 3.1 presents the age-specific fertility rates and total fertility rates (TFR) for three Jordanian surveys—the 1976 Jordan Fertility Survey (JFS), the 1983 Jordan Fertility and Family Health Survey (JFFHS), and the Jordan Population and Family Health Survey (JPFHS). The TFR is the sum of the age-specific fertility rates and represents the average number of children a Jordanian woman would have at the end of her reproductive years if she were subject to the observed age-specific rates. Comparison of the findings from the three survey shows the trends in fertility levels over a fourteen-year period. Data for the 1976 survey are calculated based on the two years preceding the survey (1975-1976), while those for 1983 and 1990 refer to the three years preceding the survey (1981-1983 and 1988-1990 respectively). There is a consistent decline in fertility from the mid-1970s to the late 1980s: the TFRs for women age 15-49 declined from 7.4 children in 1976 to 6.6 in 1983, and 5.6 in 1990. The decline in fertility between the mid-1970s and

the early 1980s is 11 percent; the decline between the mid-1970s and late 1980s is 24 percent. A similar pattern is seen for women 15-44 years.

The curve for age-specific fertility rates has remained about the same for each survey since 1976 (see Figure 3.1). It starts low in the youngest age group, increases rapidly in the next group, and peaks in ages 20-34, after which it declines sharply in the 40-44 age group. Very few births occur to women over 45 years of age. The findings from the three surveys indicate that fertility has declined in all age groups. In the 14 years between the JFS and the JPFHS, the largest declines appear to have taken place among women 15-24 years of age. This suggests that much of the decline between 1976 and 1983 can be attributed to an increase in the age at marriage, while decline between 1983 and 1990 is due to greater use of contraception.

Table 3.1 Current fertility according to selected surveys

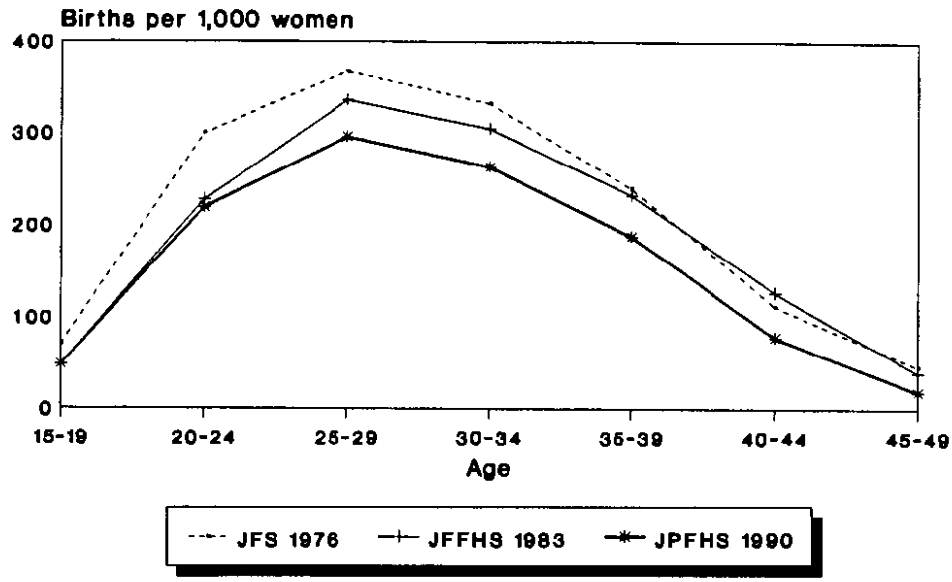
Age-specific fertility rates and total fertility rates from selected surveys, Jordan, 1976, 1983 and 1990

Age group	JFS 1976[1]	JFFHS 1983[2]	JPFHS 1990[2]
15-19	71	49	49
20-24	300	228	219
25-29	367	335	296
30-34	332	305	264
35-39	240	233	188
40-44	112	127	79
45-49	47	40	19
TFR 15-49	7.4	6.6	5.6
TFR 15-44	7.1	6.4	5.5

TFR: Total fertility rates, expressed per woman
[1]Based on two years preceding survey
[2]Based on three years preceding survey

Table 3.2 presents the age-specific fertility rates and cumulative fertility for the three-year period preceding the survey by urban-rural residence. The general fertility rate (GFR) is the annual number of live births per 1,000 women age 15-44 years in the three years preceding the survey. The crude birth rate (CBR) is the annual number of live births per 1,000 population for the same period. All of these measures show a similar

Figure 3.1
Age-specific Fertility Rates
JFS 1976, JFFHS 1983, and JPFHS 1990



pattern: women living in urban areas have a much lower fertility rate than those living in rural areas. Women in large cities bear an average of 4.7 children, compared to 5.6 for women in other urban areas and 6.8 for rural women. The data show that regardless of residence, about half of all births are to women age 25-34, and another 20 percent are to women age 20-24.

Table 3.2 Current fertility

Age-specific fertility rates (per thousand women), cumulative fertility rates and the crude birth rate for the three years preceding the survey, by urban-rural residence, Jordan 1990

Age group	Large city	Other urban	Rural	Total
15-19	55	40	51	49
20-24	194	228	251	219
25-29	265	293	346	296
30-34	214	267	339	264
35-39	159	188	232	188
40-44	58	82	111	79
45-49	[5]	[23] [a]	[39] [a]	[19]
TFR 15-49	4.75	5.60	6.85	5.57
TFR 15-44	4.72	5.49	6.65	5.48
GFR	148.8	165.4	203.1	168.3
CBR	33.9	35.8	39.0	36.1

Note: Figures in brackets are partially truncated rates.
TFR: Total fertility rate, expressed per woman
GFR: General fertility rate (births divided by number of women 15-44), expressed per 1,000 women
CBR: Crude birth rate, expressed per 1,000 population
[a]Based on fewer than 500 person-months of exposure

Fertility Differentials

Table 3.3 presents the total fertility rate (TFR) and the mean number of children ever born (CEB) per woman according to background characteristics of the women. Column one shows the total fertility rates for the three years preceding the survey (1988-1990); column two presents the mean number of children ever born to women 40-49 years. The average number of children ever born is an indicator of cumulative fertility and reflects the fertility of older women who are nearing the end of their reproductive period; it is a measure that represents completed fertility. When fertility remains constant over time, the two measures, TFR and CEB will be the same or almost the same. In the JPFHS, however, completed fertility (8.1 children per woman) is much higher than the total fertility rate (5.6 children per woman), indicating a considerable decline in fertility.

Fertility is much lower in urban areas than in rural areas (see Table 3.3). The total fertility rate for women in large cities (4.8) is almost one child lower than for women in other urban areas (5.6) and more than two children lower than for rural women (6.9). The differentials in the number of children ever born to women 40-49 are not as large, however, suggesting that the large differences in fertility by residence are a recent phenomenon.

Women in Amman Governorate have the lowest fertility rate when comparing fertility levels across governorates. They have, on average, 0.7 child less than women in Zarqa and Mafraq, and Balqa, 1.8 children less than women in the South, and 1.3 children less than women in Irbid.

The largest fertility differentials are by educational attainment. Education is negatively associated with fertility as measured by the total fertility rate and children ever born. Women who have attended higher education (more than secondary) have the lowest level of fertility (4.1), while those with no education have the highest (6.9). The difference between the two groups of women is close to 3 children in terms of the TFR, and almost 5 children according to the mean number of children ever born. These figures suggest that as educational opportunities for women improve, and fertility declines, the differentials in fertility among women according to education will narrow.

Table 3.3 Fertility by background characteristics

Total fertility rate for the three years preceding the survey and mean number of children ever born to women age 40-49, by selected background characteristics, Jordan 1990

Background characteristic	Total fertility rate[1]	Mean number of children ever born to women age 40-49
Residence		
Large city	4.75	7.50
Other urban	5.60	8.38
Rural	6.85	8.83
Region		
Amman	4.88	7.65
Zarqa + Mafraq	5.58	8.32
Irbid	6.20	8.85
Balqa	5.55	7.29
South	6.64	8.59
Education level attended		
No education	6.92	8.84
Primary	6.00	8.38
Secondary	5.39	6.31
More than secondary	4.10	4.03
Total	5.57	8.12

[1]Rate for women age 15-49 years

3.2 FERTILITY TRENDS

In addition to comparing data from previous surveys (see Section 3.1), fertility trends can also be investigated using retrospective data from a single survey. The birth history information collected in the JPFHS is used for this purpose. Table 3.4 presents age-specific fertility rates over time, while Table 3.5 presents marital duration fertility rates over time. Data in the tables are not comprehensive; they are progressively truncated as time before the survey increases. The bottom diagonal of estimates (enclosed in brackets) is also truncated. Due to the truncation, changes taking place over the 20 years preceding the survey are observed only for women up to age 29, and for women who have been married for up to 19 years. Information in these tables should be treated with caution due to the possible omission of or incorrect dating of events, especially by older women, and for distant time periods.

The data in Table 3.4 indicate that the fertility decline at ages 15-29 in the 20 years preceding the survey is quite substantial (37 percent). The data also indicate that while the decline was slow at first (6 percent from 15-19 to 10-14 years preceding the survey), it accelerated to 15 percent from 10-14 to 5-9 years preceding the survey, reaching 22 percent in the most recent period (from 5-9 to 0-4 years preceding the survey). Table 3.5 presents a similar pattern: for the same marriage duration, fertility rates are lowest for the five-years immediately preceding the survey, indicating a decline in fertility over time.

Table 3.4 Age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of birth, Jordan 1990

Mother's age	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
15-19	52	85	131	146
20-24	230	307	345	377
25-29	307	363	410	417
30-34	277	326	349	[374]
35-39	198	243	[300]	U
40-44	86	[149]	U	U
45-49	[23]	U	U	U

Note: Age-specific fertility rates are per 1,000 ever-married women. Figures in brackets are partially truncated rates.
U = Unknown; no information

Table 3.5 Fertility by marital duration

Fertility rates for five-year periods preceding the survey, by number of years since first marriage, Jordan 1990

Years since first marriage	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
0-4	460	476	492	474
5-9	371	422	448	454
10-14	310	364	385	412
15-19	229	278	334	[349]
20-24	137	203	[310]	-
25-29	46	[123]	-	-

Note: Duration-specific fertility rates are per 1,000 women. Figures in brackets are partially truncated rates.

3.3 CHILDREN EVER BORN AND LIVING

In the survey questionnaire, the total number of children ever born to women age 15-49 was ascertained by a series of questions designed to maximize recall. Past experience indicates that, even among illiterate, high fertility populations, omission of births can be kept to a low level, except perhaps for the oldest women in the sample.

Table 3.6 and Figure 3.2 show the mean number of children ever born to all women age 15-49 for the years 1976, 1983 and 1990. The data support the previous finding that there has been a substantial decline in fertility during the 14 years preceding the survey. In 1976, a woman had on average 3.6 children; seven years later this had declined to 3.1, and in 1990 the average number of children ever born was 2.9, reflecting a decline of almost one (0.7) child from 1976. The decline appears to have occurred at all ages, although it is greater for younger women, probably due to later age at first marriage and later age at first birth (see Section 3.5). Women age 20-24 in 1990 have had on average 0.8 child less than women in the same age group 14 years preceding the survey. The decline is greatest among women age 25-29, an average of more than one (1.2) child. The inconsistency of figures for women 40 years of age and older, which is also present in Table 3.1 for 1983, indicates errors either in the reporting of ages of older women or in the reporting of date of birth of their children, or both.

Table 3.6 Children ever born according to selected surveys

Mean number of children ever born for all women by age group, Jordan, 1976, 1983 and 1990

Age group	JFS 1976	JFFHS 1983	JPFHS 1990
15-19	0.2	0.1	0.1
20-24	1.6	0.9	0.8
25-29	3.7	3.0	2.5
30-34	5.6	5.0	4.8
35-39	7.1	6.6	6.6
40-44	8.4	7.5	7.9
45-49	8.6	7.8	8.3
Total	3.6	3.1	2.9

Figure 3.2
Mean Number of Children Ever Born
Jordan, 1976, 1983, and 1990

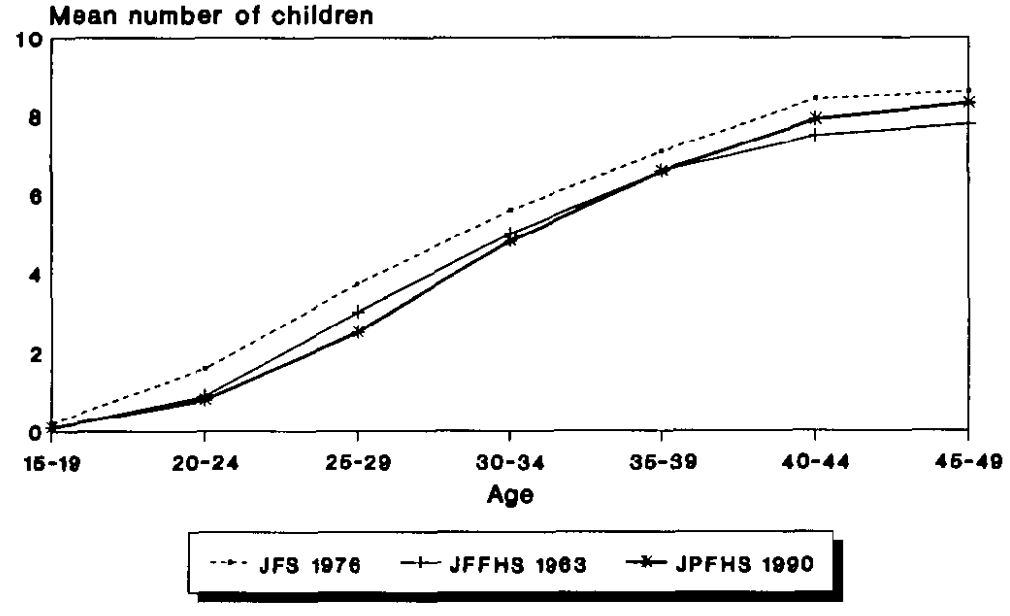


Table 3.7 presents the distribution of all women and currently married women by the number of children they have had. In the JPFHS, since the respondents are ever-married women, information on the reproductive history of never-married women is not available. However, since virtually all births in Jordan take place within marriage, it can be assumed that never-married women have had no births. The data represent the accumulation of births over time. The difference in fertility between all women and currently married women is due to the proportion of women who were not married at the time of the survey (i.e., single, divorced, or widowed); the difference is most pronounced in the younger age groups. The average number of children increases with age, reflecting the natural family building process.

Table 3.7 Children ever born and living

Percent distribution of all women and of currently married women by number of children ever born (CEB) and mean number of children ever born and living, according to age groups, Jordan 1990

Age group	Number of children ever born (CEB)											Total	Number of women	Mean no. of CEB	Mean no. of living children
	0	1	2	3	4	5	6	7	8	9	10+				
ALL WOMEN															
15-19	94.7	3.8	1.4	0.1	--	--	--	--	--	--	--	100.0	3394	0.1	0.1
20-24	64.8	11.4	10.7	8.0	3.4	1.3	0.3	--	0.1	--	--	100.0	2374	0.8	0.8
25-29	32.1	7.3	11.8	13.5	13.1	10.5	6.3	3.7	1.1	0.6	--	100.0	1781	2.5	2.4
30-34	13.6	2.8	5.5	7.8	12.0	15.8	13.5	12.3	8.7	4.1	3.7	100.0	1277	4.8	4.6
35-39	8.3	2.3	2.2	5.2	6.9	8.2	11.4	12.3	12.8	12.6	17.7	100.0	1014	6.6	6.2
40-44	3.9	1.9	2.1	3.4	5.7	7.5	6.5	10.1	12.4	10.4	36.2	100.0	890	7.9	7.4
45-49	4.0	1.0	1.8	2.4	4.6	7.3	7.4	8.7	9.3	14.7	38.8	100.0	770	8.3	7.7
Total	49.1	5.3	5.5	5.5	5.4	5.4	4.5	4.4	3.9	3.5	7.4	100.0	11499	2.9	2.7
CURRENTLY MARRIED WOMEN															
15-19	50.2	35.8	12.5	1.1	0.1	0.3	--	--	--	--	--	100.0	353	0.7	0.6
20-24	22.0	24.9	23.7	17.9	7.7	2.9	0.7	--	0.1	--	--	100.0	1057	1.8	1.7
25-29	6.9	9.4	16.3	18.3	18.2	14.4	8.8	5.2	1.6	0.9	--	100.0	1268	3.5	3.4
30-34	2.6	2.6	5.7	8.5	13.6	18.0	15.6	14.1	10.2	4.8	4.3	100.0	1098	5.5	5.2
35-39	2.5	1.8	1.8	5.1	7.6	8.9	11.4	13.6	13.6	13.6	19.9	100.0	905	7.1	6.7
40-44	1.1	1.1	1.8	3.1	5.5	7.1	6.6	10.5	13.0	11.0	39.1	100.0	807	8.4	7.8
45-49	2.3	0.7	1.8	1.5	3.8	6.8	7.3	9.1	9.1	15.3	42.4	100.0	680	8.7	8.1
Total	9.3	9.2	9.9	9.7	9.7	9.7	8.1	8.0	6.9	6.1	13.5	100.0	6168	5.1	4.8

-- Less than 0.05 percent

The level of fertility among teenagers is low. Only 5 percent of women age 15-19 have had a child. The past high fertility of Jordanian women can be seen from the large proportion of women age 45-49 who have had 10 or more children (39 percent). Since voluntary childlessness is virtually nonexistent, childlessness at age 40 or above can be taken as evidence of primary infertility. Data from the JPFHS indicate that 4 percent of women over age 40 have never given birth.

The last two columns in Table 3.7 show the average number of children ever born and the average number of children still living according to mother's age. Differences in the mean number of children born and living are notable only after age 30. Caution should be used in interpreting the data for women in the oldest age groups due to the problem of memory lapse; older women are more likely to omit some of their children, particularly if the children died at a young age or are living away from their mother.

3.4 BIRTH INTERVALS

A birth interval is the period of time between two successive live births. Information on the length of birth intervals in Jordan is presented in Table 3.8. The data are based on births in the five years preceding to the survey.

Table 3.8 Birth intervals

Percent distribution of births in the five years preceding the survey by number of months since previous birth, according to selected background characteristics, Jordan 1990

Background characteristic	Number of months since previous birth					Total	Median no. of months since previous birth	Number of births
	7-17	18-23	24-35	36-47	48+			
Age								
15-19	61.7	18.5	18.2	1.7	0.0	100.0	16.5	57
20-29	37.0	26.8	26.7	6.4	3.1	100.0	20.9	3020
30-39	20.5	21.0	34.8	11.0	12.7	100.0	26.0	3025
40+	10.3	17.1	36.7	14.1	21.7	100.0	30.5	830
Birth order								
2-3	39.3	25.0	23.6	7.3	4.8	100.0	20.5	2192
4-6	23.6	23.3	32.2	9.5	11.5	100.0	24.7	2420
7+	18.4	20.9	37.7	11.1	11.9	100.0	26.2	2320
Sex of prior birth								
Male	25.4	22.1	31.8	9.5	11.3	100.0	24.7	3555
Female	28.4	24.0	30.8	9.1	7.6	100.0	23.5	3377
Survival of prior birth								
Living	26.0	23.2	31.6	9.5	9.7	100.0	24.2	6655
Dead	46.0	19.6	24.2	5.9	4.3	100.0	18.8	278
Residence								
Large city	27.0	20.9	28.3	11.1	12.7	100.0	24.6	2465
Other urban	27.4	23.3	31.4	9.3	8.7	100.0	23.8	2264
Rural	26.1	25.1	34.6	7.4	6.8	100.0	23.8	2202
Region								
Amman	26.6	22.3	28.8	10.2	12.1	100.0	24.3	2402
Zarqa + Mafraq	24.8	22.5	31.7	10.6	10.4	100.0	24.6	1403
Irbid	30.7	24.3	31.1	7.0	6.9	100.0	23.0	1874
Balqa	23.8	21.4	36.6	10.1	8.1	100.0	24.7	512
South	23.7	24.5	35.7	9.4	6.7	100.0	24.4	741
Education level attended								
No education	17.7	21.6	40.9	10.6	9.3	100.0	26.1	1550
Primary	23.5	23.9	31.7	8.9	11.9	100.0	24.6	1606
Secondary	30.8	23.4	28.2	8.8	8.8	100.0	23.1	3111
More than secondary	37.6	22.3	22.8	9.8	7.5	100.0	21.5	664
Total	26.8	23.0	31.3	9.3	9.5	100.0	24.0	6932

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

Women in Jordan favor relatively long birth intervals: half of all children are born at least 2 years after their siblings, and one in five is born after an interval of 3 years or longer. As expected, children born to younger and lower parity women have shorter birth intervals than those born to older, higher parity women. Birth intervals following a child who died are also shorter than those following surviving children (19 months versus 24 months). This is consistent with results of an earlier survey (Abdel Aziz, 1988). The length of birth intervals does not vary by urban-rural residence or governorate. However, intervals are shorter between births to more highly educated women, presumably in part because they marry later. Since these women are starting their families later, they are more likely to have shorter birth intervals in order to "catch up" with women who started childbearing earlier. Another reason may be the length of breastfeeding; educated women breastfeed their children for shorter duration than uneducated women.

3.5 AGE AT FIRST BIRTH

The onset of childbearing is an important indicator of fertility. In Jordan, the postponement of first births, reflecting later age at first marriage, has made a large contribution to the overall fertility decline.

Table 3.9 shows the distribution of women by age at first birth. Women under age 25 were not included in the calculation of median age at first birth because most had not given birth. The trend in the median age at first birth across age cohorts suggests an increase in the youngest cohorts: 23 years for women age 25-29, and 21.2 years for women age 30-34. Change has been negligible for women 35 years and over (median age at first birth 20.4 to 20.6 years).

Table 3.9 Age at first birth

Percent distribution of women by age at first birth, according to current age, Jordan 1990

Current age	Women with no births	Age at first birth						Total	Number of women	Median age at first birth
		<15	15-17	18-19	20-21	22-24	25+			
15-19	94.7	--	3.4	1.9	--	--	--	100.0	3394	a
20-24	64.8	0.3	7.6	12.9	9.3	5.1	--	100.0	2374	a
25-29	32.1	0.6	13.8	15.5	14.0	16.7	7.3	100.0	1781	23.0
30-34	13.6	1.8	19.3	19.2	15.8	17.3	13.0	100.0	1277	21.2
35-39	8.3	1.3	21.5	22.7	16.7	16.1	13.3	100.0	1014	20.4
40-44	3.9	2.7	19.3	22.1	19.3	20.7	12.0	100.0	890	20.5
45-49	4.0	3.7	16.6	21.7	23.6	18.4	11.9	100.0	770	20.6

-- Less than 0.05 percent
[a]Less than 50 percent of the women have had a birth by the beginning of the age group.

Table 3.10 presents the differentials in age at first birth among women 25-49 years by background characteristics. The median age at first birth for women residing in large cities (21.6 years) is slightly higher than that for women living in other urban or rural areas (21.0 years). There are no significant differences in the age at first birth by region. Differentials by education are more marked and show an unusual pattern. Women with secondary education have the highest median age at first birth (21.2 years), followed by women with no education. The lowest median age at first birth is for women who have attended primary school (19.6 years).

Table 3.10 Median age at first birth by background characteristics

Median age at first birth among women 25-49, by current age and selected background characteristics, Jordan 1990

Background characteristic	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Large city	24.1	21.7	20.5	20.6	20.2	21.6
Other urban	23.2	20.6	20.1	20.4	20.7	21.0
Rural	21.5	21.1	20.8	20.7	21.0	21.0
Region						
Amman	23.4	21.6	20.1	20.1	20.2	21.2
Zarqa + Mafraq	22.7	20.6	20.7	20.4	20.7	21.1
Irbid	22.9	21.4	20.3	21.1	21.1	21.4
Balqa	23.0	21.5	21.9	21.7	21.3	21.8
South	22.7	20.9	20.3	20.3	20.0	21.0
Education level attended						
No education	20.7	20.6	20.3	20.3	20.6	20.5
Primary	20.6	19.0	19.3	19.8	19.9	19.6
Secondary	21.7	20.7	20.5	22.2	21.4	21.2
More than secondary	a	25.9	25.6	24.2	26.2	a
Total	23.0	21.2	20.4	20.5	20.6	21.2

Note: The medians for cohorts 15-19 and 20-24 could not be determined because some women may still have a birth before reaching age 20 or 25, respectively.
[a]Less than 50 percent of the women in these age groups have had a birth.

3.6 TEENAGE FERTILITY

Table 3.11 examines the extent of fertility among women age 15-19. This issue is of major social and health concern because teenage mothers and their children usually have higher risk of morbidity and mortality. At the same time, women who become mothers in their teens are more likely to curtail their education.

The level of teenage childbearing in Jordan is low; only 7 percent of 3,394 women age 15-19 in the sample have given birth (5 percent) or are pregnant with their first child (2 percent). This is consistent with information on the age at marriage (see Chapter 5). Since half of Jordanian women marry when they are nearing age 20, very few have given birth before age 18. Among women 18 years of age, only one in seven (14 percent) is pregnant with her first child or has become a mother; this increases to 18 percent for women 19 years of age.

Table 3.11 Teenage fertility

Percentage of women 15-19 who are mothers or pregnant with their first child, by selected background characteristics, Jordan 1990

Background characteristic	Percentage who are: Mothers	Pregnant with first child	Percentage who have begun child-bearing	Number of women
Age				
15	0.2	0.3	0.6	738
16	1.2	1.6	2.8	863
17	4.3	2.1	6.3	616
18	9.2	4.2	13.5	639
19	15.3	2.7	18.0	537
Residence				
Large city	5.6	1.8	7.5	1351
Other urban	5.1	1.9	7.1	1252
Rural	5.0	2.7	7.7	788
Region				
Amman	5.3	1.6	6.9	1522
Zarqa + Mafraq	4.7	1.9	6.6	683
Irbid	5.3	2.4	7.7	860
Balqa	3.6	4.2	7.8	145
South	9.9	3.3	13.2	169
Education level attended				
No education	8.3	2.3	10.6	74
Primary	8.8	4.2	13.0	310
Secondary	4.8	1.7	6.5	3000
More than secondary	0.8	2.1	3.0	239
Total	5.3	2.1	7.4	3394

Urban-rural residence is not strongly associated with teenage motherhood. With respect to education, the proportion of teenagers who are mothers or pregnant declines as education level increases. The data indicate that the impact of education in reducing teenage pregnancy appears to begin with secondary schooling. There is also a reverse relationship between education and childbearing in that young women who are pregnant often drop out of school. The regional distribution shows that the South has the highest level of teenage childbearing, followed by Balqa and Irbid, while Amman, Zarqa and Mafraq have the lowest levels.

Table 3.12 presents the distribution of women age 15-19 by number of children ever born. The average number of children ever born for this age group is less than 0.1 child, indicating that the level of teenage fertility in Jordan is very low.

Table 3.12 Children born to teenagers

Percent distribution of women 15-19 by number of children ever born (CEB), according to single year of age, Jordan 1990

Age	Number of children ever born			Total	Mean number of CEB	Number of women
	0	1	2+			
15	99.8	0.2	--	100.0	--	738
16	98.8	1.1	0.1	100.0	--	863
17	95.7	3.6	0.6	100.0	--	616
18	90.8	6.4	2.8	100.0	0.1	639
19	84.7	10.1	5.3	100.0	0.2	537
Total	94.7	3.8	1.5	100.0	0.1	3394

-- Less than 0.05 percent, or mean less than 0.05 children

CHAPTER 4

FAMILY PLANNING

The Government of Jordan has no explicit population policy intended to influence fertility levels, but it acknowledges the right of parents to decide the number and spacing of their children. In recent years, family planning activities have increased substantially. Through the Ministry of Health, the Jordan Family Planning and Protection Association and rural development projects, women are receiving information about family health, breastfeeding, and childspacing.

The 1990 JPFHS was designed to collect information on topics related to the spacing and limiting of births. This chapter presents the major findings on current, past, and intended future use of contraception. Whenever possible, comparison is made with the results of three DHS surveys carried out in North Africa (Egypt, Morocco, and Tunisia); time trends are examined by comparing the JPFHS findings with those of two earlier surveys: the 1976 Jordan Fertility Survey (JFS) (Department of Statistics, 1979) and the 1983 Jordan Fertility and Family Health Survey (JFFHS) (Department of Statistics, 1984b).

4.1 KNOWLEDGE OF FAMILY PLANNING METHODS AND SOURCES

One of the major objectives of the JPFHS is to determine the level of knowledge of contraceptive methods. In the survey, the level of awareness of family planning methods was measured in two ways:

1. Respondents were first asked an open-ended question about which contraceptive methods they had heard of. All methods named in response to this question were recorded as unprompted (spontaneous) knowledge.

2. When a respondent failed to mention any of the listed methods, the interviewer would describe the method and ask if the respondent had heard about it. All methods recognized by the respondent after description were recorded as prompted (probed) knowledge.

Information on knowledge was collected for seven modern methods (the pill, IUD, injection, vaginal methods (foam, jelly, sponge or diaphragm), the condom, female sterilization and male sterilization), and three traditional methods (periodic abstinence, withdrawal and prolonged breastfeeding[1]). In addition, provision was made in the questionnaire to record any other methods named spontaneously by respondents.

In this analysis, only the overall levels of knowledge are presented, i.e., respondents are classified as knowing a method regardless of whether they recognized it spontaneously or after hearing it described. It should be noted that knowledge of a family planning method in the JPFHS and all DHS surveys is defined simply as having heard of a method. No questions were asked to elicit depth of knowledge, such as how a specific method is used.

[1] Jordan and Egypt were the only two DHS countries that included prolonged breastfeeding in the list of family planning methods on which respondents were prompted.

Virtually all currently married women in Jordan know at least one method of family planning (see Table 4.1). Among modern methods, the pill and IUD are the best known (98 percent), followed by female sterilization (95 percent). Knowledge of the condom, vaginal methods and injection varies from 51 to 58 percent. The least recognized method, male sterilization, is known by only 26 percent of married women. Among traditional methods, as expected, prolonged breastfeeding is known by nearly all currently married women. Periodic abstinence and withdrawal are also well known (78 and 70 percent, respectively).

Most currently married women (95 percent) know a source for family planning methods (see Table 4.1). Knowledge of a source is highest for the pill (89 percent) and the IUD (88 percent), and lowest for injection (40 percent) and male sterilization (21 percent). Generally, eight or nine of every ten women who know a specific method are familiar with a source for that method.

Table 4.1 Knowledge of contraceptive methods and source for methods

Percentage of currently married women who know specific contraceptive methods and who know a source (for information or services), by specific methods, Jordan 1990

Contraceptive method	Know method	Know a source
Any method	99.8	94.8
Any modern method	99.0	94.2
Pill	98.3	88.6
IUD	97.9	87.7
Injection	50.7	39.8
Vaginal methods	58.1	49.7
Condom	55.2	46.8
Female sterilization	94.5	85.3
Male sterilization	26.3	20.9
Any traditional method	99.7	64.7
Periodic abstinence	78.0	64.7
Withdrawal	70.2	NA
Prolonged breastfeeding	99.7	NA
Other	6.8	NA
Number of women	6168	6168

NA = Not applicable

Table 4.2 presents the percentage of currently married women who know any method of contraception, who know any modern method, and the percentage who know a source for a modern method by selected background characteristics. Since knowledge of any family planning method or any modern method is almost universal, there is little variation among subgroups.

With respect to knowledge of a source for modern methods, at least 90 percent of women in all subgroups know a source for a modern method except women living in rural areas (89 percent), those with no education (87 percent), and those residing in Balqa Governorate (69 percent).

Table 4.2 Knowledge of modern contraceptive methods and source for methods

Percentage of currently married women who know at least one modern contraceptive method and who know a source (for information or services) for a modern method, by selected background characteristics, Jordan 1990

Background characteristic	Know any method	Know a modern method[1]	Know a source for modern method	Number of women
Age				
15-19	99.3	97.8	91.0	353
20-24	99.9	99.1	94.2	1057
25-29	100.0	99.8	96.2	1268
30-34	99.9	99.4	95.2	1098
35-39	99.8	98.9	95.1	905
40-44	99.8	98.5	92.7	807
45-49	99.8	97.8	91.5	680
Residence				
Large city	99.9	99.5	97.2	2513
Other urban	100.0	99.3	94.6	2034
Rural	99.7	97.8	89.2	1622
Region				
Amman	99.9	99.5	96.5	2420
Zarqa + Mafraq	100.0	99.3	94.8	1265
Irbid	100.0	99.5	98.1	1470
Balqa	98.7	93.6	69.3	416
South	100.0	98.6	92.0	597
Education level attended				
No education	99.7	97.1	87.3	1422
Primary	99.8	99.1	95.1	1365
Secondary	99.9	99.7	96.6	2723
More than secondary	100.0	99.8	97.8	658
Total	99.8	99.0	94.2	6168

[1]Includes pill, IUD, injection, vaginal methods (diaphragm/foam/jelly), condom, female sterilization, male sterilization and Norplant

4.2 EVER USE OF CONTRACEPTION

Table 4.3 shows the percentage of women who have ever used a contraceptive method. Two-thirds (64 percent) of ever-married women report that they have used a contraceptive method at some time, including 18 percent who have used prolonged breastfeeding. Ever-use among currently married women (65 percent) is almost the same as for ever-married women. Modern methods are used by the majority of currently married ever-users (52 percent). The pill is the most popular method (33 percent), followed by the IUD (31 percent). The percentage reporting ever-use of any other modern method is less than 8 percent.

Table 4.3 Ever use of contraception

Percentage of ever-married women and of currently married women who have ever used a contraceptive method, by specific method and age, Jordan 1990

Contraceptive method	Age of woman							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
EVER-MARRIED WOMEN								
Any method	21.2	45.8	65.5	76.0	73.9	73.0	64.0	63.7
Any modern method	9.0	30.3	49.4	62.8	63.7	63.2	53.5	50.8
Pill	6.1	16.0	29.4	39.4	41.9	45.4	39.5	32.8
IUD	2.7	19.8	32.2	42.5	38.8	30.6	20.7	29.7
Injection	--	--	0.4	1.1	1.8	3.3	4.5	1.5
Vaginal methods	2.2	2.3	5.5	8.3	10.1	10.6	8.8	7.0
Condom	1.3	3.1	6.2	12.4	6.8	7.8	5.7	6.7
Female sterilization	--	--	0.3	1.9	10.1	15.4	13.2	5.5
Male sterilization	--	--	--	--	0.1	--	--	--
Any traditional method	16.0	28.2	41.4	47.5	42.2	40.3	34.8	38.1
Periodic abstinence	4.8	11.2	16.6	23.1	18.6	18.0	14.6	16.5
Withdrawal	6.3	9.4	17.3	23.1	18.9	20.9	15.7	16.9
Prolonged breastfeeding	8.3	13.0	20.1	22.5	21.3	19.6	16.7	18.4
Other	--	0.1	0.8	0.8	1.4	2.3	2.1	1.1
Number of women	359	1073	1313	1138	959	866	755	6461
CURRENTLY MARRIED WOMEN								
Any method	20.9	46.0	66.9	77.3	75.9	74.7	67.1	64.9
Any modern method	8.9	30.3	50.4	63.7	65.5	64.7	55.9	51.7
Pill	6.2	16.2	30.0	40.0	42.6	45.9	41.2	33.2
IUD	2.4	20.1	33.2	43.6	40.7	32.1	22.3	30.8
Injection	--	--	0.2	1.0	1.8	3.1	4.8	1.4
Vaginal methods	2.2	2.3	5.5	8.6	10.4	10.7	9.2	7.1
Condom	1.4	2.9	6.2	12.6	6.9	7.7	6.0	6.8
Female sterilization	--	--	0.3	1.8	10.7	16.2	14.0	5.6
Male sterilization	--	--	--	--	0.1	--	--	--
Any traditional method	15.6	28.3	42.2	48.6	43.7	41.9	36.8	39.0
Periodic abstinence	4.9	11.3	17.1	23.8	19.6	18.6	15.8	17.0
Withdrawal	6.1	9.4	17.8	23.5	19.6	21.8	17.1	17.4
Prolonged breastfeeding	8.1	13.1	20.3	23.2	21.9	20.5	17.3	18.8
Other	--	0.1	0.8	0.8	1.5	2.4	2.4	1.1
Number of women	353	1057	1268	1098	905	807	680	6168

-- Less than 0.05 percent

The level of ever-use of traditional contraceptive methods is fairly high in Jordan. Prolonged breastfeeding, the most frequently adopted traditional method, has been used by 19 percent of currently married women, followed by withdrawal (17 percent) and periodic abstinence (17 percent).

Ever use of contraceptive methods increases with age, from 21 percent among currently married women age 15-19 to 77 percent among women age 30-34, and declines thereafter. This pattern is particularly true for the IUD. While the IUD has been used by less than 3 percent of currently married women age 15-19, ever use of the IUD increases rapidly to 44 percent among women age 30-34. Ever use of the pill peaks at age 40-44. Among traditional methods, prolonged breastfeeding is used most frequently by women age 25-44, while withdrawal and periodic abstinence are most popular among women age 30-34.

Compared with the findings of the 1976 JFS, the level of ever-use among ever-married women has increased by 36 percent, from 47 percent in 1976 to 64 percent in 1990. The overall increase in ever use of modern methods between the two surveys is slightly lower (31 percent) than the increase for all methods.

4.3 CURRENT USE OF CONTRACEPTION

The level of current use of contraception is one of the indicators most frequently used to assess the success of family planning activities. It is also widely used as a measure in the analysis of the determinants of fertility.

The JPFHS findings indicate that 40 percent of currently married women are using a contraceptive method, including 5 percent of women who are using prolonged breastfeeding (see Table 4.4 and Figure 4.1). Two-thirds of current users rely on modern methods, while the remaining women use traditional methods. The IUD is the most widely adopted modern method (15 percent), followed by female sterilization (6 percent) and the pill (5 percent). Less than 2 percent rely on other modern methods, such as the condom and vaginal methods. Thirteen percent of currently married women are using a traditional method, principally prolonged breastfeeding (5 percent); withdrawal and periodic abstinence are each practiced by 4 percent of currently married women.

Overall, the level of contraceptive use has increased substantially in recent years, from 23 percent in the 1976 JFS survey to 26 percent in the 1983 JFFHS survey, and to 35 percent in the 1990 JPFHS survey[2] (see Table 4.5). The relative increase in the seven years preceding the JPFHS is more than 29 percent for modern methods, and 35 percent for all methods.

Comparing specific methods, there has been considerable change in the use of specific contraceptive methods in the period between 1976 and 1990 (see Table 4.5 and Figure 4.2). Most noticeable is the shift from the pill to the IUD and female sterilization. While 12 and 8 percent of married women were using the pill in 1976 and 1983 respectively, only 5 percent were using it in 1990. On the other hand, IUD use increased from 2 percent in 1976 to 8 percent in 1983, and to 15 percent in 1990. Use of female sterilization also increased substantially.

The JPFHS findings on use of contraception are similar to those for other Arab countries in which DHS surveys have been conducted (Egypt, Morocco and Tunisia), and which have long-established family planning programs. The Jordan findings are most similar to those from Egypt and Morocco (see below).

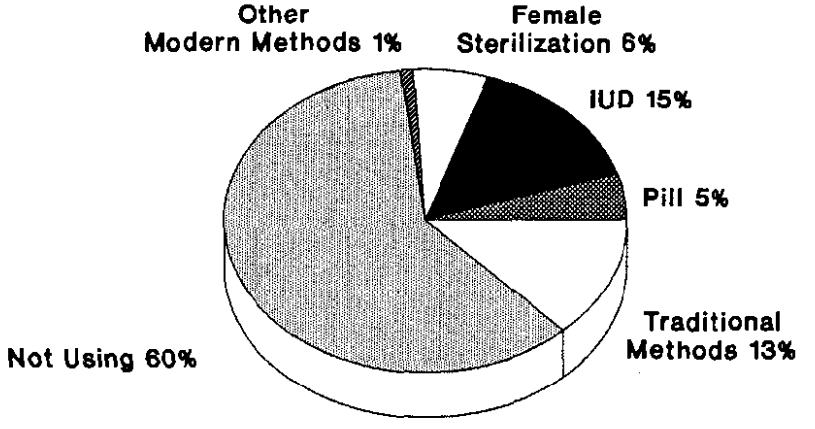
[2] To maintain comparability with data from previous surveys, prolonged breastfeeding is not included as a family planning method.

Table 4.4 Current use of contraception

Percent distribution of ever-married women and of currently married women by current use of contraceptive methods, according to age, Jordan 1990

Contraceptive method	Age of woman							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
EVER-MARRIED WOMEN								
Any method	12.1	27.7	36.0	47.0	49.3	48.5	31.0	38.3
Any modern method	3.8	16.1	22.7	32.3	35.6	34.9	22.5	25.8
Pill	1.1	3.7	4.2	5.2	6.1	5.6	2.5	4.4
IUD	1.9	11.6	16.7	23.3	18.1	12.6	5.9	14.6
Injection	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Vaginal methods	0.3	0.3	0.8	0.5	0.6	0.6	0.4	0.5
Condom	0.5	0.5	0.7	1.4	0.7	0.5	0.4	0.7
Female sterilization	0.0	0.0	0.3	1.9	10.1	15.4	13.2	5.5
Male sterilization	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Any traditional method	8.3	11.6	13.3	14.6	13.7	13.6	8.5	12.5
Periodic abstinence	1.4	2.9	3.2	3.6	5.0	5.5	3.3	3.7
Withdrawal	2.3	2.9	3.2	4.5	3.9	5.4	4.1	3.8
Prolonged breastfeeding	4.5	5.7	6.9	6.3	4.7	2.2	0.8	4.8
Other	0.0	0.1	0.0	0.3	0.1	0.4	0.3	0.2
Not using	87.9	72.3	64.0	53.0	50.7	51.5	69.0	61.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	359	1073	1313	1138	959	866	755	6461
CURRENTLY MARRIED WOMEN								
Any method	12.3	28.1	37.2	48.5	52.3	51.6	33.7	40.0
Any modern method	3.9	16.4	23.5	33.3	37.8	37.1	24.2	26.9
Pill	1.1	3.7	4.4	5.4	6.5	6.0	2.8	4.6
IUD	2.0	11.8	17.3	24.1	19.2	13.5	6.5	15.3
Injection	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Vaginal methods	0.3	0.3	0.8	0.6	0.6	0.6	0.5	0.6
Condom	0.5	0.5	0.7	1.4	0.7	0.6	0.5	0.8
Female sterilization	0.0	0.0	0.3	1.8	10.7	16.2	14.0	5.6
Male sterilization	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Any traditional method	8.4	11.7	13.7	15.1	14.5	14.5	9.5	13.1
Periodic abstinence	1.5	2.9	3.3	3.7	5.3	5.9	3.7	3.9
Withdrawal	2.4	2.9	3.3	4.7	4.1	5.8	4.5	4.0
Prolonged breastfeeding	4.6	5.8	7.2	6.5	5.0	2.3	0.9	5.0
Other	0.0	0.1	0.0	0.3	0.1	0.5	0.4	0.2
Not using	87.7	71.9	62.8	51.5	47.7	48.4	66.3	60.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	353	1057	1268	1098	905	807	680	6168

Figure 4.1
Current Use of Contraceptive Methods
Currently Married Women 15-49



JPFHS 1990

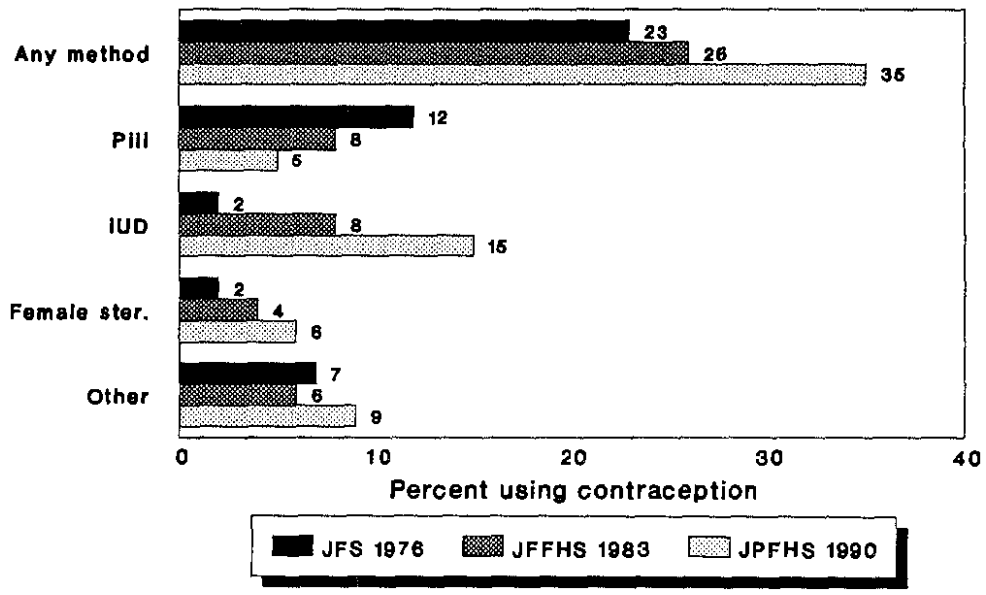
Table 4.5 Trends in contraceptive use

Percentage of currently married women who are using specific contraceptive methods, Jordan, 1976 JFS, 1983 JFFHS, and 1990 JPFHS

Contraceptive method	1976 JFS	1983 JFFHS	1990 JPFHS
Any method	22.8	26.0	35.0
Any modern method	17.3	20.8	26.9
Pill	11.9	7.8	4.6
IUD	2.0	8.3	15.3
Injection	NA	0.2	0.0
Vaginal methods	0.1	0.1	0.6
Condom	1.4	0.6	0.8
Female sterilization	1.9	3.8	5.6
Any traditional method[a]	5.4	5.3	8.1[b]
Periodic abstinence	2.1	2.9	3.9
Withdrawal	3.3	2.4	4.0
Number of women	3455	3735	6184

[a]Other methods are excluded because of non-comparability among the three surveys.
[b]Prolonged breastfeeding is excluded as a contraceptive method because no question was asked about this method in the two earlier surveys.
Source: Department of Statistics (1979; 1984b)

Figure 4.2
Current Use of Specific Contraceptive Methods, Currently Married Women 15-49



Use of contraception among currently married women, selected DHS surveys, 1987-1990[3]

	Any method	Modern method	Traditional method
Egypt, 1988[4]	36.7	35.4	1.3
Jordan, 1990[4]	**35.0**	**26.9**	**8.1**
Morocco, 1987	35.9	28.9	6.9
Tunisia, 1988	49.8	40.4	9.4

Use of contraceptive methods differs by demographic and socioeconomic characteristics. With regard to age patterns, the proportion of women using contraception increases with age and then declines (see Table 4.4); current use among currently married women is lowest among women age 15-19 (12 percent), increases to the highest level among women 35-39 (52 percent), then declines sharply among those 45-49 years of age (34 percent). Most women in the younger cohorts use contraception for spacing births, relying on the pill, IUD, and traditional methods. Women age 40-49 are more likely to use female sterilization in order to limit (stop) childbearing.

[3] Source: Sayed, et al., 1989 (Egypt); Azelmat, Ayad and Belhachmi, 1989 (Morocco); Aloui, Ayad and Fourati, 1989 (Tunisia).

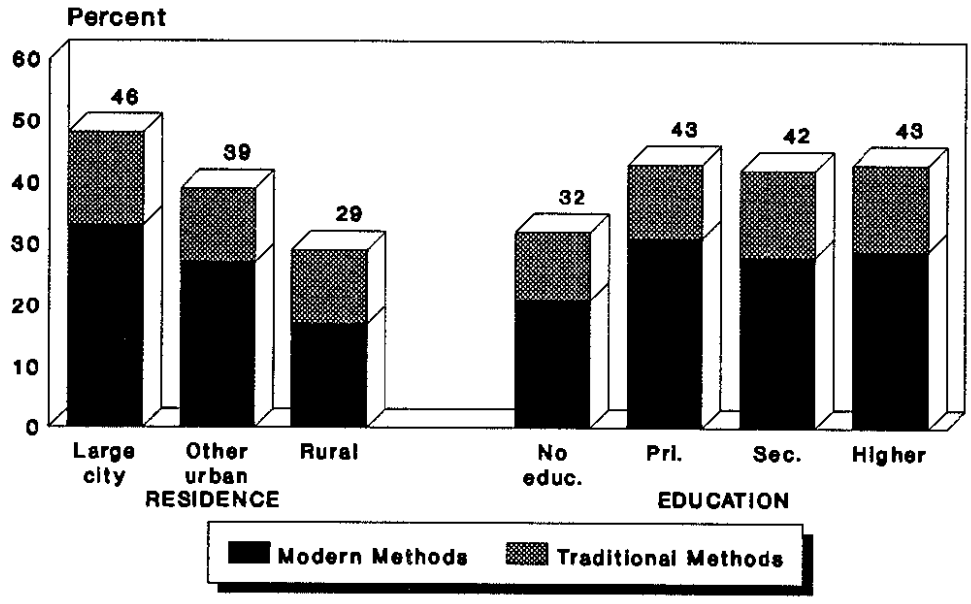
[4] Prolonged breastfeeding is excluded from the data for Egypt and Jordan.

Contraceptive use is highest among women living in large cities (48 percent), followed by women in other urban areas (39 percent) and rural areas (29 percent) (see Table 4.6) The percentage using modern methods among women in large cities is twice that of rural women (34 percent and 17 percent respectively) (see Figure 4.3).

There is considerable regional variation in current use of family planning (see Table 4.6). The governorate of Amman has the highest level of contraceptive use (48 percent) followed by the governorates of Zarqa and Mafraq (40 percent). The lowest levels are in the South (32 percent) and Balqa (26 percent). Differentials in use of modern methods are similar to those for use of any method.

With regard to education, current use of contraception varies primarily between women who have received formal education and those with no education (see Table 4.6). Differences between the three education levels are small. This pattern is also true for current use of modern methods. It should be noted, however, that use of the IUD increases with level of education, while use of female sterilization is negatively correlated with level of educational attainment. This could be due in part to the fact that women with no education tend to be older and have more children than women who have received formal education, and thus are more likely to want to stop childbearing altogether. Use of traditional methods also increases with level of education; this is particularly true for periodic abstinence.

Figure 4.3
Contraceptive Use by Residence and Education, Currently Married Women 15-49



Current use of contraception increases with the number of living children, ranging from less than 1 percent among currently married women with no children to 48 percent among those with four or more children (see Table 4.6 and Figure 4.4).

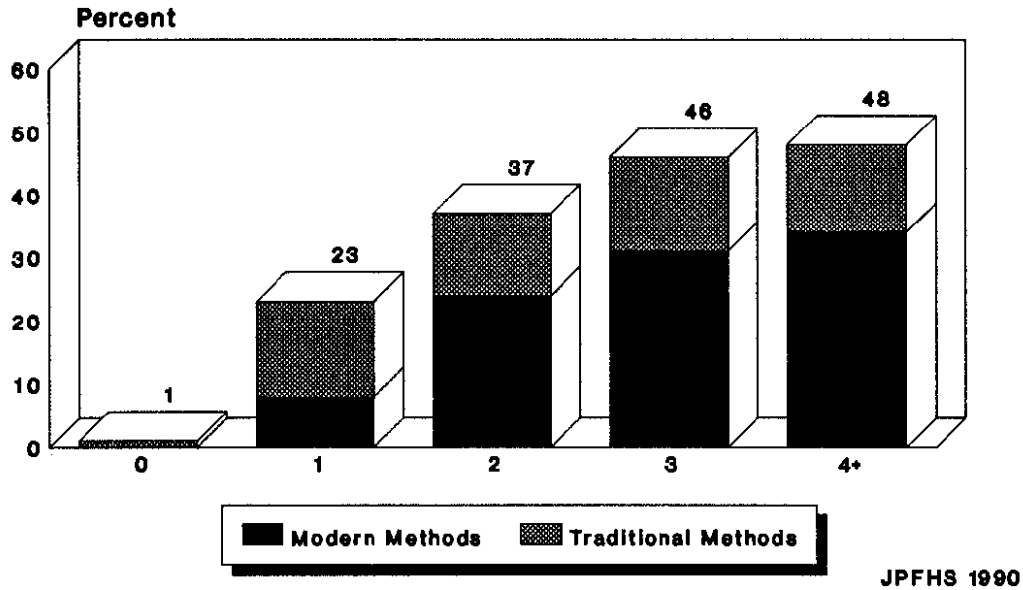
Table 4.6 Current use of contraception by background characteristics

Percent distribution of currently married women by contraceptive method currently used, according to selected background characteristics, Jordan 1990

Background characteristic	Any method	Modern methods: Any modern method[1]	Pill	IUD	Vaginal methods	Condom	Female sterilization	Traditional methods: Any method	Periodic abstinence	Withdrawal	Prolong. breastfeeding	Other	Not using any method	Total	Number of women
Residence															
Large city	48.3	33.5	6.2	19.4	0.8	1.1	5.9	14.8	5.4	4.7	4.6	0.1	51.7	100.0	2513
Other urban	38.7	26.5	3.9	14.8	0.5	0.6	6.6	12.2	3.1	4.3	4.6	0.2	61.3	100.0	2034
Rural	28.5	16.9	3.0	9.5	0.2	0.3	3.8	11.6	2.5	2.6	6.2	0.3	71.5	100.0	1622
Region															
Amman	48.3	33.8	5.7	19.3	1.0	1.1	6.7	14.5	4.6	4.8	5.0	0.1	51.7	100.0	2420
Zarqa + Mafraq	39.9	25.6	5.2	15.8	--	0.5	4.0	14.3	3.6	5.3	5.2	0.2	60.1	100.0	1265
Irbid	33.7	20.9	2.8	11.2	0.5	0.7	5.9	12.7	3.8	3.1	5.6	0.3	66.3	100.0	1470
Balqa	25.5	20.1	4.7	10.4	0.1	0.1	4.8	5.5	2.6	0.9	1.7	0.2	74.5	100.0	416
South	31.8	20.7	3.2	11.4	0.3	0.8	4.8	11.1	2.4	2.6	5.9	0.2	68.2	100.0	597
Education level attended															
No education	31.6	20.7	3.0	8.1	0.2	0.1	9.3	10.9	2.1	3.0	5.6	0.2	68.4	100.0	1422
Primary	42.6	30.5	4.9	15.2	0.5	0.7	9.2	12.0	3.1	4.4	4.3	0.2	57.4	100.0	1365
Secondary	42.2	27.8	5.3	17.9	0.6	1.0	2.9	14.4	4.4	4.6	5.3	0.1	57.8	100.0	2723
More than secondary	43.2	28.6	4.9	19.9	1.4	1.0	1.6	14.6	7.1	3.1	4.2	0.2	56.8	100.0	658
Number of living children															
0	0.9	0.3	0.2	0.2	--	--	--	0.5	0.1	0.4	--	--	99.1	100.0	583
1	22.9	7.6	3.4	2.8	0.6	0.6	0.2	15.3	5.2	3.3	6.8	--	77.1	100.0	582
2	37.5	24.3	4.4	17.6	0.3	1.6	0.5	13.2	4.3	4.2	4.6	--	62.5	100.0	652
3	45.9	30.6	5.3	21.5	0.5	0.9	2.4	15.3	4.2	3.0	8.0	0.1	54.1	100.0	628
4+	48.2	33.8	5.4	18.1	0.7	0.7	8.8	14.3	4.1	4.8	5.1	0.3	51.8	100.0	3724
Total	40.0	26.9	4.6	15.3	0.6	0.8	5.6	13.1	3.9	4.0	5.0	0.2	60.0	100.0	6168

-- Less than 0.05 percent
[1]Includes users of injection and male sterilization.

Figure 4.4
Contraceptive Use by Number of Living Children, Currently Married Women 15-49



4.4 NUMBER OF CHILDREN AT FIRST USE OF CONTRACEPTION

Table 4.7 shows the number of children women had when they first used contraception. With increasing adoption of family planning, particularly among younger women, the average parity of women at first use of contraception has been declining. Less than one-third of women age 40-49 used any family planning method before having 4 or more children, compared to over half of women age 25-29. Women are adopting family planning fairly early in the family building process. The proportion who started using contraception after marriage to delay the first birth has increased from less than 1 percent among women age 45-49 to almost 4 percent among those age 15-19. Overall, 19 percent of ever-married women (30 percent of ever-users), began using a contraceptive method when they had one child, and an additional 12 percent when they had two children.

When the Jordan findings were compared with those from the three North African countries in which DHS survey has been conducted (Egypt, Morocco, and Tunisia), it was found that parity at first use of contraception in Jordan was about the same as in Egypt, but higher than in Tunisia and Morocco.

Table 4.7 Number of children at first use of contraception

Percent distribution of ever-married women by number of living children at the time of first use of contraception, according to current age, Jordan 1990

Current age	Never used contra-ception	Number of children at time of first use of contraception					Total	Number of women
		0	1	2	3	4+		
15-19	78.8	3.6	14.9	2.6	0.0	0.0	100.0	359
20-24	54.2	2.7	24.0	13.0	4.2	2.0	100.0	1073
25-29	34.5	2.1	27.6	16.3	8.8	10.7	100.0	1313
30-34	24.0	2.0	21.0	17.2	11.4	24.4	100.0	1138
35-39	26.1	0.8	14.4	11.3	9.8	37.5	100.0	959
40-44	27.0	0.6	13.5	7.9	10.1	40.8	100.0	866
45-49	36.0	0.2	11.1	6.1	6.7	39.8	100.0	755
Total	36.3	1.7	19.4	12.1	8.1	22.5	100.0	6461

4.5 PROBLEMS WITH CURRENT USE OF CONTRACEPTION

Table 4.8 presents the problems identified by women as associated with the use of specific contraceptive methods. Overall, the majority of current users (71 to 98 percent) have had no problems with their methods. However, a minority of users report that they have had problems, mainly with the pill and IUD. Side effects and health concerns are the main problems reported by pill and IUD users (27 percent and 20 percent, respectively).

Table 4.8 Problems with current method of contraception

Percent distribution of contraceptive users by the main problem with current method, according to specific methods, Jordan 1990

Main problem	Pill	IUD	Vaginal methods	Con-dom	Female sterili-zation	Periodic absti-nence	With drawal	Prolonged breast-feeding
No problem	70.5	76.9	88.5	90.6	81.1	95.0	89.3	97.5
Husband disapproves	0.0	0.0	0.0	0.7	0.0	1.2	2.6	0.0
Side effects	17.0	13.6	5.0	0.0	7.5	0.7	1.3	0.0
Health concerns	9.7	6.7	3.7	5.1	9.6	0.0	3.3	0.7
Inconvenient to use	0.5	0.2	2.9	3.7	0.0	1.1	2.1	0.4
Sterilized, want children	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Other	2.4	2.4	0.0	0.0	1.8	2.1	1.0	0.7
Missing	0.0	0.3	0.0	0.0	0.0	0.0	0.5	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	285	942	34	47	356	238	248	310

Note: Users of injection, male sterilization and other traditional methods are excluded because of their small numbers.

4.6 KNOWLEDGE OF THE FERTILE PERIOD

Periodic abstinence is regarded as an important family planning method for health reasons as well as psychological, religious, and social reasons. A basic knowledge of the ovulatory cycle and an awareness of the fertile period is important for practicing periodic abstinence or the *safe period method.* As noted earlier, this method has been used by 17 percent of currently married women at some time, and it is currently being used by 4 percent of women. Since the failure rate for using the safe period method is high, it is important to find out if women who are practicing the method know when in the ovulatory cycle they should avoid having sexual intercourse.

Table 4.9 presents the distribution of all ever-married women and of women who have ever used periodic abstinence by the time in the ovulatory cycle when they think a woman is most likely to get pregnant (perceived fertile period). To obtain these data, the respondent was asked when in the monthly cycle a woman has the greatest chance of becoming pregnant. The response was recorded in one of the precoded categories. The results indicate that the ovulatory cycle is well known to ever-married women, as well as to women who have used the safe period method. Half of ever-married women can identify the correct safe period. This proportion is more than twice that for ever-married women in Egypt, Tunisia, Morocco and Sudan (DHS surveys). Among women who have used periodic abstinence, 69 percent answered correctly, while 21 percent gave the response "after the period ended." Again, these rates are higher than in all the above-mentioned countries except Sudan (72 percent).

Table 4.9 Knowledge of fertile period

Percent distribution of ever-married women and of women who have ever used periodic abstinence by knowledge of the fertile period during the ovulatory cycle, Jordan 1990

Perceived fertile period	Ever-married women	Ever users of periodic abstinence
During her period	1.1	0.6
After period ended	24.1	21.4
Middle of her cycle	50.3	68.6
Before period begins	1.7	1.6
Any time	0.7	0.3
Other	0.3	0.4
Don't know	21.8	7.1
Total	100.0	100.0
Number	6461	1064

Despite the relatively large proportion of women who can correctly identify the fertile period, it should be noted that more than one in five ever-married women say they do not know when the fertile period occurs. As periodic abstinence is being used by a substantial number of women, family planning workers need to provide more information on the physiology of reproduction, with emphasis on the ovulatory cycle.

4.7 TIMING OF STERILIZATION

With the increasing use of sterilization among women, the age at which the operation takes place is of particular interest to family planning officials (see Table 4.10). Overall, age at sterilization has remained about the same in Jordan; the median age for women under 40 years of age is 35 years.[5] Women who were sterilized when they were less than 30 years of age are more likely to have had the operation performed in the distant past; older women (40 years and over) tend to have had the operation more recently.

[5] The median is calculated for women under 40 years of age in order to minimize problems of censoring.

Table 4.10 Timing of sterilization

Percent distribution of sterilized women by age at the time of sterilization, according to the number of years since the operation, Jordan 1990

Years since operation	Age at time of operation						Total	Number of women	Median age[1]
	<25	25-29	30-34	35-39	40-44	45-49			
<2	1.4	6.8	10.6	46.2	27.7	7.3	100.0	74	36.4
2-3	0.7	6.2	26.6	41.8	21.6	3.1	100.0	76	35.5
4-5	0.0	4.7	21.3	44.6	29.4	--	100.0	56	36.0
6-7	1.8	12.3	15.5	53.0	17.4	--	100.0	53	36.1
8-9	5.5	10.0	36.9	43.4	4.2	--	100.0	40	34.8
10+	2.2	20.9	59.4	17.5	--	--	100.0	57	32.0
Total	1.7	9.8	27.3	41.1	18.0	2.2	100.0	356	35.1

-- Less than 0.05 percent
[1]Median age was calculated only for women less than 40 years of age to avoid problems of censoring.

4.8 SOURCE OF SUPPLY FOR MODERN METHODS

In addition to information about the level of contraceptive use, program officials need to know where users obtain their methods. The JPFHS included a question for current users of modern methods about the source of their method. Family planning clinics and private doctors predominate as the sources of supply for modern contraceptive methods (see Table 4.11 and Figure 4.5). Together, they serve half of current users. This contrasts with 1983, when private doctors served 35 percent of current users (Department of Statistics, 1984b). Over the same period, family planning clinics gained in popularity, increasing fivefold from 6 percent in 1983 to 30 percent in 1990.

Pharmacies are the primary source for users of methods which require resupply, including the pill (64 percent), vaginal methods (71 percent), and condoms (61 percent). Family planning clinics provide services for half of IUD users (49 percent). Government hospitals are the source for most female sterilizations (73 percent).

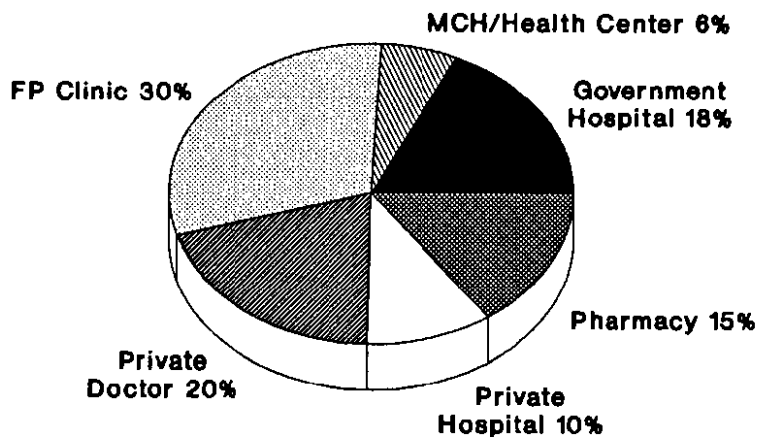
Table 4.11 Source of supply for modern contraceptive methods

Percent distribution of current users of modern contraceptive methods by most recent source of supply or information, according to specific methods, Jordan 1990

Source of supply or information	Pill	IUD	Vaginal methods	Condom	Female sterilization	All modern methods[1]
Government hospital	4.8	2.6	8.4	--	73.0	18.2
MCH/Health center	3.7	8.9	--	13.0	0.5	6.1
Family planning clinic	9.4	48.9	3.4	24.3	--	30.1
Private doctor	13.8	30.6	17.5	2.3	1.6	20.4
Private hospital	2.2	5.9	--	--	24.9	9.0
Pharmacy	64.0	1.1	70.6	60.5	--	14.7
Friends/relatives	0.4	--	--	--	--	0.1
Other	0.8	2.0	--	--	--	1.2
Don't know	1.0	--	--	--	--	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	285	942	(34)	(47)	356	1666

Note: Figures in parentheses are based on fewer than 50 cases.
-- Less than 0.05 percent
[1]Includes users of injection and male sterilization.

Figure 4.5
Sources of Family Planning Methods
Current Users of Modern Methods



JPFHS 1990

4.9 TIME TO SOURCE FOR MODERN FAMILY PLANNING METHODS

Current users of modern contraceptive methods were asked how much time (minutes) was required to get from their home to the place where they obtained their method. The same question was asked of women who were not using a modern method, and of all women who knew a contraceptive method (with reference to the place they would go if they wanted to obtain a modern method). The median time to a source for modern methods was 16 minutes; this was the same for all three subgroups (see Table 4.12). Rural women live 15 minutes farther from a source than women in large cities. Among users of modern methods, 56 percent live less than 30 minutes from their source of supply, and another 25 percent are 30 to 59 minutes from a source. For women who are not using a modern method and women who know a method, the proportion in each time category is slightly smaller.

Table 4.12 Time to source of supply for modern contraceptive methods

Percent distribution of women who are currently using a modern contraceptive method, of women who are not using a modern contraceptive method, and of women who know a method, by time to reach a source of supply, according to urban-rural residence, Jordan 1990

	Women who are currently using a modern method				Women who are not using a modern method				Women who know a contraceptive method			
Minutes to source	Large city	Other urban	Rural	Total	Large city	Other urban	Rural	Total	Large city	Other urban	Rural	Total
0-14	31.2	22.7	13.9	25.6	10.1	10.2	9.1	9.8	16.9	13.4	9.9	13.9
15-29	36.4	27.5	16.2	30.2	15.7	11.5	10.0	12.6	22.4	15.6	11.1	17.2
30-59	21.0	27.2	32.0	24.9	8.5	10.7	9.8	9.6	12.6	14.9	13.4	13.6
60+	7.5	16.6	28.9	14.0	2.9	4.2	7.4	4.7	4.4	7.3	11.0	7.1
Don't know time	3.9	5.9	9.0	5.4	1.4	2.0	3.2	2.2	2.2	3.0	4.2	3.0
Don't know source	--	--	--	--	13.8	19.1	23.8	18.5	9.2	14.2	19.6	13.6
Not stated	--	--	--	--	2.4	2.8	1.8	2.4	1.6	2.1	1.5	1.8
Users of traditional methods	NA	NA	NA	NA	45.2	39.5	34.7	40.2	30.7	29.4	29.2	29.9
Total percentage	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	847	544	275	1666	1788	1589	1418	4795	2631	2132	1687	6451
Median	15.6	20.7	30.8	16.0	15.6	15.9	30.3	15.9	15.6	20.1	30.4	15.9

-- Less than 0.05 percent
NA = Not applicable

4.10 CONTRACEPTIVE DISCONTINUATION

A key concern of family planning officials is the extent to which women discontinue use of contraceptive methods, and their reasons for doing so. Life table discontinuation rates based on information collected in the calendar are presented in Table 4.13. Discontinuation rates were calculated for each method based on use during the first twelve months after beginning the method. The reasons for discontinuation were examined, and classified into three main categories: method failure, desire to become pregnant, and other reasons including problems related to the use of a particular method, husband's disapproval, and absence of need to use a family planning method.

Table 4.13 First-year discontinuation rates for contraception

Proportion of contraceptive users who discontinued use of a method by 12 months after beginning the method, due to method failure, desire to become pregnant, or other reason, by specific methods, Jordan 1990

Contraceptive method	Reason for discontinuing use of contraceptive method				
	Method failure	Desire to become pregnant	Side effects and health concerns	Other reason	Total
Pill	8.1	10.5	30.0	14.6	63.2
IUD	2.4	4.3	11.0	3.1	20.7
Vaginal methods	31.6	5.4	16.5	21.8	75.3
Condom	12.2	8.9	12.0	30.5	63.6
Periodic abstinence	29.9	11.3	1.9	12.4	55.6
Withdrawal	19.4	9.4	2.5	23.0	54.3
Prolonged breastfeeding	19.4	4.3	0.7	18.0	42.4
Total	13.3	7.0	10.7	13.0	44.0

Note: Figures are based on life-table calculations.

Thirteen percent of users stopped using before the end of the first year because the method failed to protect them from pregnancy; 7 percent said they stopped because they wanted to become pregnant; and 11 percent stopped because of side effects and health concerns.[6] First-year discontinuation rates due to method failure are highest for vaginal methods and traditional methods. Three in ten women who used a diaphragm, foam or jelly and 30 percent of women who used periodic abstinence got pregnant while using the method.

Table 4.14 provides information about women's reasons for discontinuing contraceptive use. The table includes all discontinuatons in the five years before the survey regardless of whether they occurred during the first twelve months of use or later. Method failure is the reason given most frequently for discontinuation (27 percent), followed by desire to get pregnant (22 percent), and side effects (17 percent). It should be noted that 16 percent of women did not give a definite answer to this question. Discontinuation due to method failure is particularly high for traditional methods: periodic abstinence (52 percent), prolonged breastfeeding (40 percent) and withdrawal (37 percent). For modern methods, method failure was the main reason given for discontinuation of vaginal methods (38 percent) and condoms (28 percent), both coitus-dependent methods.

[6] Discontinuation rates presented in Table 4.13 refer to *all episodes* of contraceptive use in the period of time covered by the calendar, not just *those episodes that began* during this period. These are cumulative one-year discontinuation rates and represent the proportion of users discontinuing a method by 12 months after the start of use. The rates are calculated by dividing the number of discontinuations for each reason at each duration of use in single months by the number of months of exposure at that duration. The single-month rates are then cumulated to produce a one-year rate. The reasons for discontinuation are treated as competing risks (net rates).

Table 4.14 Reasons for discontinuation of contraception

Percent distribution of discontinuations of contraceptive methods in the five years preceding the survey by main reason for discontinuation, according to specific methods, Jordan 1990

Reason for discontinuation	Modern method discontinued				Traditional method discontinued			
	Pill	IUD	Vaginal methods	Condom	Periodic abstinence	Withdrawal	Prolonged breast-feeding	All methods[1]
Became pregnant	13.1	11.3	37.5	27.5	51.5	36.7	40.1	27.0
To become pregnant	22.0	29.0	11.3	15.7	23.2	20.1	15.8	21.6
Husband disapproved	0.9	0.7	2.5	11.4	4.4	8.3	0.5	2.3
Side effects	35.5	30.3	17.3	7.7	1.1	2.5	0.7	17.2
Health concerns	7.1	6.8	4.1	5.8	3.1	2.8	1.0	4.6
Access/availability	0.5	--	0.9	--	--	--	0.3	0.7
More effective method	1.6	1.3	3.2	6.9	5.6	9.0	11.4	5.2
Inconvenient to use	1.9	2.0	4.0	8.2	1.4	3.5	0.6	2.0
Infrequent sex	4.8	1.5	2.7	1.6	1.4	2.5	0.1	2.1
Fatalistic	0.1	--	--	--	--	--	0.4	0.1
Menopause	0.7	0.5	1.7	--	0.6	0.8	0.5	0.7
Marital dissolution	0.7	0.5	--	0.9	0.1	0.2	0.1	0.3
Other	10.7	16.1	14.0	14.3	7.3	12.0	28.1	15.6
Don't know	--	0.1	0.8	--	0.2	0.5	0.2	0.1
Missing	0.4	0.2	--	--	0.2	1.0	0.2	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1211	1160	162	124	615	522	1067	4923

-- Less than 0.05 percent
[1]Total includes 10 discontinuations of injection and other traditional methods.

4.11 FUTURE USE OF FAMILY PLANNING

To obtain information about potential demand for family planning services, all currently married women who were not using contraception at the time of the survey were asked about their interest in adopting family planning in the future. Those who responded in the affirmative were also asked which method they would prefer to use, and whether they intended to use this method in the next 12 months.

Table 4.15 presents the distribution of currently married women who were not using contraception, by intention to use in the future, according to number of living children. Forty-one percent of nonusers say that they intend to use family planning in the future, most of them within the next 12 months. About the same proportion of nonusers say they do not intend to use in the future (43 percent). Those who intend to use a method in the future are more likely to have used in the past than to have never used a method. Those who had never used contraception are more likely to be unsure about their intentions. Among women who had no experience in using family planning, one in five was unsure about using a family planning method in the future.

Table 4.15 Future use of contraception

Percent distribution of currently married women who are not using a contraceptive method by past experience with contraception and intention to use in the future, according to number of living children, Jordan 1990

Past experience with contraception and future intentions	Number of living children[1]					Total
	0	1	2	3	4+	
Never used contraception						
Intend to use in next 12 months	1.7	19.2	16.3	12.5	6.3	9.4
Intend to use later	24.4	20.7	10.9	4.7	3.0	8.5
Unsure as to intention	24.5	21.2	9.1	10.5	6.3	10.9
Does not intend use	47.1	28.2	28.9	21.8	28.5	29.6
Missing/Not in union	0.5	0.0	0.0	0.0	0.0	0.1
Previously used contraception						
Intend to use in next 12 months	0.3	2.2	14.1	23.5	22.2	16.6
Intend to use later	0.3	4.6	11.5	9.9	6.2	6.4
Unsure as to intention	0.3	1.9	4.1	8.7	6.4	5.2
Does not intend use	0.9	1.9	5.1	8.3	20.8	13.2
Missing/Not in union	0.0	0.0	0.0	0.0	0.2	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Currently married nonusers						
Intend to use in next 12 months	2.0	21.4	30.3	36.0	28.6	26.0
Intend to use later	24.7	25.3	22.4	14.6	9.2	14.9
Unsure as to intention	24.8	23.1	13.2	19.3	12.7	16.1
Does not intend use	48.0	30.1	34.1	30.2	49.3	42.8
Missing/Not in union	0.5	0.0	0.0	0.0	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	363	503	407	396	2035	3704

[1]Includes current pregnancy

Intention to use contraception in the future has a strong positive association with the number of living children the woman has (see Table 4.15); women with more children are more likely to want to use contraception in the future than those with fewer children. More than half of women with two or three children say they intend to use a method of family planning, compared to 27 percent of childless women.

The reasons women do not use family planning are of particular interest to family planning program officials. Table 4.16 gives the distribution of women who are not using contraception by their reason for not using. The primary reason given has to do with infecundity: 28 percent of women say it is difficult to get pregnant. The next most common reason for not using is the desire to get pregnant: 21 percent of nonusers say they are not using because they want to have children. Other reasons mentioned are husband's disapproval (7 percent), health concern (7 percent), religion (7 percent), and a fatalistic view (6 percent). An additional 8 percent mention menopause, hysterectomy and infrequent sex.

Table 4.16 Reasons for not using contraception

Percent distribution of women who are not using a contraceptive method and who do not intend to use in the future by main reason for not using, according to age, Jordan 1990

Reason for not using contraception	Age		Total
	15-29	30-49	
Wants children	39.2	12.2	20.8
Lack of knowledge	0.8	1.7	1.4
Husband opposed	12.1	4.4	6.9
Cost too much	0.0	0.1	0.1
Side effects	4.5	4.3	4.3
Health concerns	7.7	6.3	6.7
Religion	8.0	5.7	6.5
Opposed to family planning	0.4	0.8	0.7
Fatalistic	6.3	6.4	6.4
Other people opposed	0.2	0.0	0.1
Infrequent sex	0.7	2.3	1.8
Difficult to be pregnant	12.4	35.5	28.2
Menopausal, had hysterectomy	0.2	9.4	6.5
Inconvenient	0.3	0.9	0.7
Other	2.4	6.5	5.2
Don't know	4.9	3.5	3.9
Total	100.0	100.0	100.0
Number of women	508	1087	1595

Women under 30 are more likely than older women to mention the desire to have children, while difficulty in becoming pregnant is more often reported by older women. Husband's disapproval is mentioned more often by younger women than women 30 and over. As expected, hysterectomy and menopause are cited exclusively by older women.

Method preferences among women not using a contraceptive method at the time of the survey but who intend to use a family planning method in the future are shown in Table 4.17. The majority of women (74 percent) say they want to use a modern method of contraception; only 14 percent want to use a traditional method. Half of the women who intend to use contraception say they want to use the IUD. (Among currently married women, use of the IUD has increased from 8 percent in 1983 to 15 percent in 1990). After the IUD, the most popular methods are the pill (17 percent) and female sterilization (7 percent). Method preferences are almost identical for women who intend to use contraception in the next 12 months and for those who intend to use after 12 months.

Some programmatic implications can be drawn from the data in Table 4.17. Because of the popularity of the IUD, pill, and female sterilization, a number of issues need to be considered in anticipation of women carrying out their intentions to use these methods. First, the pill supply must be adequate to meet the needs of women who want to use this method; second, for women who want to use the IUD or female sterilization, trained personnel must be available to provide these services.

Table 4.17 Preferred method of contraception for future use

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, Jordan 1990

Preferred method of contraception	Intend to use: In next 12 months	Intend to use: After 12 months	Total
Pill	17.4	16.4	17.0
IUD	47.9	46.7	47.4
Injection	0.7	1.0	0.8
Vaginal methods	1.3	1.0	1.2
Condom	1.1	0.3	0.8
Female sterilization	7.9	4.0	6.5
Periodic abstinence	6.0	5.7	5.9
Withdrawal	2.7	3.6	3.0
Other	0.4	0.7	0.5
Prolonged breastfeeding	4.2	4.7	4.4
Missing	10.4	16.0	12.4
Total	100.0	100.0	100.0
Number	963	553	1516

4.12 ACCEPTABILITY OF MEDIA MESSAGES ON FAMILY PLANNING

All ever-married women were asked if it was acceptable to them to have family planning messages on radio or television. The objective of the question was to examine the level of popular support for family planning education and advertising on mass media. The results indicate that overall, 84 percent of ever-married women consider it acceptable for mass media to carry programs on family planning issues (see Table 4.18). Although acceptance is generally greater among younger than older women, when urban-rural differentials are considered, age differences are minimal. Younger women in urban areas are only slightly more likely than younger women in rural areas to favor family planning messages on mass media. The popularity of family planning information on radio and television varies across regions. It is highest in Balqa and Amman, and lowest in the South.

Education is closely associated with acceptance of family planning messages. The popularity of family planning messages is uniformly high among women who have attended secondary or higher education (more than 88 percent).[7] Among women who have no schooling and those who have attended only primary school, older women are more likely to consider family planning messages acceptable than younger women.

[7] The small proportion of women in the oldest age group who have attended higher education and are favorable toward family planning messages (76 percent) is probably due to the small number of women in that category.

Table 4.18 Acceptability of the use of mass media for disseminating family planning messages

Percentage of women who believe that it is acceptable to have messages about family planning on radio or television, by age and selected background characteristics, Jordan 1990

Background characteristic	Age of woman							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Residence								
Large cities	84.3	86.4	88.5	85.4	87.4	84.6	86.3	86.4
Other Urban	92.9	86.7	86.5	85.9	83.5	80.7	78.3	84.7
Rural	82.8	84.1	85.4	83.2	78.5	74.8	72.3	80.7
Region								
Amman	92.2	90.8	90.7	88.8	87.4	87.8	86.4	89.0
Zarqa + Mafraq	75.8	83.1	83.8	83.2	75.1	74.9	78.3	80.1
Irbid	87.9	83.4	86.0	80.8	83.3	74.3	70.7	81.1
Balqa	93.5	89.3	92.7	92.9	93.8	92.8	92.9	92.6
South	83.8	78.1	78.9	79.3	76.1	71.7	69.2	76.9
Education level attended								
No education	58.0	74.5	68.6	76.2	73.7	74.4	77.1	74.7
Primary	77.0	77.9	90.0	85.5	83.2	81.5	84.1	83.9
Secondary	90.1	87.7	88.6	86.5	91.4	92.8	91.3	88.8
More than secondary	89.1	88.9	88.3	89.0	90.3	86.1	75.9	88.4
Total	86.9	85.9	87.0	85.0	83.6	80.8	80.3	84.4

CHAPTER 5

NUPTIALITY AND EXPOSURE TO THE RISK OF PREGNANCY

This chapter addresses the principal factors, other than contraception, which affect a woman's risk of becoming pregnant, namely nuptiality, postpartum amenorrhea, and secondary infertility. The Jordan Population and Family Health Survey (JPFHS) questionnaire differs from the standard DHS questionnaire in that direct questions on recent sexual activity were not included due to the difficulty in addressing these questions to women. Information on sexual activity was replaced with proxy questions involving information on whether the respondent's husband lives in the same household and the amount of time he spent in the household during the month preceding the survey.

The subject of nuptiality is of particular interest because marriage is a primary indicator of the exposure of women to the risk of pregnancy. Information about marriage patterns is important for an understanding of fertility. Early age at first marriage is associated with early childbearing and high fertility. In this survey and in all data collection in Jordan, the term *marriage* refers to a legal or formal union.

5.1 CURRENT MARITAL STATUS

Table 5.1 compares the data for ever-married women from the 1976 Jordan Fertility Survey (JFS), 1983 Jordan Fertility and Family Health Survey (JFFHS), and the 1990 Jordan Population and Family Health Survey (JPFHS). In the 14 years between 1976 and 1990, the percentage of women ever married decreased from 66 to 56 percent, a drop of 15 percent. However, the decline appears to have occurred in the first 7 years, since the percentages are the same for 1983 and 1990.

In Jordan, marriage is almost universal. By the end of the reproductive years, only 2 percent of women have never entered into marriage (see Figure 5.1). In 1976, less than 5 percent of women age 30-34 had never been married, while in 1990 11 percent of women in that age group were still single. Likewise, for women in younger age groups, the percentage who have never been married is lower in 1976 than in 1990. These figures indicate that women are marrying at older ages than in the past. The data indicate that the decline is not smooth, suggesting that most of the increase in age at marriage took place between 1976 and 1983.

Table 5.1 Ever-married women according to selected surveys

Percentage of women 15-49 who have ever married by age, Jordan, 1976, 1983 and 1990

Age group	JFS 1976	JFFHS 1983	JPFHS 1990
15-19	19.5	9.4	10.6
20-24	64.1	42.0	45.2
25-29	87.4	76.3	73.7
30-34	95.3	90.1	89.1
35-39	92.4	94.9	94.6
40-44	98.0	96.8	97.3
45-49	98.3	97.1	98.0
Total	65.7	56.0	56.2

Figure 5.1
Never-Married Women 15-39 by Age
Jordan, 1976, 1983, and 1990

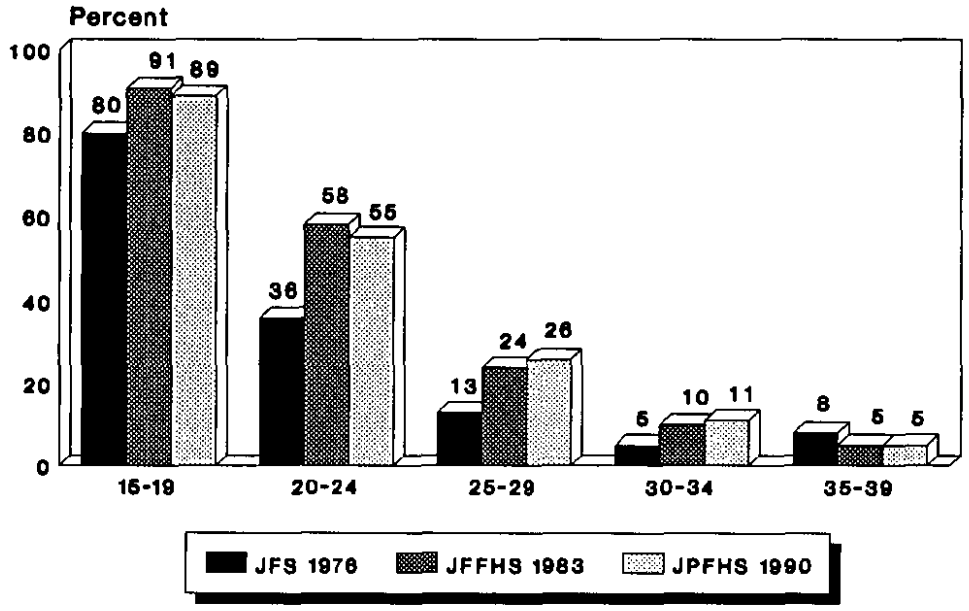


Table 5.2 presents the distribution of women by current marital status. Of the 11,499 women age 15-49 listed in the household schedule, 44 percent had never married, 54 percent were currently married, and the remaining 3 percent were either divorced, widowed or separated. The percentage of women 15-49 who were married in 1976 and 1983 was 63 percent and 53 percent respectively.

Table 5.2 Current marital status

Percent distribution of women by current marital status, according to age, Jordan 1990

Age	Marital status					Total	Number of women
	Never married	Married	Divorced	Widowed	Not living together		
15-19	89.4	10.4	0.2	0.0	0.0	100.0	3394
20-24	54.8	44.5	0.4	0.2	0.1	100.0	2374
25-29	26.3	71.2	1.9	0.4	0.2	100.0	1781
30-34	10.9	86.0	1.5	1.4	0.2	100.0	1277
35-39	5.4	89.3	1.6	3.5	0.2	100.0	1014
40-44	2.7	90.8	1.3	5.2	0.0	100.0	890
45-49	2.0	88.3	0.8	8.7	0.2	100.0	770
Total	43.8	53.6	0.9	1.6	0.1	100.0	11499

The proportion currently married increases steadily from 10 percent among women 15-19 to 91 percent among those 40-44, then declines slightly to 88 percent for women in the oldest age group. As expected, the proportion widowed increases with age, reaching 9 percent for women age 45-49. The percentage of divorced women is extremely low, less than 2 percent of women in all age groups.

5.2 MARITAL EXPOSURE

Table 5.3 presents marital exposure to the risk of pregnancy, as measured by the percentage of time the woman has been in marital union. Since the table is based on information collected in the calendar, exposure time is limited to the five years preceding the survey.

Table 5.3 Marital exposure

Percentage of time spent in marital union in the five years preceding the survey, by age and selected background characteristics, Jordan 1990

Background characteristic	Age at time of survey							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Residence								
Large cities	3.7	29.3	60.1	81.5	88.2	91.9	89.8	47.0
Other Urban	3.3	27.2	63.7	86.6	91.5	88.6	89.8	45.3
Rural	3.6	30.9	74.7	87.7	88.9	95.5	88.9	51.4
Region								
Amman	3.2	28.9	61.4	81.4	89.5	92.3	91.5	45.3
Zarqa + Mafraq	3.8	29.9	67.1	88.5	89.5	90.8	87.6	47.9
Irbid	3.4	28.0	66.4	81.0	88.2	91.8	87.9	46.1
Balqa	3.9	26.1	65.1	86.8	85.5	89.8	88.3	53.8
South	6.7	32.7	69.8	93.5	96.1	92.4	91.4	57.7
Education level attended								
No Education	6.2	50.3	76.0	85.5	89.3	94.0	90.1	82.9
Primary	6.2	42.8	74.1	87.6	91.0	91.8	87.4	68.4
Secondary	3.1	35.0	70.8	88.9	90.9	92.1	91.9	35.1
More than secondary	1.0	8.5	43.4	71.1	82.1	69.8	88.6	30.2
Total	3.5	29.1	65.2	84.9	89.6	91.7	89.5	47.6

Overall, women in Jordan spent 48 percent of the five years preceding the survey in marital union. This figure varies by age; younger women spent less time in marriage than older women, because a large proportion have not yet married. Women age 30-49 spent almost the entire five-year period in marital union, indicating that divorce is uncommon in Jordan. The lower percentage of exposure for women age 45-49 is due to widowhood.

Data in the same table show that there is little variation between women living in urban and rural areas, and by governorate. However, wide variation is found by educational attainment. Until age 30, women who have higher education spend much less time in marital union than women with less schooling or no schooling. The difference is sharpest for women 20-24, the age at which many women are recently married.

While women who had no formal schooling spent 50 percent of the five years preceding the survey in marital union, the proportion is 9 percent for women with higher education. The difference due to the fact that women with higher education marry later than women with no education. As a result, educated women are exposed to the risk of pregnancy for a shorter length of time than women with no education.

5.3 AGE AT FIRST MARRIAGE

In Jordan, almost all births occur within marriage; thus, age at first marriage is an important indicator of exposure to the risk of pregnancy and childbirth. The Jordan Family Rights Law of 1976 sets the minimum age at marriage for males at 18 years, and for females 16 years.

Table 5.4 shows the percentage of women who have ever married by specified ages and the median age at first marriage according to their age at the time of the survey. Comparing percentages across age groups, the data indicate increasing age at first marriage. For example, among women 20-24 years, 2 percent were married by age 15, 16 percent by age 18, and 30 percent by their twentieth birthday. For women 25-29, the percentages at each specific age are all higher than those for the younger women. Older women married at even younger ages, as demonstrated by the higher proportion of women married by each specific age.

Table 5.4 Age at first marriage

Percentage of women who were first married by exact age 15, 18, 20, 22, and 25, and median age at first marriage, according to current age, Jordan 1990

Current age	Percentage of women who were first married by exact age:					Percentage who were never married	Number of women	Median age at first marriage
	15	18	20	22	25			
15-19	1.1	NA	NA	NA	NA	89.4	3394.0	a
20-24	2.1	16.4	29.7	NA	NA	54.8	2374.0	a
25-29	4.9	26.3	42.2	54.8	69.0	26.3	1781.0	21.2
30-34	8.4	36.8	52.0	67.8	80.2	10.9	1277.0	19.7
35-39	9.3	42.8	61.1	72.6	85.1	5.4	1014.0	18.8
40-44	10.4	39.8	62.1	77.4	89.5	2.7	890.0	18.9
45-49	11.4	36.9	62.6	76.4	89.4	2.0	770.0	18.9
20-49	6.4	29.6	46.6	59.4	70.0	24.7	8105.0	a
25-49	8.2	35.1	53.6	67.3	80.3	12.2	5731.0	19.6

NA = Not applicable
[a]Omitted because less than 50 percent of women in the age group have been married.

The last column in Table 5.4 provides further indication of later marriage among younger women. While the median age at first marriage—i.e., the age by which half of the women have married—is similar for women age 35 and over, younger women are marrying at older ages. Half of women age 25-29 marry after age 21, and overall, the median age at first marriage has increased from about 19 to 21 years.

There is little variation in age at first marriage by residence and region (see Table 5.5). Women marry at about the same age in all groups, although urban women and women in Balqa marry at slightly older ages than rural women and women in other governorates.

While there are only minor differentials in median age at first marriage by residence and region, education plays an important role in determining women's entry into marriage. The improvement of educational opportunities, particularly for girls, has resulted in their staying in school longer, and subsequently pushed the age at first marriage upward. Women who have attended more than secondary education tend to marry almost 6 years later than those with no education or primary education. Women who have attended primary education marry younger than women who have no formal schooling because they are more favored by potential husbands than illiterate women.

Table 5.5 Median age at first marriage

Median age at first marriage among women age 25-49 years, by current age and selected background characteristics, Jordan 1990

Background characteristic	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Large cities	21.5	20.0	18.8	19.2	18.6	19.8
Other Urban	21.4	19.5	18.5	18.6	19.1	19.5
Rural	20.7	19.3	19.0	18.9	19.3	19.5
Region						
Amman	21.4	19.9	18.5	18.8	18.6	19.5
Zarqa + Mafraq	21.1	19.1	19.0	18.8	19.3	19.6
Irbid	21.2	19.6	18.7	19.2	19.5	19.6
Balqa	20.4	20.3	20.1	19.4	19.5	19.9
South	21.7	19.8	17.9	18.6	18.0	19.5
Education level attended						
No education	19.1	18.6	18.0	18.4	18.8	18.6
Primary	19.4	17.5	17.9	18.3	18.4	18.2
Secondary	20.6	19.5	19.2	20.8	20.3	20.0
More than secondary	24.1	24.0	24.4	22.0	24.1	24.1
Total	21.2	19.7	18.8	18.9	18.9	19.6

Note: The medians for cohorts 15-19 and 20-24 could not be determined because less than 50 percent of the women in each cohort have been married.

5.4 POSTPARTUM AMENORRHEA, POSTPARTUM ABSTINENCE, AND INSUSCEPTIBILITY

The risk of pregnancy is affected by several factors other than marriage patterns. Women have little risk of becoming pregnant during the period after childbirth when menstruation has not yet returned (*postpartum amenorrhea*) and in the period when sexual activity has not been resumed (*postpartum abstinence*). The duration of amenorrhea is directly related to breastfeeding; the longer the woman breastfeeds her child the longer she is likely to be amenorrheic. Since breastfeeding is an important issue in childhood nutrition (see Chapter 9), only postpartum amenorrhea and postpartum abstinence are considered in this section. Women are *insusceptible* when they are either amenorrheic or still abstaining following birth, or both, and thus not exposed to the risk of pregnancy. The estimates for postpartum amenorrhea, postpartum abstinence, and insusceptibility are based on current status measures, that is, the proportion of births occurring x months before the survey for which the mothers are still amenorrheic, abstaining, or insusceptible at the time of the survey. The medians are calculated on the basis of current status proportions at each time period, and the data are grouped by two-month intervals for greater stability.

Table 5.6 Postpartum amenorrhea, abstinence and insusceptibility

Percentage of births for which the mothers are postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth, and median and mean durations thereof, Jordan 1990

Months since birth	Amenorrheic	Abstaining	Insusceptible	Number of births
< 2	94.7	84.7	97.2	225
2-3	62.9	11.9	64.2	254
4-5	44.3	1.2	45.1	265
6-7	28.3	1.7	29.5	270
8-9	32.7	3.9	34.5	283
10-11	17.3	0.0	17.3	282
12-13	17.4	0.0	17.4	296
14-15	4.9	0.5	5.4	224
16-17	3.3	1.1	4.0	300
18-19	3.2	0.0	3.2	267
20-21	2.4	0.4	2.7	264
22-23	1.6	0.0	1.6	301
24-25	1.3	0.0	1.3	294
26-27	0.6	0.8	1.4	284
28-29	0.7	0.0	0.7	256
30-31	0.0	0.9	0.9	267
32-33	0.4	0.0	0.4	278
34-35	0.0	0.0	0.0	295
Total	16.5	5.1	17.1	4905
Median	4.1	1.9	4.2	NA
Mean	6.6	2.5	6.8	NA
Prev./Incidence mean	5.8	1.8	6.1	NA

Note: Medians and means are based on the current status proportions at each two-month duration since birth.
NA = Not applicable

Table 5.6 presents the distribution of births in the 36 months preceding the survey by the postpartum status of the mothers. Seventeen percent of the mothers have not resumed menstruating, and 5 percent have not resumed sexual relations. Combining the two conditions, 17 percent of births were to women who are still insusceptible to the risk of pregnancy. The average duration of amenorrhea is about 7 months; the average duration of abstinence is about 3 months.

While 95 percent of births are to women who are still amenorrheic 2 months after childbirth, between 2 and 3 months after birth the percentage drops to 63, and in the following 2 months it is reduced to less than half (44 percent). In Jordan, as in other Islamic societies, women observe a period of sexual abstinence after childbirth. Traditionally, the period of postpartum abstinence lasts 40 days. This practice appears to emerge in the JPFHS data. The mothers of 85 percent of the births occurring in the 2 months before the survey were still abstaining from sexual relations at the time of the survey. By the end of this period, 2-3 months following the birth, only 12 percent of mothers were still abstaining; the decline continues over the next 2-month period with only 1 percent of mothers abstaining.

Table 5.7 presents the median duration of postpartum amenorrhea (4 months), postpartum abstinence (2 months), and postpartum insusceptibility (4 months) by background characteristics. In regard to postpartum amenorrhea, younger women, women who live in urban areas, and those with the highest education levels have shorter durations than other women (see Figure 5.2). There is little variation in the median duration of postpartum abstinence by background characteristics. Insusceptibility, the combined effect of amenorrhea and abstinence, shows a pattern similar to that of amenorrhea. Comparing regions, women in Irbid have the longest durations of amenorrhea and insusceptibility.

The level of education attended has both a positive and a negative effect on fertility. Age at first marriage increases with education, which tends to reduce fertility. At the same time, however, the duration of insusceptibility, which protects women from pregnancy decreases with education. The duration of insusceptibility among Jordanian women who have attended more than secondary education is about half that of women with no education (3 months compared to 5.4 months). The relationship between education and fertility warrants further investigation.

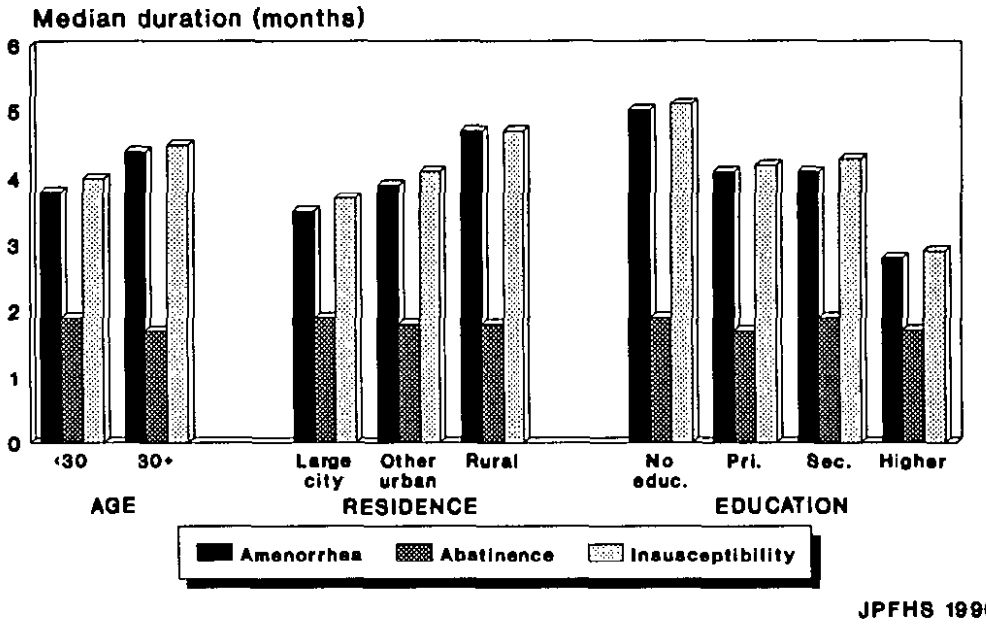
Table 5.7 Median duration of postpartum insusceptibility

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility, by selected background characteristics, Jordan 1990

Background characteristic	Postpartum amenorrhea	Postpartum abstinence	Postpartum insuscep-tibility	Number of births
Age				
<30	3.8	1.9	4.0	2850
30+	4.6	1.9	4.8	2056
Residence				
Large cities	3.7	2.1	3.8	1824
Other Urban	4.0	1.8	4.2	1608
Rural	4.7	1.8	4.7	1474
Region				
Amman	4.1	2.0	4.2	1768
Zarqa + Mafraq	3.7	2.0	3.9	979
Irbid	4.9	1.7	4.9	1297
Balqa	3.2	2.1	3.4	329
South	4.2	1.6	4.3	533
Education level attended				
No education	5.3	1.9	5.4	850
Primary	4.3	1.7	4.3	992
Secondary	4.1	1.9	4.3	2441
More than secondary	3.0	2.0	3.0	622
Total	4.1	1.9	4.2	4905

Note: Medians are based on current status.

Figure 5.2
Median Duration of Postpartum Amenorrhea, Abstinence, and Insusceptibility



5.5 TERMINATION OF EXPOSURE

The termination of women's exposure to the risk of childbearing is an important aspect of fertility. Two indicators of termination of exposure are menopause and terminal infertility (see Table 5.8). Menopause is defined as the absence of a menstrual period in the six months preceding the survey. A woman is considered to have terminal infertility if she did not give birth during the five years preceding the survey in the absence of contraceptive use.

The percentage of women who are menopausal increases gradually from age 30. At age 40-41, only 3 percent of women have reached menopause; by age 44-45 the percentage increases to 7, and at the end of the reproductive years (age 48-49) 14 percent of women are menopausal and no longer exposed to the risk of pregnancy. Terminal infertility shows a similar pattern; infertility increases with age, starting at 17 percent for age 30-34, and reaching 84 percent for women at age 48-49.

Table 5.8 Termination of exposure to the risk of pregnancy

Indicators of menopause, terminal infertility and long-term abstinence among currently married women age 30-49, by age, Jordan 1990

Age	Menopause[1]	Terminal infertility[2]
30-34	1.2	17.3
35-39	1.3	27.7
40-41	3.3	33.2
42-43	3.7	55.7
44-45	6.9	75.1
46-47	9.6	78.7
48-49	13.9	83.8
Total	4.1	46.7

[1]Percentage of non-pregnant, non-amenorrheic currently married women whose last menstrual period occurred six or more months preceding the survey or who report that they are menopausal.
[2]Percentage of women continuously married and not using contraception during the five years preceding the survey who did not have a birth during the period and who are not pregnant.

CHAPTER 6

FERTILITY PREFERENCES

This chapter addresses questions which allow an assessment of the need for contraception, and the extent of unwanted fertility. The information collected from the respondents includes whether they want more children; and if so, how long they would prefer to wait before the next child; and if they could start afresh, how many children in all they would want. Two other issues are also examined—the extent to which unwanted and mistimed births occur and the effect that the prevention of such births would have on fertility rates.

Survey questions on fertility preferences have often been the subject of criticism. First, it is suggested that the answers respondents give are misleading because they reflect unformed, ephemeral views, which are held with little conviction. Critics also argue that the questions do not take into account the effects of social pressure or the attitudes of other family members, particularly the husband, who may exert considerable influence on the wife's reproductive decisions. The first objection is probably not relevant in Jordan, since family planning is widely used, presumably to realize fertility preferences. The second objection is correct in principle, although evidence from surveys in which both the husbands and wives are interviewed suggests that there are no significant differences between husbands and wives regarding fertility preferences.

Women who were pregnant at the time of the survey were asked if they wanted to have another child after the one they were expecting. Taking into account the way in which the preference variable is defined for pregnant women, a current pregnancy is treated as equivalent to a living child. Women who have been sterilized are classified as wanting no more children.

6.1 DESIRE FOR CHILDREN

Women's preferences concerning future childbearing serve as indicators of future fertility. However, for sterilized women and women who state that they are infecund (declared infecund), the desire for children remains only *desire*. Because their potential contribution to fertility has been curtailed, sterilized and infecund women have no impact on future fertility. The data on fertility preferences serve another purpose by providing information on the potential need for contraceptive services for spacing and limiting births.

About half (47 percent) of currently married women in Jordan do not want any more children, while two in five want to continue childbearing (see Table 6.1 and Figure 6.1). Large families are favored; more than half of women who have 3 children and a substantial proportion of those who have 4 or 5 children want to have more children (see Figure 6.2). About 11 percent of childless women declared themselves infecund, probably because they are nearing the end of their reproductive years.

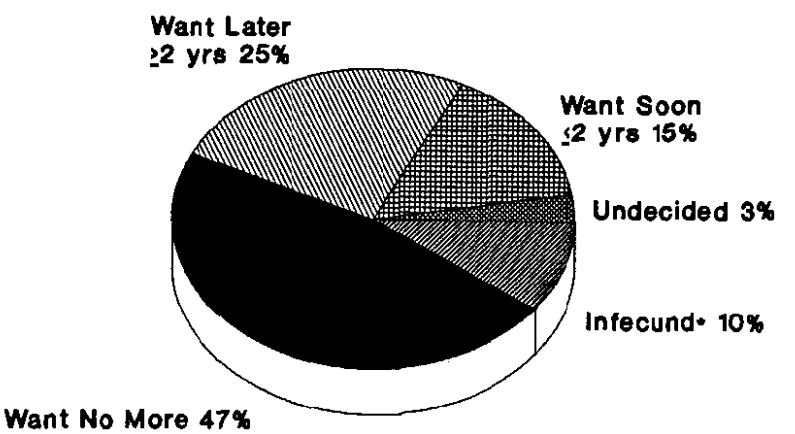
Table 6.1 Fertility preferences by number of living children

Percent distribution of currently married women by desire for more children, according to number of living children, Jordan 1990

Desire for more children	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Have another soon[2]	68.7	33.1	17.8	16.0	11.8	8.3	4.6	15.2
Have another later[3]	14.0	55.9	52.8	41.2	27.8	17.8	8.1	24.8
Have another, undecided when	2.1	2.5	2.1	0.9	1.2	0.5	0.6	1.1
Undecided	2.1	0.8	1.5	2.3	1.9	2.9	2.2	2.0
Want no more	2.3	5.6	23.7	35.5	50.6	59.3	69.0	47.1
Sterilized	--	0.2	0.5	2.2	3.4	8.1	10.0	5.6
Declared infecund	10.8	1.9	1.6	1.6	3.1	3.0	5.4	4.1
Missing	--	--	--	0.2	0.1	0.2	--	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	368	636	652	685	649	626	2553	6168

-- Less than 0.05 percent
[1]Includes current pregnancy
[2]Want next birth within two years
[3]Want to delay next birth two or more years

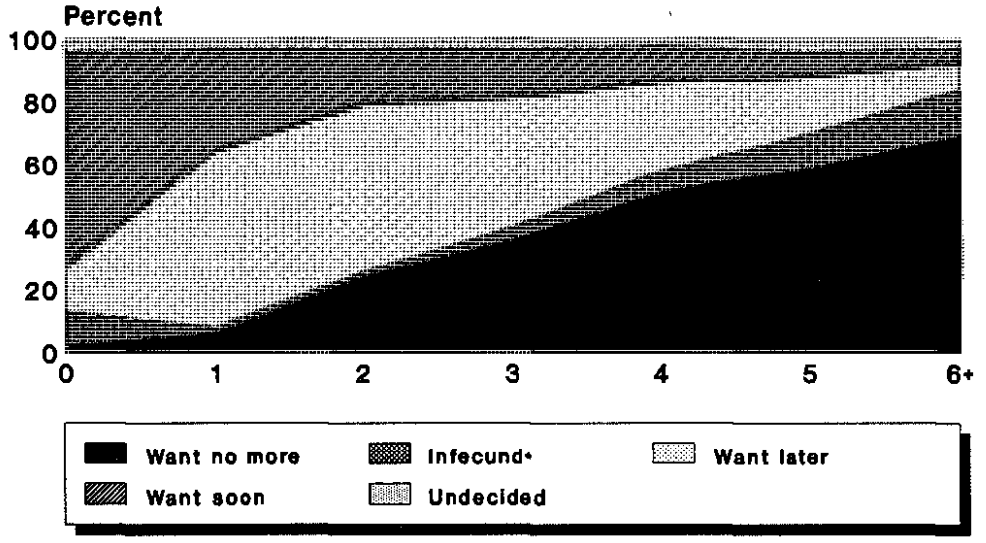
Figure 6.1
Fertility Preferences
Currently Married Women 15-49



• Includes sterilized and missing

JPFHS 1990

Figure 6.2
Fertility Preferences by Number of Living Children



* Includes sterilized and missing

JPFHS 1990

Table 6.2 shows the distribution of women by desire for more children. The desire for more children decreases and the desire to stop childbearing increases as women increase in age. In the youngest age group, almost all women want to have more children, but by age 25-29 only 59 percent want more children. This proportion declines to 5 percent among women in the oldest age group. On the other hand, one in five women age 20-24 say that they do not want to have another child. The proportion increases to 60 percent among women 30-34, and is 61 percent among women in the oldest age group. In this age group (women 45-49), one in three women are potentially unable to bear children because they are sterilized or say that they are infecund.

Differentials in the desire to stop having children are presented in Table 6.3. In general, women living in large cities and urban areas are slightly more likely to want to stop childbearing than rural women. This phenomenon is reflected by a high percentage of women in Amman who do not want another child (55 percent). An exception to this pattern is Balqa, which has the highest proportion of women in the country who do not want to continue childbearing (64 percent). The same pattern is seen when the data are analyzed by the number of living children a woman has; women in urban areas and Balqa are more likely to want to stop childbearing than women in other areas.

Education is negatively associated with the desire to stop childbearing. The proportion of women who want no more children decreases as the level of education increases, from 66 percent of among uneducated women to 36 percent among women who have attended more than secondary education. However, when these women are analyzed by the number of living children, the effect of education diminishes, suggesting that the reason uneducated women are more likely to want to stop childbearing is that they already have more children than educated women.

Table 6.2 Fertility preferences by age

Percent distribution of currently married women by desire for more children, according to age, Jordan 1990

Desire for more children	Age of woman							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Have another soon[1]	38.1	24.4	18.0	12.4	9.7	7.3	4.5	15.2
Have another later[2]	52.0	50.9	40.2	20.0	6.2	2.6	0.3	24.8
Have another, undecided when	3.6	1.5	1.0	1.4	1.1	0.1	0.3	1.1
Undecided	1.4	1.7	1.8	2.5	2.9	2.2	1.4	2.0
Want no more[3]	4.4	20.9	37.9	59.9	66.2	63.6	61.2	47.1
Sterilized	--	--	0.3	1.8	10.8	16.2	14.0	5.6
Declared infecund	0.5	0.6	0.7	1.9	3.0	7.7	18.3	4.1
Missing	--	--	--	0.1	0.1	0.2	--	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	353	1057	1268	1098	905	807	680	6168

-- Less than 0.05 percent
[1]Want next birth within two years
[2]Want to delay next birth two or more years
[3]Women who have been sterilized are considered to want no more children.

Table 6.3 Desire to stop having children

Percentage of currently married women who want no more children, by number of living children and selected background characteristics, Jordan 1990

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Large city	2.3	8.9	29.9	46.8	59.7	73.0	82.6	55.5
Other urban	2.9	2.9	21.0	32.5	50.4	71.9	80.7	52.3
Rural	1.2	4.1	16.9	27.6	46.7	54.2	72.8	49.0
Region								
Amman	1.7	6.4	28.3	43.0	60.4	75.3	81.5	54.8
Zarqa + Mafraq	3.1	8.6	26.8	42.3	51.1	65.5	82.5	53.9
Irbid	1.8	1.1	13.0	25.6	43.5	58.8	73.2	47.7
Balqa	7.5	7.4	38.9	57.8	67.8	72.0	85.1	64.4
South	0.0	5.4	17.2	23.8	48.3	50.3	74.6	45.8
Education level attended								
No education	1.0	8.8	29.0	32.9	45.5	55.5	77.6	65.9
Primary	4.6	2.5	21.0	44.8	52.9	66.4	79.3	62.5
Secondary	1.8	5.2	22.5	36.1	57.7	72.1	80.9	45.0
More than secondary	3.2	8.4	29.5	39.5	50.1	68.2	79.1	36.0
Total	2.3	5.7	24.2	37.7	54.0	67.4	79.1	52.7

[1]Includes current pregnancy

6.2 NEED FOR FAMILY PLANNING SERVICES

Information on fertility desires alone is not sufficient to estimate the need for family planning services. Many women who do not want to have another child soon are using contraception or are not exposed to the risk of pregnancy for other reasons. Therefore, a more detailed analysis of unmet need for family planning is called for. In this analysis, *unmet need for family planning* is defined as including women who are pregnant or amenorrheic and whose last birth was mistimed, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and say that they either want to delay having their next birth for at least two years or say that they want no more children. Women who are menopausal or infertile are not included in the analysis because while they may want to have another child and want to use contraception in the future, they are actually no longer exposed to the risk of pregnancy.

Table 6.4 presents information on the need for family planning services by background characteristics. The distribution of women who have an unmet need for family planning is shown in columns 1-3. Columns 4-6 show the distribution of women with *met need for family planning*, i.e., women who are currently using a family planning method for spacing (want to wait 2 years or more for their next child) or for limiting births (want no more children). Pregnant and amenorrheic women who became pregnant while using a family planning method (method failure) are not classified as having unmet need but are included because they are in need of a more effective method. The *total demand for family planning* is shown in columns 7-9. Total demand includes women who are not using a contraceptive method, women who are using a method, and women who used a method that failed. The last column of the table shows the percentage of the total demand for family planning that is satisfied, i.e., the proportion of women using a method to total demand.

The data in Table 6.4 indicate that about 23 percent of currently married women in Jordan are in need of a family planning method, either for spacing (8 percent) or for limiting (15 percent). Of the 40 percent of women using contraception (including 5 percent who are using prolonged breastfeeding), 12 percent use it to delay their next birth, while 28 percent want to stop childbearing. An additional 4 percent of women have need of a better method, since the one they were using failed to protect them from pregnancy. Thus, the total demand for family planning among currently married women in Jordan is 66 percent, and 66 percent of this demand has been satisfied by women who are currently using contraception and women who had used it but failed.

Unmet need for family planning for purposes of spacing births declines with age, while the need for limiting births increases with age. The two complement each other, such that total unmet need varies little by age of the woman.

Unmet need is related to place of residence and region. Women living in rural areas tend to have greater unmet need than their urban counterparts. This is reflected by the lower level of unmet need for Amman (17 percent). Urban women are more likely to use contraception, and hence, have a greater percentage of total demand for family planning satisfied. Unmet need is also associated with education. Women with no education have a higher level of unmet need (28 percent) than women who have attended secondary or more than secondary education (20 and 19 percent respectively). Since educated women are more likely to use a contraceptive method than uneducated women, a higher proportion of the total demand for family planning is satisfied for these women.

Table 6.4 Need for family planning services

Percentage of currently married women with unmet need for family planning, met need for family planning, and the total demand for family planning services, by selected background characteristics, Jordan 1990

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning[3]			Percentage of demand satisfied
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	
Age										
15-19	19.3	3.1	22.4	11.5	0.8	12.3	31.6	6.4	38.0	41.0
20-24	13.9	6.5	20.5	18.7	9.4	28.1	34.9	17.7	52.5	61.0
25-29	12.0	12.0	24.0	19.7	17.5	37.2	36.1	31.3	67.4	64.4
30-34	6.9	16.1	23.0	15.0	33.5	48.5	26.0	51.4	77.5	70.3
35-39	2.5	20.2	22.6	4.7	47.5	52.3	10.7	67.8	78.4	71.1
40-44	1.8	20.2	22.0	2.7	48.9	51.6	5.5	69.2	74.7	70.6
45-49	0.2	21.7	21.9	0.4	33.3	33.7	0.6	55.0	55.6	60.6
Residence										
Large city	6.5	12.6	19.1	14.2	34.1	48.3	23.1	47.5	70.6	72.9
Other urban	7.9	14.4	22.3	10.7	28.0	38.7	21.7	43.3	65.0	65.7
Rural	9.7	18.1	27.8	8.8	19.7	28.5	21.5	39.6	61.1	54.5
Region level attended										
Amman	5.2	11.7	16.9	13.8	34.5	48.3	21.7	46.7	68.4	75.3
Zarqa + Mafraq	8.9	15.3	24.1	11.5	28.4	39.9	22.7	45.0	67.7	64.4
Irbid	10.2	16.3	26.5	10.8	22.9	33.7	24.2	41.5	65.7	59.7
Balqa	7.9	24.4	32.3	4.2	21.4	25.5	13.5	45.9	59.3	45.6
South	10.1	14.3	24.4	10.9	20.9	31.8	24.3	36.5	60.8	59.9
Education										
No Education	4.4	23.1	27.5	3.8	27.8	31.6	9.9	51.3	61.3	55.1
Primary	6.1	17.1	23.2	7.8	34.8	42.6	16.1	52.3	68.4	66.1
Secondary	9.6	10.6	20.2	15.8	26.5	42.2	28.7	38.6	67.3	70.0
More than secondary	11.3	8.0	19.3	19.7	23.5	43.2	34.4	33.9	68.2	71.8
Total	7.8	14.6	22.4	11.7	28.3	40.0	22.2	44.0	66.2	66.1

[1]*Unmet need for spacing* refers to pregnant women whose pregnancy was mistimed, amenorrheic women whose last birth was mistimed, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and say they want to wait two or more years for their next birth. *Unmet need for limiting* refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and to women who are neither pregnant nor amenorrheic and who are not using any method of family planning and who want no more children. Excluded from the unmet need category are pregnant and amenorrheic women who became pregnant while using a method (these women are in need of *better contraception*). Also excluded are menopausal and infertile women, defined in footnotes 1 and 2 in table 5.8;

[2]*Using for spacing* refers to women who are using some method of family planning and who say they want to wait two or more years for their next child. *Using for limiting* refers to women who are using and who want no more children. Note that the specific methods used are not taken into account.

[3]Total demand includes pregnant or amenorrheic women who became pregnant while using a method (method failure).

6.3 IDEAL NUMBER OF CHILDREN

The focus of this chapter has been on the future reproductive intentions of women, implicitly taking into account the number of living children they have. To ascertain the ideal number of children, the respondent is required to perform the more difficult task of considering abstractly and independently of her actual family size, the number of children she would choose if she could start again.

There is usually a correlation between actual and ideal number of children. The reason is twofold. First, to the extent that women implement their preferences, those who want larger families tend to achieve larger families. Second, women may adjust upwards their ideal family size, as the actual number of children increases. It is also possible that women with large families, being on average older than women with small families, have larger ideal sizes, because of attitudes that they acquired 20 to 30 years ago.

Despite the likelihood that some rationalization occurs in the determination of ideal family size, it is often found that respondents state ideal family sizes that are lower than their actual number of surviving children (see Table 6.5). The data in Table 6.5 can be grouped into three categories, women who have reached their ideal size, i.e., women whose ideal number of children is exactly the same as their number of living children; this is shown by diagonal figures from 0 to 6+ children. The second group consists of women whose surviving children have exceeded the ideal size (shown by the figures above the diagonal); the last group consists of women who have not reached their ideal size (shown by the figures below the diagonal). The second category is of particular interest, because it permits the calculation of surplus or unwanted fertility (discussed in Chapter 7).

The data in Table 6.5 indicate that a majority of women consider the ideal family size to be at least 4 children (52 percent). Only 10 percent of ever-married women state an ideal family size of two children, the number that is required for replacement level fertility. The mean ideal number of children is 4.4 among ever-married women as well as currently married women. Of concern to family planning program administrators is the fact that 40 percent of women with five or more children have exceeded their ideal family sizes, many by two or more children.

Table 6.5 Ideal number of children

Percent distribution of ever-married women by ideal number of children and mean ideal number of children for ever-married women and for currently married women, according to number of living children, Jordan 1990

Ideal number of children	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
0	--	0.4	0.1	0.2	--	--	0.2	0.2
1	1.7	1.9	0.4	0.9	0.4	0.8	0.3	0.7
2	8.3	13.0	15.7	7.6	10.2	11.0	7.2	9.5
3	7.5	10.6	8.8	11.4	3.8	6.2	4.9	6.8
4	31.9	31.3	34.5	37.9	41.2	24.3	23.6	29.6
5	4.4	6.1	6.4	6.3	5.3	13.1	4.1	5.9
6+	11.8	11.7	11.9	12.8	17.0	14.7	19.9	16.1
Non-numeric response	34.4	24.9	22.1	23.0	22.1	30.0	39.7	31.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	405	686	682	720	676	658	2634	6461
Ever-married women[2]								
Mean	4.2	3.9	4	4.2	4.4	4.3	4.9	4.4
Number of women	265	515	531	554	527	460	1587	4440
Currently married women[2]								
Mean	4.3	3.9	4.0	4.2	4.4	4.3	4.9	4.4
Number of women	247	492	514	535	509	443	1551	4291

-- Less than 0.05 percent
[1]Includes current pregnancy
[2]Excludes women who gave non-numeric responses

One-third of the women did not give a numeric response to the hypothetical question on ideal family size. The failure to give a definite answer suggests either an absence of conscious consideration about family size, or a strong belief that family size is determined by God. Women who have 1 to 4 children are most likely to state a numeric ideal family size; childless women are less likely to do so, perhaps indicating that they want to have as many as possible, or having reached the end of their reproductive years, have given up hope of having a child. Women who already have 5 or more children may avoid specifying a number because they have exceeded their ideal size.

Table 6.6 presents the mean ideal number of children by age and background characteristics. The mean ideal number of children in Jordan increases with age, from 4.1 children for ever-married women in the youngest age group to 5.2 children among the oldest women. In general, women living in rural areas and those with less education have a slightly higher ideal family size.

Table 6.6 Mean ideal number of children by background characteristics

Mean ideal number of children for ever-married women, by age and selected background characteristics, Jordan 1990

Background characteristic	Age of woman							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Residence								
Large city	3.9	4.1	4.1	4.2	4.3	4.5	4.9	4.3
Other urban	4.2	4.2	4.4	4.6	4.7	4.8	5.3	4.5
Rural	4.2	4.5	4.3	4.5	4.4	5.2	6.0	4.6
Region								
Amman	4.2	4.1	4.1	4.3	4.2	4.5	5.2	4.3
Zarqa + Mafraq	3.6	4.1	4.1	4.1	4.4	4.7	5.0	4.3
Irbid	4.4	4.6	4.6	4.8	5.0	5.0	5.4	4.8
Balqa	4.7	4.0	4.3	4.1	3.8	4.6	5.2	4.2
South	3.5	3.9	4.2	4.4	4.7	4.8	5.7	4.4
Education level attended								
No education	6.9	4.5	4.2	4.9	5.0	5.2	6.0	5.3
Primary	3.9	4.2	4.1	4.6	4.5	4.7	4.3	4.4
Secondary	4.1	4.2	4.3	4.3	4.1	4.2	4.0	4.2
More than secondary	4.2	4.2	4.3	4.2	4.3	4.1	4.7	4.3
Total	4.1	4.2	4.2	4.4	4.5	4.7	5.2	4.4

6.4 PLANNING STATUS OF BIRTHS

Respondents in the JPFHS were asked a series of questions for each child born in the five years preceding the survey and for any current pregnancy to determine whether the particular pregnancy was planned, unplanned but wanted at a later date, or unwanted. These questions yield data that provides a powerful indicator of the degree to which couples are able to successfully control childbearing. In addition, the data can be used to measure the effect of the prevention of unwanted births on period fertility.

The questions on the planning status of births are extremely demanding. The respondent is required to recall accurately her wishes at one or more points in the preceding five years, and to report them honestly. The possibility of rationalization is present, since an unwanted conception may well be a cherished child. Despite problems of comprehension, recall, and truthfulness, the results from previous surveys indicate that

the questions are effective in eliciting plausible information about the planning status of births. Respondents are willing to report unwanted conceptions, although some postpartum rationalization does occur. Overall, the estimates of unwanted fertility obtained from the data are probably low.

In the interview process, the retrospective questions were asked separately from the questions on the desire for more children and ideal family size, and the data have not yet been analyzed together. Consistency of attitudes at the individual level will be investigated in further analysis studies.

Table 6.7 shows that two-thirds of births occurring in the five years preceding the survey were wanted at the time they were conceived, 11 percent were wanted but at a later time, and 21 percent were not wanted at all. The percentage of births wanted at the time of conception is negatively associated with birth order, while the percentage of unwanted births increases with birth order. In other words, higher order births are more likely than first or second births to have been either mistimed or unwanted. The low percentage of first births wanted later or not wanted at all indicates that almost all first order births are wanted.

Births to young women tend to be wanted (then or later), while births of older women are more likely to be unwanted (see Table 6.7). While 85 percent of births to women under 20 years of age were wanted at the time they occurred, this percentage declines to 42 percent among women 45-49.

Table 6.7 Planning status of births

Percent distribution of births in the five years preceding the survey by fertility planning status, according to birth order and mother's age at birth, Jordan 1990

Birth order and mother's age	Planning status of birth			Total	Number of births
	Wanted then	Wanted later	Not wanted		
Birth order[1]					
1	93.4	4.2	2.0	100.0	1545
2	72.3	16.4	10.7	100.0	1325
3	72.5	14.7	12.6	100.0	1208
4+	57.8	11.5	30.3	100.0	5276
Mother's age					
<20	85.3	10.1	4.6	100.0	843
20-24	76.6	12.4	11.0	100.0	2666
25-29	68.2	13.7	18.1	100.0	2555
30-34	60.0	12.2	27.7	100.0	1757
35-39	54.3	6.1	39.6	100.0	1046
40-44	45.2	5.1	49.7	100.0	408
45-49	43.4	0.0	56.6	100.0	42
Total	67.6	11.4	20.6	100.0	9355

[1]Includes current pregnancy

Another way of measuring the extent of unwanted fertility is to calculate what the fertility rate would be if all unwanted births were avoided. This is known as the *wanted fertility rate* (see Table 6.8). In this analysis, a birth is considered wanted if the number of living children at the time of the pregnancy was less than the current ideal number of children, as reported by the respondent. In Jordan, if all unwanted births were prevented, the total wanted fertility rate would be 3.9 children per woman, or 1.6 children less than the actual total fertility rate. This implies that the total fertility rate is inflated by more than 40 percent due to unwanted births. Table 6.8 also shows that the gap between actual and wanted fertility rates is largest—two or more children—among rural women, women living in Zarqa and Mafraq and Irbid, and women who have attended primary education. Urban women and women who have attended more than secondary education are generally more successful in narrowing the gap between wanted and actual fertility rates.

Table 6.8 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by selected background characteristics, Jordan 1990

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Large city	3.359	4.749
Other urban	4.013	5.603
Rural	4.761	6.846
Region		
Amman	3.549	4.885
Zarqa + Mafraq	3.604	5.585
Irbid	4.113	6.199
Balqa	4.526	5.553
South	5.219	6.638
Education level attended		
No Education	5.301	6.921
Primary	4.087	6.004
Secondary	3.621	5.387
More than secondary	3.444	4.103
Total	3.938	5.573

Note: Rates are based on births to women 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 3.3.

CHAPTER 7

INFANT AND CHILD MORTALITY

Estimates of levels, trends and differentials in infant and child mortality are important for monitoring and evaluating ongoing health programs, and can be used to formulate future policies. The level of infant and child mortality is viewed as an indicator of the general standard of living in a society, and health conditions in particular. Infant mortality rates are also used to develop population projections. In addition to addressing these issues, this chapter examines the risk factors associated with births in Jordan.

Five measures of infant and child mortality used in this chapter are:

- **Neonatal mortality,** or the probability of dying in the first month of life;
- **Postneonatal mortality,** or the probability of dying after the first month of life but before the first birthday;
- **Infant mortality** ($_1q_0$), or the probability of dying before the first birthday;
- **Child mortality** ($_4q_1$), or the probability of dying between the first and fifth birthday; and
- **Under-five mortality** ($_5q_0$), or the probability of dying before the fifth birthday.

Infant and child mortality rates are calculated from information collected in the birth history section of the individual questionnaire. In the JPFHS, each woman was asked about the number of sons and daughters living with her in the same household, the number living away, and the number who had died. These questions were aimed at obtaining the total number of births the respondent had experienced. Next, the respondent was asked to give information on each of the children she had given birth to, including the name, sex, date of birth, whether the birth was single or multiple, and survival status. If the child had died, the age at death was recorded. If the child was still living, questions were asked about his/her age at last birthday and whether the child lived with his/her mother. It should be noted that birth histories are often subject to inaccuracies in the reporting of events, errors which can result in biased rates and trends over time. Despite the disadvantages, birth histories provide data for analyses that would be impossible to collect using any other method of data gathering.

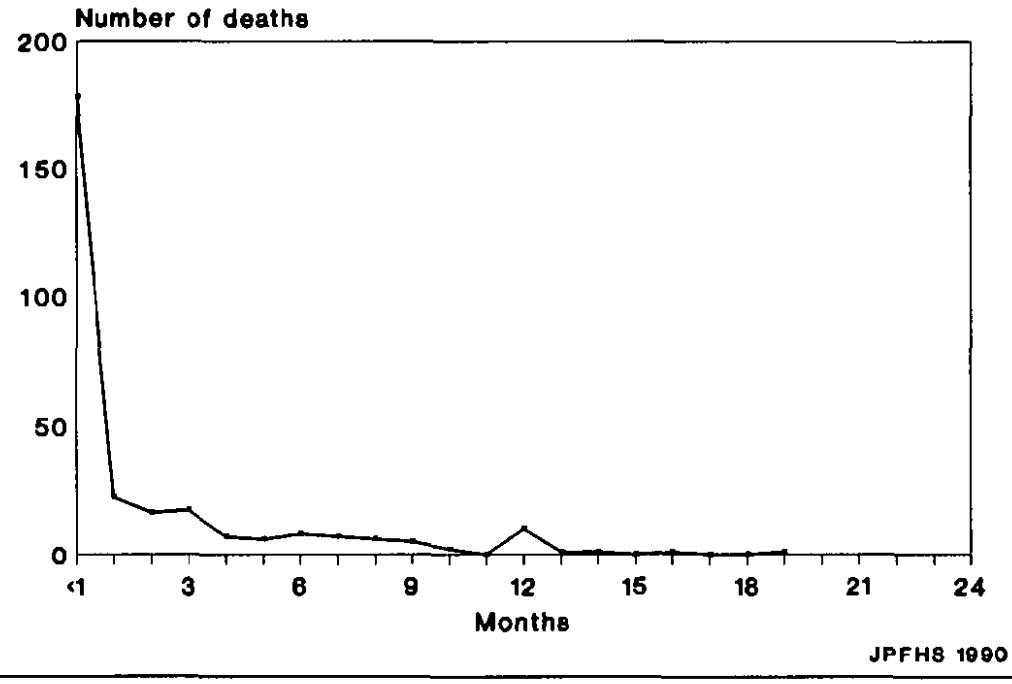
7.1 ASSESSMENT OF DATA QUALITY

The reliability of mortality estimates depends on the completeness and accuracy of reporting of births and deaths. Omission of births and deaths directly affects mortality estimates, and displacement of dates has an impact on mortality trends. To determine the quality of data collected in the JPFHS, the distribution of all children by calendar year of birth and of dead children by age at death was examined (see Appendix C, Tables C.3 and C.5). Table C.3 indicates the presence of a slight deficit of births in the fifth year preceding the survey, and an excess of births in the sixth year preceding the survey. The period for which detailed data on children's health was collected extended from January 1985 to the survey date.

The most common source of error in the reporting of child's age at death is the tendency of mothers to report age at death in multiples of 6 months. Partly to minimize this error, interviewers were instructed to record deaths under one month in days, and under 2 years of age in months. They were specifically reminded to ascertain whether deaths reported at one year of age actually occurred at 12 months. Although misreporting of age at death can result in biased estimates of infant and child mortality, a study using DHS data from a number of countries indicates that heaping on age at death of 12 months would bias the estimates by no more than 5 percent (Sullivan et al, 1990). Thus, the rates presented in this report are unadjusted, i.e., no efforts were made to average out the heaping present in the data.

Figure 7.1 presents information on children's age at death (see also Appendix C, Table C.5). Overall, the quality of the data on children's age at death is good. Except for some "heaping" at 12 months and, to a lesser degree, at 3 months, the graph shows a smooth curve, reflecting the absence of serious age misreporting. The deficit of deaths at age 10 and 11 months suggests that some proportion of the deaths reported at 12 months did, in fact, occur before the first birthday. Likewise, some of the deaths reported at 3 months probably occurred at 2 or 4 months.

Figure 7.1
Deaths Under Age Two by Age at Death



7.2 LEVELS, TRENDS AND DIFFERENTIALS

It is seldom possible to establish, with confidence, mortality levels for a period more than 15 years before a survey. This is because events that occurred recently are more likely to be remembered than those which occurred in the distant past. Thus, lacking a detailed evaluation of the quality of the birth history data (which could not be included in this report), any conclusions regarding changes in mortality should be considered preliminary.

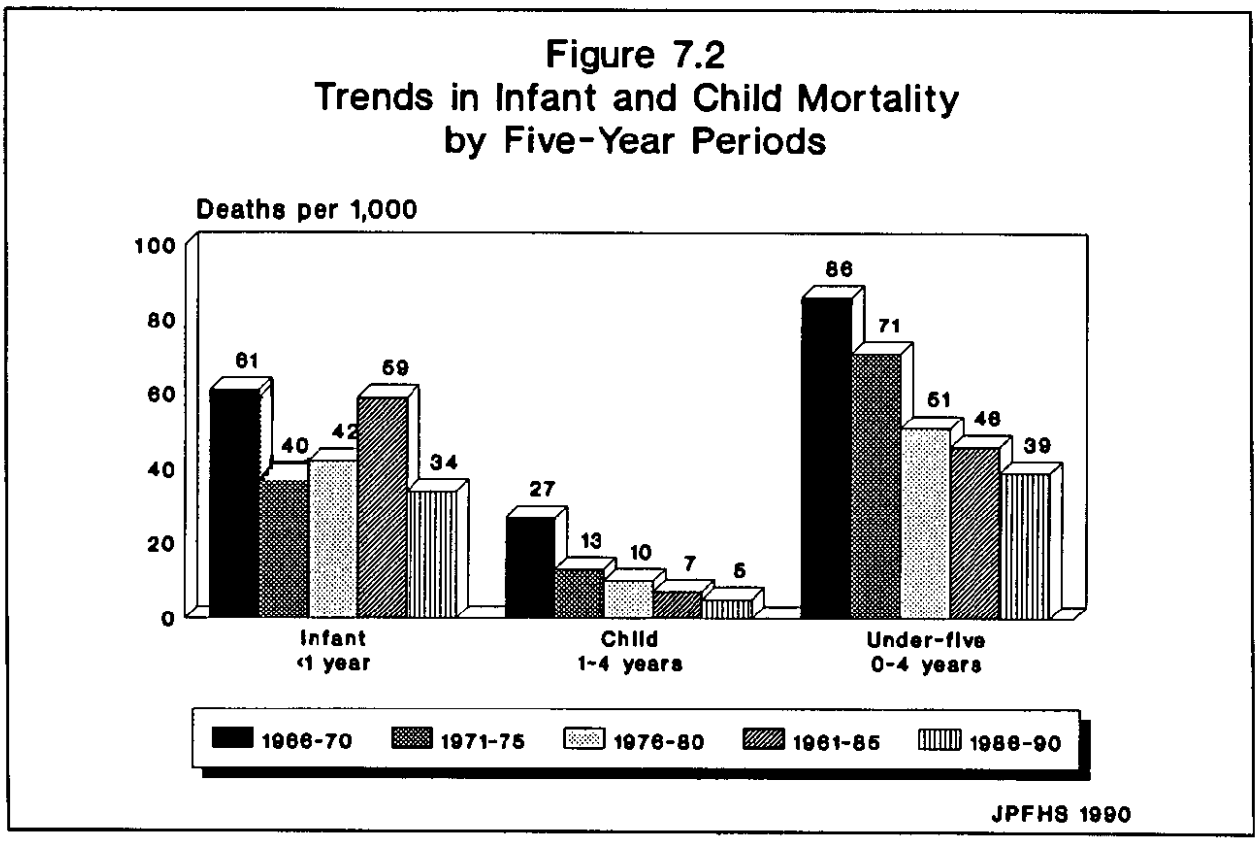
Infant and child mortality rates for five-year periods preceding the survey are presented in Table 7.1 and Figure 7.2. Infant mortality for the most recent five-year period is 34 deaths per 1000 births, while under-five mortality is 40 per thousand (i.e., 40 of every 1000 children born do not live until their fifth birthday).

Table 7.1 Infant and child mortality

Infant and child mortality rates by five-year periods preceding the survey, Jordan 1990

Years preceding survey	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4	21.4	12.4	33.8	5.1	38.8
5-9	22.6	17.3	39.9	6.6	46.2
10-14	19.7	22.0	41.7	10.1	51.3
15-19	25.1	33.7	58.8	13.0	71.0
20-24	24.7	35.8	60.5	26.9	85.9

[1]Computed as the difference between the infant and the neonatal mortality rates

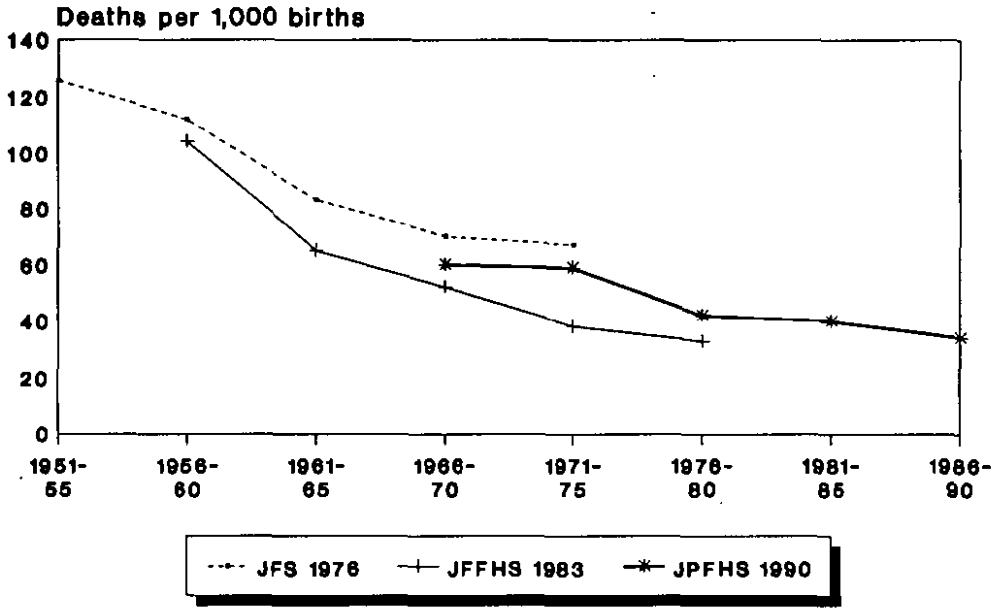


While not precise, the rates presented in Table 7.1 approximate the calendar periods 1986-90, 1981-85, 1976-80, 1971-75, and 1966-70 because fieldwork for the survey was carried out in the fourth quarter of 1990. The 1976 Jordan Fertility Survey (JFS) and 1983 Jordan Fertility and Family Health Survey (JFFHS) were both fielded in the third quarter of the year. For purposes of trend analysis, the results of the three surveys have been compared (see Figure 7.3). Ideally, the estimates for overlapping periods should be the

same; this is not the case in Jordan because of discrepancies due to internal biases in each of the estimates and underestimation in the 1983 survey (Department of Statistics, 1984b). It is apparent, however, that infant mortality has been declining for many years.

The pace of decline in infant and child mortality varies. Neonatal mortality shows little, if any, decline, while mortality among children 1-4 years has declined rapidly (see Table 7.1) As a result, under-five mortality approaches the level of infant mortality. This suggests that the factors affecting infant mortality are different from those affecting child mortality. In particular, infant health is more likely to be influenced by factors such as antenatal and postnatal care, and the length of the birth interval (issues which are discussed below).

Figure 7.3
Infant Mortality by Five-Year Periods
JFS 1976, JFFHS 1983, and JPFHS 1990



Infant and child mortality rates are lower in Jordan than in other Arab countries where DHS surveys have been carried out.

	Infant mortality	Child mortality	Under-five mortality
Egypt 1984-88	73	31	102
Jordan 1986-90	**34**	**5**	**39**
Morocco 1982-86	73	31	102
Sudan 1985-90	70	57	123
Tunisia 1983-87	50	16	65

Differentials by Socioeconomic Characteristics

Differentials in neonatal, postneonatal, infant, child, and under-five mortality by socioeconomic characteristics are shown in Table 7.2. A ten-year period is used to calculate the mortality estimates in order to have sufficient number of cases in each category. It is expected that use of the ten-year reference period will improve the reliability of the mortality estimates.

There are no substantial differences in under-five mortality by type of residence (see Figure 7.4). Children in large cities have almost the same mortality as those in other urban areas (40 and 41 deaths per 1,000 live births, respectively), while rural children have a slightly higher probability of dying (47 per 1,000 live births). Child mortality does show differences by residence; the probability of dying is 3 per 1,000 live births for large cities, 6 per 1,000 for other urban areas, and 8 per 1,000 for rural areas. A similar pattern is found for postneonatal mortality, but not for neonatal and infant mortality.

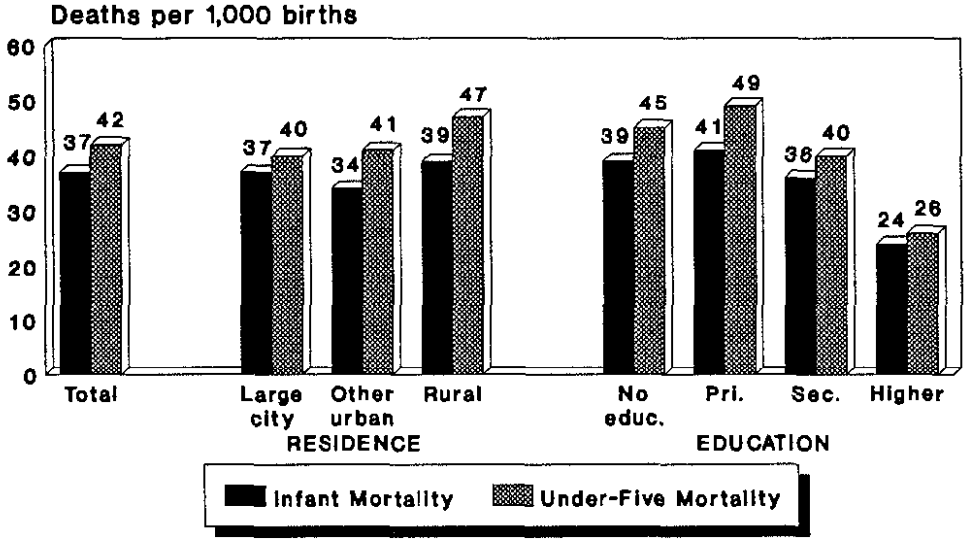
Table 7.2 Infant and child mortality by background characteristics

Infant and child mortality rates for the ten-year period preceding the survey, by selected background characteristics, Jordan 1990

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Residence					
Large city	24.3	12.8	37.1	3.4	40.3
Other urban	19.5	14.9	34.3	6.3	40.5
Rural	22.1	17.2	39.2	8.4	47.3
Region					
Amman	22.8	13.2	36.0	4.2	40.0
Zarqa + Mafraq	23.2	15.4	38.5	7.6	45.8
Irbid	25.3	19.2	44.5	6.4	50.6
Balqa	6.5	8.8	15.3	6.9	22.1
South	19.5	12.1	31.6	6.3	37.7
Education level attended					
No education	23.3	15.3	38.7	6.4	44.8
Primary	22.7	18.4	41.1	8.1	48.8
Secondary	21.4	14.4	35.8	4.6	40.2
More than secondary	19.3	4.7	23.9	1.6	25.5
Medical maternity care[2]					
No antenatal delivery	14.3	18.2	32.5	16.1	48.0
Either antenatal/delivery	23.6	18.8	42.4	3.7	46.0
Both antenatal/delivery	22.0	10.4	32.4	6.8	38.9
Total	22.0	14.8	36.8	5.8	42.4

[1]Computed as the difference between the infant and the neonatal mortality rates
[2]Rates for the five-year period before the survey. Medical care is that given by a doctor, nurse, midwife or received in a hospital, clinic, maternal and child health center or public health center.

Figure 7.4
Infant and Under-Five Mortality by Residence and Education



Note: Rates refer to the 10-year period preceding the survey.

JFPHS 1990

Infant and under-five mortality vary across regions. While in the rest of the country under-five mortality ranges from 37 to 45 per 1,000 births, and infant mortality ranges from 32 to 39 per 1,000 births, in Irbid infant and under-five mortality are more than twice as high as in Balqa. It should be noted, however, that the low figures for Balqa are not due to any unique conditions in the governorate; rather, they are due to the underreporting of deaths.

Mother's education is negatively associated with infant and child mortality. Children of mothers who attended more than secondary education are less likely to die in the first five years of life than children of mothers with less education. Mortality is highest for children of women who attended primary school or received no education.

Attention from medical personnel during pregnancy and at the time of delivery influences children's chances for survival. The level of mortality for children who had no antenatal care and delivery assistance from a medical professional is generally higher than for children who received such care. Neonatal mortality shows the opposite pattern, probably due to the fact that problem pregnancies are more likely to be referred for medical attention.

Differentials by Demographic Characteristics

Differentials in mortality rates by selected demographic characteristics are shown in Table 7.3 and Figure 7.5. Children of teenage mothers, high birth order children, and children born following a short birth interval are at greater risk of dying than those in other subgroups. The difference is most pronounced when birth interval is taken into account. Children born after an interval of less than two years are almost twice as likely to die as children born four years or more after their siblings.

Table 7.3 Infant and child mortality by demographic characteristics

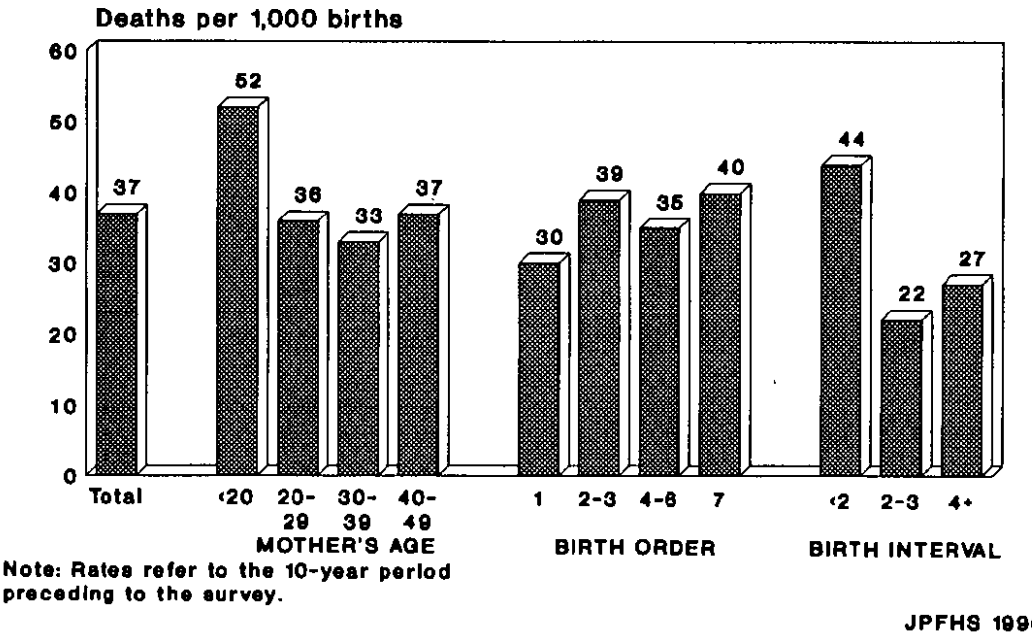
Infant and child mortality rates for the ten-year period preceding the survey, by selected demographic characteristics, Jordan 1990

Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality[1] (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Sex of child					
Male	22.6	13.7	36.4	6.0	42.2
Female	21.3	15.9	37.3	5.6	42.7
Mother's age at birth					
<20	27.5	24.1	51.5	7.1	58.2
20-29	20.0	16.1	36.2	5.6	41.5
30-39	22.7	10.4	33.1	5.6	38.5
40-49	29.4	7.9	37.3	8.1	45.1
Birth order					
1	17.1	13.1	30.2	4.5	34.5
2-3	22.2	16.5	38.6	6.7	45.1
4-6	20.8	14.8	35.5	5.5	40.9
7+	25.6	14.2	39.8	6.1	45.7
Previous birth interval					
< 2 years	24.9	19.1	44.0	7.5	51.2
2-3 years	12.1	9.9	22.0	4.3	26.2
4 years or more	17.5	9.6	27.1	3.8	30.8
Birth size[2]					
Very small	97.8	39.7	137.5	5.7	142.4
Small	10.2	14.1	24.2	6.9	31.0
Average or larger	16.0	10.5	26.5	6.6	32.9

[1]Computed as the difference between the infant and the neonatal mortality rates
[2]Rates are for the five-year period preceding the survey.

Children's weight at birth is closely associated with their chances of survival, particularly during the first month of life. Children reported as "very small" at birth had more than six times greater risk of dying than children whose birth weight was reported as "average." One in 7 "very small" children did not survive to reach their fifth birthday.

Figure 7.5
Infant Mortality by Selected Demographic Characteristics



7.3 HIGH-RISK FERTILITY BEHAVIOR

Table 7.4 presents the distribution of children born in the five years preceding the survey who are at increased risk of dying due to the mother's fertility behavior characteristics. Children are at elevated risk if the mother was too young or too old at the time of birth, if they are of high birth order, or if they were born too soon after their older sibling. In this report, a woman is classified as "too young" if she is less than 18 years of age, and "too old" if she is over 34 years of age at the time of birth. A child is considered "high birth order" if the mother has had three or more previous children. A "short birth interval" is defined as a birth occurring less than 24 months after a previous birth. In the analysis of birth intervals, only children whose preceding birth interval was less than 24 months are included, even though a short birth interval also increases the risk of dying for the child at the beginning of the interval. The latter relationship is subject to reverse causality in that the death of the earlier child may cause the subsequent interval to be short. First-order births may be at greater risk of dying than higher order births; however, the distinction is not made in Table 7.4 because it is not considered avoidable fertility behavior.

Seventy-seven percent of children born in the five years preceding the survey are at elevated risk of dying; 40 percent have an increased risk due to a single risk category (mother's age, birth order, or birth interval), and 37 percent have an increased risk due to multiple risk categories. The largest group of children at risk are those who are high birth order (58 percent) and those whose preceding birth interval was less than 24 months (42 percent). One in five children was born with a preceding birth interval of less than 24 months and with birth order higher than 3. However, it should be noted that the effect of high birth order (>3) outweighs the effects of other factors such as length of preceding birth interval and mother's age.

Table 7.4 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey who have an elevated risk of mortality, and the percent distribution of currently married women at risk of conceiving a child with an elevated risk of mortality, by category of increased risk, Jordan 1990

Risk category	Births in 5 years preceding the survey		Percentage of currently married women[2]
	Percentage of births	Risk ratio[1]	
Not in an any risk category	22.9	1.0	21.0[3]
Single risk category			
Mother's age <18 years at birth	2.2	1.1	0.8
Mother's age >34 years at birth	0.3	0.0	2.1
Birth interval <24 months	16.4	1.9	9.7
Birth order >3	21.2	1.4	16.7
Subtotal	40.2	1.6	29.3
Multiple risk category			
Age<18 & BI<24[4]	0.3	6.6	0.2
Age>34 & BI<24	0.2	0.0	0.1
Age>34 & BO>3	11.4	1.5	28.3
Age>34 BI<24 BO>3	4.4	2.2	5.4
BI<24 & BO>3	20.6	1.8	15.7
Subtotal	36.9	1.8	49.7
In any risk category	77.1	1.7	79.0
Total	100.0	NA	100.0
Number	8181	NA	6168

NA = Not applicable
[1]Risk ratio is the ratio of the proportion dead of births in a specific risk category to the proportion dead of births not in any risk category.
[2]Women were assigned to risk categories according to the status they would have at the birth of a child, if the child were conceived at the time of the survey: age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth of order 3 or higher.
[3]Includes sterilized women
[4]Includes the combined categories age<18 & BO>3

Column 2 of Table 7.4 presents the risk ratios for births in the five years preceding the survey (i.e., the ratio of the proportion dead in each risk category to the proportion dead among children who were not in any risk category). The single most detrimental factor is a short birth interval; children born less than 24 months after an older sibling are twice as likely to die as children who are not in any risk category. The

combination of giving birth at a young age and having a short preceding birth interval is particularly detrimental to child survival. Children born to mothers under 18 years of age, and born less than 24 months after a preceding birth are about seven (6.6) times more likely to die than children who are not in any risk category. This ratio is higher than for any other risk group, including the multiple risk category: children born to women under 18 years, with a birth interval of less than 24 months, and with a birth order higher than 3 (2.2).

The last column of Table 7.4 presents the distribution of currently married women according to category of increased risk. Women are placed in the categories according to the status they would have at the birth of a child conceived at the time of the survey: women age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, and latest birth of order 3 or higher. Many women are protected from the risk of pregnancy due to use of contraception, postpartum insusceptibility, and prolonged abstinence; however, for the sake of simplicity, only sterilized women are classified as not being in any risk category.

Eight of ten married women are at risk of conceiving a child at increased risk of dying. Two-thirds of married women are at risk because they have already had 3 births, while one-third are at risk because they are over age 34. The figures in Table 7.4 demonstrate the strong influence of parity (the number of children the mother has had) on the risk of dying among children under five years of age.

CHAPTER 8

MATERNAL AND CHILD HEALTH

One of the objectives of the 1990 JPFHS was to collect information in order to evaluate ongoing health programs and to develop policies and programs designed to provide better services. In the survey, information was collected on the health of children born in the preceding five years, and their mothers. Information on maternal health care includes care received during pregnancy (antenatal checkups and tetanus toxoid injections) and at the time of delivery. For each birth in the preceding five years, information was gathered on preventive health measures (vaccinations), recent illnesses, and treatment practices. In addition, for all women in the survey, information on knowledge and use of ORS packets for treatment of childhood diarrhea was collected.

8.1 ANTENATAL CARE AND DELIVERY ASSISTANCE

To determine the extent of utilization of different types of antenatal care services, for each live birth occurring since January 1985, women were asked whether they had seen anyone for antenatal care during the pregnancy. Antenatal care is defined according to type of provider, number of antenatal visits, stage of pregnancy at time of first visit, and number of tetanus toxoid injections received. Although the interviewer was instructed to record all responses if more than one source of antenatal care was mentioned for the same pregnancy, only the most qualified provider is considered in in this report.

Antenatal Care

Table 8.1 shows the distribution of births in the five years preceding the survey by source of antenatal care received by the mother during pregnancy. For the majority of births (80 percent), the mother received at least one pregnancy checkup from trained health personnel: 73 percent from a doctor and 8 percent from a nurse or midwife. In the 1983 Jordan Fertility and Family Health Survey (JFFHS), 55 percent of mothers received antenatal care, 95 percent of which was given by medical personnel. Thus, antenatal care coverage increased from 55 to 80 percent of births in the space of just 7 years.

The data show that there are marked differentials in antenatal care coverage among subgroups (see Table 8.1 and Figure 8.1). Children of younger mothers, children of low birth order, those living in large cities, particularly Amman, and children whose mothers attended secondary or higher education are more likely to have received antenatal care than other children. The role of traditional birth attendants in providing antenatal care in Jordan is limited. (This is true for all subgroups.) Overall, doctors are more likely than nurses or midwives to provide antenatal care services for births in large cities, births to educated women, and births of lower order.

The data on antenatal care from the JPFHS indicate that medical care for pregnant women is more widely available in Jordan than in many Arab countries in which DHS surveys have been carried out, namely Egypt, Morocco, Sudan, and Tunisia. The level of antenatal care coverage in Sudan (70 percent) is closest to that in Jordan; Egypt and Tunisia range from 51 to 58 percent, while Morocco has the lowest level of antenatal care coverage (25 percent).

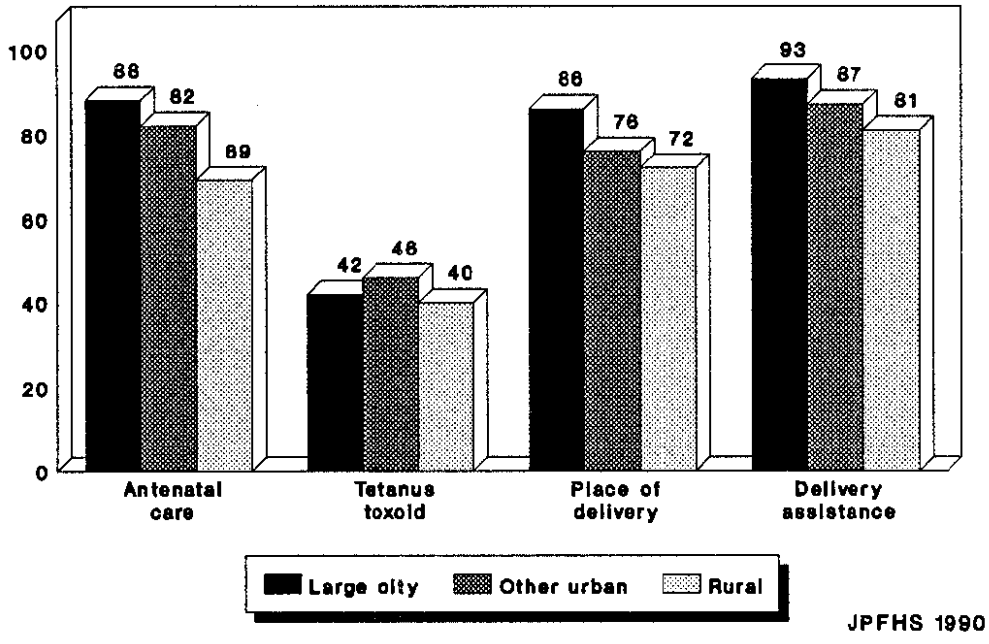
Table 8.1 Antenatal care

Percent distribution of births in the five years preceding the survey, by source of antenatal care during pregnancy, according to selected background characteristics, Jordan 1990

Background characteristic	Antenatal care provider[1]					Number of births
	Doctor	Nurse/ midwife	Traditional birth attendant, other	No one	Total	
Mother's age at birth						
< 20	73.6	10.9	0.8	14.6	100.0	734
20-34	73.7	7.4	0.5	18.4	100.0	6112
35+	67.0	6.5	0.8	25.7	100.0	1334
Birth order						
1	84.2	6.9	0.6	8.2	100.0	1297
2-3	75.4	7.9	0.5	16.3	100.0	2171
4-5	70.8	7.5	0.6	21.1	100.0	1695
6+	66.7	7.6	0.6	25.2	100.0	3018
Residence						
Large city	81.7	6.0	0.7	11.5	100.0	2998
Other uban	74.6	7.5	0.7	17.3	100.0	2696
Rural	59.6	9.4	0.3	30.7	100.0	2486
Region						
Amman	77.6	8.3	0.5	13.7	100.0	2923
Zarqa + Mafraq	74.2	4.6	1.5	19.7	100.0	1651
Irbid	69.3	6.4	0.0	24.3	100.0	2162
Balqa	65.3	16.7	0.4	17.6	100.0	579
South	65.9	7.6	0.6	25.9	100.0	866
Education level attended						
No education	56.0	9.2	0.7	34.1	100.0	1620
Primary	66.6	9.0	0.5	24.0	100.0	1748
Secondary	77.9	7.5	0.6	14.0	100.0	3880
More than secondary	90.8	2.4	0.5	6.4	100.0	934
All births	72.6	7.6	0.6	19.3	100.0	8181

Note: Figures are for births in the period 1-59 months preceding the survey.
[1]If the respondent mentioned more than one provider, only the most qualified provider is considered.

Figure 8.1
Maternal Care Indicators by Residence



The number and timing of antenatal visits is also important. For births in the five years preceding the survey, mothers had a median of 7.5 antenatal visits throughout pregnancy (see Table 8.2). While almost 20 percent of these births did not receive antenatal care, 67 percent had 4 or more checkups. For half of the births, pregnancy checkups started at or before three months of pregnancy, and for 73 percent, antenatal care began in the first 5 months of pregnancy.

Tetanus Toxoid Vaccinations

As neonatal tetanus is a major cause of neonatal mortality in many countries, the JPFHS collected information on whether the respondents had received tetanus toxoid injections for each pregnancy in the five years preceding the survey, and if so, the number of injections.

For more than half of births in the preceding five years, the mother did not receive a tetanus toxoid vaccination during pregnancy; 22 percent had one dose, and 20 percent had two or more doses (see Table 8.3). This is an increase from 1983 (Department of Statistics, 1984b), when only 9 percent of pregnant women received tetanus toxoid injections. There are small differentials among the various subgroups; for example, births to younger mothers and low-order births are more likely to have received vaccinations against neonatal tetanus than births in other subgroups. Differentials by mother's education are minimal for tetanus toxoid vaccinations, although differences by education in antenatal care were notable (see Table 8.1). This may, in part, be because women with more education are more likely to use private health facilities, where tetanus toxoid vaccinations are less commonly given. Of women who visited a doctor for their antenatal care, more than half did not receive a tetanus toxoid injection (data not shown).

Table 8.2 Number of antenatal care visits and stage of pregnancy

Percent distribution of live births in the five years preceding the survey by number of antenatal care (ANC) visits, and by the stage of pregnancy at the time of the first visit, Jordan 1990

Antenatal visits/ Stage of pregnancy at first visit	All births
Number of ANC visits	
0	19.8
1	3.4
2-3	9.4
4+	67.1
Don't know, missing	0.3
Total	100.0
Median[1]	7.5
Number of months pregnant at time of first ANC visit	
No antenatal care	19.8
<= 5	73.4
6-7	4.5
8+	1.8
Don't know, missing	0.4
Total	100.0
Median[1]	3.0
Number of live births	8181

Note: Figures are for births in the period 1-59 months preceding the survey
[1]For those with ANC

Table 8.3 Tetanus toxoid vaccination

Percent distribution of births in the five years preceding the survey by number of tetanus toxoid injections given to the mother during pregnancy, according to selected background characteristics, Jordan 1990

Background characteristic	Number of tetanus toxoid injections					Number of births
	None	One dose	Two doses or more	Don't know/ Missing	Total	
Mother's age at birth						
< 20	44.9	25.9	29.3	0.0	100.0	734
20-34	58.1	22.3	19.2	0.5	100.0	6112
35+	58.4	21.2	20.0	0.3	100.0	1334
Birth order						
1	40.7	25.4	33.9	0.0	100.0	1297
2-3	59.1	24.7	15.6	0.6	100.0	2171
4-5	60.1	21.5	17.8	0.7	100.0	1695
6+	60.6	20.0	19.1	0.3	100.0	3018
Residence						
Large city	57.6	21.8	20.2	0.4	100.0	2998
Other urban	54.1	24.0	21.5	0.4	100.0	2696
Rural	59.3	21.5	18.9	0.4	100.0	2486
Region						
Amman	57.6	19.6	22.3	0.5	100.0	2923
Zarqa + Mafraq	59.4	24.3	16.3	0.1	100.0	1651
Irbid	57.5	23.6	18.2	0.6	100.0	2162
Balqa	38.4	29.4	31.8	0.3	100.0	579
South	61.2	20.6	17.9	0.3	100.0	866
Education level attended						
No education	63.7	18.4	17.6	0.3	100.0	1620
Primary	55.5	23.1	20.8	0.6	100.0	1748
Secondary	53.9	24.3	21.4	0.3	100.0	3880
More than secondary	60.5	20.3	18.8	0.4	100.0	934
All births	57.0	22.4	20.2	0.4	100.0	8181

Note: Figures are for births in the period 1-59 months preceding the survey.

Again, the figures for tetanus toxoid coverage in Jordan are higher than those in other Arab countries in which DHS surveys have been conducted (Egypt, Morocco, Sudan, and Tunisia), reflecting better care for both mothers and children in Jordan.

Place of Delivery

Table 8.4 provides information on the utilization of health facilities during delivery. The data show that the majority of births (78 percent) were delivered in a hospital (57 percent in government hospitals and 21 percent in private hospitals), while one in five births was delivered at home. Compared to data from the 1983 JFFHS, the proportion of births delivered at home has decreased by half, from 41 to 20 percent, while the proportion of births delivered in hospitals has increased, from 59 percent to 78 percent.

Table 8.4 Place of delivery

Percent distribution of births in the five years preceding the survey by place of delivery, according to selected background characteristics, Jordan 1990

Background characteristic	Place of delivery						Number of live births
	Government hospital	Private hospital	At home	Other	Don't know/ Missing	Total	
Mother's age at birth							
< 20	58.5	23.6	16.0	1.7	0.2	100.0	734
20-34	56.6	21.7	20.1	1.5	0.0	100.0	6112
35+	58.8	18.5	21.1	1.7	0.0	100.0	1334
Birth order							
1	58.9	29.8	9.9	1.3	0.1	100.0	1297
2-3	56.0	25.3	17.3	1.3	0.0	100.0	2171
4-5	56.2	19.8	22.6	1.4	0.0	100.0	1695
6+	57.7	15.7	24.6	2.0	0.0	100.0	3018
Residence							
Large city	48.5	37.5	12.9	1.0	0.0	100.0	2998
Other urban	58.1	18.4	21.8	1.7	0.0	100.0	2696
Rural	66.5	5.0	26.4	2.1	0.0	100.0	2486
Region							
Amman	44.4	39.7	13.7	2.2	0.0	100.0	2923
Zarqa + Mafraq	57.5	15.9	26.3	0.3	0.0	100.0	1651
Irbid	70.7	8.2	19.4	1.6	0.0	100.0	2162
Balqa	54.9	11.1	31.1	2.8	0.0	100.0	579
South	67.0	9.2	22.6	1.1	0.0	100.0	866
Education level attended							
No education	54.5	8.4	35.0	2.1	0.0	100.0	1620
Primary	59.1	15.8	23.1	2.1	0.0	100.0	1748
Secondary	58.2	24.9	15.4	1.4	0.0	100.0	3880
More than secondary	53.6	39.3	6.5	0.6	0.0	100.0	934
Antenatal care visits							
None	56.8	5.9	36.2	1.0	0.1	100.0	1622
1-3 visits	57.3	16.4	23.9	2.4	0.0	100.0	1047
4+ visits	57.2	26.8	14.3	1.6	0.0	100.0	5488
Don't know, missing	50.6	25.4	24.0	0.0	0.0	100.0	23
All births	57.1	21.3	19.9	1.6	0.0	100.0	8181

Note: Figures are for births in the period 1-59 months preceding the survey.

Use of health facilities varies among subgroups. Private hospitals are more likely to be used by young or new mothers, those living in large cities, women with more education, and women who have more antenatal visits (see Figure 8.1). Delivery at home is more likely for births to older women and women living in rural areas, high-order births, and births to women who had no education and received no antenatal care.

Assistance During Delivery

As with antenatal care, when collecting information on type of assistance during delivery, interviewers were instructed to record all responses if more than one person was assisting during the delivery. However, only the most qualified person in attendance at the time of delivery is considered in this report (see Table 8.5 and Figure 8.1).

Table 8.5 Assistance during delivery

Percent distribution of births in the five years preceding the survey by type of assistance during delivery, according to selected background characteristics, Jordan 1990

Background characteristic	Attendant assisting during delivery[1]						Number of live births
	Doctor	Nurse/ Midwife	Traditional birth attendant	Relative/ Other	No one	Total	
Mother's age at birth							
< 20	60.5	30.8	6.2	2.1	0.4	100.0	734
20-34	49.7	37.5	8.8	2.8	1.2	100.0	6112
35+	46.8	38.0	9.2	3.6	2.4	100.0	1334
Birth order							
1	69.9	25.6	3.5	0.8	0.2	100.0	1297
2-3	52.8	37.4	6.9	2.1	0.7	100.0	2171
4-5	44.9	39.9	10.3	3.6	1.3	100.0	1695
6+	42.9	40.0	11.1	3.8	2.3	100.0	3018
Residence							
Large city	63.9	28.9	6.4	0.4	0.3	100.0	2998
Other urban	50.1	36.8	9.0	2.9	1.3	100.0	2696
Rural	33.8	47.0	10.9	5.7	2.6	100.0	2486
Region							
Amman	63.0	28.7	6.0	1.3	1.0	100.0	2923
Zarqa + Mafraq	49.4	32.2	11.1	5.9	1.4	100.0	1651
Irbid	38.9	50.4	8.9	1.1	0.7	100.0	2162
Balqa	53.4	28.7	11.2	5.2	1.5	100.0	579
South	34.8	46.1	10.3	4.8	3.9	100.0	866
Education level attended							
No education	35.1	36.6	16.1	8.0	4.3	100.0	1620
Primary	43.1	41.1	11.7	2.9	1.2	100.0	1748
Secondary	55.1	37.3	5.9	1.3	0.5	100.0	3880
More than secondary	69.5	28.7	1.5	0.2	0.1	100.0	934
Antenatal care visits							
None	28.0	45.0	15.9	7.3	3.8	100.0	1622
1-3 visits	45.5	38.9	10.3	3.7	1.6	100.0	1047
4+ visits	57.7	34.3	6.2	1.3	0.5	100.0	5488
Don't know/missing	50.2	35.8	7.8	6.3	0.0	100.0	23
All births	50.2	37.0	8.6	2.8	1.3	100.0	8181

Note: Figures are for births in the period 1-59 months preceding the survey.
[1]If the respondent mentioned more than one attendant, only the most qualified attendant is considered.

Assistance during delivery shows a pattern similar to that for antenatal care. The assistance of medical personnel is widely used: 50 percent of births in the five years preceding the survey were assisted by a doctor, and 37 percent by a trained nurse or midwife. Consistent with data presented earlier, doctors are more likely to deliver births to younger and more educated women, births of lower order, births to women living in large cities and urban areas, and to women who received more antenatal care.

Delivery Characteristics

Research on infant and childhood mortality has shown that birth weight is a major determinant of infant and child survival. In the 1990 JPFHS, for all births in the five years preceding the survey, respondents were asked how long the pregnancy lasted, and whether the delivery was by caesarean section. The survey used the following categories in gathering data on pregnancy duration: less than 7 months, 7 months to less than 9 months, and 9 months or more. A baby is considered premature when the pregnancy duration is less than 7 months. The baby's birth weight was also recorded on the questionnaire. Since birth weight may not be known for all children, the mother's estimate of the baby's size at birth was obtained.

The results of the questions on delivery characteristics are presented in Table 8.6. Of 8,180 births in the five years preceding the survey to the survey, only 6 percent were delivered by caesarean section and only 12 percent of births were born before they reached the ninth month of gestation. Birth weight was successfully obtained for more than 85 percent of these babies. Nine in ten births for which birth weight was obtained weighed 2.5 kilograms or more and according to the mother's estimate, 83 percent were of average size or larger. These data suggest that there is little problem of premature births in Jordan. Comparing the actual birth weight with the mother's estimate of birth size suggests some degree of consistency: 75 percent of births reported by the mother to be smaller than average actually weighed less than 2.5 kilograms, whereas 9 in 10 births reported as average or larger than average had normal or heavier than normal birth weights (data not shown).

Table 8.6 Delivery characteristics

Percent distribution of live births in the five years preceding the survey by whether the delivery was by caesarean section, whether premature, and by birth weight and the mother's estimate of baby's size at birth, Jordan 1990

Delivery characteristic	All births
C-section delivery	
Caesarean	5.7
Not C-section	94.3
Total	100.0
Premature birth	
<7 months	0.5
7 to <9 months	11.6
9 months or more	87.9
Total	100.0
Birthweight	
<2.5 kg	8.8
2.5 kg or more	76.9
Don't know, missing	14.3
Total	100.0
Size at birth	
Very large	2.2
Larger than average	11.6
Average	69.0
Smaller than average	10.0
Very small	6.5
Don't know/missing	0.5
Total	100.0
Number of births	8181

Note: Figures are for births in the period 1-59 months preceding the survey.

8.2 IMMUNIZATION OF CHILDREN

Since 1980, the Ministry of Health has made the immunization card a requirement for entry into the formal school system. This card is issued by the Ministry through various service providers at the time of the first vaccination. Children who are registered at the Maternal and Child Health Center are given a health card on which, in addition to vaccinations, the child's height and weight are recorded.

Source of Information

In the JPFHS, information on the immunization status of children was obtained in two ways. First, women who had children under five were asked to produce the health cards for those children. If the card was available, the interviewer copied onto the questionnaire the dates on which the child had received vaccinations for diphtheria/pertussis/tetanus (DPT), polio, measles, and tuberculosis (BCG). For DPT and polio, each dose of the vaccination was recorded separately. When a card was not available, the mother was asked if the child had received specific vaccinations, and the number of doses for DPT and polio were recorded. Table 8.7 presents data for children age 12 to 23 months, by which time they should be fully vaccinated. The table also shows the extent to which vaccinations were received in the first year of life.

Table 8.7 Vaccinations by source of information

Percentage of children 12-23 months of age who had received specific vaccines at any time before the survey and before 12 months of age, according to whether the information was from a vaccination card or from the mother, Jordan 1990

Vaccine	Source of information: Vaccination card	Mother's report	Either source	Vaccinated by 12 months[1]
BCG	7.9	8.8	16.8	15.8
Polio 1	64.0	33.8	97.8	96.3
Polio 2	63.5	33.6	97.1	95.2
Polio 3	62.6	32.7	95.3	92.6
Polio booster	23.0	11.4	34.4	3.3
DPT 1	63.8	33.7	97.5	96.0
DPT 2	63.3	33.5	96.7	94.8
DPT 3	62.3	32.5	94.8	92.2
DPT booster	22.7	11.2	34.0	4.4
Measles	58.3	31.1	89.4	76.0
All[2]	57.8	30.1	87.9	74.7
None	0.0	2.1	2.1	-
Number of children	-	-	-	1615

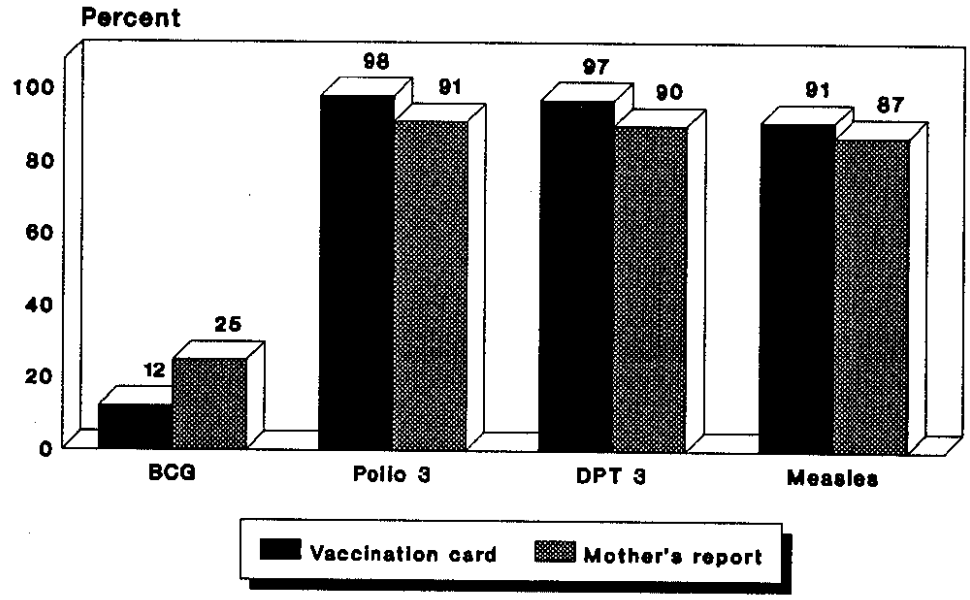
[1]Information was obtained from a vaccination card or from the mother if there was no written record. For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccinations.
[2]Received 3 doses of polio, 3 doses of DPT and measles vaccines; excludes BCG.

Among 1,615 children one year of age, information on vaccinations was obtained from the health card for 64 percent of the children, while mothers supplied the rest of the information (for 36 percent of children). Although virtually all children have received vaccinations against DPT and polio, coverage declines slightly with successive doses. In addition to the regular vaccinations, approximately one in three children has had DPT and polio booster immunizations, which were given to the children after their first birthday. About 9 in 10 children had a measles vaccination, but very few (less than 17 percent) had a BCG vaccination (see Figure 8.2). As for timing of the vaccinations, almost all were given before age 12 months (except boosters which are meant to be given later).

The vaccination program appears to be stronger in recent years. Corresponding coverage figures for children under five years in the 1983 JFFHS (completed vaccinations) are as follows: polio 78 percent, DPT 77 percent, and measles 68 percent. The absence of information on the number of doses from the 1983 survey does not allow a more detailed comparative analysis with the 1990 JPFHS.

Compared with other Arab countries where DHS surveys have been conducted, vaccination coverage for polio and measles among children 12-23 months in Jordan is similar to that in Tunisia and Morocco, but higher than that in Sudan and Egypt. However, since there is no emphasis on the provision of BCG injections in the Jordan health program, the proportion of children receiving BCG vaccinations is much lower In Jordan than in the above-mentioned countries.

Figure 8.2
Vaccination Coverage among Children 12-23 Months by Source of Information



Differentials by Background Characteristics

Polio, DPT and measles vaccination coverage is high in all parts of the country and among all subgroups (see Table 8.8). This demonstrates the success of the immunization program in reaching all segments of the population. There are some differences in BCG coverage, with children in large cities and particularly in Balqa, more likely to have received this vaccine.

Table 8.8 Vaccinations by background characteristics

Percentage of children 12-23 months who had received specific vaccines by the time of the survey (according to the vaccination card or the mother's report) and the percentage for whom a vaccination card was seen by the interviewer, by selected background characteristics, Jordan 1990

	Percentage of children who received													
		DPT				Polio							Percent-age with a card	Number of children
Background characteristic	BCG	1	2	3+	DPT booster	1	2	3+	Polio booster	Measles	All[1]	None		
Sex of child														
Male	16.8	96.8	96.1	94.4	33.2	97.4	96.6	95.0	33.9	89.4	87.7	2.5	63.7	814
Female	16.8	98.1	97.4	95.3	34.7	98.2	97.6	95.6	34.9	89.5	88.0	1.7	64.4	801
Birth order														
1	16.4	97.3	97.2	95.7	37.5	97.7	97.5	96.1	37.1	91.4	89.3	1.6	70.0	270
2-3	16.8	99.1	98.2	95.9	36.1	99.5	98.9	97.1	36.7	91.0	89.2	0.5	65.1	432
4-5	16.7	97.9	97.6	96.2	30.9	98.0	97.8	96.3	30.9	87.8	87.4	2.0	62.5	314
6+	17.0	96.2	95.0	93.0	32.4	96.5	95.3	93.1	33.4	88.2	86.5	3.5	61.3	600
Residence														
Large city	25.7	97.5	97.3	94.9	32.5	98.0	98.0	95.6	32.8	88.1	86.0	2.0	65.9	605
Other urban	14.2	97.4	95.9	94.4	34.8	97.6	96.3	95.0	35.5	89.0	87.7	2.4	66.2	531
Rural	8.3	97.6	97.0	95.3	34.9	97.7	96.9	95.2	35.3	91.6	90.4	1.9	59.3	480
Region														
Amman	21.3	97.1	96.8	95.1	29.0	97.5	97.3	95.5	29.0	87.9	86.8	2.5	64.4	568
Zarqa + Mafraq	12.7	97.2	95.7	92.9	38.4	97.6	96.0	93.3	38.7	86.3	84.4	2.4	70.3	331
Irbid	14.0	98.2	97.3	96.1	37.1	98.4	97.5	96.9	38.1	92.6	91.2	1.3	66.8	445
Balqa	35.8	99.0	99.0	97.3	29.0	99.3	99.3	97.4	31.6	96.7	92.7	0.0	35.1	104
South	4.8	96.6	95.9	92.9	36.7	96.9	96.2	93.2	36.1	87.6	86.4	3.1	61.0	167
Education level attended														
No education	14.4	94.6	92.4	88.9	32.6	95.1	92.6	88.8	33.3	84.8	82.1	4.9	55.8	300
Primary	18.8	96.7	96.7	95.1	34.3	96.7	96.7	95.2	35.0	89.8	89.1	3.3	65.4	344
Secondary	17.5	98.4	97.7	96.1	33.2	98.9	98.4	96.9	33.5	90.2	88.6	0.9	68.6	765
More than secondary	14.0	99.6	99.6	98.3	38.3	99.6	99.6	98.9	38.3	92.6	91.4	0.4	56.8	207
Total	16.8	97.5	96.7	94.8	34.0	97.8	97.1	95.3	34.4	89.4	87.9	2.1	64.0	1615

[1]Children who are fully vaccinated, i.e., those who have received measles and three doses of DPT and polio vaccines (does not include BCG or DPT and polio boosters).

Vaccination Trends in the First Year of Life

Table 8.9 presents information on vaccination coverage in the first year of life for children one to four years of age (i.e., the five years preceding the survey). For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as that for children for whom a health card was available.

Table 8.9 Vaccinations in the first year of life

Percentage of children one to four years of age for whom a vaccination card was seen by the interviewer and the percentage vaccinated for BCG, DPT, polio, and measles by 12 months of age, by current age of the child, Jordan 1990

Vaccine	Current age of child in months				All children 12-59 months
	12-23	24-35	36-47	48-59	
Vaccination card seen by the interviewer	64.0	57.6	56.5	50.4	57.2
Percent vaccinated at 0-11 months[1]					
BCG	15.8	18.1	18.7	17.5	17.5
Polio 1	96.3	95.6	96.2	91.7	94.9
Polio 2	95.2	94.3	94.8	90.3	93.7
Polio 3	92.6	90.9	91.2	85.4	90.1
Polio booster	3.3	4.0	3.1	3.0	3.4
DPT 1	96.0	95.3	96.2	91.4	94.8
DPT 2	94.8	93.9	94.8	90.0	93.4
DPT 3	92.2	90.7	91.2	85.2	89.9
DPT booster	4.4	4.4	3.3	2.9	3.7
Measles	76.0	77.7	74.1	68.0	74.0
All[2]	74.7	75.2	72.6	66.4	72.3
Number of children	1615	1629	1618	1547	6410

[1]Information was obtained from a vaccination card or from the mother if there was no written record. For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccinations.
[2]Children who are fully vaccinated, i.e., those who have received measles and three doses of DPT and polio vaccines (does not include BCG or DPT and polio boosters)

The table shows some progress in the provision of preventive health measures, especially during the past four years. Overall, coverage of vaccination cards increased from 50 percent around 1986 to 64 percent in 1990, although the lower percentage for older children may be due to the failure of the mother to show the health card to the interviewer. (The card is kept at school once the child enters primary school.) Coverage for polio, DPT and measles vaccinations shows an increase between children age 48-59 months and those age 36-47 months (roughly 1986 and 1987), then remains largely unchanged among younger children. As mentioned earlier, the health program in Jordan does not emphasize BCG vaccinations; this is reflected by the decreasing proportion of children who have received this vaccination in the most recent years.

8.3 CHILD MORBIDITY AND TREATMENT

Diarrhea is singled out for investigation in this survey for two reasons: it is a leading cause of death among children in many developing countries, and the condition is amenable to treatment by oral rehydration therapy (ORT). The Jordan Ministry of Health includes ORT—both as a solution prepared from commercially produced oral rehydration salts (ORS packets) and as a homemade solution recommended by the World Health Organization—in its health programs.

In the 1990 JPFHS, mothers who had children under five were asked if their children had experienced diarrhea in the two weeks preceding the survey. If so, they were asked if the children were given a solution prepared from ORS packets or a homemade solution.

Prevalence of Diarrhea

Nine percent of children under five had diarrhea in the two weeks preceding the survey (see Table 8.10 and Figure 8.3). There is little variation by sex of the child, residence, or mother's education. However, children under two years of age, especially those age 6-11 months, are more likely than older children to have had diarrhea. Only a small fraction of children were reported to have had bloody stools, a symptom of dysentery.

Table 8.10 Prevalence of diarrhea

Percentage of children under five years of age who had diarrhea and bloody diarrhea during the two weeks preceding the survey, by selected background characteristics, Jordan 1990

Background characteristic	Diarrhea in the preceding 2 weeks		Number of children
	All diarrhea	Diarrhea with blood	
Age of child			
<6 months	14.5	0.4	654
6-11 months	17.9	0.0	819
12-23 months	15.7	0.1	1615
24-35 months	5.3	0.0	1629
36-47 months	3.3	0.1	1618
48-59 months	2.3	0.1	1547
Sex of child			
Male	8.7	0.1	4013
Female	8.3	0.0	3869
Birth order			
1	12.3	0.2	1267
2-3	9.1	0.1	2086
4-5	6.6	0.0	1631
6+	7.5	0.1	2899
Residence			
Large city	8.7	0.1	2897
Other urban	8.9	0.2	2608
Rural	7.9	0.0	2378
Region			
Amman	8.5	0.0	2812
Zarqa + Mafraq	8.6	0.1	1596
Irbid	10.0	0.1	2074
Balqa	3.4	0.0	568
South	8.1	0.0	832
Mother's level of education			
No education	7.7	0.0	1558
Primary	7.5	0.0	1669
Secondary	9.7	0.1	3746
More than secondary	6.9	0.1	910
All children	8.5	0.1	7882

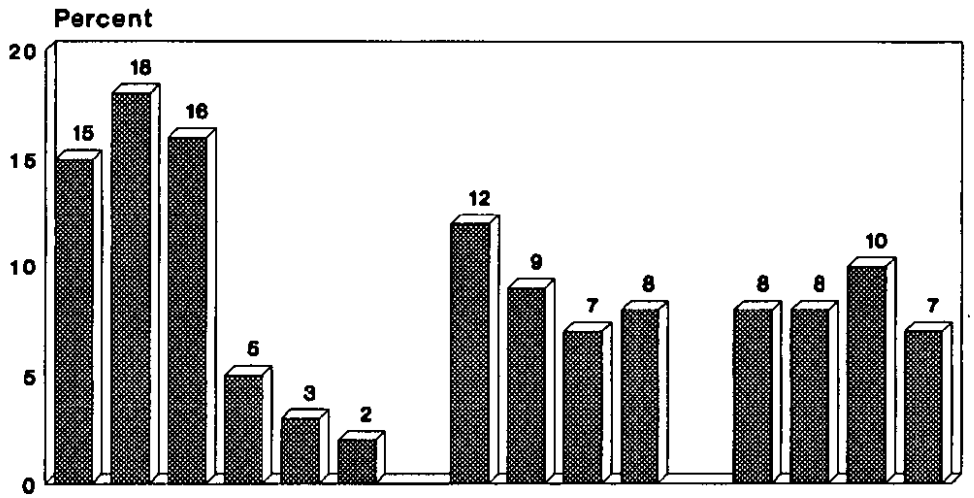
Note: Figures are for children born in the period 1-59 months preceding the survey.

Knowledge and Use of ORS Packets

Table 8.11 presents data on mothers' knowledge and use of ORS packets. In the survey, all women with children under five, irrespective of whether they had diarrhea in the preceding two weeks were asked if they had ever heard of the ORS packets (*Aquacell* or *Paralait*) and if they had ever used them. The responses indicated that treatment of diarrhea using ORS packets is well known. Virtually all women with children under five years (99 percent) said they knew about ORS, and there was no variation among subgroups.

Use of ORS to treat diarrhea is widespread in Jordan. More than 64 percent of mothers with children under five have used it; older women, women living in rural areas, and those with less education are more likely to have used the ORS packet (*Aquacell*) than other women.

Figure 8.3
Prevalence of Diarrhea among Children Under Five Years



Note: Based on children age 1-59 months who had diarrhea in the two weeks preceding the survey.

JPFHS 1990

Treatment of Diarrhea

The JPFHS collected information on the advice and treatment sought by mothers for their children with diarrhea, and what was given to treat the diarrhea episode. The various diarrhea treatments can be classified into three major categories, namely antibiotics, ORS, and homemade solutions. Homemade solutions include sugar water, tea, rice water, and various herbal teas such as *yansoon, meramya and babunij*.

Table 8.11 Knowledge and use of ORS packets

Percentage of mothers with births in the five years preceding the survey who know about and have ever used ORS packets, by selected background characteristics, Jordan 1990

Background characteristic	Know about ORS packets	Have ever used ORS packets	Number of mothers
Mother's age			
15-19	99.2	52.2	180
20-24	99.3	61.5	829
25-29	99.1	66.5	1163
30-34	98.2	65.0	969
35+	97.6	65.7	1281
Residence			
Large city	99.3	61.9	1703
Other urban	98.6	63.2	1468
Rural	97.3	69.3	1251
Region			
Amman	98.3	60.3	1661
Zarqa + Mafraq	98.6	64.3	904
Irbid	99.7	73.7	1093
Balqa	98.6	59.4	303
South	96.4	61.0	461
Education level attended			
No education	95.8	67.8	880
Primary	98.9	68.2	949
Secondary	99.2	63.3	2083
Higher	99.6	56.3	509
All mothers	98.5	64.4	4421

Note: Includes mothers who have given ORS for diarrhea during the past two weeks, although they were not asked about knowledge of ORS packets.

Data concerning treatment of diarrhea are presented in Table 8.12. Among children under five who had diarrhea in the two weeks preceding the survey, half were taken to a health facility, such as a hospital, health center, or private doctor. Younger children, children living in rural areas, children of higher birth order, children from the South, and children of mothers with no education are more likely to have received advice and treatment from a health facility than other children.

Table 8.12 Treatment of diarrhea

Percentage of children under five years who had diarrhea in the two weeks preceding the survey who were taken for treatment to a health facility or provider, the percentage who received oral rehydration therapy (ORT), the percentage who received neither ORT nor increased fluids, and the percentage who received antibiotics, according to selected background characteristics, Jordan 1990

Background characteristic	Percentage taken to a health facility or provider[1]	Oral rehydration therapy (ORT)		Percentage receiving neither ORT nor increased fluids	Percentage receiving anti-biotics	Number of children with diarrhea
		ORS packets	Homemade solution			
Age of child						
<6 months	49.2	31.3	64.9	23.7	27.1	95
6-11 months	53.6	48.3	65.6	17.8	28.1	147
12-23 months	56.6	46.5	62.8	22.4	36.6	254
24-35 months	33.2	33.0	68.0	23.6	23.1	86
36-47 months	44.2	33.1	65.3	27.1	30.1	53
48-59 months	39.1	41.0	59.6	28.6	19.3	35
Sex of child						
Male	50.1	44.1	66.6	20.9	30.1	348
Female	49.9	39.1	62.1	24.0	30.4	323
Birth order						
1	46.9	38.6	66.9	22.5	29.3	155
2-3	46.5	38.8	65.0	21.3	28.2	189
4-5	47.9	39.9	59.3	23.6	33.0	107
6+	56.3	47.2	64.7	22.8	31.3	219
Residence						
Large city	43.6	39.2	60.0	28.4	30.1	252
Other urban	50.9	38.4	66.2	21.9	30.9	232
Rural	57.6	49.1	68.2	15.0	29.6	187
Region						
Amman	43.8	33.0	61.6	29.5	27.6	238
Zarqa + Mafraq	45.2	35.3	58.0	27.6	25.0	138
Irbid	53.8	51.6	72.7	13.0	31.5	208
Balqa	59.5	49.4	81.5	13.2	48.0	20
South	67.1	52.6	57.0	18.6	40.9	68
Education level attended						
No education	63.1	50.1	58.4	23.9	35.2	121
Primary	50.4	44.2	69.2	18.6	28.4	124
Secondary	46.0	39.7	66.2	21.8	28.1	363
More than secondary	47.2	32.2	56.2	30.8	37.2	63
All children with diarrhea	50.0	41.7	64.4	22.4	30.2	671

Note: Oral rehydration therapy (ORT) includes solution prepared from ORS packets and homemade solutions such as sugar water, tea, and rice water. Figures are for children born in the period 1-59 months preceding the survey.

[1] Includes hospital, health center, maternal and child health center and clinic

Columns 2, 3, and 4 of Table 8.12 present information on the use of oral rehydration therapy to treat diarrhea. It should be noted that the percents may add up to more than 100, since more than one treatment may have been given. Of the different types of treatment administered, home solution is the most popular, used to treat more than 64 percent of children with diarrhea. The next most popular treatment is ORS packets, used to treat 42 percent of children. Twenty-two percent of children who had diarrhea were not given either of these types of oral rehydration therapy. Children of higher birth order, children living in rural areas or in the South, and children of women who have no education are slightly more likely to been given a solution prepared from an ORS packet than other children.

Antibiotics were administered to 30 percent of children who had diarrhea in the two weeks preceding the survey. This is a high proportion in comparison with other countries participating in the DHS program.

Breastfeeding Practices During Diarrhea

The JPFHS included questions on breastfeeding practices for children who had diarrhea in the two weeks preceding the survey. Mothers were asked about any changes in the frequency of breastfeeding for children not yet weaned.

For most children with diarrhea there was no change in the number of times they were breastfed (see Table 8.13). As much as 90 percent of the children received the same amount of breast milk or more. However, almost ten percent received less or no milk at all.

Table 8.13 Breastfeeding practices during diarrhea

Percent distribution of children under five who are still being breastfed and who had diarrhea in the preceding two weeks by frequency of breastfeeding, Jordan 1990

Frequency of breastfeeding	Breastfeeding children who had diarrhea
Breastfeeding frequency[1]	
Same as usual	86.0
Increased	4.3
Reduced	8.5
Stopped	1.2
Total	100.0
Number of children breastfed	523
Number of children with diarrhea	671

Note: Figures are for children born in the period 1-59 months preceding the survey.
[1]Applies only to last child who is still breastfed

CHAPTER 9

INFANT FEEDING AND CHILDHOOD NUTRITION

In this chapter, two topics are examined: infant feeding practices (including breastfeeding, supplementary foods and the use of a bottle with a nipple while breastfeeding) and the nutritional status of children under five years of age. Both mother and child are affected by infant feeding. The duration, frequency, and amount of feeding affect the child's nutritional status, which influences the chances of survival. Breastfeeding affects the mother through postpartum infertility, which, in turn, influences the subsequent birth interval and overall fertility.

The nutritional status of children is assessed in terms of anthropometric measurements (height and weight). Combined with information on feeding practices these data indicate to program planners and policymakers the population subgroups and health services that need the greatest attention.

9.1 BREASTFEEDING AND SUPPLEMENTATION

Breastfeeding is almost universal in Jordan; 94 percent of infants are breastfed. There is virtually no variation among subgroups. Table 9.1 presents information on the extent of breastfeeding for living children (columns 1 and 2), and the timing of initiation of breastfeeding for last-born children (columns 3 and 4).

Breastfeeding is initiated early; 41 percent of newborns are breastfed during the first hour after birth, while 66 percent are given breast milk in the first day of life. Differentials by background characteristics are minor except that children born to women in Balqa are likely to be put to the breast sooner than average, while those born to women in Irbid are likely to experience a delay in initiation of breastfeeding.

Table 9.2 presents information on breastfeeding practices for living children under three years of age. Three types of breastfeeding are distinguished: exclusive breastfeeding, full breastfeeding (augmented by plain water only), and breastfeeding supplemented with other foods. Nearly all children are breastfed for at least some time. However, by age 4-5 months, only 84 percent of the children are breastfed, and after 9 months this percentage drops to 66 percent. Exclusive breastfeeding is not common; less than 40 percent of infants age 0-1 month are exclusively breastfed.

Table 9.3 shows the percentage of breastfeeding children who are receiving food supplements and the percentage who are being bottlefed (using a bottle with a nipple). More than half of all children received a supplement in the first month. It should be noted that the analysis is limited to infants (children 0-11 months). Also, the supplementation categories are not mutually exclusive, i.e., infants given one of the supplements may also have been given one or more of the supplements in the columns to the left of that particular supplement. For example, an infant that was given solid or mushy food may also have been given one or more of the following supplements: infant formula, other milk, and other liquids.

The introduction of supplements begins early (see Table 9.3); almost half of infants who are breastfed are given liquids other than infant formula or other milk. Among children who are breastfed, infant formula and other milk are given to less than one in five children. As expected, as age increases, more and more infants are given solid or mushy food. The proportion of children given solid or mushy food increases markedly after the first three months. By age 4-5 months, more than half of the children are given solid or mushy food, and by 10-11 months three-quarters of breastfeeding children are given solid or mushy food.

Table 9.1 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed and the percentage of last-born children who started breastfeeding within one hour and within one day of birth, by selected background characteristics, Jordan 1990

Background characteristic	Among all children		Among last-born children		
			Percentage who started breastfeeding		
	Percentage ever breastfed	Number of children	Within 1 hour of birth	Within 1 day of birth	Number of last-born children
Time since birth					
0-11 months	94.8	1599	41.0	66.9	1598
12-23 months	93.9	1677	41.5	67.7	1346
24-35 months	93.7	1695	41.6	63.6	763
36-47 months	93.0	1682	36.3	61.7	453
48-59 months	93.6	1608	40.6	62.5	323
Sex of child					
Male	93.6	4207	40.0	64.1	2317
Female	93.9	4054	41.5	67.5	2167
Residence					
Large city	92.8	3037	40.9	65.5	1725
Other urban	94.4	2712	42.2	66.3	1489
Rural	94.2	2512	38.9	65.3	1269
Region					
Amman	93.3	2952	41.5	62.8	1682
Zarqa + Mafraq	93.4	1668	47.7	70.3	918
Irbid	94.9	2181	22.7	60.6	1108
Balqa	91.9	582	73.8	81.3	310
South	94.2	879	45.3	69.0	466
Education level attended					
No education	92.9	1629	40.7	63.9	893
Primary	93.6	1762	39.7	66.6	962
Secondary	94.1	3921	42.2	66.8	2110
More than secondary	94.0	949	37.1	62.7	518
Assistance at delivery					
Medically trained	93.5	7209	40.1	65.3	3984
Traditional midwife	95.6	709	44.4	70.9	330
Other or none	94.5	343	48.8	66.5	170
Place of delivery					
Health facility	93.4	6487	40.3	65.5	3645
At home	95.1	1644	42.7	66.0	769
Other	96.9	129	46.3	75.6	68
Missing	69.8	2	0.0	0.0	0
All children	93.8	8261	40.8	65.7	4483

Table 9.2 Breastfeeding status

Percent distribution of living children by breastfeeding status, according to child's age in months, Jordan 1990

Age in months	Percentage of living children who are:				
	Not breast-feeding	Exclu-sively breast-fed	Breastfeeding and:		Total
			Plain water only	Supple-ments	
0-1	3.0	38.9	5.2	52.9	100.0
2-3	9.7	24.8	8.2	57.2	100.0
4-5	15.6	9.8	7.2	67.5	100.0
6-7	27.9	6.4	6.1	59.6	100.0
8-9	33.7	3.4	3.5	59.4	100.0
10-11	33.8	3.5	6.7	55.9	100.0
12-13	47.5	2.2	2.7	47.6	100.0
14-15	67.0	2.1	0.7	30.1	100.0
16-17	67.9	1.4	1.0	29.7	100.0
18-19	81.3	1.4	0.6	16.7	100.0
20-21	84.9	0.4	0.2	14.6	100.0
22-23	90.0	0.4	0.7	8.9	100.0
24-25	93.5	0.0	0.0	6.5	100.0
26-27	98.0	0.2	0.4	1.5	100.0
28-29	97.5	0.0	0.0	2.5	100.0
30-31	96.9	0.0	0.4	2.7	100.0
32-33	97.3	0.0	0.3	2.5	100.0
34-35	99.4	0.0	0.0	0.6	100.0

Note: Breastfeeding status refers to preceding 24 hours. Children classified as *breastfeeding and plain water only* receive no supplements.

Table 9.3 Breastfeeding and supplementation

Percentage of breastfeeding children who are receiving specific types of food supplementation, and the percentage who are using a bottle with a nipple, by age in months, Jordan 1990

Age in months	Percentage of breastfeeding children who are: Receiving supplement: Infant formula	Other milk	Other liquid	Solid/ Mushy	Using a bottle with a nipple	Number of children
0-1	12.4	3.1	47.9	0.8	19.8	220
2-3	18.1	15.0	44.5	12.9	32.6	225
4-5	22.8	18.3	42.9	52.6	39.6	218
6-7	20.4	23.1	51.3	64.3	33.7	192
8-9	17.5	22.0	59.7	73.5	31.2	182
10-11	12.8	28.4	59.7	73.7	26.6	184
All ages	17.4	18.8	51.3	48.1	30.8	1221

Note: Figures are for the preceding 24 hours. Percents by type of supplement may sum to more than 100, as children may have received more than one type of supplement.

The extent to which a bottle with a nipple is used to feed infants who are being breastfed is shown in Table 9.3. On average, 31 percent of these infants are given a bottle with a nipple. A bottle is given to two in ten infants 0-1 month, 4 in 10 infants 4-5 months, after which the proportion declines.

Table 9.4 presents the differentials in breastfeeding patterns between subgroups. The median durations are based on children born 0 to 35 months preceding the survey, irrespective of their survival status. The median duration of breastfeeding is 12 months; however, the median for exclusive breastfeeding is just over one-half month. Column 1 indicates a slight variation in breastfeeding duration across subgroups. Children in large cities, children of women with secondary or higher education, and those who were assisted by medically trained personnel at delivery tend to have somewhat shorter breastfeeding durations. Mother's education and type of assistance at delivery have the strongest associations with breastfeeding patterns. Children of rural women and women who have no education tend to be breastfed longer and more frequently than other children.

Regarding frequency of breastfeeding (see Table 9.4), 77 percent of breastfed children were given breast milk six times or more in the preceding 24 hours; the figures ranges from 74 percent for children in large cities to 81 percent for rural children, and from 85 percent for children of mothers who have no education to 67 percent for children whose mothers attended more than secondary education.

Table 9.4 Median duration and frequency of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and full breastfeeding, and the percentage of children under six months of age who were breastfed six or more times in the 24 hours preceding the survey, by selected to background characteristics, Jordan 1990

Background characteristic	Median duration in months				Children under 6 months	
	Any breast-feeding	Exclusive breast-feeding	Full breast-feeding[1]	Number of children	Percentage breastfed 6+ times in preceding 24 hours	Number of children
Sex of child						
Male	12.6	0.6	0.6	2520	78.8	368
Female	12.1	0.6	0.7	2451	74.7	367
Residence						
Large city	11.3	0.6	0.6	1846	74.5	265
Other urban	12.5	0.7	1.0	1633	75.8	261
Rural	13.2	0.6	0.7	1493	80.9	208
Region						
Amman	12.1	0.6	0.6	1789	79.9	250
Zarqa + Mafraq	12.7	0.7	0.7	996	77.5	141
Irbid	12.1	0.6	0.6	1313	74.6	206
Balqa	13.7	0.4	0.6	335	69.1	51
South	12.0	0.7	0.7	539	76.1	86
Education level attended						
No education	16.2	0.7	1.3	861	84.8	88
Primary	13.2	0.6	0.6	1006	74.9	137
Secondary	11.6	0.6	0.6	2471	78.7	389
More than secondary	10.2	0.5	0.7	634	66.6	121
Assistance at delivery						
Medically trained	12.1	0.6	0.7	4424	76.9	685
Traditional midwife	15.1	0.6	0.6	364	67.7	33
Other or None	14.2	2.3	2.3	184	87.8	15
All children	12.3	0.6	0.7	4971	76.7	734
Mean for all children	13.0	2.5	3.3	94.1	94.1	NA
Prevalence/Incidence[2]	12.2	1.7	2.5	NA	NA	NA

Note: Medians and means are based on current status. Proportion of children ever breastfed is 94.1 percent.
NA = Not applicable
[1]Either exclusively breastfed or received plain water only in addition to breastfeeding
[2]Prevalence/incidence mean

9.2 NUTRITIONAL STATUS

An important component of the JPFHS was the collection of anthropometric data for the assessment of children's nutritional status. All children born since January 1985 whose mothers were interviewed in the survey were measured. The measurements included height (i.e., recumbent length), weight, head and arm circumference, and arm fat. Height and weight were measured using a portable measuring board and a hanging spring scale calibrated in 0.1 kilogram increments. Head and arm circumference were measured using a tape, while fat tissue was determined by pinching the arm. Only the height and weight data are presented in this report.

The results of surveys of this type are strongly influenced by the accuracy of the height and weight measurements, as well as age reporting. An investigation of the dating of events in Jordan found that age reporting for children was excellent. Month and year of birth were obtained for 98 percent of children of respondents, and no apparent heaping is observed from the age distribution. To ensure accurate measurement, the Ministry of Health provided each field team with a nurse to weigh and measure the children. The nurse was assisted by a supervisor or field editor, who was trained in the collection of anthropometric measurements.

The procedures used to measure the children were those recommended by the United Nations (1986). During fieldwork, the factory-made pants which came with the scales were often found to be too small. This was particularly true in the case of older children. To resolve the problem, larger pants were made which could be used in measuring older/larger children.

For comparative purposes, the data on nutritional status are evaluated using the National Center for Health Statistics/Centers for Disease Control (NCHS/CDC) International Reference Population, as recommended by the World Health Organization. Of 9,559 children under five whose mothers were interviewed, 82 percent were successfully measured. The major reasons for not measuring the children were because the children were absent from the household (11 percent), or they refused (3 percent). Interviewers were instructed to measure children under two years of age lying down on the measuring board (recumbent length), while children two years or more were measured standing. It was found, however, that 47 percent of children under two years were measured standing, and 5 percent of children two years or more were measured lying down. Part of the error may have occurred in coding the method of measurement.

Three standard indices have been developed to assess nutritional status:

- Height-for-age
- Weight-for-height
- Weight-for-age

Each of these indices provides a somewhat different measure of nutritional status. Height-for-age is used as a measure of linear growth. Children who are short for their age are generally chronically undernourished. A child whose height-for-age is below -2 standard deviations from the median of the NCHS/CDC/WHO reference population is suffering from moderate to severe linear growth retardation, and is classified as *stunted*. In the reference population, the percentage of children who fall in this category is 2.3 percent. A percentage exceeding this number is a reflection of the prevalence of stunting in the population, which may be caused by a long period of malnutrition or recurrent and chronic illness. The weight-for-height index examines body mass in relation to body length, and is used as an indicator of current and acute undernutrition (*wasting*). Weight-for-age is a useful summary index, particularly in monitoring growth of children in a clinical situation. Although taking into account both chronic and acute undernutrition, it has

the disadvantage that it does not distinguish the two. The data are presented here to allow for comparison with clinical data.

Information from the JPFHS on the nutritional status of children is summarized in Tables 9.5 and 9.6. (Table 9.5 gives the distribution of children by selected demographic characteristics; Table 9.6 gives the distribution of children by selected background characteristics.) Overall, children in Jordan do well in terms of weight-for-height (wasting); only 2.8 percent are acutely undernourished (below -2 standard deviations). However, 19 percent of children are chronically undernourished (stunted) for weight-for-height (below -2 standard deviations); and 6 percent are underweight (below -2 standard deviations) for weight-for-age.

Table 9.5 Nutritional status by demographic characteristics

Percentage of children under five years who are classified as undernourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height and weight-for-age, by selected demographic characteristics, Jordan 1990

Demographic characteristic	Height-for-age		Weight-for-height		Weight-for-age		Number of children
	Percentage below -3SD	Percentage below -2SD[1]	Percentage below -3SD	Percentage below -2SD[1]	Percentage below -3SD	Percentage below -2SD[1]	
Child's age							
<6 months	0.5	3.6	0.4	4.0	0.6	1.7	594
6-11 months	4.5	14.6	0.9	4.6	1.9	6.0	704
12-23 months	6.3	22.9	0.8	3.4	1.1	7.4	1409
24-35 months	5.6	20.8	0.2	1.9	0.7	6.8	1373
36-47 months	6.5	22.4	0.3	2.0	0.6	7.5	1340
48-59 months	5.0	20.3	0.4	2.5	0.7	6.3	1182
Sex of child							
Male	5.7	19.6	0.7	3.5	1.0	6.7	3307
Female	4.8	18.9	0.3	2.2	0.7	6.2	3294
Birth order							
1	3.6	15.3	0.3	3.3	0.7	6.0	1021
2-3	4.4	17.2	0.4	2.2	0.8	5.8	1703
4-5	6.0	20.1	0.4	2.5	0.7	6.0	1401
6+	6.1	21.8	0.7	3.3	1.1	7.3	2475
Birth interval							
First birth	3.6	15.4	0.3	3.2	0.6	6.0	1032
<24 months	6.1	21.7	0.3	2.6	1.0	6.8	2744
24-47 months	5.3	19.8	0.8	3.0	0.9	6.7	2293
48+ months	3.8	11.5	0.7	3.1	0.4	4.1	531
All children	5.3	19.3	0.5	2.8	0.9	6.4	6601

Note: Figures are for children born in the period 1-59 months preceding the survey. Each index is expressed in terms of the number of standard deviation (SD) units from the median of the NCHS/CDC/WHO international reference population. Children are classified as undernourished if their z-scores are below minus two or minus three standard deviations (-2SD or -3SD) from the median of the reference population.
[1]Includes children who are below -3SD

The demographic differentials in nutritional status are generally small (see Table 9.5). Stunting is low during infancy, especially at age 0-6 months, increases in the second year of life, then remains about the same through age five. Wasting is more common in infancy than at older ages. In terms of nutritional status, girls are better off than boys, especially for wasting. High birth order children show a greater degree of stunting than low birth order children (15 percent for first-order children and 22 percent for children of birth order 6 and higher). Children who are born after a long birth interval (4 years or more) are less likely to be stunted than children born after a short birth interval.

Stunting and wasting are strongly associated with residence and level of education (see Table 9.6 and Figure 9.1). Rural children and children of mothers who did not attend school are twice as likely to be stunted as children who live in large cities and children of mothers who have attended secondary or higher education.

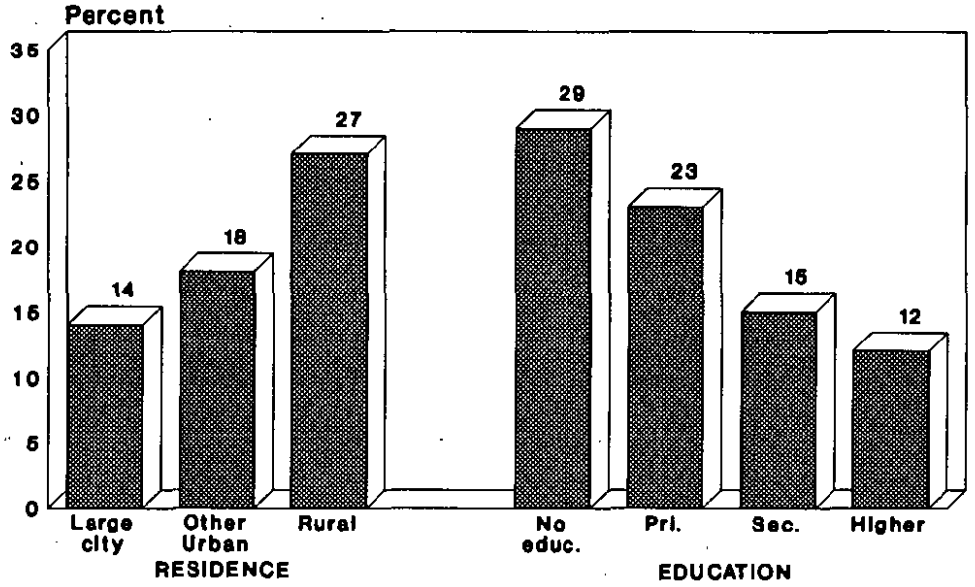
Table 9.6 Nutritional status by background characteristics

Percentage of children under five years who are classified as undernourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by selected background characteristics, Jordan 1990

	Height-for-age		Weight-for-height		Weight-for-age		
Demographic characteristic	Percentage below -3SD	Percentage below -2SD[1]	Percentage below -3SD	Percentage below -2SD[1]	Percentage below -3SD	Percentage below -2SD[1]	Number of children
Residence							
Large city	3.4	14.1	0.3	2.5	0.5	4.9	2447
Other urban	4.1	17.8	0.7	2.7	0.9	5.0	2184
Rural	8.9	27.3	0.6	3.5	1.3	9.9	1970
Region							
Amman	4.9	16.4	0.7	4.0	0.9	6.4	2305
Zarqa + Mafraq	4.8	20.9	0.2	1.6	0.6	6.4	1397
Irbid	4.4	19.3	0.4	1.7	0.9	5.6	1825
Balqa	9.1	26.6	0.9	4.5	1.3	8.8	421
South	7.5	21.2	0.6	3.6	1.0	7.5	652
Education level attended							
No education	8.6	28.8	0.7	3.5	1.1	10.7	1283
Primary	6.3	23.3	0.6	2.6	1.4	6.3	1423
Secondary	4.1	15.3	0.4	2.7	0.6	5.4	3161
More than secondary	2.5	11.9	0.7	2.7	0.7	3.8	733
All children	5.3	19.3	0.5	2.8	0.9	6.4	6601

Note: Figures are for children born in the period 1-59 months preceding the survey. Each index is expressed in terms of the number of standard deviation (SD) units from the median of the NCHS/CDC/WHO international reference population. Children are classified as undernourished if their z-scores are below minus two or minus three standard deviations (-2SD or -3SD) from the median of the reference population.
[1]Includes children who are below -3SD

Figure 9.1
Percentage of Children Under Five Years Who are Chronically Undernourished (Stunted)



Note: Percentage of children below -2 SD from the median of the International Reference Population for height-for-age.

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APPENDIX A

SAMPLE DESIGN

APPENDIX A

SAMPLE DESIGN

The primary objective of the Jordan Population and Family Health Survey (JPFHS) sample design was to provide reliable estimates of fertility and mortality rates, and of the use of contraceptive methods at the national level and for major subpopulations, namely large cities, other urban areas, and rural areas. Depending on the sample size, reliable estimates can also be provided for each of the largest governorates, and a group of smaller governorates. To achieve this objective, a stratified two-stage design was adopted.

The data were collected from all households in the sample areas, using the household questionnaire, and individual questionnaires were administered to all ever-married women aged 15 to 49 who were usual residents in the selected households. Data on height and weight of respondents' children born since January 1985 were also obtained in order to gain insight of the nutritional status of children in Jordan.

The following is a detailed description of the JPFHS sampling design. A description of the field activities involved in the implementation of the sample design is included in Chapter 1 of this report.

A.1 Sample Coverage

Administratively, Jordan is divided into 8 governorates. Most of Jordan's estimated 3.5 million population live in the central and northern highlands along the Jordan River. The three largest governorates, Amman, Irbid and Zarqa, are clustered in the central and northern parts of the country, constituting approximately 80 percent of the country's population. The remaining 20 percent are shared by 5 governorates, namely Mafraq in the east, Balqa in the west, and Karak, Ma'an and Tafielah in the south. The JPFHS sample is nationally representative; however, nomads living in remote areas and persons living in institutional quarters such as hotels, dormitories and prisons were excluded from the sample frame.

A.2 Sample Design

The JPFHS was designed to be self-weighting, but due to the need to provide separate estimates for the smaller governorates, a weighted design was applied. The sampling frame for the JPFHS was obtained from an updated listing of housing units, pertaining to 1989 and 1990 for major cities, and from population projections for localities in the rest of the country. As mentioned above, the country is classified into three major divisions, large cities, other urban areas, and rural areas. In each category, all localities were stratified according to their size. In localities with a population of less than 5,000, the first stage sampling unit was the locality itself. In localities with more than 5,000 population, segments of approximately 100 households defined as Ultimate Area Blocks, (UAB) were formed, and used as the primary sampling unit.

A criterion determining the JPFHS sample size was the necessity to have a sufficiently large number of ever-married women in the survey to allow for meaningful analysis. Using information from the 1987 Health, Nutrition, Manpower and Poverty Survey it was estimated that the average number of ever-married women age 15-49 per household was 0.84 with almost no variation across urban-rural areas, and very slight variation among governorates. From the 1983 Jordan Fertility and Family Health Survey (JFFHS), it was found that the level of coverage and response was 92 percent. On the basis of these figures, to yield approximately 6,500 interviews with ever-married women age 15-49, roughly 8,500 households would have to be visited.

A.3 Sample Allocation

A total of 292 sampling units (clusters) were selected at the beginning of the survey for a self-weighted design. However, it was found that the number of selected clusters in each of the five smaller governorates (Mafraq, Balqa, Karak, Tafielah and Ma'an) was insufficient for obtaining reliable demographic and health estimates at the governorate level. In order to achieve a minimum sample size for providing these estimates, the number of sampling units in the five smaller governorates was doubled to 20, 40, 26, 8, and 20 respectively. Hence, the total number of sampling units increased to 349. Table A.1 presents the distribution of the units by governorate and stratum. A total of 134 units are located in major cities, 100 in other urban areas, and 115 in rural areas.

Table A.1 Distribution of sample points by governorate and stratum, Jordan 1990

Stratum	Amman	Irbid	Zarqa	Balqa	Karak	Mafraq	Ma'an	Tafielah	Total
Urban									
5,000 - 9,999	4	10	1	4	3	-	1	1	24
10,000 - 19,999	2	8	1	8	3	-	2	3	27
20,000 - 49,999	14	2	6	12	-	8	7	-	49
50,000+	88	16	30	-	-	-	-	-	134
Rural									
<500	3	2	1	1	2	3	2	1	15
500 - 999	3	3	1	2	3	2	4		18
1,000 - 1,999	3	8	1	5	5	3	2	1	28
2,000 - 4,999	5	22	1	8	10	4	2	2	54
Total	122	71	42	40	26	20	20	8	349

The Department of Statistics in Jordan, in collaboration with DHS staff decided to introduce questions on employment in the household questionnaire. This was done in order to obtain indicators of unemployment at the governorate level according to specific characteristics (information which was much needed by the Government of Jordan, especially after the Gulf Crisis). The sample size for the household interview was also doubled to obtain these employment indicators, aiming at 17,000 expected interviews without increasing the number of sample clusters (349). The original sampling plan for the individual interview, which aimed at interviewing 6,500 eligible women in 8,500 households, remained unchanged.

The sample clusters for each governorate were then allocated among strata according to their population size in the governorate. Table A.1 presents the distribution of these clusters among strata by governorate. In this report, data for Mafraq governorate are combined with that for Zarqa, while Karak, Tafielah and Ma'an governorates are grouped as the "South" region.

The last stage of sample design was household selection. Since every household is attached to a housing unit, the ultimate selection should be for housing units rather than households. However, some housing units may not be occupied by households or may not be identified, or the household itself may not be at home at the time of the interview. These issues were considered when selecting the number of housing units to be visited. Based on earlier information, it was estimated that 21,000 housing units should be visited in order to interview 17,000 households (the total household sample size). Regarding the number of housing units per cluster, a total of 60 were selected. Thirty of the 60 predefined housing units were visited for the household interview *only*; the other 30 were visited for *both* the household and individual interviews (as applicable). This resulted in a selection of a total of 21,172 housing units.

The fieldwork for the household interview was carried out from September 26 through October 10, 1990, yielding 16,813 households. A total of 16,296 households were interviewed successfully, indicating a response rate of 96.9 percent.

The sample for the individual interview was 10,708 housing units, aiming at locating and interviewing 8,500 households and 6,500 eligible women. A total of 8,590 households were identified; 2,118 other housing units were vacant or destroyed or could not be identified. Of the households identified, 8,333 were successfully interviewed, indicating a response rate of 97.0 percent. In these households, 7,246 women were identified as eligible for the individual interview (i.e., ever-married, age 15-49, and usual member of the household). Of these, 6,461 individual interviews were successfully completed. Thus, the response rate for the individual interview was 89.2 percent and the overall response rate for the JPFHS (the product of the household and the individual response rates) was 86.5 percent.

While there does not appear to be a clear pattern among the household and individual response rates by urban-rural residence, household response rates range from 96.2 percent in the Amman to 98.4 percent in Irbid (see Table A.2). For the individual interview, Irbid again has the highest rate (93.0 percent), while Amman shows the lowest response rate (86.4 percent). Combining the household and individual response rates, Amman shows the lowest rate (83.1 percent), while Irbid has the highest (91.6 percent).

Table A.2 Results of the household and individual interviews by residence and region

Percent distribution of households and eligible women in the sample by results of the household and individual interviews, and household, eligible women and overall response rates, according to residence and region, Jordan 1990

Result of interview and response rate	Residence			Region					
	Large city	Other urban	Rural	Amman	Zarqa and Mafraq	Irbid	Balqa	South	Total
Selected households									
Completed (C)	80.8	76.4	75.7	80.1	77.6	79.6	76.2	72.1	77.8
Household present but no competent respondent at home (HP)	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Postponed (P)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)	0.1	0.1	0.0	0.2	0.1	0.0	0.0	0.1	0.1
Dwelling not found (DNF)	2.0	2.4	2.0	2.9	2.3	1.1	2.5	1.5	2.2
Household absent (HA)	3.7	2.5	1.8	3.2	3.1	3.0	2.5	1.3	2.8
Dwelling vacant/address not a dwelling (DV)	12.6	18.1	19.9	13.1	16.3	15.7	18.5	23.7	16.5
Dwelling destroyed (DD)	0.1	0.1	0.3	0.1	0.2	0.2	0.0	0.4	0.2
Other (O)	0.4	0.3	0.3	0.4	0.3	0.1	0.2	0.8	0.3
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	4049	3528	3131	3689	1961	2126	1220	1712	10708
Household response rate (HRR)[1]	97.2	96.6	97.2	96.2	96.8	98.4	96.8	97.6	97.0
Eligible women									
Completed (EWC)	88.6	89.0	90.1	86.4	91.5	93.0	89.2	87.5	89.2
Not at home (EWNH)	2.1	2.7	0.9	1.9	2.9	0.4	3.0	2.2	2.0
Postponed (EWP)	8.0	7.3	7.1	10.2	4.4	5.4	6.1	8.9	7.5
Refused (EWR)	0.2	0.0	0.1	0.2	0.1	0.0	0.0	0.2	0.1
Partly completed (EWPC)	0.1	0.1	0.0	0.2	0.1	0.0	0.0	0.0	0.1
Other (EWO)	0.9	0.8	1.8	1.1	0.9	1.2	1.6	1.1	1.2
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	2756	2407	2083	2507	1396	1405	854	1084	7246
Eligible woman response rate (EWRR)[2]	88.6	89.0	90.1	86.4	91.5	93.0	89.2	87.5	89.2
Overall response rate (ORR)[3]	86.1	86.0	87.6	83.1	88.5	91.6	86.3	85.5	86.5

[1]Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{C}{C + HP + P + R + DNF + HA}$$

[2]Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{EWC}{EWC + EWNH + EWP + EWR + EWPC + EWO}$$

[3]The overall response rate (ORR) is calculated as:

$$ORR = HRR * EWRR$$

APPENDIX B

ESTIMATES OF SAMPLING ERRORS

APPENDIX B

ESTIMATES OF SAMPLING ERRORS

The results from sample surveys are affected by two types of errors, nonsampling error and sampling error. Nonsampling error is due to mistakes made in carrying out field activities, such as failure to locate and interview the correct household, errors in the way the questions are asked, misunderstanding on the part of either the interviewer or the respondent, data entry errors, etc. Although efforts were made during the design and implementation of the JPFHS to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically

Sampling errors, on the other hand, can be measured statistically. The sample of women selected in the JPFHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each one would have yielded results that differed somewhat from the actual sample selected. The sampling error is a measure of the variability between all possible samples; although it is not known exactly, it can be estimated from the survey results.

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

If the sample of women had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the JPFHS sample design depended on stratification, stages and clusters. Consequently, it was necessary to utilize more complex formulas. The computer package CLUSTERS, developed by the International Statistical Institute for the World Fertility Survey, 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. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

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

in which

$$z_{hi} = y_{hi} - r.x_{hi} \text{ , and } z_h = y_h - r.x_h$$

where h represents the stratum which varies from 1 to H,
m_h is the total number of EAs selected in the h^{th} stratum,
y_{hi} is the sum of the values of variable y in EA i in the h^{th} stratum,
x_{hi} is the sum of the number of cases (women) in EA i in the h^{th} stratum, and
f is the overall sampling fraction, which is so small that CLUSTERS 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 the estimates.

In addition to the standard errors, CLUSTERS program also 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; 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.

Sampling errors are presented in Tables B.2-B.5 for variables considered to be of major interest. Results are presented for the whole country, for large cities, other urban areas, and rural areas. For each variable, the type of statistic (mean or proportion) and the base population are given in Table B.1. For each variable, Tables B.2-B.5 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted cases (WN), the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE).

The confidence limits have the following interpretation. For the mean number of children ever born (EVBORN), the overall average from the sample is 5.09 and its standard error is 0.054. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., $5.09 \pm (2 \times 0.054)$, which means that there is a high probability (95 percent) that the *true* average number of children ever born is between 4.98 and 5.20.

The relative standard error for most estimates for the country as a whole is small, except for estimates of very small proportions. The magnitude of the error increases as estimates for subpopulations such as geographical areas are considered. For the variable *children ever born*, for instance, the relative standard error (as a percentage of the estimated mean) for the whole country and its regional division is 1.1 percent, 1.8 percent, 1.3 percent and 1.9 percent, respectively.

Table B.1 List of selected variables for sampling errors, Jordan 1990

VARIABLE		ESTIMATE	BASE POPULATION
URBAN	Urban	Proportion	Ever-married women
ILLIT	Illiterate	Proportion	Ever-married women
SECOND	With secondary education or higher	Proportion	Ever-married women
CURMAR	Currently married	Proportion	Ever-married women
MAR20	Married before age 20	Proportion	Ever-married women age 20+
SEX18	Had first sexual intercourse before 18	Proportion	Ever-married women age 20+
PREGNANT	Currently pregnant	Proportion	Currently married women age 20-49
EVBORN	Children ever born	Mean	Ever-married women
EVB4049	Children ever born to women over 40	Mean	Ever-married women age 40-49
SURVIV	Children surviving	Mean	Ever-married women
KMETHOD	Knowing any contraceptive method	Proportion	Currently married women
KSOURCE	Knowing source for any method	Proportion	Currently married women
EVUSE	Ever used any contraceptive method	Proportion	Currently married women
CUSING	Currently using any method	Proportion	Currently married women
CUMODERN	Currently using a modern method	Proportion	Currently married women
CUPILL	Currently using pill	Proportion	Currently married women
CUIUD	Currently using IUD	Proportion	Currently married women
CUSTERIL	Currently using female sterilization	Proportion	Currently married women
CUPABST	Currently using periodic abstinence	Proportion	Currently married women
PSOURCE	Using public sector source	Proportion	Current users of modern methods
NOMORE	Want no more children	Proportion	Currently married women
DELAY	Want to delay at least 2 years	Proportion	Currently married women
IDEAL	Ideal number of children	Mean	Ever-married women
TETANUS	Mothers received tetanus injection	Proportion	Births in last 5 years
MDCARE	Received medical care at birth	Proportion	Births in last 5 years
DIARRH	Had diarrhea in last 2 weeks	Proportion	Children under 5
ORSTRE	Treated with ORS packets	Proportion	Children under 5 with diarrhea in last 2 weeks
MEDTRE	Consulted a medical facility	Proportion	Children under 5 with diarrhea in last 2 weeks
HCARD	Having health card	Proportion	Children 12-23 months
BCG	Received BCG vaccination	Proportion	Children 12-23 months
DPT3	Received DPT vaccination (3 doses)	Proportion	Children 12-23 months
POLIO3	Received polio vaccination (3 doses)	Proportion	Children 12-23 months
MEASLES	Received measles vaccination	Proportion	Children 12-23 months
FULLIM	Fully immunized	Proportion	Children 12-23 months

Table B.2 Sampling errors - Entire sample, Jordan 1990

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
URBAN	.738	.009	6461	6461.0	1.694	.013	.719	.756
ILLIT	.253	.008	6461	6461.0	1.565	.034	.236	.269
SECOND	.540	.010	6461	6461.0	1.553	.018	.521	.559
CURMAR	.955	.003	6461	6461.0	1.256	.003	.948	.961
AGEM20	.618	.007	6108	6102.3	1.200	.012	.604	.633
SEX18	.393	.008	6108	6102.3	1.214	.019	.378	.408
PREGNT	.171	.005	6181	6168.4	1.018	.028	.161	.181
EVBORN	5.090	.054	6461	6461.0	1.216	.011	4.981	5.199
EVB40	8.314	.099	1623	1620.5	1.194	.012	8.117	8.512
SURVIV	4.799	.050	6461	6461.0	1.203	.010	4.699	4.899
KMETHO	.998	.000	6181	6168.4	.000	.000	.998	.998
KSOURC	.948	.004	6181	6168.4	1.463	.004	.940	.956
EVUSE	.649	.009	6181	6168.4	1.455	.014	.631	.667
CUSE	.400	.008	6181	6168.4	1.338	.021	.383	.416
CUMODE	.269	.007	6181	6168.4	1.284	.027	.254	.283
CUPILL	.046	.003	6181	6168.4	1.298	.075	.039	.053
CUIUD	.153	.006	6181	6168.4	1.262	.038	.141	.164
CUSTER	.056	.003	6181	6168.4	1.163	.061	.049	.063
CUPABS	.039	.003	6181	6168.4	1.143	.072	.033	.044
PSOURC	.543	.014	1575	1657.0	1.146	.027	.514	.571
NOMORE	.471	.007	6181	6168.4	1.128	.015	.456	.485
DELAY	.248	.006	6181	6168.4	1.046	.023	.237	.260
IDEAL	4.430	.040	4323	4440.4	1.245	.009	4.350	4.510
TETANU	.430	.008	8282	8180.5	1.263	.019	.414	.447
MEDELI	.872	.008	8282	8180.5	1.509	.009	.857	.887
DIARR2	.085	.004	7986	7882.1	1.034	.041	.078	.092
ORSTRE	.417	.020	672	670.7	.969	.048	.376	.457
MEDTRE	.509	.019	672	670.7	.934	.038	.470	.548
HCARD	.641	.015	1642	1615.4	1.203	.023	.612	.670
BCG	.169	.012	1642	1615.4	1.254	.071	.145	.193
DPT3	.951	.006	1642	1615.4	1.036	.006	.939	.963
POL3	.956	.006	1642	1615.4	1.013	.006	.945	.967
MEASLE	.895	.009	1642	1615.4	1.117	.010	.878	.913
FULLIM	.880	.009	1642	1615.4	1.106	.010	.862	.898

Table B.3 Sampling errors - Large city, Jordan 1990

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
URBAN	1.000	.000	2441	2634.6	.000	.000	1.000	1.000
ILLIT	.157	.010	2441	2634.6	1.310	.062	.137	.176
SECOND	.642	.014	2441	2634.6	1.445	.022	.614	.670
CURMAR	.954	.005	2441	2634.6	1.153	.005	.944	.964
AGEM20	.607	.011	2311	2493.8	1.042	.017	.586	.628
SEX18	.371	.010	2311	2493.8	1.022	.028	.351	.392
PREGNT	.142	.008	2328	2512.7	1.039	.053	.127	.157
EVBORN	4.752	.085	2441	2634.6	1.232	.018	4.583	4.921
EVB40	7.663	.147	647	699.8	1.154	.019	7.368	7.958
SURVIV	4.495	.076	2441	2634.6	1.198	.017	4.342	4.647
KMETHO	.999	.000	2328	2512.7	.000	.000	.999	.999
KSOURC	.977	.004	2328	2512.7	1.190	.004	.970	.985
EVUSE	.742	.011	2328	2512.7	1.171	.014	.721	.763
CUSE	.483	.012	2328	2512.7	1.166	.025	.459	.508
CUMODE	.335	.011	2328	2512.7	1.156	.034	.313	.358
CUPILL	.062	.005	2328	2512.7	.957	.077	.053	.072
CUIUD	.194	.009	2328	2512.7	1.049	.044	.177	.211
CUSTER	.059	.006	2328	2512.7	1.183	.098	.048	.071
CUPABS	.054	.005	2328	2512.7	1.044	.091	.044	.063
PSOURC	.520	.019	780	842.8	1.079	.037	.482	.559
NOMORE	.495	.011	2328	2512.7	1.061	.022	.473	.517
DELAY	.223	.009	2328	2512.7	.997	.039	.205	.240
IDEAL	4.261	.053	1810	1952.6	1.122	.013	4.154	4.367
TETANU	.424	.011	2774	2997.9	.979	.025	.402	.445
MEDELI	.928	.006	2774	2997.9	.888	.006	.917	.939
DIARR2	.087	.006	2681	2896.9	1.070	.073	.074	.100
ORSTRE	.392	.031	234	252.0	.887	.078	.330	.453
MEDTRE	.448	.037	234	252.0	1.036	.082	.374	.521
HCARD	.661	.023	559	604.9	1.110	.034	.616	.706
BCG	.261	.026	559	604.9	.373	.100	.209	.313
DPT3	.949	.011	559	604.9	.137	.011	.927	.970
POL3	.956	.010	559	604.9	.098	.010	.937	.976
MEASLE	.881	.016	559	604.9	1.117	.018	.850	.912
FULLIM	.860	.017	559	604.9	1.113	.020	.826	.893

Table B.4 Sampling errors - Other urban, Jordan 1990

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
URBAN	1.000	.000	2143	2133.3	.000	.000	1.000	1.000
ILLIT	.244	.018	2143	2133.3	1.935	.074	.208	.279
SECOND	.537	.017	2143	2133.3	1.623	.033	.502	.572
CURMAR	.953	.007	2143	2133.3	1.454	.007	.940	.967
AGEM20	.618	.014	2029	2009.2	1.283	.022	.590	.645
SEX18	.396	.015	2029	2009.2	1.361	.037	.366	.425
PREGNT	.171	.008	2051	2033.6	.995	.048	.155	.188
EVBORN	5.201	.094	2143	2133.3	1.158	.018	5.013	5.389
EVB40	8.647	.215	505	494.5	1.371	.025	8.217	9.076
SURVIV	4.914	.088	2143	2133.3	1.155	.018	4.738	5.089
KMETHO	.000	.000	2051	2033.6	.000	.000	.000	.000
KSOURC	.952	.006	2051	2033.6	1.315	.006	.940	.965
EVUSE	.635	.019	2051	2033.6	1.743	.029	.598	.672
CUSE	.387	.015	2051	2033.6	1.426	.040	.356	.418
CUMODE	.265	.013	2051	2033.6	1.295	.048	.240	.291
CUPILL	.039	.006	2051	2033.6	1.429	.156	.027	.051
CUIUD	.148	.011	2051	2033.6	1.385	.074	.126	.169
CUSTER	.066	.006	2051	2033.6	1.150	.095	.054	.079
CUPABS	.031	.005	2051	2033.6	1.339	.164	.021	.042
PSOURC	.535	.025	514	539.5	1.139	.047	.485	.585
NOMORE	.457	.013	2051	2033.6	1.177	.028	.431	.482
DELAY	.251	.010	2051	2033.6	1.035	.039	.231	.271
IDEAL	4.523	.079	1449	1474.1	1.361	.017	4.365	4.680
TETANU	.459	.016	2740	2696.3	1.391	.034	.428	.491
MEDELI	.869	.016	2740	2696.3	1.853	.019	.836	.902
DIARR2	.089	.005	2648	2607.6	.790	.053	.080	.098
ORSTRE	.384	.036	231	231.8	1.045	.095	.311	.457
MEDTRE	.517	.031	231	231.8	.877	.060	.455	.579
HCARD	.662	.025	539	530.9	1.197	.038	.612	.712
BCG	.142	.013	539	530.9	.844	.093	.116	.169
DPT3	.946	.009	539	530.9	.915	.010	.928	.965
POL3	.952	.009	539	530.9	.912	.009	.935	.970
MEASLE	.892	.015	539	530.9	1.101	.017	.861	.922
FULLIM	.879	.016	539	530.9	1.090	.018	.848	.910

Table B.5 Sampling errors, Rural, Jordan 1990

Variable	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
URBAN	.000	.000	1877	1693.1	.000	.000	.000	.000
ILLIT	.413	.018	1877	1693.1	1.541	.042	.378	.448
SECOND	.385	.016	1877	1693.1	1.460	.043	.352	.417
CURMAR	.958	.005	1877	1693.1	1.096	.005	.948	.968
AGEM20	.637	.015	1768	1599.2	1.355	.024	.606	.668
SEX18	.422	.016	1768	1599.2	1.340	.037	.391	.454
PREGNT	.216	.010	1802	1622.1	1.066	.048	.195	.237
EVBORN	5.477	.103	1877	1693.1	1.224	.019	5.271	5.684
EVB40	8.999	.122	471	426.1	.867	.014	8.754	9.243
SURVIV	5.127	.096	1877	1693.1	1.230	.019	4.935	5.319
KMETHO	.997	.002	1802	1622.1	1.500	.002	.993	1.001
KSOURC	.897	.013	1802	1622.1	1.745	.014	.872	.922
EVUSE	.523	.019	1802	1622.1	1.648	.037	.484	.562
CUSE	.285	.018	1802	1622.1	1.696	.063	.249	.321
CUMODE	.169	.016	1802	1622.1	1.803	.094	.137	.201
CUPILL	.030	.008	1802	1622.1	2.006	.269	.014	.046
CUIUD	.095	.012	1802	1622.1	1.687	.123	.072	.118
CUSTER	.038	.005	1802	1622.1	1.081	.128	.029	.048
CUPABS	.025	.003	1802	1622.1	.895	.133	.018	.031
PSOURC	.626	.043	281	274.7	1.483	.068	.540	.712
NOMORE	.451	.014	1802	1622.1	1.192	.031	.423	.479
DELAY	.284	.012	1802	1622.1	1.132	.042	.260	.308
IDEAL	4.620	.087	1064	1013.7	1.344	.019	4.447	4.793
TETANU	.407	.017	2768	2486.3	1.440	.041	.374	.440
MEDELI	.808	.016	2768	2486.3	1.536	.020	.776	.840
DIARR2	.079	.007	2657	2377.6	1.219	.089	.065	.093
ORSTRE	.491	.039	207	187.0	1.009	.079	.414	.569
MEDTRE	.581	.028	207	187.0	.759	.048	.525	.638
HCARD	.593	.029	544	479.6	1.329	.048	.536	.650
BCG	.083	.016	544	479.6	1.353	.195	.050	.115
DPT3	.960	.010	544	479.6	1.020	.010	.940	.980
POL3	.959	.010	544	479.6	1.019	.011	.939	.979
MEASLE	.918	.013	544	479.6	1.083	.014	.892	.945
FULLIM	.907	.014	544	479.6	1.040	.015	.880	.934

APPENDIX C

DATA QUALITY TABLES

Table C.1 Household age distribution

Single-year age distribution of the de jure household population by sex (weighted), Jordan 1990

	Male		Female			Male		Female	
Age	Number	Percentage	Number	Percentage	Age	Number	Percentage	Number	Percentage
<1	1704	2.9	1579	3.0	38	389	0.7	439	0.8
1	1539	2.7	1464	2.7	39	302	0.5	332	0.6
2	1761	3.0	1680	3.1	40	501	0.9	634	1.2
3	1734	3.0	1678	3.1	41	265	0.5	248	0.5
4	1798	3.1	1667	3.1	42	416	0.7	447	0.8
5	1771	3.0	1664	3.1	43	359	0.6	340	0.6
6	1713	2.9	1552	2.9	44	281	0.5	297	0.6
7	1528	2.6	1449	2.7	45	581	1.0	633	1.2
8	1752	3.0	1621	3.0	46	340	0.6	287	0.5
9	1673	2.9	1566	2.9	47	365	0.6	300	0.6
10	1814	3.1	1634	3.1	48	384	0.7	343	0.6
11	1709	2.9	1476	2.8	49	231	0.4	184	0.3
12	1795	3.1	1592	3.0	50	536	0.9	568	1.1
13	1605	2.8	1504	2.8	51	233	0.4	200	0.4
14	1631	2.8	1442	2.7	52	305	0.5	273	0.5
15	1566	2.7	1357	2.5	53	250	0.4	239	0.4
16	1489	2.6	1435	2.7	54	309	0.5	225	0.4
17	1565	2.7	1388	2.6	55	424	0.7	457	0.9
18	1634	2.8	1534	2.9	56	200	0.3	168	0.3
19	1363	2.3	1316	2.5	57	208	0.4	152	0.3
20	1482	2.6	1426	2.7	58	201	0.3	150	0.3
21	1302	2.2	1060	2.0	59	119	0.2	68	0.1
22	1301	2.2	1100	2.1	60	473	0.8	488	0.9
23	1279	2.2	1100	2.1	61	134	0.2	72	0.1
24	1122	1.9	921	1.7	62	135	0.2	112	0.2
25	1151	2.0	1084	2.0	63	128	0.2	102	0.2
26	954	1.6	836	1.6	64	101	0.2	58	0.1
27	961	1.7	749	1.4	65	306	0.5	333	0.6
28	901	1.6	673	1.3	66	79	0.1	48	0.1
29	565	1.0	535	1.0	67	86	0.1	37	0.1
30	823	1.4	891	1.7	68	68	0.1	48	0.1
31	474	0.8	484	0.9	69	41	0.1	27	0.1
32	585	1.0	572	1.1	70+	992	1.7	891	1.7
33	495	0.9	410	0.8	Don't know/ missing	8	0.0	11	0.0
34	400	0.7	408	0.8					
35	654	1.1	625	1.2					
36	344	0.6	342	0.6	Total	58065	100.0	53394	100.0
37	379	0.7	368	0.7					

Table C.2 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions, Jordan 1990

Subject	Reference group	Percentage missing information	Number of cases
Birth date	Last 15 years		
Month only		0.84	23221
Month and year		0.02	23221
Age at death	Last 15 years	0.19	1018
Age/Date at first union[1]	Ever-married women	0.10	764
Respondent's education	Ever-married women	0.03	6461
Child's size at birth	Birth in preceding 0-59 months	14.26	8261
Anthropometry[2]	Living children age 1-59 months	14.85	7962
Diarrhea in last 2 weeks	Living children age 1-59 months	0.35	283

[1]Both year and age missing
[2]Child not measured

Table C.3 Births by calendar year since birth

Distribution of births by calendar years since birth for living (L), dead (D), and all (T) children, according to reporting completeness, sex ratio at birth, and ratio of births by calendar year (weighted), Jordan 1990

Calendar years since birth	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]			Number of births: Male			Number of births: Female		
	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T	L	D	T
0	1389	39	1429	100.0	100.0	100.0	96.8	203.5	98.8	NA	NA	NA	683	26	710	706	13	719
1	1615	66	1681	100.0	100.0	100.0	99.7	94.4	99.5	NA	NA	NA	806	32	838	809	34	843
2	1641	62	1703	100.0	100.0	100.0	108.4	97.7	108.0	101.6	96.5	101.4	854	31	884	787	32	819
3	1614	63	1677	100.0	100.0	100.0	105.8	90.9	105.2	100.5	104.1	100.7	830	30	860	784	33	817
4	1570	58	1629	100.0	100.0	100.0	106.5	95.5	106.1	97.7	106.3	98.0	810	28	838	760	30	790
5	1600	47	1647	99.8	100.0	99.8	108.6	113.8	108.7	100.3	66.7	98.9	833	25	858	767	22	789
6	1620	82	1702	99.0	94.9	98.8	97.2	108.7	97.8	105.4	120.2	106.0	798	43	841	821	39	861
7	1474	90	1564	99.2	86.9	98.5	103.7	116.2	104.3	93.5	105.0	94.1	750	48	799	724	42	765
8	1532	89	1622	99.3	92.8	98.9	105.6	96.1	105.1	104.1	122.4	105.0	787	44	831	745	46	791
9	1470	56	1526	99.2	81.5	98.5	112.8	120.2	113.0	NA	NA	NA	779	31	810	691	25	716
0-4	7830	289	8119	100.0	100.0	100.0	103.6	104.6	103.6	NA	NA	NA	3983	148	4131	3847	141	3988
5-9	7696	364	8060	99.3	91.0	98.9	105.3	109.5	105.5	NA	NA	NA	3948	191	4138	3748	174	3922
10-14	65820	350	694	98.9	89.1	98.4	112.7	93.7	111.6	NA	NA	NA	3487	173	3661	3094	185	3279
15-19	47040	370	507	98.3	87.0	97.5	114.6	102.4	113.6	NA	NA	NA	2511	189	2700	2192	184	2377
20+	41940	4980	4690	96.7	79.6	94.9	110.6	99.8	109.4	NA	NA	NA	2203	249	2452	1991	249	2240
All	31005	1883	3288	98.9	88.2	98.3	108.5	101.6	108.1	NA	NA	NA	16133	949	17082	14873	934	15806

NA = Not applicable

[1] Both year and month of birth given

[2] $(B_m/B_f)*100$, where B_m and B_f are the numbers of male and female births, respectively

[3] $[2B_x/(B_{x-1}+B_{x+1})]*100$, where B_x is the number births in calendar year x

Table C.4 Reporting of age at death in days

Distribution of reported deaths under 1 month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey, Jordan 1990

Age at death (days)	Years preceding survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1	24	22	10	13	70
1	50	49	29	29	158
2	15	16	15	12	57
3	9	22	11	10	53
4	10	3	5	3	22
5	19	8	4	4	34
6	0	4	0	5	9
7	15	18	20	21	74
8	2	0	3	2	7
9	3	0	0	4	7
10	6	4	5	5	19
11	1	2	5	1	8
12	3	1	0	0	4
13	3	3	0	0	6
14	5	1	10	3	19
15	6	4	9	2	22
16	0	3	1	2	7
17	5	0	2	0	6
18	0	4	0	1	5
19	0	0	1	0	2
20	2	6	4	1	13
21	0	2	1	1	4
22	0	2	0	3	4
24	1	0	0	1	3
25	1	0	0	0	1
26	0	2	0	0	2
27	0	0	1	0	1
30	0	0	1	1	2
Percent neonatal[1]	71.1	69.8	54.4	61.6	65.1
Total 0-30	178	177	138	124	618

[1]0-6 days/0-30 days

Table C.5 Reporting of age at death in months

Distribution of reported deaths under 2 years of age by age at death in months and the percentage of infant deaths reported to occur at ages under one month, for five-year periods of birth preceding the survey, Jordan 1990

Age at death (months)	Years preceding survey				Total
	0-4	5-9	10-14	15-19	0-19
<1[a]	178	177	138	124	618
1	22	28	29	18	97
2	16	20	17	23	76
3	17	16	26	28	86
4	7	15	19	31	71
5	6	9	14	19	48
6	8	17	5	22	52
7	7	4	9	8	28
8	6	6	9	14	35
9	5	6	8	9	29
10	2	3	6	2	13
11	0	2	5	0	7
12	10	23	20	26	80
13	1	2	1	1	4
14	1	0	1	1	3
16	1	0	0	0	2
18	0	6	8	3	17
19	1	2	0	0	3
22	0	0	1	1	2
Percent neonatal[b]	73.1	67.2	58.7	47.9	61.6
Total 0-23	275	305	285	297	1161

[a]Includes deaths under 1 month reported in days
[b]Under 1 month/under 1 year

APPENDIX D

QUESTIONNAIRES

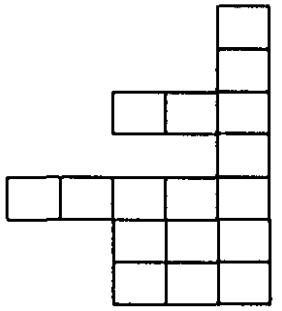
DEMOGRAPHIC AND HEALTH SURVEYS
HOUSEHOLD SCHEDULE

CONFIDENTIAL

JORDAN
DEPARTMENT OF STATISTICS

IDENTIFICATION

1. GOVERNORATE.....
2. DISTRICT.....
3. LOCALITY.....
4. STRATUM NUMBER.....
5. ULTIMATE AREA BLOCK.....
6. CLUSTER NUMBER.....
7. HOUSEHOLD NUMBER.....



INTERVIEWER VISITS

	1	2	3	FINAL VISIT
INTERVIEWER'S NAME				DAY
				MONTH
				YEAR
DATE				INT. CODE
RESULT***				RESULT
SUPERVISOR				TOTAL NUMBER OF VISITS

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

TOTAL IN HOUSEHOLD

TOTAL ELIGIBLE WOMEN

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

TICK HERE IF CONTINUATION SHEET USED ☐

1

HOUSEHOLD SCHEDULE

NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP BETWEEN HH MEMBERS	RESIDENCE		SEX	AGE	ORPHANHOOD	
	Please give me the names of the household members (3 names)	What is the relationship of (NAME) to the head of the household?	Does (NAME) usually live here?	Did (NAME) sleep here last night?	Is (NAME) male or female?	How old is he/she? (in completed years)	Is his/her father still alive?	Is his/her mother still alive?
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
			YES NO	YES NO	M F	IN YEARS	YES NO DK	YES NO DK
01			1 2	1 2	1 2		1 2 8	1 2 8
02			1 2	1 2	1 2		1 2 8	1 2 8
03			1 2	1 2	1 2		1 2 8	1 2 8
04			1 2	1 2	1 2		1 2 8	1 2 8
05			1 2	1 2	1 2		1 2 8	1 2 8
06			1 2	1 2	1 2		1 2 8	1 2 8
07			1 2	1 2	1 2		1 2 8	1 2 8
08			1 2	1 2	1 2		1 2 8	1 2 8
09			1 2	1 2	1 2		1 2 8	1 2 8
10			1 2	1 2	1 2		1 2 8	1 2 8
11			1 2	1 2	1 2		1 2 8	1 2 8
12			1 2	1 2	1 2		1 2 8	1 2 8
13			1 2	1 2	1 2		1 2 8	1 2 8
14			1 2	1 2	1 2		1 2 8	1 2 8

Just to make sure that I have a complete listing:

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

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

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

NO.	EDUCATION FOR PERSONS 5 YEARS +						MARITAL STATUS	WIDOWHOOD	POLYGAMY	ECONOMIC ACTIVITY	INSURANCE COVERAGE	ELIGI-BILITY
	Has (NAME) ever been to school?	Is (NAME) still in school? What is the highest level of school he/she attended? What is the highest grade he/she completed at that level?					FOR PERSONS 13 YEARS +	FOR PERSONS EVER-MARRIED	FOR ALL MARRIED MEN	FOR PERSONS 13 YEARS AND OVER	RECORD SUM OF CODE(S)	CIRCLE LINE NUMBER OF WOMEN ELIGIBLE FOR INDIVI-DUAL INTER-VIEW
		Currently in school		Currently not in school			What is his/her marital status? Single.....1 Married.....2 Divorced....3 Widowed.....4	Is his/her first spouse alive?	How many wives does (NAME) have?	What did he/she do during the previous week?	None.....0 MOH.....1 RMS.....2 Private..4 UNRWA....8	
(1)	(10)	(11)	(12)	(13)	(14)		(15)	(16)	(17)	(18)	(19)	(20)
	YES NO LIT NO ILT	GRADE	LEVEL	GRADE	LEVEL			YES NO DK				
01	1 2 3							1 2 8				01
02	1 2 3							1 2 8				02
03	1 2 3							1 2 8				03
04	1 2 3							1 2 8				04
05	1 2 3							1 2 8				05
06	1 2 3							1 2 8				06
07	1 2 3							1 2 8				07
08	1 2 3							1 2 8				08
09	1 2 3							1 2 8				09
10	1 2 3							1 2 8				10
11	1 2 3							1 2 8				11
12	1 2 3							1 2 8				12
13	1 2 3							1 2 8				13
14	1 2 3							1 2 8				14

NUMBER OF BIRTHS IN THE HOUSEHOLD DURING THE PAST 12 MONTHS

21

FAMILY TYPE (Coded in DOS)

22

During the last 12 months, have any of the usual members of this household died? IF NO→29

NO.	SEX	AGE AT DEATH	MARITAL STATUS PERSONS 13+	DATE OF DEATH	If the deceased was an ever-married woman aged 15-49, what is the cause of death?
23	24	25	26	27	28
	M F			MONTH YEAR	
1.	1 2				
2.	1 2				
3.	1 2				
4.	1 2				

3

SPECIAL INFORMATION: PERSONS 13+

NO.	UNEMPLOYED PERSONS		EMPLOYED PERSONS	COUNTRY OF WORK	
	Did you turn down a job offered to you when you were unemployed?	Why did you refuse? Low salary..1 Far away....2 Work unsuitable..4 Other.....8	How are you paid? Monthly salary..1 Daily.....2 Self employed...4 Other.....8	Was (NAME) employed outside Jordan until this summer? If "yes", where? (NAME OF COUNTRY)	
(29)	(30)	(31)	(32)	(33)	
	YES NO			YES NO	
01	1 2			1 2	
02	1 2			1 2	
03	1 2			1 2	
04	1 2			1 2	
05	1 2			1 2	
06	1 2			1 2	
07	1 2			1 2	
08	1 2			1 2	
09	1 2			1 2	
10	1 2			1 2	
11	1 2			1 2	
12	1 2			1 2	
13	1 2			1 2	
14	1 2			1 2	

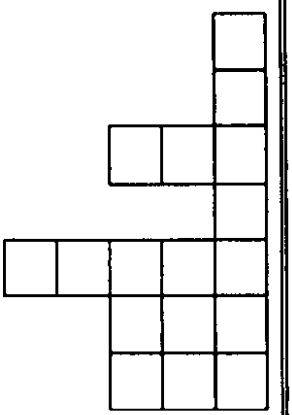
4

DEMOGRAPHIC AND HEALTH SURVEYS
INDIVIDUAL QUESTIONNAIRE

CONFIDENTIAL

JORDAN
DEPARTMENT OF STATISTICS

IDENTIFICATION	
1. GOVERNORATE.....	
2. DISTRICT.....	
3. LOCALITY.....	
4. STRATUM NUMBER.....	
5. ULTIMATE AREA BLOCK.....	
6. CLUSTER NUMBER.....	
7. HOUSEHOLD NUMBER.....	



INTERVIEWER VISITS				
	1	2	3	FINAL VISIT
INTERVIEWER'S NAME				DAY
				MONTH
				YEAR
DATE				INT'R CODE
RESULT***				RESULT
SUPERVISOR				TOTAL NUMBER OF VISITS

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

LINE NUMBER OF ELIGIBLE WOMAN

SERIAL NUMBER OF EL. WMN.

	FIELD EDITED BY	OFFICE EDITED BY	KEYED BY
NAME			
DATE			

TICK HERE IF CONTINUATION SHEET USED

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
101	RECORD THE TIME.	HOUR..... ☐☐ MINUTES..... ☐☐	
102	First I would like to ask some questions about you and your household. For most of the time until you were 12 years old, where did you live?	CITY.....1 TOWN.....2 VILLAGE.....3	
103	In what month and year were you born?	MONTH..... ☐☐ DK MONTH.....98 YEAR..... ☐☐ DK YEAR.....98	
104	How old were you at your last birthday? COMPARE AND CORRECT 103 AND/OR 104 IF INCONSISTENT.	AGE IN COMPLETED YEARS..... ☐☐	
105	Have you ever attended school?	YES.....1 NO.....2	→109
106	What is the highest level of schooling you attended?	PRIMARY.....1 PREPARATORY.....2 SECONDARY.....3 INSTITUTE.....4 UNIVERSITY.....5 HIGHER STUDIES.....6	
107	What is the highest grade you completed?	GRADE..... ☐	
108	CHECK 106: PRIMARY OR LESS ☐ ↓ PREPARATORY OR HIGHER ☐		→110
109	Can you read and understand any written material easily, with difficulty, or not at all?	EASILY.....1 WITH DIFFICULTY.....2 NOT AT ALL.....3	→111
110	Do you read a newspaper or magazine?	RARELY.....1 SOMETIMES.....2 FREQUENTLY.....3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
111	Do you usually listen to the radio?	RARELY.....1 SOMETIMES.....2 FREQUENTLY.....3	
112	Do you usually watch television?	RARELY.....1 SOMETIMES.....2 FREQUENTLY.....3	
113	What is the main source of water your household uses?	PIPED INTO RESIDENCE.....1 PIPED INTO YARD OR PLOT.....2 PUBLIC TAP.....3 RIVER, SPRING, DAM.....4 TANKER TRUCK.....5 WELL.....6 OTHER_____.7 (SPECIFY)	
114	What kind of toilet facility does your household have?	PRIVATE SEPTIC LATRINE.....1 SHARED SEPTIC LATRINE.....2 OTHER_____3 (SPECIFY) NO FACILITIES.....4	
115	What type of sewage system do you have in your house?	PUBLIC NETWORK.....1 DUG HOLE.....2 OTHER_____3 (SPECIFY) NO SEWAGE.....4	
116	How many rooms in your house are used for sleeping?	ROOMS..... ☐	

3

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
117	BUILDING TYPE (RECORD OBSERVATION.)	CUTSTONE.....1 CUTSTONE+CONCRETE.....2 CONCRETE.....3 BRICK.....4 MUDBRICK.....5 ZINC/METAL.....6 OTHER_____7 (SPECIFY)	
118	Does your house have:	YES NO	
	Electricity?	ELECTRICITY.....1 2	
	A radio?	RADIO.....1 2	
	A television?	TELEVISION.....1 2	
	A refrigerator?	REFRIGERATOR.....1 2	
	A video?	VIDEO.....1 2	
	A telephone?	TELEPHONE.....1 2	
	An air conditioner?	AIR CONDITIONER.....1 2	
119	Does any member of your household own: CIRCLE ALL APPLICABLE RESPONSES	YES NO BICYCLE.....1 2 MOTORCYCLE.....1 2 PRIVATE CAR.....1 2 COMMERCIAL CAR.....1 2 PICKUP.....1 2 OTHER MODE OF TRANSPORT....1 2	
120	What is your religion?	ISLAM.....1 CHRISTIAN.....2 OTHER_____3 (SPECIFY)	

4

SECTION 2. MARRIAGE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
201	Are you now married, divorced separated or widowed?	MARRIED.....1 DIVORCED.....2 WIDOWED.....3 SEPARATED.....4	
202	Have you been married only once or more than once?	ONCE.....1 MORE THAN ONCE.....2	
203	In what month and year did you and your (first) husband begin living together (consummate your marriage)?	MONTH..... ☐☐ DK MONTH.....98 YEAR..... ☐☐ DK YEAR.....98	
204	At what age did you and your first husband begin to live together (consummate your marriage)?	AGE..... ☐☐	
205	What is (was) the type of relationship between you and your (first) husband?	FIRST COUSIN FROM FATHER'S SIDE.....1 FIRST COUSIN FROM MOTHER'S SIDE.....2 SECOND COUSIN.....3 OTHER RELATION.....4 NO RELATION.....5	
206	DETERMINE MONTHS MARRIED SINCE JANUARY 1985. ENTER "X" IN COLUMN 6 OF CALENDAR FOR EACH MONTH MARRIED AND ENTER "0" FOR EACH MONTH NOT MARRIED SINCE JANUARY 1985. FOR DIVORCED/WIDOWED/SEPARATED WOMEN OR WOMEN MARRIED MORE THAN ONCE: PROBE FOR DATE COUPLE STOPPED LIVING TOGETHER OR DATE WIDOWED, AND FOR STARTING DATE OF ANY SUBSEQUENT UNION.		
207	CHECK 201: CURRENTLY MARRIED/ SEPARATED ☐ ↓ DIVORCED/ WIDOWED ☐ →		301
208	Does your husband usually live with you in this household?	YES.....1 NO.....2 →	211
209	In the last month were you and your husband living together all of the time , or were you apart some of the time, or apart all of the time?	TOGETHER ALL THE TIME.....1 → APART SOME OF THE TIME.....2 APART ALL OF THE TIME.....3 →	301 211
210	How many days was he away in the last month?	DAYS..... ☐☐ →	301
211	Did he ever come to visit you in the last month?	YES.....1 NO.....2	

5

SECTION 3. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
301	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES.....1 NO.....2	→304
302	Do you have any sons or daughters to whom you have given birth who are now living with you? How many sons live with you? And how many daughters live with you?	YES.....1 NO.....2 SONS AT HOME..... DAUGHTERS AT HOME..... IF NONE ENTER '00'.	→303
303	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you? How many sons are alive but do not live with you? And how many daughters are alive but do not live with you?	YES.....1 NO.....2 SONS ELSEWHERE..... DAUGHTERS ELSEWHERE..... IF NONE ENTER '00'.	→304
304	Have you ever given birth to a boy or a girl who was born alive but later died? IF "NO", PROBE: Any (other) baby who cried or showed any sign of life but only survived a few hours or days? In all, how many boys have died? And how many girls have died?	YES.....1 NO.....2 BOYS DEAD..... GIRLS DEAD..... IF NONE ENTER '00'.	→305
305	SUM ANSWERS TO 302, 303, AND 304, AND ENTER TOTAL. IF NONE ENTER '00'.	TOTAL..... IF NONE ENTER '00'.	
306	CHECK 305: Just to make sure that I have this right: you have had in TOTAL _____ live births during your life. Is that correct? YES ☐ ↓ NO ☐ → PROBE AND CORRECT 301-306		
307	CHECK 305: ONE OR MORE BIRTHS ☐ ↓ NO BIRTHS ☐		→322

6

308 Now I would like to talk to you about all of your births from all marriages, whether still alive or not, starting with the first one you had.

(RECORD NAMES OF ALL THE BIRTHS IN 309. RECORD TWINS ON SEPARATE LINES).

309 What name was given to your (first,next) baby?	310 RECORD SINGLE OR MULTIPLE BIRTH STATUS	311 Is (NAME) a boy or a girl?	312 In what month and year was (NAME) born? PROBE: What is his/her birthday? OR: In what season was he/she born?	313 Is (NAME) still alive?	314 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS	315 IF ALIVE: Is (NAME) living with you?	316 IF LESS THAN 15 YRS. OF AGE: With whom does he/she live? IF 15+: GO TO NEXT BIRTH	317 IF DEAD: How old was he/she when he/she died? IF "1 YR.", PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH, MONTHS IF LESS THAN TWO YEARS, OR YEARS.
01 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL..2	MONTH.. ☐☐ YEAR... ☐☐	YES...1 NO....2 → 317	AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE.2 SOMEONE ELSE...3 (GO TO NEXT BIRTH)	DAYS....1 MONTHS..2 YEARS...3 ☐☐
02 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL..2	MONTH.. ☐☐ YEAR... ☐☐	YES...1 NO....2 → 317	AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE.2 SOMEONE ELSE...3 (GO TO NEXT BIRTH)	DAYS....1 MONTHS..2 YEARS...3 ☐☐
03 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL..2	MONTH.. ☐☐ YEAR... ☐☐	YES...1 NO....2 → 317	AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE.2 SOMEONE ELSE...3 (GO TO NEXT BIRTH)	DAYS....1 MONTHS..2 YEARS...3 ☐☐
04 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL..2	MONTH.. ☐☐ YEAR... ☐☐	YES...1 NO....2 → 317	AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE.2 SOMEONE ELSE...3 (GO TO NEXT BIRTH)	DAYS....1 MONTHS..2 YEARS...3 ☐☐
05 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL..2	MONTH.. ☐☐ YEAR... ☐☐	YES...1 NO....2 → 317	AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE.2 SOMEONE ELSE...3 (GO TO NEXT BIRTH)	DAYS....1 MONTHS..2 YEARS...3 ☐☐
06 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL..2	MONTH.. ☐☐ YEAR... ☐☐	YES...1 NO....2 → 317	AGE IN YEARS ☐☐	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE.2 SOMEONE ELSE...3 (GO TO NEXT BIRTH)	DAYS....1 MONTHS..2 YEARS...3 ☐☐

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309 What name was given to your next baby?	310 RECORD SINGLE OR MULTIPLE BIRTH STATUS	311 Is (NAME) a boy or a girl?	312 In what month and year was (NAME) born? PROBE: What is his/her birthday? OR: In what season?	313 Is (NAME) still alive?	314 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	315 IF ALIVE: Is (NAME) living with you?	316 IF LESS THAN 15 YRS. OF AGE: With whom does he/she live? IF 15+: GO TO NEXT BIRTH	317 IF DEAD: How old was he/she when he/she died? IF "1 YR.", PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH, MONTHS IF LESS THAN TWO YEARS, OR YEARS.
07 (NAME)	SING...1 MULT...2	BOY...1 GIRL..2	MONTH.. YEAR...	YES...1 NO....2 → 317	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE.2 SOMEONE ELSE...3 (GO TO NEXT BIRTH)	DAYS....1 MONTHS..2 YEARS...3
08 (NAME)	SING...1 MULT...2	BOY...1 GIRL..2	MONTH.. YEAR...	YES...1 NO....2 → 317	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE.2 SOMEONE ELSE...3 (GO TO NEXT	DAYS....1 MONTHS..2 YEARS...3
09 (NAME)	SING...1 MULT...2	BOY...1 GIRL..2	MONTH.. YEAR...	YES...1 NO....2 → 317	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE.2 SOMEONE ELSE...3 (GO TO NEXT BIRTH)	DAYS....1 MONTHS..2 YEARS...3
10 (NAME)	SING...1 MULT...2	BOY...1 GIRL..2	MONTH.. YEAR...	YES...1 NO....2 → 317	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE.2 SOMEONE ELSE...3 (GO TO NEXT BIRTH)	DAYS....1 MONTHS..2 YEARS...3
11 (NAME)	SING...1 MULT...2	BOY...1 GIRL..2	MONTH.. YEAR...	YES...1 NO....2 → 317	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE.2 SOMEONE ELSE...3 (GO TO NEXT BIRTH)	DAYS....1 MONTHS..2 YEARS...3
12 (NAME)	SING...1 MULT...2	BOY...1 GIRL..2	MONTH.. YEAR...	YES...1 NO....2 → 317	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE.2 SOMEONE ELSE...3 (GO TO NEXT BIRTH)	DAYS....1 MONTHS..2 YEARS...3

7A

309 What name was given to your next baby?	310 RECORD SINGLE OR MULTIPLE BIRTH STATUS	311 Is (NAME) a boy or a girl?	312 In what month and year was (NAME) born? PROBE: What is his/her birthday? OR: In what season?	313 Is (NAME) still alive?	314 IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COMPLETED YEARS.	315 IF ALIVE: Is (NAME) living with you?	316 IF LESS THAN 15 YRS. OF AGE: With whom does he/she live? IF 15+: GO TO NEXT BIRTH	317 IF DEAD: How old was he/she when he/she died? IF "1 YR.", PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH, MONTHS IF LESS THAN TWO YEARS, OR YEARS.
13 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL..2	MONTH.. YEAR...	YES...1 NO....2 → 317	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE.2 SOMEONE ELSE...3 (GO TO NEXT BIRTH)	DAYS....1 MONTHS..2 YEARS...3
14 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL..2	MONTH.. YEAR...	YES...1 NO....2 → 317	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE.2 SOMEONE ELSE...3 (GO TO NEXT BIRTH)	DAYS....1 MONTHS..2 YEARS...3
15 _____ (NAME)	SING...1 MULT...2	BOY...1 GIRL..2	MONTH.. YEAR...	YES...1 NO....2 → 317	AGE IN YEARS	YES.....1 (GO TO NEXT BIRTH) NO.....2	FATHER.....1 OTHER RELATIVE.2 SOMEONE ELSE...3 (GO TO NEXT BIRTH)	DAYS....1 MONTHS..2 YEARS...3

318 COMPARE 305 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK:

NUMBERS ARE SAME ☐ ↓

NUMBERS ARE DIFFERENT ☐ → (PROBE AND RECONCILE)

CHECK: FOR EACH LIVE BIRTH: YEAR OF BIRTH IS RECORDED

FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED

FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED

FOR AGE AT DEATH LESS THAN 2 YEARS: PROBE TO DETERMINE EXACT NUMBER OF MONTHS

☐

8

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
319	CHECK 312 AND ENTER THE NUMBER OF BIRTHS SINCE JANUARY 1985. IF NONE, ENTER 0 AND GO TO 321.	☐	
320	FOR EACH BIRTH SINCE JANUARY 1985 ENTER "B" IN MONTH OF BIRTH IN COLUMN 1 OF CALENDAR AND "P" IN EACH OF THE 8 PRECEDING MONTHS.		
321	AT THE BOTTOM OF THE CALENDAR, ENTER THE NAME AND BIRTH DATE OF THE LAST CHILD BORN PRIOR TO JANUARY 1985, IF APPLICABLE.		
322	Are you pregnant now?	YES.....1 NO.....2 UNSURE.....8	→325
323	How many months pregnant are you? ENTER "P" IN COLUMN 1 OF CALENDAR IN MONTH OF INTERVIEW AND IN EACH PRECEDING MONTH PREGNANT	MONTHS..... ☐☐	
324	At the time you became pregnant, did you want to become pregnant then, did you want to wait until later, or did you not want to become pregnant at all?	THEN.....1 NOT AT ALL.....2 LATER.....3	
325	Have you ever had a pregnancy that did not end as a live birth; either miscarried, was aborted, or ended in a stillbirth?	YES.....1 NO.....2	→331
326	When did the last such pregnancy occurred?	MONTH..... ☐☐ YEAR..... ☐☐	
327	CHECK 326: DATE LAST PREGNANCY ENDED SINCE JANUARY 1985 ☐	BEFORE JANUARY 1985 ☐	→331
328	How many months pregnant were you when the pregnancy ended? ENTER "T" IN COLUMN 1 OF CALENDAR IN MONTH PREGNANCY TERMINATED, AND "P" IN EACH PRECEDING MONTH PREGNANT.	MONTHS..... ☐☐	
329	Did you ever have any other such pregnancies?	YES.....1 NO.....2	→331

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
330	ASK FOR DATES AND DURATIONS OF ANY OTHER PREGNANCIES. ENTER "T" IN COLUMN 1 OF CALENDAR IN MONTH PREGNANCY TERMINATED, AND "P" IN EACH PRECEDING MONTH PREGNANT.		
331	When did your last menstrual period start?	DAYS AGO.....1 [ ][ ] WEEKS AGO.....2 [ ][ ] MONTHS AGO.....3 [ ][ ] YEARS AGO.....4 [ ][ ] BEFORE LAST BIRTH.....994 NEVER MENSTRUATED.....995 IN MENOPAUSE.....996	
332	Between the first day of a woman's period and the first day of her next period, when do you think she has the greatest chance of becoming pregnant?	DURING HER PERIOD.....1 RIGHT AFTER HER PERIOD HAS ENDED.....2 IN THE MIDDLE OF THE CYCLE.....3 JUST BEFORE HER PERIOD BEGINS...4 AT ANY TIME.....5 OTHER_____6 (SPECIFY) DK.....8	

10

401 Now I would like to talk about family planning - the 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 402 FOR EACH METHOD MENTIONED SPONTANEOUSLY.
THEN PROCEED DOWN THE COLUMN, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY.
CIRCLE CODE 2 IF METHOD IS RECOGNIZED, AND CODE 3 IF NOT RECOGNIZED.
THEN, FOR EACH METHOD WITH CODE 1 OR 2 CIRCLED IN 402, ASK 403-404 BEFORE PROCEEDING TO THE NEXT METHOD.

	402 Have you ever heard of (METHOD)? READ DESCRIPTION OF EACH METHOD.	403 Have you ever used (METHOD)?	404 Do you know where a person could go to get (METHOD)?
01 PILL Women can take a pill every day.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
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	YES.....1 NO.....2
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	YES.....1 NO.....2
04 FOAM/JELLY/SPONGE/DIAPHRAGM Women can place a sponge, suppository, diaphragm, jelly or cream inside them before intercourse.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
05 CONDOM Men can use a rubber sheath during sexual intercourse.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2

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	402 Have you ever heard of (METHOD)? READ DESCRIPTION OF EACH METHOD.	403 Have you ever used (METHOD)?	404 Do you know where a person could go to get (METHOD)?
06 FEMALE STERILIZATION/TUBAL LIGATION Women can have an operation to avoid having any more children.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	YES.....1 NO.....2
07 MALE STERILIZATION Men can have an operation to avoid having any more children.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	Has your husband ever had an operation to avoid having any more children? YES.....1 NO.....2	YES.....1 NO.....2
08 PERIODIC ABSTINENCE/RHYTHM 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	Do you know where a person can obtain advice on how to use periodic abstinence? YES.....1 NO.....2
09 WITHDRAWAL Men can be careful and pull out before climax.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	
10 PROLONGED BREASTFEEDING AS A METHOD OF CONTRACEPTION Women can breastfeed for longer period to avoid getting pregnant.	YES/SPONT.....1 YES/PROBED.....2 NO.....3	YES.....1 NO.....2	
11 ANY OTHER METHODS? 1 _____ (SPECIFY) 2 _____ (SPECIFY) 3 _____ (SPECIFY)	YES/SPONT.....1 NO.....3	YES.....1 NO.....2 YES.....1 NO.....2 YES.....1 NO.....2	

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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
405	CHECK 403: NOT A SINGLE "YES" (NEVER USED) ☐ AT LEAST ONE "YES" (EVER USED) ☐ → SKIP TO 408P		
406	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES..... ☐ → 408 NO..... ☐	
407	ENTER "0" IN COLUMN 1 OF CALENDAR IN EACH BLANK MONTH → 441		
408	What have you used or done? CORRECT 403-405.		
408P	What is the first thing you ever did or method you ever used to delay or avoid getting pregnant?	PILL.....01 IUD.....02 INJECTIONS.....03 DIAPHRAGM/FOAM/JELLY.....04 CONDOM.....05 FEMALE STERILIZATION.....06 MALE STERILIZATION.....07 PERIODIC ABSTINENCE.....08 WITHDRAWAL.....09 PROLONGED BREASTFEEDING.....10 OTHER_____ (SPECIFY) 11	→ 410
409	Where did you go to get this method the first time?	GOVERNMENT HOSPITAL.....01 MCH/HEALTH CENTER.....02 FP ASSOCIATION CLINIC.....03 PRIVATE DOCTOR.....04 PRIVATE HOSPITAL.....05 PHARMACY.....06 FRIENDS/RELATIVES.....07 OTHER_____ (SPECIFY) 08 DK.....98	
410	How many living children did you have at that time, if any? IF NONE ENTER '00'.	NUMBER OF CHILDREN..... ☐☐	

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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
411	CHECK 322: NOT PREGNANT OR UNSURE ☐	PREGNANT ☐	→433
412	CHECK 403: WOMAN/HUSBAND NOT STERILIZED ☐	WOMAN/HUSBAND STERILIZED ☐	→414P
413	FOR MARRIED/SEPARATED WOMEN CHECK 201: Are you currently doing something or using any method to delay or avoid getting pregnant?	YES.....1 NO.....2 NOT CURRENTLY MARRIED.....3	 →433 →433
414	Which method are you using?	PILL.....01 IUD.....02 INJECTIONS.....03 DIAPHRAGM/FOAM/JELLY.....04 CONDOM.....05 FEMALE STERILIZATION.....06 MALE STERILIZATION.....07 PERIODIC ABSTINENCE.....08 WITHDRAWAL.....09 PROLONGED BREASTFEEDING.....10 OTHER_____11 (SPECIFY)	→421 →425 →423 →428
414P	CIRCLE '06' FOR FEMALE STERILIZATION OR '07' FOR MALE STERILIZATION.		
415	At the time you first started using the pill, did you consult a doctor or a nurse ?	YES.....1 NO.....2 DK.....8	
416	At the time you last got pills, did you consult a doctor or a nurse?	YES.....1 NO.....2	
417	May I see the package of pills you are using now? (RECORD NAME OF BRAND.)	PACKAGE SEEN.....1 BRAND NAME_____ ☐☐ PACKAGE NOT SEEN.....2	 →419

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
418	Do you know the brand name of the pills you are now using? (RECORD NAME OF BRAND.)	BRAND NAME_____ ☐☐ DK.....98	
419	How much does one packet (cycle) of pills cost you?	COST..... JD ☐.☐☐ FREE.....996 DK.....998	
420	If you miss taking a pill one day, how many pills do you take the next day?	ONE.....1 TWO.....2 OTHER_____3 (SPECIFY)	→425
421	Did you get the IUD at the place where you had it inserted or did you get it somewhere else?	YES, SAME PLACE.....1 NO, SOMEWHERE ELSE.....2	
422	How much did it cost to have the IUD inserted?	COST IUD ..... JD ☐☐.☐☐ Insertion..... JD ☐☐.☐☐ Total..... JD ☐☐.☐☐ FREE.....9996 DK.....9998	→425
423	In what month and year was the sterilization operation performed to you or your husband?	DATE MONTH..... ☐☐ YEAR..... ☐☐	
424	ENTER STERILIZATION METHOD CODE IN MONTH OF INTERVIEW IN COLUMN 1 OF CALENDAR AND IN EACH MONTH BACK TO DATE OF OPERATION OR TO JANUARY 1985 IF OPERATION OCCURRED BEFORE 1985		→425P

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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
425	Where did you obtain (METHOD) the last time? _____ (NAME OF PLACE)	GOVERNMENT HOSPITAL.....01 MCH/HEALTH CENTER.....02 FP ASSOCIATION CLINIC.....03 PRIVATE DOCTOR.....04 PRIVATE HOSPITAL.....05 PHARMACY.....06 FRIENDS/RELATIVES.....07	
425P	Where did the sterilization take place? _____ (NAME OF PLACE)	OTHER_____ 08 (SPECIFY DK.....98	→428
426	How long does it take to travel from your home to this place?	MINUTES.....1 __ HOURS.....2 __ DK.....998	
427	Is it easy or difficult to get there?	EASY.....1 DIFFICULT.....2	
428	What is the main reason you decided to use (CURRENT METHOD FROM 414) rather than some other method of family planning?	RECOMMENDATION OF FAMILY PLANNING WORKER.....01 RECOMMENDATION OF DOCTOR/NURSE.....02 RECOMMENDATION OF FRIEND/RELATIVE.....03 SIDE EFFECTS OF OTHER METHODS..04 CONVENIENT TO USE.....05 ACCESS/AVAILABILITY.....06 COST.....07 WANTED PERMANENT METHOD.....08 HUSBAND PREFERRED.....09 WANTED MORE EFFECTIVE METHOD...10 OTHER_____ 11 (SPECIFY) DK.....98	

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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
429	Are you having any problems in using (CURRENT METHOD)?	YES.....1 NO.....2	→431
430	What is the main problem?	HUSBAND DISAPPROVES.....01 SIDE EFFECTS.....02 HEALTH CONCERNS.....03 ACCESS/AVAILABILITY.....04 COST.....05 INCONVENIENT TO USE.....06 STERILIZED, WANTS CHILDREN.....07 OTHER_____ (SPECIFY) 08 DK.....98	
431	CHECK 414 AND 423: NEITHER STERILIZED ☐ ↓ STERILIZED BEFORE JANUARY 1985 ☐		→449
	STERILIZED SINCE JANUARY 1985 ☐		→433
432	ENTER METHOD CODE FROM 414 IN CURRENT MONTH IN COL.1 OF CALENDAR. THEN DETERMINE WHEN SHE STARTED USING THIS METHOD THIS TIME. ENTER METHOD CODE IN EACH MONTH OF USE. ILLUSTRATIVE QUESTIONS: - When did you start using this method continuously? - How long have you been using this method continuously?		
433	I would like to ask some questions about all of the (other) periods in the last few years during which you or your husband used a method to avoid getting pregnant. USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO JANUARY 1985. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS. IN EACH MONTH, ENTER CODE FOR METHOD OR "0" FOR NONUSE IN COLUMN 1. IN COLUMN 2, ENTER CODES FOR DISCONTINUATION NEXT TO LAST MONTH OF USE. NUMBER OF CODES ENTERED IN COLUMN 2 MUST BE THE SAME AS THE NUMBER OF INTERRUPTIONS OF CONTRACEPTIVE USE IN COLUMN 1. ASK WHY SHE STOPPED USING THE METHOD. IF A PREGNANCY FOLLOWED, ASK WHETHER SHE BECAME PREGNANT UNINTENTIONALLY WHILE USING THE METHOD OR DELIBERATELY STOPPED TO GET PREGNANT OR BECAUSE OF OTHER REASONS. IF SHE GETS PREGNANT AFTER STOPPING, ASK HOW MANY MONTHS AFTER STOPPING DID SHE BECAME PREGNANT. ILLUSTRATIVE QUESTIONS: COLUMN 1: -When was the last time you used a method? Which method was that? -When did you start using that method? How long after the birth of (NAME)? -How long did you use the method then? COLUMN 2: -Why did you stop using the (METHOD)? -Did you become pregnant while using (METHOD), or did you stop to get pregnant?		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
434	CHECK CALENDAR: METHOD USED IN MONTH OF JANUARY 1985 ☐	NO METHOD USED IN MONTH OF JANUARY 1985 ☐	→436
435	I see that you were using (METHOD) in January 1985. When did you start using (METHOD) that time? (THIS DATE SHOULD NOT PRECEDE SIX MONTHS BEFORE THE DATE OF BIRTH OF ANY CHILD BORN BEFORE JANUARY 1985).	MONTH..... ☐☐ YEAR..... ☐☐	→440
436	I see that you were not using any method of contraception in January 1985. Did you ever use a method before that?	YES.....1 NO.....2	→440
437	CHECK 312: HAD BIRTH BEFORE JANUARY 1985 ☐	NO BIRTH BEFORE JANUARY 1985 ☐	→439
438	Did you use a method between the birth of (NAME OF LAST CHILD BORN BEFORE JANUARY 1985) and January 1985?	YES.....1 NO.....2	→440
439	When did you stop using a method the last time prior to January 1985?	MONTH..... ☐☐ YEAR..... ☐☐	
440	CHECK 413 AND 414: NOT CURRENTLY USING A METHOD ☐	CURRENTLY USING A METHOD ☐	→449
441	CHECK 201 FOR CURRENTLY MARRIED AND SEPARATED WOMAN: Do you intend to use a method to delay or avoid pregnancy at any time in the future?	YES, NEXT YEAR.....1 YES, AFTER NEXT YEAR.....2 →443 NO.....3 WIDOWED/DIVORCED.....4 DK.....8 →445	

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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
442	What is the main reason you do not intend to use a method? RECORD VERBATIM _____ _____ _____ _____	WANTS CHILDREN.....01 LACK OF KNOWLEDGE.....02 HUSBAND OPPOSED.....03 COST TOO MUCH.....04 SIDE EFFECTS.....05 HEALTH CONCERNS.....06 ACCESS/AVAILABILITY.....07 RELIGION.....08 OPPOSED TO FAMILY PLANNING.....09 FATALISTIC.....10 OTHER PEOPLE OPPOSED.....11 INFREQUENT SEX.....12 DIFFICULT TO GET PREGNANT.....13 MENOPAUSAL/HAD HYSTERECTOMY....14 INCONVENIENT TO USE.....15 OTHER_____16 (SPECIFY) DK.....98	→445
443	When you use a method, which method would you prefer to use?	PILL.....01 IUD.....02 INJECTIONS.....03 DIAPHRAGM/FOAM/JELLY.....04 CONDOM.....05 FEMALE STERILIZATION.....06 MALE STERILIZATION.....07 PERIODIC ABSTINENCE.....08 WITHDRAWAL.....09 PROLONGED BREASTFEEDING.....10 OTHER_____11 (SPECIFY) DK.....98	→445

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
444	Where can you get (METHOD MENTIONED IN 443)? _____ (NAME OF PLACE	GOVERNMENT HOSPITAL.....01 MCH/HEALTH CENTER.....02 FP ASSOCIATION CLINIC.....03 PRIVATE DOCTOR.....04 PRIVATE HOSPITAL.....05 PHARMACY.....06 FRIENDS/RELATIVES.....07 OTHER_____08 (SPECIFY) DK.....98	→446 →449
445	Do you know of a place where you can obtain a method of family planning? IF "YES": _____ (NAME OF PLACE)	YES.....1 NO.....2 GOVERNMENT HOSPITAL.....01 MCH/HEALTH CENTER.....02 FP ASSOCIATION CLINIC.....03 PRIVATE DOCTOR.....04 PRIVATE HOSPITAL.....05 PHARMACY.....06 FRIENDS/RELATIVES.....07 OTHER_____08 (SPECIFY)	→449 →449
446	How long does it take to travel from your home to this place?	MINUTES.....1 ☐☐ HOURS.....2 ☐☐ DK.....998	
447	Is it easy or difficult to get there?	EASY.....1 DIFFICULT.....2	
448	Was there anything you may dislike about the services you (your husband) would receive from that place? IF "YES": What is it? RECORD MAIN PROBLEM. _____	TOO EXPENSIVE.....1 WAIT TOO LONG.....2 STAFF DISCOURTEOUS.....3 MALE STAFF.....4 DESIRED METHOD UNAVAILABLE.....5 OTHER_____6 (SPECIFY) NO COMPLAINTS.....7	
449	Is it acceptable to you for family planning information to be provided on the radio or television?	ACCEPTABLE.....1 NOT ACCEPTABLE.....2 DK.....8	

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SECTION 5. BREASTFEEDING AND HEALTH

501	CHECK 319 : ONE OR MORE LIVE BIRTHS SINCE JANUARY 1985 ☐	NO LIVE BIRTHS SINCE JANUARY 1985 ☐ → (SKIP TO 545)

502 ENTER THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH SINCE JANUARY 1985 IN THE TABLE. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE ADDITIONAL FORMS).

Now I would like to ask you some more questions about the health of children you had in the past five years. (We will talk about one child at a time.)

	BIRTH ORDER	LAST BIRTH	NEXT-TO-LAST-BIRTH	SECOND-FROM-LAST-BIRTH
	LINE NUMBER FROM Q. 309	☐☐	☐☐	☐☐
	NAME FROM Q. 309 SURVIVAL STATUS FROM Q. 313	NAME ______ ALIVE ☐ DEAD ☐	NAME ______ ALIVE ☐ DEAD ☐	NAME ______ ALIVE ☐ DEAD ☐
503	At the time you became pregnant with (NAME), did you want to become pregnant <u>then</u>, did you want to wait until <u>later</u> or did you want <u>no more</u> children at all?	THEN....1 (SKIP TO 505) LATER....2 NO MORE....3 (SKIP TO 505)	THEN....1 (SKIP TO 505) LATER....2 NO MORE....3 (SKIP TO 505)	THEN....1 (SKIP TO 505) LATER....2 NO MORE....3 (SKIP TO 505)
504	How much longer would you like to have waited?	MONTHS....1 ☐☐ YEARS....2 ☐☐ DK....998	MONTHS....1 ☐☐ YEARS....2 ☐☐ DK....998	MONTHS....1 ☐☐ YEARS....2 ☐☐ DK....998
505	When you were pregnant with (NAME), did you see anyone for antenatal care for this pregnancy? IF YES, Whom did you see? Anyone else?	DOCTOR....1 NURSE/MIDWIFE....1 TRADITIONAL BIRTH ATTENDANT....1 OTHER ______ 1 (SPECIFY) NO ONE....1 (SKIP TO 511)	DOCTOR....1 NURSE/MIDWIFE....1 TRADITIONAL BIRTH ATTENDANT....1 OTHER ______ 1 (SPECIFY) NO ONE....1 (SKIP TO 511)	DOCTOR....1 NURSE/MIDWIFE....1 TRADITIONAL BIRTH ATTENDANT....1 OTHER ______ 1 (SPECIFY) NO ONE....1 (SKIP TO 511)
506	Where did you see this person the first time?	PUBLIC HEALTH CENTER....1 MCH CENTER....2 GOVT. HOSPITAL....3 PRIVATE HOSPITAL....4 GP CLINIC....5 SPECIALIST CLINIC....6 OTHER ______ 7 (SPECIFY)	PUBLIC HEALTH CENTER....1 MCH CENTER....2 GOVT. HOSPITAL....3 PRIVATE HOSPITAL....4 GP CLINIC....5 SPECIALIST CLINIC....6 OTHER ______ 7 (SPECIFY)	PUBLIC HEALTH CENTER....1 MCH CENTER....2 GOVT. HOSPITAL....3 PRIVATE HOSPITAL....4 GP CLINIC....5 SPECIALIST CLINIC....6 OTHER ______ 7 (SPECIFY)

	BIRTH ORDER	LAST BIRTH	NEXT-TO-LAST-BIRTH	SECOND-FROM-LAST-BIRTH
	LINE NUMBER FROM Q. 309	☐☐	☐☐	☐☐
	NAME FROM Q. 309	NAME _____	NAME _____	NAME _____
507	Why did you chose to go there?	LESS COSTLY.....1 CONVENIENT.....2 BETTER RELATIONSHIP WITH SERVICE PROVIDER.....3 TECHNICAL COMPETENCE.....4 OTHER_____ (SPECIFY) 5	LESS COSTLY.....1 CONVENIENT.....2 BETTER RELATIONSHIP WITH SERVICE PROVIDER.....3 TECHNICAL COMPETENCE.....4 OTHER_____ (SPECIFY) 5	LESS COSTLY.....1 CONVENIENT.....2 BETTER RELATIONSHIP WITH SERVICE PROVIDER.....3 TECHNICAL COMPETENCE.....4 OTHER_____ (SPECIFY) 5
508	Was the visit a regular check-up, because of illness related to the pregnancy, or because of illness unrelated to the pregnancy?	REGULAR CHECKUP.....1 ILLNESS RELATED TO THE PREGNANCY.....2 ILLNESS UNRELATED TO THE PREGNANCY.....3	REGULAR CHECKUP.....1 ILLNESS RELATED TO THE PREGNANCY.....2 ILLNESS UNRELATED TO THE PREGNANCY.....3	REGULAR CHECKUP.....1 ILLNESS RELATED TO THE PREGNANCY.....2 ILLNESS UNRELATED TO THE PREGNANCY.....3
509	How many months pregnant were you when you first saw someone for an antenatal check on this pregnancy?	MONTHS..... ☐☐ DK.....98	MONTHS..... ☐☐ DK.....98	MONTHS..... ☐☐ DK.....98
510	How many antenatal visits did you have during that pregnancy?	TIMES..... ☐☐ DK.....98	TIMES..... ☐☐ DK.....98	TIMES..... ☐☐ DK.....98
511	When you were pregnant with (NAME) were you given an injection in the arm to prevent the baby from getting tetanus?	YES.....1 NO.....2 (SKIP TO 513) DK.....8	YES.....1 NO.....2 (SKIP TO 513) DK.....8	YES.....1 NO.....2 (SKIP TO 513) DK.....8
512	How many times did you get this injection?	TIMES..... ☐ DK.....8	TIMES..... ☐ DK.....8	TIMES..... ☐ DK.....8
513	Where did you give birth to (NAME)?	HOME.....1 GOVERNMENT HOSPITAL.....2 PRIVATE HOSPITAL.....3 OTHER_____ 4	HOME.....1 GOVERNMENT HOSPITAL.....2 PRIVATE HOSPITAL.....3 OTHER_____ 4	HOME.....1 GOVERNMENT HOSPITAL.....2 PRIVATE HOSPITAL.....3 OTHER_____ 4

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	BIRTH ORDER	LAST BIRTH	NEXT-TO-LAST-BIRTH	SECOND-FROM-LAST-BIRTH
	LINE NUMBER FROM Q. 309	[ ][ ]	[ ][ ]	[ ][ ]
	NAME FROM Q. 309	NAME ______	NAME ______	NAME ______
514	Who assisted with the delivery of (NAME)? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING.	A. DOCTOR................1 B. NURSE/MIDWIFE.........1 C. TRADITIONAL BIRTH ATTENDANT.............1 D. RELATIVE..............1 E. OTHER______1 (SPECIFY) F. NO ONE................1	A. DOCTOR................1 B. NURSE/MIDWIFE.........1 C. TRADITIONAL BIRTH ATTENDANT.............1 D. RELATIVE..............1 E. OTHER______1 (SPECIFY) F. NO ONE................1	A. DOCTOR................1 B. NURSE/MIDWIFE.........1 C. TRADITIONAL BIRTH ATTENDANT.............1 D. RELATIVE..............1 E. OTHER______1 (SPECIFY) F. NO ONE................1
515	What was the duration of the pregnancy?	LESS THAN 7 MONTHS.......1 7 MOS. TO LESS THAN 9 MONTHS..........2 9 MONTHS+................3 DK.......................8	LESS THAN 7 MONTHS.......1 7 MOS. TO LESS THAN 9 MONTHS..........2 9 MONTHS+................3 DK.......................8	LESS THAN 7 MONTHS.......1 7 MOS. TO LESS THAN 9 MONTHS..........2 9 MONTHS+................3 DK.......................8
516	Was (NAME) delivered normally or by caesarian section?	NORMALLY.................1 CAESARIAN SECTION........2	NORMALLY.................1 CAESARIAN SECTION........2	NORMALLY.................1 CAESARIAN SECTION........2
517	How much did (NAME) weigh?	GRAMS......... [ ][ ][ ][ ] DK...................9998	GRAMS......... [ ][ ][ ][ ] DK...................9998	GRAMS......... [ ][ ][ ][ ] DK...................9998
518	When (NAME) was born, was he/she: very large, larger than average, average, smaller than average, or very small?	VERY LARGE...............1 LARGER THAN AVERAGE......2 AVERAGE..................3 SMALLER THAN AVERAGE.....4 VERY SMALL...............5 DK.......................8	VERY LARGE...............1 LARGER THAN AVERAGE......2 AVERAGE..................3 SMALLER THAN AVERAGE.....4 VERY SMALL...............5 DK.......................8	VERY LARGE...............1 LARGER THAN AVERAGE......2 AVERAGE..................3 SMALLER THAN AVERAGE.....4 VERY SMALL...............5 DK.......................8
519	During the six-week period (i.e., Nifaz period) following the birth of (NAME) did you see anyone for a check on your health? IF YES, Whom did you see? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN.	DOCTOR...................1 NURSE/MIDWIFE............1 TRADITIONAL BIRTH ATTENDANT...............1 OTHER______1 NO ONE...................1 (SKIP TO 521)	DOCTOR...................1 NURSE/MIDWIFE............1 TRADITIONAL BIRTH ATTENDANT...............1 OTHER______1 NO ONE...................1 (SKIP TO 523)	DOCTOR...................1 NURSE/MIDWIFE............1 TRADITIONAL BIRTH ATTENDANT...............1 OTHER______1 NO ONE...................1 (SKIP TO 523)

	BIRTH ORDER	LAST BIRTH	NEXT-TO-LAST-BIRTH	SECOND-FROM-LAST-BIRTH
	LINE NUMBER FROM Q. 309	☐☐	☐☐	☐☐
	NAME FROM Q. 309	NAME _____	NAME _____	NAME _____
520	Where did you see this person the first time?	PUBLIC HEALTH CENTER.....1 MCH.....2 GOVERNMENT HOSPITAL.....3 PRIVATE HOSPITAL.....4 GP CLINIC.....5 SPECIALIST CLINIC.....6 OTHER_____7 (SPECIFY)	PUBLIC HEALTH CENTER.....1 MCH.....2 GOVERNMENT HOSPITAL.....3 PRIVATE HOSPITAL.....4 GP CLINIC.....5 SPECIALIST CLINIC.....6 OTHER_____7 (SPECIFY) (SKIP TO 523)	PUBLIC HEALTH CENTER.....1 MCH.....2 GOVERNMENT HOSPITAL.....3 PRIVATE HOSPITAL.....4 GP CLINIC.....5 SPECIALIST CLINIC.....6 OTHER_____7 (SPECIFY) (SKIP TO 523)
521	Has your period returned since the birth of (NAME)?	YES .....1 (SKIP TO 523) NO.....2		
522	ENTER "X" IN COL.3 OF CALENDAR IN MONTH AFTER BIRTH AND IN EACH MONTH TO CURRENT MONTH (OR TO CURRENT PREGNANCY) (SKIP TO 524)			
523	How many months after the birth of (NAME) did your period return?	ENTER "X" IN COL.3 OF CALENDAR FOR THE NUMBER OF SPECIFIED MONTHS WITHOUT A PERIOD, STARTING IN THE MONTH AFTER BIRTH. IF LESS THAN ONE MONTH WITHOUT A PERIOD, ENTER "0" IN COL.3 IN MONTH AFTER BIRTH.		
524	IF NOT PREGNANT: Have you resumed sexual relations since the birth of (NAME)? (IF PREGNANT, CIRCLE '1')	YES (OR PREGNANT).....1 (SKIP TO 526) NO.....2		
525	ENTER "X" IN COL.4 OF CALENDAR IN MONTH AFTER BIRTH AND IN EACH MONTH TO CURRENT MONTH. (SKIP TO 527)			
526	For how many months after the birth of (NAME) did you not have sexual relations?	ENTER "X" IN COL.4 OF CALENDAR FOR THE NUMBER OF SPECIFIED MONTHS WITHOUT SEXUAL RELATIONS, STARTING IN THE MONTH AFTER BIRTH. IF LESS THAN ONE MONTH WITHOUT SEXUAL RELATIONS, ENTER "0" IN COL.4 OF CALENDAR IN THE MONTH AFTER BIRTH.		

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	BIRTH ORDER	LAST BIRTH	NEXT-TO-LAST-BIRTH	SECOND-FROM-LAST-BIRTH
	LINE NUMBER FROM Q. 309	[ ][ ]	[ ][ ]	[ ][ ]
	NAME FROM Q. 309	NAME ____________	NAME ____________	NAME ____________
527	Did you ever breastfeed (NAME)?	YES....................1 (SKIP TO 529) NO....................2	YES....................1 (SKIP TO 537) NO....................2	YES....................1 (SKIP TO 537) NO....................2
528	Why did you not breastfeed (NAME)? ENTER "N" IN COLUMN 5 OF CALENDAR IN THE MONTH AFTER BIRTH	MOTHER ILL/WEAK..........1 CHILD ILL/WEAK..........2 CHILD DIED..............3 NIPPLE/BREAST PROBLEM....4 NO MILK.................5 WORKING.................6 MOTHER DOES NOT KNOW HOW TO BREASTFEED.......7 OTHER________8 (SPECIFY) RECORD VERBATIM ____________ ____________ (SKIP TO 539)	MOTHER ILL/WEAK..........1 CHILD ILL/WEAK..........2 CHILD DIED..............3 NIPPLE/BREAST PROBLEM....4 NO MILK.................5 WORKING.................6 MOTHER DOES NOT KNOW HOW TO BREASTFEED.......7 OTHER________8 (SPECIFY) RECORD VERBATIM ____________ ____________ (SKIP TO 539)	MOTHER ILL/WEAK..........1 CHILD ILL/WEAK..........2 CHILD DIED..............3 NIPPLE/BREAST PROBLEM....4 NO MILK.................5 WORKING.................6 MOTHER DOES NOT KNOW HOW TO BREASTFEED.......7 OTHER________8 (SPECIFY) RECORD VERBATIM ____________ ____________ (SKIP TO 539)
529	How long after birth did you first put (NAME) to the breast?	IMMEDIATELY............000 HOURS.............1 [ ][ ] DAYS..............2 [ ][ ]		
530	Do you know that colostrum is important for the baby?	YES....................1 NO....................2		
531	IF STILL ALIVE: Are you still breastfeeding (NAME)? (IF DEAD, CIRCLE '2')	YES....................1 NO....................2 (SKIP TO 537)		
532	ENTER "X" IN COL.5 OF CALENDAR IN MONTH AFTER BIRTH AND IN EACH MONTH TO CURRENT MONTH			
533	How many times did you breastfeed last night between sunset and sunrise, and yesterday during the daylight hours?	NUMBER OF DAYLIGHT FEEDINGS.. [ ][ ] NUMBER OF NIGHTTIME FEEDINGS.. [ ][ ] TOTAL IN 24 HOURS.............. [ ][ ]		

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	BIRTH ORDER	LAST BIRTH	NEXT-TO-LAST-BIRTH	SECOND-FROM-LAST-BIRTH
	LINE NUMBER FROM Q. 309	☐☐	☐☐	☐☐
	NAME FROM Q. 309	NAME ______	NAME ______	NAME ______
534	Do you breastfeed (NAME) whenever he/she wants or according to a fixed schedule?	DEMAND....................1 SCHEDULE..................2 BOTH......................3		
535	At any time yesterday or last night was (NAME) given any of the following?: Plain water? Sugar water? Juice? Herbal tea? Yansoon (Dill)? Baby formula? Fresh milk? Tinned or powdered milk? Other liquids? Any solid or mushy food?	YES NO PLAIN WATER..........1 2 SUGAR WATER..........1 2 JUICE................1 2 HERBAL TEA...........1 2 YANSOON (DILL).......1 2 BABY FORMULA.........1 2 FRESH MILK...........1 2 TINNED/POWDERED MILK.1 2 OTHER LIQUIDS........1 2 SOLID/MUSHY FOOD.....1 2		
536	CHECK 535 : FOOD OR LIQUID GIVEN YESTERDAY?	YES TO ONE OR MORE ☐ (SKIP TO 541) NO TO ALL ☐ (SKIP TO 540)		
537	For how many months did you breastfeed (NAME)?	☐☐	☐☐	☐☐
		FOR EACH BIRTH RECORD THE NUMBER OF MONTHS BREASTFED IN THE BOXES ENTER "X" IN COL.5 OF CALENDAR FOR THE NUMBER OF SPECIFIED MONTHS OF BREASTFEEDING, STARTING IN THE MONTH AFTER BIRTH. IF BREASTFED LESS THAN ONE MONTH, ENTER "0" IN COL.5 IN MONTH AFTER BIRTH.		
538	Why did you stop breastfeeding (NAME)?	MOTHER ILL/WEAK.........01 CHILD ILL/WEAK..........02 CHILD DIED..............03 NIPPLE PROBLEM..........04 NO MILK/NOT SUFFICIENT..05 WORKING OUTSIDE HOME....06 CHILD REFUSED...........07 WEANING AGE.............08 BECAME PREGNANT.........09 OTHER__________10 (SPECIFY)	MOTHER ILL/WEAK.........01 CHILD ILL/WEAK..........02 CHILD DIED..............03 NIPPLE PROBLEM..........04 NO MILK/NOT SUFFICIENT..05 WORKING OUTSIDE HOME....06 CHILD REFUSED...........07 WEANING AGE.............08 BECAME PREGNANT.........09 OTHER__________10 (SPECIFY)	MOTHER ILL/WEAK.........01 CHILD ILL/WEAK..........02 CHILD DIED..............03 NIPPLE PROBLEM..........04 NO MILK/NOT SUFFICIENT..05 WORKING OUTSIDE HOME....06 CHILD REFUSED...........07 WEANING AGE.............08 BECAME PREGNANT.........09 OTHER__________10 (SPECIFY)

	BIRTH ORDER	LAST BIRTH	NEXT-TO-LAST-BIRTH	SECOND-FROM-LAST-BIRTH
	LINE NUMBER FROM Q. 309	☐☐	☐☐	☐☐
	NAME FROM Q. 309	NAME _____	NAME _____	NAME _____
539	CHECK 313: CHILD ALIVE?	ALIVE ☐ → (SKIP TO 541) DEAD ☐ →	ALIVE ☐ → (SKIP TO 541) DEAD ☐ →	ALIVE ☐ → (SKIP TO 541) DEAD ☐ →
540	Was (NAME) ever given any water, or something else to drink or eat (other than breastmilk)?	YES.....1 NO.....2 (SKIP TO 544)	YES.....1 NO.....2 (SKIP TO 544)	YES.....1 NO.....2 (SKIP TO 544)
541	How many months old was (NAME) when you started giving the following on a regular basis as part of the daily diet: Formula or milk other than breastmilk? Water or other liquids? Any solid or mushy food? IF LESS THAN ONE MONTH, RECORD '00'.	FORMULA OR MILK: AGE IN MONTHS..... ☐☐ NOT GIVEN.....96 WATER/LIQUIDS: AGE IN MONTHS..... ☐☐ NOT GIVEN.....96 SOLID/MUSHY FOOD: AGE IN MONTHS..... ☐☐ NOT GIVEN.....96	FORMULA OR MILK: AGE IN MONTHS..... ☐☐ NOT GIVEN.....96 WATER/LIQUIDS: AGE IN MONTHS..... ☐☐ NOT GIVEN.....96 SOLID/MUSHY FOOD: AGE IN MONTHS..... ☐☐ NOT GIVEN.....96 (SKIP TO 544)	FORMULA OR MILK: AGE IN MONTHS..... ☐☐ NOT GIVEN.....96 WATER/LIQUIDS: AGE IN MONTHS..... ☐☐ NOT GIVEN.....96 SOLID/MUSHY FOOD: AGE IN MONTHS..... ☐☐ NOT GIVEN.....96 (SKIP TO 544)
542	CHECK 313: CHILD ALIVE?	ALIVE ☐ → DEAD ☐ → (SKIP TO 544)		
543	Did (NAME) drink anything from a bottle with a nipple yesterday?	YES.....1 NO.....2 DK.....8		
544	GO BACK TO 503 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, GO TO 545.			

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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
545	CHECK 312: ANY BIRTH IN 1982, 1983, OR 1984? YES ☐ → NAME OF LAST BIRTH PRIOR TO 1985: _____ (NAME) NO ☐		→550
546	Did you ever feed (NAME) at the breast?	YES.....1 NO.....2	→548
547	How many months did you breastfeed (NAME)?	MONTHS..... ☐☐ DK.....98	
548	For how many months after the birth of (NAME) did you not have a period?	MONTHS..... ☐☐ NOT RETURNED.....96	
549	For how many months after the birth of (NAME) did you not have sexual relations?	MONTHS..... ☐☐ NOT RESUMED.....96	
550	CHECK 501: ONE OR MORE LIVE BIRTHS SINCE JANUARY 1985 ☐ → NO LIVE BIRTHS SINCE JANUARY 1985 ☐		→701

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	BIRTH ORDER	LAST BIRTH	NEXT-TO-LAST-BIRTH	SECOND-FROM-LAST-BIRTH
	LINE NUMBER FROM Q. 309	☐☐	☐☐	☐☐
	NAME	NAME _____	NAME _____	NAME _____
601	Do you have a card where (NAME'S) vaccinations are written down? IF YES: May I see it, please?	YES, SEEN.....1 YES, NOT SEEN.....2 (SKIP TO 603) NO CARD.....3	YES, SEEN.....1 YES, NOT SEEN.....2 (SKIP TO 603) NO CARD.....3	YES, SEEN.....1 YES, NOT SEEN.....2 (SKIP TO 603) NO CARD.....3
602	(1) COPY VACCINATION DATES FOR EACH VACCINE FROM THE CARD. (2) WRITE '44' IN ALL COLUMNS IF CARD SHOWS THAT A VACCINATION WAS GIVEN BUT NO DATE RECORDED.	YEAR MO DAY BCG POLIO 1? P1 POLIO 2? P2 POLIO 3? P3 POLIO BOOSTER? PB DPT 1? D1 DPT 2? D2 DPT 3? D3 DPT BOOSTER? DB MEASLES? MEA (SKIP TO 605)	YEAR MO DAY P1 P2 P3 PB D1 D2 D3 DB MEA (SKIP TO 605)	YEAR MO DAY P1 P2 P3 PB D1 D2 D3 DB MEA (SKIP TO 605)
603	Has (NAME) received any vaccinations?	YES.....1 NO.....2 (SKIP TO 605) DK.....8	YES.....1 NO.....2 (SKIP TO 605) DK.....8	YES.....1 NO.....2 (SKIP TO 605) DK.....8

	BIRTH ORDER	LAST BIRTH	NEXT-TO-LAST-BIRTH	SECOND-FROM-LAST-BIRTH
	LINE NUMBER FROM Q. 309	☐☐	☐☐	☐☐
	NAME	NAME _____	NAME _____	NAME _____
604	Please tell me if (NAME) (has) received any of the following vaccinations:			
	A BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that left a scar?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
	Polio vaccine, that is, drops in the mouth?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
	IF YES: How many times?	NUMBER OF TIMES..... ☐	NUMBER OF TIMES..... ☐	NUMBER OF TIMES..... ☐
	DPT vaccination against diphtery, pertusis and tetanus, that is an injection in the arm?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
	IF YES: How many times?	NUMBER OF TIMES..... ☐	NUMBER OF TIMES..... ☐	NUMBER OF TIMES..... ☐
	An injection against measles?	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8	YES.....1 NO.....2 DK.....8
605	CHECK 313: CHILD ALIVE?	ALIVE ☐ DEAD ☐ (SKIP TO 607)	ALIVE ☐ DEAD ☐ (SKIP TO 607)	ALIVE ☐ DEAD ☐ (SKIP TO 607)
606	GO BACK TO 601 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, SKIP TO 624.			

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	BIRTH ORDER	LAST BIRTH	NEXT-TO-LAST-BIRTH	SECOND-FROM-LAST-BIRTH
	LINE NUMBER FROM Q. 309	☐☐	☐☐	☐☐
	NAME	NAME ________	NAME ________	NAME ________
607	Has (NAME) been ill with any illness at any time in the last 2 weeks?	YES....................1 NO.....................2 (SKIP TO 609)	YES....................1 NO.....................2 (SKIP TO 609)	YES....................1 NO.....................2 (SKIP TO 609)
608	What is (are) the illness(es)? IF NO OTHER ILLNESSES ENTER "00"	1............... ☐☐ 2............... ☐☐ 3............... ☐☐ DK....................98	1............... ☐☐ 2............... ☐☐ 3............... ☐☐ DK....................98	1............... ☐☐ 2............... ☐☐ 3............... ☐☐ DK....................98
609	During the past two weeks, did (NAME) have one or more of the following symptoms?	FEVER..................1 RASH...................1 COUGH..................1 RED/TEARY EYES.........1 WHOOPING COUGH.........1 RED HAIR...............1 SWOLLEN FACE AND FEET....1 VOMITTING..............1 EMACIATED/VERY THIN......1 DIFFICULT AND RAPID BREATHING.........1 CONVULSIONS............1 RED URINE..............1 YELLOW EYES............1 DIFFICULTY IN SWALLOWING.............1 BLOOD IN STOOLS..........1	FEVER..................1 RASH...................1 COUGH..................1 RED/TEARY EYES.........1 WHOOPING COUGH.........1 RED HAIR...............1 SWOLLEN FACE AND FEET....1 VOMITTING..............1 EMACIATED/VERY THIN......1 DIFFICULT AND RAPID BREATHING.........1 CONVULSIONS............1 RED URINE..............1 YELLOW EYES............1 DIFFICULTY IN SWALLOWING.............1 BLOOD IN STOOLS..........1	FEVER..................1 RASH...................1 COUGH..................1 RED/TEARY EYES.........1 WHOOPING COUGH.........1 RED HAIR...............1 SWOLLEN FACE AND FEET....1 VOMITTING..............1 EMACIATED/VERY THIN......1 DIFFICULT AND RAPID BREATHING.........1 CONVULSIONS............1 RED URINE..............1 YELLOW EYES............1 DIFFICULTY IN SWALLOWING.............1 BLOOD IN STOOLS..........1

BIRTH ORDER	LAST BIRTH	NEXT-TO-LAST-BIRTH	SECOND-FROM-LAST-BIRTH
LINE NUMBER FROM Q. 309	[ ][ ]	[ ][ ]	[ ][ ]
NAME	NAME ______	NAME ______	NAME ______
610 CHECK 608 AND 609: ANY ILLNESS/SYMPTOM?	YES [ ] NO [ ] →(SKIP TO 613)	YES [ ] NO [ ] →(SKIP TO 613)	YES [ ] NO [ ] →(SKIP TO 613)
611 Did you seek advice or treatment for the illnesses?	YES....1 NO....2 (SKIP TO 613)	YES....1 NO....2 (SKIP TO 613)	YES....1 NO....2 (SKIP TO 613)
612 From whom did you seek advice or treatment? (CIRCLE EACH MENTIONED)	Y N GOVT. HOSPITAL....1 2 PRIVATE HOSPITAL....1 2 MCH....1 2 PHC....1 2 GP CLINIC....1 2 SPECIALIST CLINIC....1 2 PHARMACY....1 2 HOME....1 2 OTHER ______ 1 2 (SPECIFY)	Y N GOVT. HOSPITAL....1 2 PRIVATE HOSPITAL....1 2 MCH....1 2 PHC....1 2 GP CLINIC....1 2 SPECIALIST CLINIC....1 2 PHARMACY....1 2 HOME....1 2 OTHER ______ 1 2 (SPECIFY)	Y N GOVT. HOSPITAL....1 2 PRIVATE HOSPITAL....1 2 MCH....1 2 PHC....1 2 GP CLINIC....1 2 SPECIALIST CLINIC....1 2 PHARMACY....1 2 HOME....1 2 OTHER ______ 1 2 (SPECIFY)
613 Has (NAME) had diarrhea in the last two weeks?	YES....1 (SKIP TO 615) NO....2 DK....8	YES....1 (SKIP TO 618) NO....2 DK....8	YES....1 (SKIP TO 618) NO....2 DK....8
614 GO BACK TO 601 FOR NEXT CHILD; OR, IF NO MORE CHILDREN, SKIP TO 624.			

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	BIRTH ORDER	LAST BIRTH	NEXT-TO-LAST-BIRTH	SECOND-FROM-LAST-BIRTH
	LINE NUMBER FROM Q. 309	☐☐	☐☐	☐☐
	NAME	NAME ______	NAME ______	NAME ______
615	CHECK 531: LAST CHILD STILL BREASTFED?	YES ☐ NO ☐ (SKIP TO 618)		
616	During (NAME)'s diarrhea, did you change the frequency of breastfeeding?	YES....................1 NO.....................2 (SKIP TO 618)		
617	Did you increase the number of feeds or reduce them, or did you stop completely?	INCREASED..............1 REDUCED................2 STOPPED COMPLETELY.......3		
618	Was (NAME) given any of the following: CIRCLE ALL APPLICABLE CODES.	A. ANTIBIOTICS..........1 B. ORS..................1 C. READY MADE HERBAL TEA.1 D. YANSOON..............1 E. TEA..................1 F. SUGAR WATER..........1 G. MERAMYA..............1 H. BABUNIJ..............1 I. RICE WATER...........1 J. OTHER ______ 1 (SPECIFY)	A. ANTIBIOTICS..........1 B. ORS..................1 C. READY MADE HERBAL TEA.1 D. YANSOON..............1 E. TEA..................1 F. SUGAR WATER..........1 G. MERAMYA..............1 H. BABUNIJ..............1 I. RICE WATER...........1 J. OTHER ______ 1 (SPECIFY)	A. ANTIBIOTICS..........1 B. ORS..................1 C. READY MADE HERBAL TEA.1 D. YANSOON..............1 E. TEA..................1 F. SUGAR WATER..........1 G. MERAMYA..............1 H. BABUNIJ..............1 I. RICE WATER...........1 J. OTHER ______ 1 (SPECIFY)
619	Did you seek advice or treatment for the diarrhea?	YES....................1 NO.....................2 (SKIP TO 622)	YES....................1 NO.....................2 (SKIP TO 622)	YES....................1 NO.....................2 (SKIP TO 622)

	BIRTH ORDER	LAST BIRTH	NEXT-TO-LAST-BIRTH	SECOND-FROM-LAST-BIRTH
	LINE NUMBER FROM Q. 309	[ ][ ]	[ ][ ]	[ ][ ]
	NAME	NAME ______	NAME ______	NAME ______
620	After how long did you start seeking advice?	HOURS............1 [ ][ ] DAYS.............2 [ ][ ]	HOURS............1 [ ][ ] DAYS.............2 [ ][ ]	HOURS............1 [ ][ ] DAYS.............2 [ ][ ]
621	From whom did you seek advice or treatment? CIRCLE EACH MENTIONED.	GOVT. HOSPITAL...........1 PRIVATE HOSPITAL.........1 MCH......................1 PHC......................1 GP CLINIC................1 SPECIALIST CLINIC........1 PHARMACY.................1 FRIENDS/RELATIVES........1 OTHER______1 (SPECIFY)	GOVT. HOSPITAL...........1 PRIVATE HOSPITAL.........1 MCH......................1 PHC......................1 GP CLINIC................1 SPECIALIST CLINIC........1 PHARMACY.................1 FRIENDS/RELATIVES........1 OTHER______1 (SPECIFY)	GOVT. HOSPITAL...........1 PRIVATE HOSPITAL.........1 MCH......................1 PHC......................1 GP CLINIC................1 SPECIALIST CLINIC........1 PHARMACY.................1 FRIENDS/RELATIVES........1 OTHER______1 (SPECIFY)

622 GO BACK TO 601 FOR NEXT BIRTH; OR, IF NO MORE BIRTHS, GO TO 623.

623 CHECK 618:

ORS SOLUTION MENTIONED FOR ANY CHILD IN 618 (ITEM #2 ON THE LIST) [ ] →626

ORS SOLUTION NOT MENTIONED OR 618 NOT ASKED [ ] ↓

624	Have you ever heard of a special product called (AQUA CELL OR PARALAIT) you can get for the treatment of diarrhea?	YES..........................1 NO...........................2	→626
625	Have you ever seen a packet like this before? (SHOW PACKET)	YES..........................1 NO...........................2	 →628
626	Have you ever prepared a solution with one of these packets to treat diarrhea in yourself or someone else?	YES..........................1 NO...........................2	 →628

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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
627	Where did you get information to prepare the home made fluid made from sugar, salt and water given to (NAME)? CIRCLE ALL PERSONS MENTIONED.	GOVT. HOSPITAL.....1 PRIVATE HOSPITAL.....1 MCH.....1 PHC.....1 GP CLINIC.....1 SPECIALIST CLINIC.....1 PHARMACY.....1 FRIENDS/RELATIVES.....1 OTHER_____.....1 (SPECIFY)	
628	CHECK 618: HOME-MADE SOLUTION MENTIONED ☐ HOME-MADE SOLUTION NOT MENTIONED ☐		→630
629	Who taught you to prepare this fluid? CIRCLE ALL PERSONS MENTIONED.	DOCTOR.....1 NURSE/MIDWIFE.....1 PHARMACY.....1 TRADITIONAL BIRTH ATTENDANT.....1 FRIENDS/RELATIVES.....1 OTHER_____.....1 (SPECIFY)	
630	RECORD THE TIME.	HOURS..... ☐☐ MINUTES..... ☐☐	

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631 CHECK 309, 313 AND 319:

ONE OR MORE CHILDREN DIED AMONG BIRTHS THAT OCCURRED SINCE JANUARY 1985 ☐

NO CHILD DIED AMONG BIRTHS THAT OCCURRED SINCE JANUARY 1985 ☐ → (SKIP TO 701)

	BIRTH ORDER	LAST BIRTH	NEXT-TO-LAST-BIRTH	SECOND-FROM-LAST-BIRTH
	LINE NUMBER FROM Q. 309	☐☐	☐☐	☐☐
	NAME	NAME _____	NAME _____	NAME _____
	SURVIVAL STATUS FROM Q. 313	ALIVE ☐ DEAD ☐	ALIVE ☐ DEAD ☐	ALIVE ☐ (SKIP TO 637) DEAD ☐
632	Now I would like to ask you some questions concerning your deceased child(ren) among those born to you in the last five years.			
633	Was the death of (NAME) caused by an accident or by a disease? IF ACCIDENT: Was it an accident such as falling or burning, or a birth injury/ problem?	ACCIDENT.....1 BIRTH INJURY.....2 (SKIP TO 635) DISEASE.....3	ACCIDENT.....1 BIRTH INJURY.....2 (SKIP TO 635) DISEASE.....3	ACCIDENT.....1 BIRTH INJURY.....2 (SKIP TO 635) DISEASE.....3
634	What kind of accident?	FALL.....1 DROWNING.....2 TRAFFIC ACCIDENT.....3 BURNS.....4 POISONING.....5 OTHER_____6 (SPECIFY) DK.....8 (SKIP TO 632 FOR NEXT BIRTH)	FALL.....1 DROWNING.....2 TRAFFIC ACCIDENT.....3 BURNS.....4 POISONING.....5 OTHER_____6 (SPECIFY) DK.....8 (SKIP TO 632 FOR NEXT BIRTH)	FALL.....1 DROWNING.....2 TRAFFIC ACCIDENT.....3 BURNS.....4 POISONING.....5 OTHER_____6 (SPECIFY) DK.....8 (SKIP TO 637)

	LINE NUMBER FROM Q. 309	☐☐	☐☐	☐☐
	NAME FROM Q. 309	LAST BIRTH NAME _____	NEXT-TO-LAST-BIRTH NAME _____	SECOND-FROM-LAST-BIRTH NAME _____
635	What was the disease(s) that caused the death of (NAME)? RECORD THE NAME(S) OF THE DISEASES GIVEN BY THE RESPONDENT.	DISEASE(S):_____ _____ _____ _____ ☐☐	DISEASE(S):_____ _____ _____ _____ ☐☐	DISEASE(S):_____ _____ _____ _____ ☐☐
636	During the illness leading to the death of (NAME), did he/she have one or more of the following symptoms?			
	a. Unable to suck milk or did not suck normally after birth?	YES NO UNABLE TO SUCK.....1 2	YES NO UNABLE TO SUCK.....1 2	YES NO UNABLE TO SUCK.....1 2
	b. Unable to open mouth to cry?	UNABLE TO CRY.....1 2	UNABLE TO CRY.....1 2	UNABLE TO CRY.....1 2
	c. Fever?	FEVER.....1 2	FEVER.....1 2	FEVER.....1 2
	d. Rash?	RASH.....1 2	RASH.....1 2	RASH.....1 2
	e. Cough?	COUGH.....1 2	COUGH.....1 2	COUGH.....1 2
	f. Red, teary eyes?	RED, TEARY EYES.....1 2	RED, TEARY EYES.....1 2	RED, TEARY EYES.....1 2
	g. Prolonged cough followed by vomitting?	PROLONGED COUGH FOLLOWED BY VOMITTING.....1 2	WHOOPING COUGH.....1 2 PROLONGED COUGH FOLLOWED BY VOMITTING.....1 2	WHOOPING COUGH.....1 2 PROLONGED COUGH FOLLOWED BY VOMITTING.....1 2
	h. Whooping cough?	WHOOPING COUGH.....1 2		
	i. Red hair?	RED HAIR.....1 2	RED HAIR.....1 2	RED HAIR.....1 2
	j. Swollen face and feet?	SWOLLEN FACE & FEET..1 2	SWOLLEN FACE & FEET..1 2	SWOLLEN FACE & FEET..1 2
	k. Emaciated/very thin?	EMACIATED.....1 2	EMACIATED.....1 2	EMACIATED.....1 2
	l. Three or more stools per day?	THREE OR MORE STOOLS PER DAY.....1 2	THREE OR MORE STOOLS PER DAY.....1 2	THREE OR MORE STOOLS PER DAY.....1 2
	m. Difficult and rapid breathing?	DIFFICULT AND RAPID BREATHING.....1 2	DIFFICULT AND RAPID BREATHING.....1 2	DIFFICULT AND RAPID BREATHING.....1 2
	n. Convulsions?	CONVULSIONS.....1 2	CONVULSIONS.....1 2	CONVULSIONS.....1 2

637	RECORD THE TIME.	HOURS..... ☐☐ MINUTES..... ☐☐

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SECTION 7. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
701	CHECK 414P: NEITHER STERILIZED ☐ — HE OR SHE STERILIZED ☐		→706
702	CHECK 201: CURRENTLY MARRIED/ SEPARATED ☐ — NOT CURRENTLY MARRIED ☐		→711
703	Now I have some questions about the future. CHECK 322 AND MARK BOX: NOT PREGNANT OR UNSURE ☐ Would you like to have a (another) child? PREGNANT ☐ After the child you are expecting, would you like to have another child?	HAVE A (ANOTHER) CHILD.....1 NO MORE/NONE.....2 SAYS SHE CAN'T GET PREGNANT.....3 UNDECIDED OR DK.....8	→709
704	CHECK 322 AND MARK BOX: NOT PREGNANT OR UNSURE ☐ How long would you like to wait from now before the birth of a (another) child? PREGNANT ☐ How long would you like to wait after the birth of the child you are expecting before the birth of another child?	DURATION MONTHS.....1 ☐☐ YEARS.....2 ☐☐ SOON/NOW.....994 SAYS SHE CAN'T GET PREGNANT...995 OTHER _____ 996 (SPECIFY) DK.....998	→709
705	CHECK 313: IF NO LIVING CHILDREN, CIRCLE '96' How old would you like your youngest child to be before having another child?	WAITING PERIOD MONTHS..... ☐☐ NO LIVING CHILDREN.....96 DK.....98	→709
706	Do you regret that you (your husband) had the operation not to have any (more) children?	YES.....1 NO.....2	→708

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
707	Why do you regret it?	RESPONDENT WANTS ANOTHER CHILD..1 HUSBAND WANTS ANOTHER CHILD.....2 SIDE EFFECTS.....3 OTHER REASON_____4 (SPECIFY)	▸711
708	Given your present circumstances, if you had to do it over again, do you think you would make the same decision to have a sterilization?	YES.....1 NO.....2	▸711
709	Have you and your husband ever discussed the number of children you would like to have?	YES.....1 NO.....2	
710	Do you think your husband wants the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER.....1 MORE CHILDREN.....2 FEWER CHILDREN.....3 DK.....8	
711	CHECK 313 AND MARK BOX: NO LIVING CHILDREN ☐ If you could choose exactly the number of children to have in your whole life, how many would that be? HAS LIVING CHILDREN ☐ If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?	BOYS..... ☐☐ GIRLS..... ☐☐ TOTAL..... ☐☐ AS MANY AS POSSIBLE.....94 DEPENDS ON GOD.....95 OTHER ANSWER_____96 (SPECIFY)	

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SECTION 8. HUSBAND'S BACKGROUND, RESIDENCE AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
801	Did your (last) husband ever attend school? IF "NO": Can he read and write?	YES.....1 NO, LITERATE.....2 NO, ILLITERATE.....3	→804
802	What was the highest level of schooling your husband attended?	PRIMARY.....1 PREPARATORY.....2 SECONDARY.....3 INSTITUTE.....4 UNIVERSITY.....5 HIGHER STUDIES.....6 DK.....8	
803	What was the highest grade your husband completed?	GRADE..... ☐ DK.....8	
804	What kind of work does (did) your (last) husband mainly do?	_____ ☐☐ _____ _____	
805	CHECK 804: WORKS (WORKED) IN AGRICULTURE ☐ → 806 DOES (DID) NOT WORK IN AGRICULTURE ☐		→807
806	Does (did) your husband/partner work mainly on his own land or family land, or on someone else's land?	HIS/FAMILY LAND.....1 SOMEONE ELSE'S LAND.....2	
807	Have you lived in only one or in more than one community since January 1985?	ONE COMMUNITY.....1 MORE THAN ONE COMMUNITY.....2	→809
808	ENTER (IN COL.7 OF CALENDAR) THE APPROPRIATE CODE FOR CURRENT COMMUNITY BEGIN IN THE MONTH OF INTERVIEW AND CONTINUE WITH ALL PRECEDING MONTHS BACK TO JANUARY 1985		→810

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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
809	In what month and year did you move to (NAME OF COMMUNITY OF INTERVIEW)? ENTER (IN COL.7 OF CALENDAR) "X" IN THE MONTH AND YEAR OF THE MOVE, AND IN THE SUBSEQUENT MONTHS ENTER THE APPROPRIATE CODE FOR TYPE OF COMMUNITY ("1" CITY, "2" TOWN, AND "3" VILLAGE). CONTINUE PROBING FOR PREVIOUS COMMUNITIES SINCE JANUARY 1985 AND RECORD MOVES AND TYPES OF COMMUNITIES ACCORDINGLY. ILLUSTRATIVE QUESTIONS - Where did you live before.....? - In what month and year did you arrive there? - Is that place in a city, a town, or in a village?		
810	REFER TO PLACE OF RESIDENCE IN JANUARY 1985: When did you move to this/that place?	LIVED THERE SINCE BIRTH.....96 MONTH..... ☐☐ DK MONTH.....98 YEAR..... ☐☐ DK YEAR.....98	→812
811	Was the place you moved from a city, a town, or a village?	CITY.....1 TOWN.....2 VILLAGE.....3	
812	I would like to ask you some questions about working. Are you now doing any work other than housekeeping, inside and outside the house, for cash or kind?	YES.....1 NO.....2	→815
813	Have you ever worked since January 1985?	YES.....1 NO.....2	→815
814	ENTER "0" IN COLUMN 8 OF CALENDAR IN EACH MONTH FROM JANUARY 1985 TO CURRENT MONTH.		→819
815	What is (was) your (most recent) occupation? That is, what kind of work do (did) you do?	☐☐ _____ _____ _____	

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NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
816	USE CALENDAR TO PROBE FOR ALL PERIODS OF WORK, STARTING WITH CURRENT OR MOST RECENT WORK, BACK TO JANUARY 1985. ILLUSTRATIVE QUESTIONS - When did this job begin (and when did it end)? - What did you do before that? - How long did you work at that time? - Were you paid for this work? - Did you work at home or away from home?		
817	CHECK COLUMN 8 OF CALENDAR:	WORKED IN JANUARY 1985 ☐ ↓ DID NOT WORK IN JANUARY 1985 ☐	→819
818	I see that you were working in January 1985. When did you start that job?	MONTH..... ☐☐ DK MONTH.....98 YEAR..... ☐☐ DK YEAR.....98	→821
819	I see that you were not working in January 1985. Did you ever work prior to January 1985?	YES.....1 NO.....2	→821
820	When did your last job prior to 1985 end?	MONTH..... ☐☐ DK MONTH.....98 YEAR..... ☐☐ DK YEAR.....98	
821	CHECK 312/313/315: HAS CHILD BORN SINCE JANUARY 1985 AND LIVING AT HOME?	YES ☐ ↓ NO ☐	→825
822	CHECK 812: CURRENTLY WORKING?	YES ☐ ↓ NO ☐	→825
823	While you are working, do you <u>usually</u> have (NAME OF YOUNGEST CHILD AT HOME) with you, <u>sometimes</u> have him/her with you, or <u>never</u> have him/her with you?	USUALLY.....1 SOMETIMES.....2 NEVER.....3	→825

42

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP TO
824	Who usually takes care of (NAME OF YOUNGEST CHILD AT HOME) while you are working?	HUSBAND.....01 OLDER CHILD(REN).....02 OTHER RELATIVES.....03 NEIGHBORS.....04 FRIENDS.....05 SERVANTS/HIRED HELP.....06 CHILD IS IN SCHOOL.....07 INSTITUTIONAL CHILDCARE.....08 OTHER_____09 (SPECIFY)	
825	RECORD THE TIME.	HOURS..... ☐☐ MINUTES..... ☐☐	

43

SECTION 9. WEIGHT AND LENGTH

901	CHECK 319:	
	ONE OR MORE LIVING CHILDREN BORN SINCE JANUARY 1985 ☐	NO LIVING CHILDREN BORN SINCE JANUARY 1985 ☐ → END

INTERVIEWER: IN 902-904, RECORD THE LINE NUMBERS, NAMES, AND BIRTH DATES OF ALL LIVING CHILDREN BORN SINCE JANUARY 1, 1985 STARTING WITH THE YOUNGEST CHILD. RECORD WEIGHT AND LENGTH IN 905 AND 906.

	☐ 1 YOUNGEST LIVING CHILD	☐ 2 NEXT-TO-YOUNGEST LIVING CHILD	☐ 3 SECOND-TO-YOUNGEST LIVING CHILD
902 LINE NO. FROM Q.309	☐☐	☐☐	☐☐
903 NAME FROM Q.309	(NAME) _____	(NAME) _____	(NAME) _____
904 DATE OF BIRTH FROM Q.312 AND ASK FOR DAY	DAY..... ☐☐ MONTH.... ☐☐ YEAR..... ☐☐	DAY..... ☐☐ MONTH.... ☐☐ YEAR..... ☐☐	DAY..... ☐☐ MONTH.... ☐☐ YEAR..... ☐☐
905 WEIGHT (in kg.)	☐☐.☐	☐☐.☐	☐☐.☐
906 LENGTH (in cm.)	☐☐☐.☐	☐☐☐.☐	☐☐☐.☐
907 METHOD OF MEASUREMENT	STANDING.....1 LYING.....2	STANDING.....1 LYING.....2	STANDING.....1 LYING.....2

44A

	[1] YOUNGEST LIVING CHILD	[2] NEXT-TO-YOUNGEST LIVING CHILD	[3] SECOND-TO-YOUNGEST LIVING CHILD
908 A. Arm fat (in mm.)	FAT [ ][ ]	FAT [ ][ ]	FAT [ ][ ]
B. Arm circumference (in cm.)	ARM [ ][ ]	ARM [ ][ ]	ARM [ ][ ]
C. Head circumference (in cm.)	HEAD [ ][ ]	HEAD [ ][ ]	HEAD [ ][ ]
909 DATE CHILD WEIGHED AND MEASURED	DAY..... [ ][ ] MONTH.... [ ][ ] YEAR..... [ ][ ]	DAY..... [ ][ ] MONTH.... [ ][ ] YEAR..... [ ][ ]	DAY..... [ ][ ] MONTH.... [ ][ ] YEAR..... [ ][ ]
910 RESULT	CHILD MEASURED.1 CHILD SICK.....2 CHILD NOT PRESENT.....3 CHILD REFUSED..4 MOTHER REFUSED.5 OTHER.....6 _____ (SPECIFY)	CHILD MEASURED.1 CHILD SICK.....2 CHILD NOT PRESENT.....3 CHILD REFUSED..4 MOTHER REFUSED.5 OTHER.....6 _____ (SPECIFY)	CHILD MEASURED.1 CHILD SICK.....2 CHILD NOT PRESENT.....3 CHILD REFUSED..4 MOTHER REFUSED.5 OTHER.....6 _____ (SPECIFY)

911
NAME OF MEASURER: _____ [ ][ ]

NAME OF ASSISTANT: _____ [ ][ ]

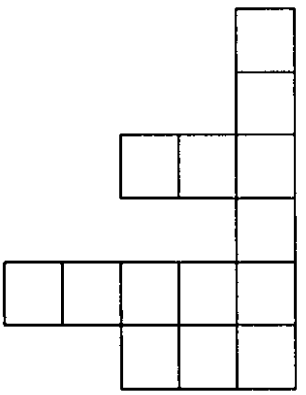
44B

SERVICE AVAILABILITY QUESTIONNAIRE

CONFIDENTIAL

JORDAN

DEPARTMENT OF STATISTICS

IDENTIFICATION	
1. GOVERNORATE.....	
2. DISTRICT.....	
3. LOCALITY.....	
4. STRATUM NUMBER.....	
5. ULTIMATE AREA BLOCK.....	
6. CLUSTER NUMBER.....	

CLUSTER VISIT START DATE _____ DAY ☐☐ MONTH ☐☐

CLUSTER VISIT END DATE _____ DAY ☐☐ MONTH ☐☐

INTERVIEWER NAME _____ CODE ☐☐

SECTION 1A. COMMUNITY CHARACTERISTICS

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
	QUESTIONS 101 TO 103 ARE TO BE ANSWERED BY THE INTERVIEWER UPON ARRIVAL AT THE CLUSTER.		
101	TYPE OF LOCALITY* (in which cluster is found/nearest to cluster)	AMMAN/IRBID/ZARQA.....1 OTHER URBAN.....2 RURAL.....3	→ 104
102	What is the name of the nearest urban center?	_____ ☐☐	
103	How far is it in kilometers to the nearest urban center?	KILOMETER TO THE NEAREST URBAN CENTER..... ☐☐	
	THE REMAINING QUESTIONS IN SECTIONS ONE AND TWO ARE TO BE ANSWERED BY KNOWLEDGEABLE INFORMANTS FROM THE CLUSTER.		
104	What is the major economic activity of the (LOCALITY) inhabitants? (CIRCLE ONE)	AGRICULTURE.....1 TRADING/MARKETING.....2 MANUFACTURING.....3 MINING/QUARRYING.....4 SERVICES.....5 OTHER.....6	
105	Are there organized social groups (for example, cooperatives)?	YES.....1 NO.....2	→ 107
106	What are their programs? (CIRCLE ALL APPLICABLE)	COOPERATIVES.....01 SOCIAL.....02 CULTURAL.....04 RELIGIOUS.....08 VOCATIONAL TRAINING.....16 OTHER.....32	

1-1

SECTION 1B. AVAILABILITY OF PUBLIC SERVICES NEAREST TO OR IN THE CLUSTER.

INTERVIEWER: Now I would like to ask you about distances to the nearest of various types of schools and services, how you usually go there and how long it takes to get from here.

SERVICE	107 How far is it to the nearest [SERVICE] in km? [a]	108 What is the most common transport to [SERVICE]? [b]	109 How long does it take to get to [SERVICE]?
A. EDUCATION			HOURS MINUTES
1. Secondary School	☐☐	☐	☐ ☐☐
	IF '00' →		
2. University/Community College	☐☐	☐	☐ ☐☐
	IF '00' →		
3. Vocational School	☐☐	☐	☐ ☐☐
	IF '00' →		
B. GENERAL SERVICES			
1. Post Office	☐☐	☐	☐ ☐☐
	IF '00' →		
2. Daily Market	☐☐	☐	☐ ☐☐
	IF '00' →		
3. Weekly Market	☐☐	☐	☐ ☐☐
	IF '00' →		
4. Cinema	☐☐	☐	☐ ☐☐
	IF '00' →		
5. Bus station	☐☐	☐	☐ ☐☐
	IF '00' →		
6. Bus stop	☐☐	☐	☐ ☐☐
	IF '00' → 110		

CODES: [a] 97 = 97+
00 = Less than 1/located in cluster
98 = No known facility

[b] Motorized....1
Cycling.....2
Animal.....3
Walking.....4
Other.....5

COMMENTS:

SECTION 1C. HEALTH AND FAMILY PLANNING PROGRAMS IN THE CLUSTER.

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
110	Is there a traditional birth attendant available to women here who regularly assists during delivery?	YES.....1 NO.....2	→ SECTION 2
111	Has the traditional birth attendant had any special training from the MOH or other organization?	YES.....1 NO.....2 DON'T KNOW.....8	
112	Is the area covered by a trained midwife?	YES.....1 NO.....2	
113	Does anyone come to talk to you about family planning in the past one month?	YES.....1 NO.....2	

COMMENTS:

SECTION 2. FACILITY IDENTIFICATION SECTION

INTERVIEWER: I am going to visit health and family planning facilities throughout Jordan and together we can identify those I am interested in. I plan to visit hospitals, private doctors/private doctor's clinics, health centers, and pharmacies.

What is the name of the nearest hospital providing general health services to this community?

What is the name of the nearest doctor/private doctor's clinic providing general health services to this community?

What is the name of the nearest health center providing general health services to this community?

What is the name of the nearest private pharmacy to this community?

2-1

INTERVIEWER: Now I am going to ask some additional questions about the facilities that you just mentioned.

A. HOSPITALS

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
A201	NAME OF HOSPITAL (COPY FROM SECTION 2 COVER PAGE).	HOSPITAL NAME_____ NOT APPLICABLE.....98	→ B201
A202	Where is it located?	ADDRESS_____	
A203	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... ☐☐ IF MORE THAN 30 KM	☐☐ → A206
A204	What is the most common type of transport to the hospital?	MOTORIZED (E.G. BUS).....1 CYCLING.....2 ANIMAL.....3 WALKING.....4 OTHER.....5	☐
A205	How long does it take to get from here to (HOSPITAL NAME) using most common type of transport?	HOURS..... ☐ MINUTES..... ☐☐	☐ ☐☐
A206	Does (HOSPITAL NAME) provide family planning supplies?	YES.....1 NO.....2 DON'T KNOW.....8	
A207	How many hospitals in total are there within 30 kilometers?	NONE.....0 ONE.....1 TWO.....2 THREE OR FOUR.....3 FIVE OR MORE.....4	☐

COMMENTS:

_____

_____

_____

B. PRIVATE DOCTOR/PRIVATE DOCTOR'S CLINIC

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
B201	NAME OF PRIVATE DOCTOR/CLINIC (COPY FROM SECTION 2 COVER PAGE).	PRIVATE DOCTOR/CLINIC NAME_____ NOT APPLICABLE.....98	→ C201
B202	Where is the practice located?	ADDRESS_____	
B203	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... ☐☐ IF MORE THAN 30 KM	☐☐ → B206
B204	What is the most common type of transport to the doctor's practice/clinic?	MOTORIZED (E.G. BUS).....1 CYCLING.....2 ANIMAL.....3 WALKING.....4 OTHER.....5	☐
B205	How long does it take to get from here to (PRIVATE DOCTOR'S NAME/CLINIC) using most common type of transport?	HOURS..... ☐ MINUTES..... ☐☐	☐ ☐☐
B206	Does this doctor/clinic provide family planning services?	YES.....1 NO.....2 DON'T KNOW.....8	
B207	How many private doctor practices and private doctor's clinics in total are there within 30 kilometers?	NONE.....0 ONE.....1 TWO.....2 THREE OR FOUR.....3 FIVE OR MORE.....4	☐

COMMENTS:

C. HEALTH CENTER

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
C201	NAME OF HEALTH CENTER (COPY FROM SECTION 2 COVER PAGE).	HEALTH CENTER NAME_____ _____ NOT APPLICABLE.....98	→ D201
C202	Where is it located?	ADDRESS_____ _____	
C203	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... ☐☐ IF MORE THAN 30 KM	☐☐ → C206
C204	What is the most common type of transport to the health center?	MOTORIZED (E.G. BUS).....1 CYCLING.....2 ANIMAL.....3 WALKING.....4 OTHER.....5	☐
C205	How long does it take to get from here to (HEALTH CENTER NAME) using most common type of transport?	HOURS..... ☐ MINUTES..... ☐☐	☐ ☐☐
C206	Does this health center provide family planning supplies?	YES.....1 NO.....2 DON'T KNOW.....8	
C207	How many health centers in total are there within 30 kilometers?	NONE.....0 ONE.....1 TWO.....2 THREE OR FOUR.....3 FIVE OR MORE.....4	☐

COMMENTS:

_____

_____

_____

D. PHARMACY

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
D201	NAME OF PHARMACY (COPY FROM SECTION 2 COVER PAGE).	PHARMACY NAME_____ NOT APPLICABLE.....98	→ 208
D202	Where is it located?	ADDRESS_____	
D203	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... ☐☐ IF MORE THAN 30 KM	☐☐ → D206
D204	What is the most common type of transport to the pharmacy?	MOTORIZED (E.G. BUS).....1 CYCLING.....2 ANIMAL.....3 WALKING.....4 OTHER.....5	☐
D205	How long does it take to get from here to (PHARMACY NAME) using most common type of transport?	HOURS..... ☐ MINUTES..... ☐☐	☐ ☐☐
D206	Does this pharmacy sell family planning supplies?	YES.....1 NO.....2 DON'T KNOW.....8	
D207	How many pharmacies in total are there within 30 kilometers?	NONE.....0 ONE.....1 TWO.....2 THREE OR FOUR.....3 FIVE OR MORE.....4	☐

COMMENTS:

_____

_____

_____

CONTRACEPTIVE METHOD IDENTIFICATION

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
208	What is the name of the nearest facility or provider to this community where birth control pills can be obtained?	NEAREST PILL PROVIDER NAME _____	
209	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... ☐☐	
210	Would people in the community go to this facility for birth control pills?	YES.....1 NO.....2	→ 212
211	Why would not they go to this facility?	TOO EXPENSIVE.....1 WAIT TOO LONG.....2 STAFF DISCOURTEOUS.....3 MALE STAFF.....4 PILL UNAVAILABLE.....5 OTHER 6 _____ (SPECIFY)	
212	What is the name of the nearest facility or provider to this community where condoms can be obtained?	NEAREST CONDOM PROVIDER NAME _____	
213	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... ☐☐	
214	Would people in the community go to this facility for condoms?	YES.....1 NO.....2	→ 216
215	Why would not they go to this facility?	TOO EXPENSIVE.....1 WAIT TOO LONG.....2 STAFF DISCOURTEOUS.....3 MALE STAFF.....4 CONDOM UNAVAILABLE.....5 OTHER 6 _____ (SPECIFY)	

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
216	What is the name of the nearest facility or provider to this community where injectables can be obtained?	NEAREST INJECTABLE PROVIDER NAME _____	
217	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... ☐☐	
218	Would people in the community go to this facility for injectables?	YES.....1 NO.....2	→ 220
219	Why would not they go to this facility?	TOO EXPENSIVE.....1 WAIT TOO LONG.....2 STAFF DISCOURTEOUS.....3 MALE STAFF.....4 INJECTABLE UNAVAILABLE.....5 OTHER 6 _____ (SPECIFY)	
220	What is the name of the nearest facility or provider to this community where foaming tablets can be obtained?	NEAREST FOAMING TABLET PROVIDER NAME _____	
221	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... ☐☐	
222	Would people in the community go to this facility for foaming tablets?	YES.....1 NO.....2	→ 224
223	Why would not they go to this facility?	TOO EXPENSIVE.....1 WAIT TOO LONG.....2 STAFF DISCOURTEOUS.....3 MALE STAFF.....4 FOAMING TABLETS UNAVAILABLE..5 OTHER 6 _____ (SPECIFY)	

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
224	What is the name of the nearest facility or provider to this community where IUDs can be inserted?	NEAREST IUD PROVIDER NAME _____	
225	How far is it (in kms) from here? (WRITE IN '00' IF LESS THAN 1 KILOMETER. IF 1 TO 96 KILOMETERS, WRITE IN NUMBER AS GIVEN IN CLUSTER. IF 97 KILOMETERS OR MORE, WRITE IN '97'.)	KILOMETERS..... ☐☐	
226	Would people in the community go to this facility to have IUD inserted?	YES.....1 → 228 NO.....2	
227	Why would not they go to this facility?	TOO EXPENSIVE.....1 WAIT TOO LONG.....2 STAFF DISCOURTEOUS.....3 MALE STAFF.....4 IUD UNAVAILABLE.....5 OTHER _____ 6 (SPECIFY)	

228. CLUSTER INFORMANTS

	NAME	POSITION/TITLE/OCCUPATION	EDUCATION*
A.	_____	_____	☐
B.	_____	_____	☐
C.	_____	_____	☐
O.	_____	_____	☐

229. TOTAL NUMBER OF INFORMANTS IN THE CLUSTER..... ☐

END OF CLUSTER INTERVIEW.

LOG OF FACILITIES TO BE VISITED

DIRECTIONS: LIST BELOW ALL FACILITIES THAT WERE CITED AS BEING WITHIN 30 KILOMETERS OF THE CLUSTER. GET THIS INFORMATION FROM QUESTION A-D203.

	FACILITY TYPE & NAME:	DISTANCE FROM CLUSTER	ADDRESS:	DATE VISITED:
A.	_____	☐☐	_____	_____
B.	_____	☐☐	_____	_____
C.	_____	☐☐	_____	_____
D.	_____	☐☐	_____	_____

*CODES FOR EDUCATION: None/illiterate.....1
None/literate.....2
Primary.....3
Preparatory.....4
Secondary.....5
Higher.....6

SECTION 3. Date:_____ HOSPITAL VISIT Hospital Name:_____

IF THE HOSPITAL IS 30 KILOMETERS OR LESS AWAY, IT IS TO BE VISITED. COMPLETE QUESTIONS 300 TO 302 UPON ARRIVAL AT THE FACILITY BASED ON YOUR OWN OBSERVATIONS. THEN FIND A KNOWLEDGEABLE SOURCE AT THE FACILITY TO ANSWER THE REMAINING QUESTIONS.

IF THIS FACILITY HAS ALREADY BEEN VISITED FOR A DIFFERENT CLUSTER, RECORD CLUSTER NUMBER HERE: ☐☐☐
IF THE FACILITY HAS ALREADY BEEN VISITED, A SECOND VISIT IS NOT NEEDED.

300	IF THIS IS THE FIRST FACILITY VISITED AFTER THE CLUSTER VISIT RECORD DISTANCE FROM CLUSTER FROM THE ODOMETER.	DISTANCE FROM CLUSTER.... ☐☐ NOT FIRST FACILITY VISITED.....98	
301	DO YOU THINK THAT THE ESTIMATE OF DISTANCE TO THE FACILITY GIVEN IN THE CLUSTER IS REASONABLE?	REASONABLE.....1 OVERESTIMATED.....2 UNDERESTIMATED.....3	
302	DO YOU THINK THAT THE ESTIMATE OF THE TIME TO THE FACILITY GIVEN IN THE CLUSTER IS REASONABLE?	REASONABLE.....1 OVERESTIMATED.....2 UNDERESTIMATED.....3	

QUESTIONS TO BE ASKED OF STAFF PERSON AT FACILITY:

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
303	In what year did this hospital open?	YEAR OPENED.....19☐☐	
304	Under what authority is this hospital operated?	GOVERNMENT/ARMED FORCES.....1 PRIVATE.....2 ASSOCIATION.....3 OTHER_____.4	
305	Are there restrictions on clients who can use this facility? IF YES, what restrictions?	YES .....1 RESTRICTIONS:_____ _____ NO.....2 DON'T KNOW.....8	
306	How many beds does this hospital have?	NUMBER OF BEDS.....☐☐☐	
307	On average, how many patients spend the night at this facility?	NUMBER OF OVER-NIGHT PATIENTS.....☐☐☐	
308	On average, how many outpatients are seen daily at this facility?	NUMBER OF DAILY OUTPATIENTS.....☐☐☐	

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
309	How many regular staff of the following types does the hospital have?	NUMBER OF: GENERAL PRACTITIONERS..... ☐☐ SPECIALISTS..... ☐☐ NURSES..... ☐☐ TRAINED MIDWIVES..... ☐☐ AUXILLARY STAFF..... ☐☐	
310	What proportion of medical staff (doctors and nurses) have worked at this facility for more than a year?	PROPORTION AT FACILITY FOR ..... MORE THAN A YEAR ☐☐	
311	Does this facility normally use disposable needles when giving injections?	YES.....1 NO.....2	→313
312	Has this facility run out of its supply of disposable needles at any time in the last 6 months?	YES.....1 NO.....2	
313	What is the method most frequently used for the sterilization of medical instruments?	ELECTRIC STERILIZER.....1 AUTOCLAVE.....2 STEAM PRESSURE.....3 OTHER.....4 NONE.....5	
314	Does the facility have the following items in working order:	YES NO	
	Blood bank?	BLOOD BANK.....1 2	
	Table for gynecological examination?	TABLE-GYN EXAMS.....1 2	
	Examination light for gynecological examination?	LIGHT-GYN EXAMS.....1 2	
	Microscope?	MICROSCOPE.....1 2	
	AIDS test?	AIDS TEST.....1 2	

COMMENTS:

SERVICES AVAILABLE AT THE FACILITY:

Now I would like to ask you about maternal and child health, and family planning services available at this hospital. ASK Q.315 FOR THE FIRST SERVICE. IF THIS SERVICE IS AVAILABLE, CONTINUE ACROSS THE TABLE, IF NOT, ASK ABOUT THE NEXT SERVICE.

	SERVICE	315 Is (SERVICE) available?	316 How many days per week is (SERVICE) available?	317 What is the average fee for (SERVICE)? FREE "96" LESS THAN 1JD=00 95JD+= 95	318 On average, what proportion of patients pay for (SERVICE)?	319 On average, how many patients are seen daily for (SERVICE)?	320 In what year was (SERVICE) first offered here?
1	Antenatal care	YES....1 NO.....2		JD	%		19
2	Delivery care	YES....1 NO.....2		JD	%		19
3	Postnatal care	YES....1 NO.....2		JD	%		19
4	Child immunization sessions	YES....1 NO.....2		JD	%		19
5	Child growth monitoring sessions	YES....1 NO.....2		JD	%		19
6	Oral rehydration therapy	YES....1 NO.....2		JD	%		19
7	Family planning	YES....1 NO.....2 321		JD	%		19

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
321	Is there a dispensary/pharmacy affiliated with this hospital?	YES.....1 NO.....2	

VACCINATION AVAILABILITY AT THE FACILITY:

Now I would like to ask you about vaccines available at this facility. ASK Q.322 FOR EACH MEDICATION. IF THE VACCINE IS AVAILABLE, ASK Q.323. IF THE VACCINE IS NOT AVAILABLE, CONTINUE WITH THE NEXT VACCINE.

	VACCINES	322 Is (VACCINE) available now?	323 At any time in the last 6 months did you run out of (VACCINE)?
1	DPT vaccine	YES.....1 NO.....2	YES.....1 NO.....2
2	Polio vaccine	YES.....1 NO.....2	YES.....1 NO.....2
3	Tetanus vaccine	YES.....1 NO.....2	YES.....1 NO.....2
4	Measles vaccine	YES.....1 NO.....2	YES.....1 NO.....2
5	BCG vaccine	YES.....1 NO.....2 324	YES.....1 NO.....2

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
324	Are ORS packets available now?	YES.....1 NO.....2	→ 326
325	At any time in the last 6 months did you run out of ORS packets?	YES.....1 NO.....2	
326	INTERVIEWER: CHECK 315 FOR ITEM 7. FAMILY PLANNING. IF "YES", COMPLETE 326-334. IF "NO", SKIP 326-334, AND GO TO 335. How many of the following types of staff in this hospital are trained and provide family planning services?	DOCTORS..... ☐☐ NURSES..... ☐☐ AUXILLARY STAFF..... ☐☐	
327	Are any doctors trained in sterilization procedures? IF "YES", RECORD NUMBER. IF "NONE", WRITE 00.	NUMBER OF DOCTORS..... ☐☐	
328	Are any doctors/other staff trained in IUD insertion? IF "YES", RECORD NUMBER. IF "NONE", WRITE 00.	NUMBER OF DOCTORS..... ☐☐ NUMBER OF OTHER STAFF..... ☐☐	
329	On average, how many new clients for family planning are seen monthly?	NEW PATIENTS..... ☐☐☐	
330	On average, how many clients visit monthly for resupply?	RESUPPLY PATIENTS..... ☐☐☐	

CONTRACEPTIVE METHOD AVAILABILITY:

Now I would like to ask you about which family planning methods are available at this hospital. ASK ABOUT THE FIRST METHOD. IF THIS METHOD IS AVAILABLE FROM THE HOSPITAL, MOVE ACROSS THE TABLE. IF NOT, MOVE DOWN THE TABLE.

METHOD	331 Is (METHOD) available?	332 How many days per week is (METHOD) available?	333 Have you run out of (METHOD) in the last 6 months?	334 In what year did you first offer (METHOD)?
01 Pill	YES.....1 NO.....2		YES.....1 NO.....2	19
02 IUD	YES.....1 NO.....2		YES.....1 NO.....2	19
03 Injection	YES.....1 NO.....2		YES.....1 NO.....2	19
04 Condom	YES.....1 NO.....2		YES.....1 NO.....2	19
05 Foaming tablets/ foam/jelly	YES.....1 NO.....2		YES.....1 NO.....2	19
06 Female sterilization	YES.....1 NO.....2			19
07 Other methods Specify_____	YES.....1 NO.....2 → 335		YES.....1 NO.....2	19

335	What is your position or title here?	_____

QUESTIONS 336 AND 337 ARE TO BE ANSWERED BY THE INTERVIEWER AFTER THE FACILITY VISIT IS COMPLETE.

336	DID THE INFORMANT SEEM KNOWLEDGEABLE?	YES.....1 NO.....2
337	ADDITIONAL COMMENTS: _____ _____ _____	

SECTION 4. Date:_____

PRIVATE DOCTOR/ PRIVATE DOCTOR'S CLINIC VISIT (NON-GOVERNMENTAL)

Clinic Name:_____

IF THE CLINIC IS 30 KILOMETERS OR LESS AWAY, IT IS TO BE VISITED. COMPLETE QUESTIONS 400 TO 402 UPON ARRIVAL AT THE FACILITY BASED ON YOUR OWN OBSERVATIONS. THEN FIND A KNOWLEDGEABLE SOURCE AT THE FACILITY TO ANSWER THE REMAINING QUESTIONS.

IF THIS FACILITY HAS ALREADY BEEN VISITED FOR A DIFFERENT CLUSTER, RECORD CLUSTER NUMBER HERE: ☐☐☐
IF THE FACILITY HAS ALREADY BEEN VISITED, A SECOND VISIT IS NOT NEEDED.

400	IF THIS IS THE FIRST FACILITY VISITED AFTER THE CLUSTER VISIT RECORD DISTANCE FROM CLUSTER FROM THE ODOMETER.	DISTANCE FROM CLUSTER.... ☐☐ NOT FIRST FACILITY VISITED.....98	
401	DO YOU THINK THAT THE ESTIMATE OF DISTANCE TO THE FACILITY GIVEN IN THE CLUSTER IS REASONABLE?	REASONABLE.....1 OVERESTIMATED.....2 UNDERESTIMATED.....3	
402	DO YOU THINK THAT THE ESTIMATE OF THE TIME TO THE FACILITY GIVEN IN THE CLUSTER IS REASONABLE?	REASONABLE.....1 OVERESTIMATED.....2 UNDERESTIMATED.....3	

QUESTIONS TO BE ASKED OF STAFF PERSON AT FACILITY:

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
403	In what year did this clinic open?	YEAR OPENED.....19☐☐	
404	Under what authority is this clinic operated?	PRIVATE.....1 ASSOCIATION.....2 OTHER.....3	
405	Are there restrictions on clients who can use this facility? IF YES, what restrictions?	YES .....1 RESTRICTIONS:_____ _____ NO.....2 DON'T KNOW.....8	
408	On average, how many outpatients are seen daily at this facility?	NUMBER OF DAILY OUTPATIENTS.....☐☐☐	

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
409	How many regular staff of the following types does the clinic have?	NUMBER OF: GENERAL PRACTITIONERS..... ☐☐ SPECIALISTS..... ☐☐ NURSES..... ☐☐ TRAINED MIDWIVES..... ☐☐ AUXILLARY STAFF..... ☐☐	
411	Does this facility normally use disposable needles when giving injections?	YES.....1 NO.....2	→413
412	Has this facility run out of its supply of disposable needles at any time in the last 6 months?	YES.....1 NO.....2	
413	What is the method most frequently used for the sterilization of medical instruments?	ELECTRIC STERILIZER.....1 AUTOCLAVE.....2 STEAM PRESSURE.....3 OTHER.....4 NONE.....5	
414	Does the facility have the following items in working order:	YES NO	
	Blood bank?	BLOOD BANK.....1 2	
	Table for gynecological examination?	TABLE-GYN EXAMS.....1 2	
	Examination light for gynecological examination?	LIGHT-GYN EXAMS.....1 2	
	Microscope?	MICROSCOPE.....1 2	
	AIDS test?	AIDS TEST.....1 2	

COMMENTS:

SERVICES AVAILABLE AT THE FACILITY:

Now I would like to ask you about maternal and child health, and family planning services available at this clinic. ASK Q.415 FOR THE FIRST SERVICE. IF THIS SERVICE IS AVAILABLE, CONTINUE ACROSS THE TABLE, IF NOT, ASK ABOUT THE NEXT SERVICE.

SERVICE	415 Is (SERVICE) available?	416 How many days per week is (SERVICE) available?	417 What is the average fee for (SERVICE)? FREE "96" LESS THAN 1JD=00 95JD+= 95	418 On average, what proportion of patients pay for (SERVICE)?	419 On average, how many patients are seen daily for (SERVICE)?	420 In what year was (SERVICE) first offered here?
1 Antenatal care	YES....1 NO.....2		JD	%		19
3 Postnatal care	YES....1 NO.....2		JD	%		19
4 Child immunization sessions	YES....1 NO.....2		JD	%		19
5 Child growth monitoring sessions	YES....1 NO.....2		JD	%		19
6 Oral rehydration therapy	YES....1 NO.....2		JD	%		19
7 Family planning	YES....1 NO.....2 → 422		JD	%		19

[a] 0 = Whenever a patient requests the service.

VACCINATION AVAILABILITY AT THE FACILITY:

Now I would like to ask you about vaccines available at this facility. ASK Q.422 FOR EACH MEDICATION. IF THE VACCINE IS AVAILABLE, ASK Q.423. IF THE VACCINE IS NOT AVAILABLE, CONTINUE WITH THE NEXT VACCINE.

VACCINES	422 Is (VACCINE) available now?	423 At any time in the last 6 months did you run out of (VACCINE)?
1 DPT vaccine	YES.....1 NO.....2	YES.....1 NO.....2
2 Polio vaccine	YES.....1 NO.....2	YES.....1 NO.....2
3 Tetanus vaccine	YES.....1 NO.....2	YES.....1 NO.....2
4 Measles vaccine	YES.....1 NO.....2	YES.....1 NO.....2
5 BCG vaccine	YES.....1 NO.....2 → 424	YES.....1 NO.....2

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
424	Are ORS packets available now?	YES.....1 NO.....2	→ 426
425	At any time in the last 6 months did you run out of ORS packets?	YES.....1 NO.....2	
426	INTERVIEWER: CHECK 415 FOR ITEM 7. FAMILY PLANNING. IF "YES", COMPLETE 426-434. IF "NO", SKIP 426-434, AND GO TO 435. How many of the following types of staff in this clinic are trained and provide family planning services?	DOCTORS..... ☐☐ NURSES..... ☐☐ AUXILLARY STAFF..... ☐☐	
427	Are any doctors trained in sterilization procedures? IF "YES", RECORD NUMBER. IF "NONE", WRITE 00.	NUMBER OF DOCTORS..... ☐☐	
428	Are any doctors/other staff trained in IUD insertion? IF "YES", RECORD NUMBER. IF "NONE", WRITE 00.	NUMBER OF DOCTORS..... ☐☐ NUMBER OF OTHER STAFF..... ☐☐	
429	On average, how many new clients for family planning are seen monthly?	NEW PATIENTS..... ☐☐☐	
430	On average, how many clients visit monthly for resupply?	RESUPPLY PATIENTS..... ☐☐☐	

CONTRACEPTIVE METHOD AVAILABILITY:

Now I would like to ask you about which family planning methods are available at this clinic. ASK ABOUT THE FIRST METHOD. IF THIS METHOD IS AVAILABLE FROM THE CLINIC, MOVE ACROSS THE TABLE. IF NOT, MOVE DOWN THE TABLE.

METHOD	431 Is (METHOD) available?	432 How many days per week is (METHOD) available? [a]	433 Have you run out of (METHOD) in the last 6 months?	434 In what year did you first offer (METHOD)?
01 Pill	YES.....1 NO.....2		YES.....1 NO.....2	19
02 IUD	YES.....1 NO.....2		YES.....1 NO.....2	19
03 Injection	YES.....1 NO.....2		YES.....1 NO.....2	19
04 Condom	YES.....1 NO.....2		YES.....1 NO.....2	19
05 Foaming tablets/ foam/jelly	YES.....1 NO.....2		YES.....1 NO.....2	19
07 Other methods Specify_____	YES.....1 NO.....2 → 435		YES.....1 NO.....2	19

[a] 0 = Whenever method is requested.

435	What is your position or title here?	_____

QUESTIONS 436 AND 437 ARE TO BE ANSWERED BY THE INTERVIEWER AFTER THE FACILITY VISIT IS COMPLETE.

436	DID THE INFORMANT SEEM KNOWLEDGEABLE?	YES.....1 NO.....2
437	ADDITIONAL COMMENTS: _____ _____ _____	

SECTION 5. Date:_____ HEALTH CENTER VISIT

Health Center Name:_____

IF THE HEALTH CENTER IS 30 KILOMETERS OR LESS AWAY, IT IS TO BE VISITED. COMPLETE QUESTIONS 500 TO 502 UPON ARRIVAL AT THE FACILITY BASED ON YOUR OWN OBSERVATIONS. THEN FIND A KNOWLEDGEABLE SOURCE AT THE FACILITY TO ANSWER THE REMAINING QUESTIONS.

IF THIS FACILITY HAS ALREADY BEEN VISITED FOR A DIFFERENT CLUSTER, RECORD CLUSTER NUMBER HERE: ☐☐☐
IF THE FACILITY HAS ALREADY BEEN VISITED, A SECOND VISIT IS NOT NEEDED.

500	IF THIS IS THE FIRST FACILITY VISITED AFTER THE CLUSTER VISIT RECORD DISTANCE FROM CLUSTER FROM THE ODOMETER.	DISTANCE FROM CLUSTER.... ☐☐ NOT FIRST FACILITY VISITED.....98	
501	DO YOU THINK THAT THE ESTIMATE OF DISTANCE TO THE FACILITY GIVEN IN THE CLUSTER IS REASONABLE?	REASONABLE.....1 OVERESTIMATED.....2 UNDERESTIMATED.....3	
502	DO YOU THINK THAT THE ESTIMATE OF THE TIME TO THE FACILITY GIVEN IN THE CLUSTER IS REASONABLE?	REASONABLE.....1 OVERESTIMATED.....2 UNDERESTIMATED.....3	

QUESTIONS TO BE ASKED OF STAFF PERSON AT FACILITY:

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
503	In what year did this health center open?	YEAR OPENED.....19☐☐	
504	Under what authority is this health center operated?	GOVERNMENT/ARMED FORCES.....1 PRIVATE.....2 ASSOCIATION.....3 OTHER_____.4	
505	Are there restrictions on clients who can use this facility? IF YES, what restrictions?	YES .....1 RESTRICTIONS:_____ _____ NO.....2 DON'T KNOW.....8	
506	How many beds does this health center have?	NUMBER OF BEDS..... ☐☐☐	
507	On average, how many patients spend the night at this facility?	NUMBER OF OVER-NIGHT PATIENTS..... ☐☐☐	
508	On average, how many outpatients are seen daily at this facility?	NUMBER OF DAILY OUTPATIENTS..... ☐☐☐	

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
509	How many regular staff of the following types does the health center have?	NUMBER OF: GENERAL PRACTITIONERS..... ☐☐ SPECIALISTS..... ☐☐ NURSES..... ☐☐ TRAINED MIDWIVES..... ☐☐ AUXILLARY STAFF..... ☐☐	
510	What proportion of medical staff (doctors and nurses) have worked at this facility for more than a year?	PROPORTION AT FACILITY FOR MORE THAN A YEAR ..... ☐☐	
511	Does this facility normally use disposable needles when giving injections?	YES.....1 NO.....2	→513
512	Has this facility run out of its supply of disposable needles at any time in the last 6 months?	YES.....1 NO.....2	
513	What is the method most frequently used for the sterilization of medical instruments?	ELECTRIC STERILIZER.....1 AUTOCLAVE.....2 STEAM PRESSURE.....3 OTHER.....4 NONE.....5	
514	Does the facility have the following items in working order:	YES NO	
	Blood bank?	BLOOD BANK.....1 2	
	Table for gynecological examination?	TABLE-GYN EXAMS.....1 2	
	Examination light for gynecological examination?	LIGHT-GYN EXAMS.....1 2	
	Microscope?	MICROSCOPE.....1 2	
	AIDS test?	AIDS TEST.....1 2	

COMMENTS:

SERVICES AVAILABLE AT THE FACILITY:

Now I would like to ask you about maternal and child health services available at this health center. ASK Q.515 FOR THE FIRST SERVICE. IF THIS SERVICE IS AVAILABLE, CONTINUE ACROSS THE TABLE, IF NOT, ASK ABOUT THE NEXT SERVICE.

	SERVICE	515 Is (SERVICE) available?	516 How many days per week is (SERVICE) available?	517 What is the average fee for (SERVICE)? FREE "96" LESS THAN 1JD=00 95JD+= 95	518 On average, what proportion of patients pay for (SERVICE)?	519 On average, how many patients are seen daily for (SERVICE)?	520 In what year was (SERVICE) first offered here?
1	Antenatal care	YES....1 NO.....2		JD	%		19
3	Postnatal care	YES....1 NO.....2		JD	%		19
4	Child immunization sessions	YES....1 NO.....2		JD	%		19
5	Child growth monitoring sessions	YES....1 NO.....2		JD	%		19
6	Oral rehydration therapy	YES....1 NO.....2		JD	%		19
7	Family planning	YES....1 NO.....2 521 ←		JD	%		19

[a] 0 = Whenever a patient requests the service.

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
521	Is there a dispensary/pharmacy affiliated with this clinic?	YES.....1 NO.....2	

VACCINATION AVAILABILITY AT THE FACILITY:

Now I would like to ask you about vaccines available at this facility. ASK Q.522 FOR EACH MEDICATION. IF THE VACCINE IS AVAILABLE, ASK Q.523. IF THE VACCINE IS NOT AVAILABLE, CONTINUE WITH THE NEXT VACCINE.

	VACCINES	522 Is (VACCINE) available now?	523 At any time in the last 6 months did you run out of (VACCINE)?
1	DPT vaccine	YES.....1 NO.....2	YES.....1 NO.....2
2	Polio vaccine	YES.....1 NO.....2	YES.....1 NO.....2
3	Tetanus vaccine	YES.....1 NO.....2	YES.....1 NO.....2
4	Measles vaccine	YES.....1 NO.....2	YES.....1 NO.....2
5	BCG vaccine	YES.....1 NO.....2 524 ←	YES.....1 NO.....2

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
524	Are ORS packets available now?	YES.....1 NO.....2	→ 526
525	At any time in the last 6 months did you run out of ORS packets?	YES.....1 NO.....2	
526	INTERVIEWER: CHECK 515 FOR ITEM 7. FAMILY PLANNING. IF "YES", COMPLETE 526-534. IF "NO", SKIP 526-534, AND GO TO 535. How many of the following types of staff in this health center are trained and provide family planning services?	DOCTORS..... ☐☐ NURSES..... ☐☐ AUXILLARY STAFF..... ☐☐	
527	Are any doctors trained in sterilization procedures? IF "YES", RECORD NUMBER. IF "NONE", WRITE 00.	NUMBER OF DOCTORS..... ☐☐	
528	Are any doctors/other staff trained in IUD insertion? IF "YES", RECORD NUMBER. IF "NONE", WRITE 00.	NUMBER OF DOCTORS..... ☐☐ NUMBER OF OTHER STAFF..... ☐☐	
529	On average, how many new clients for family planning are seen monthly?	NEW PATIENTS..... ☐☐☐	
530	On average, how many clients visit monthly for resupply?	RESUPPLY PATIENTS..... ☐☐☐	

CONTRACEPTIVE METHOD AVAILABILITY:

Now I would like to ask you about which family planning methods are available at this clinic. ASK ABOUT THE FIRST METHOD. IF THIS METHOD IS AVAILABLE FROM THE CLINIC, MOVE ACROSS THE TABLE. IF NOT, MOVE DOWN THE TABLE.

METHOD*	532 Is (METHOD) available?	533 How many days per week is (METHOD) available? [a]	534 Have you run out of (METHOD) in the last 6 months?	535 In what year did you first offer (METHOD)?
01 Pill	YES.....1 NO.....2		YES.....1 NO.....2	19
02 IUD	YES.....1 NO.....2		YES.....1 NO.....2	19
03 Injection	YES.....1 NO.....2		YES.....1 NO.....2	19
04 Condom	YES.....1 NO.....2		YES.....1 NO.....2	19
05 Foaming tablets/ foam/jelly	YES.....1 NO.....2		YES.....1 NO.....2	19
06 Female sterilization	YES.....1 NO.....2			19
07 Other methods Specify_____	YES.....1 NO.....2 535		YES.....1 NO.....2	19

[a] 0 = Whenever method is requested.

535	What is your position or title here?	

QUESTIONS 536 AND 537 ARE TO BE ANSWERED BY THE INTERVIEWER AFTER THE FACILITY VISIT IS COMPLETE.

536	DID THE INFORMANT SEEM KNOWLEDGEABLE?	YES.....1 NO.....2
537	ADDITIONAL COMMENTS: _____ _____ _____	

SECTION 6. Date:_____ **PHARMACY VISIT** Pharmacy Name:_____

IF THE PHARMACY IS 30 KILOMETERS OR LESS AWAY, IT IS TO BE VISITED. COMPLETE QUESTIONS 600 TO 602 UPON ARRIVAL AT THE FACILITY BASED ON YOUR OWN OBSERVATIONS. THEN FIND A KNOWLEDGEABLE SOURCE AT THE FACILITY TO ANSWER THE REMAINING QUESTIONS.

IF THIS FACILITY HAS ALREADY BEEN VISITED FOR A DIFFERENT CLUSTER, RECORD CLUSTER NUMBER HERE: ☐☐☐
IF THE FACILITY HAS ALREADY BEEN VISITED, A SECOND VISIT IS NOT NEEDED.

600	IF THIS IS THE FIRST FACILITY VISITED AFTER THE CLUSTER VISIT RECORD DISTANCE FROM CLUSTER FROM THE ODOMETER.	DISTANCE FROM CLUSTER.... ☐☐ NOT FIRST FACILITY VISITED.....98	
601	DO YOU THINK THAT THE ESTIMATE OF DISTANCE TO THE FACILITY GIVEN IN THE CLUSTER IS REASONABLE?	REASONABLE.....1 OVERESTIMATED.....2 UNDERESTIMATED.....3	
602	DO YOU THINK THAT THE ESTIMATE OF THE TIME TO THE FACILITY GIVEN IN THE CLUSTER IS REASONABLE?	REASONABLE.....1 OVERESTIMATED.....2 UNDERESTIMATED.....3	

QUESTIONS TO BE ASKED OF STAFF PERSON AT FACILITY:

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
603	How many hours per week is the pharmacy open?	HOURS PER WEEK..... ☐☐	
604	How many days per week is the pharmacy open?	DAYS PER WEEK..... ☐	
605	Is there a trained pharmacist available?	YES.....1 NO.....2	
606	In what year did the pharmacy open?	YEAR OPENED.....19 ☐☐	

MEDICATION AVAILABILITY AT THE FACILITY:

Now I would like to ask you about medications available at this facility. ASK Q.608 FOR EACH MEDICATION. IF THE MEDICATION IS AVAILABLE, CONTINUE ACROSS THE TABLE. IF THE MEDICATION IS NOT AVAILABLE, ASK ABOUT THE NEXT MEDICATION.

MEDICATION	607 Is (MEDICATION) available now?	608 At any time in the last 6 months did you run out of (MEDICATION)?	609 Do you carry a social marketing brand of (MEDICATION)?
1 ☐ Chloroquine	YES.....1 NO.....2 →	YES.....1 NO.....2	YES.....1 NO.....2
2 ☐ Quinine/Fansidar	YES.....1 NO.....2 →	YES.....1 NO.....2	YES.....1 NO.....2
3 ☐ Penicillin	YES.....1 NO.....2 →	YES.....1 NO.....2	YES.....1 NO.....2
4 ☐ Iron-folate tablets	YES.....1 NO.....2 →	YES.....1 NO.....2	YES.....1 NO.....2
5 ☐ ORS packets	YES.....1 NO.....2 → 610	YES.....1 NO.....2	YES.....1 NO.....2

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
610	Does this pharmacy carry family planning methods?	YES.....1 NO.....2	→ 614

CONTRACEPTIVE METHOD AVAILABILITY

Now I would like to ask you about which family planning methods are available at this pharmacy. ASK ABOUT THE FIRST METHOD. IF THIS METHOD IS AVAILABLE FROM THE PHARMACY, MOVE ACROSS THE TABLE. IF THIS METHOD IS NOT AVAILABLE, MOVE DOWN THE TABLE.

METHOD	611 Is (METHOD) available?	612 At any time in the last 6 months did you run out of (METHOD)?	613 Are you a distributor of this (METHOD)?
01 Pill	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
02 IUD	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
03 Condom	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
04 Foaming tablets/ foam/jelly	YES.....1 NO.....2	YES.....1 NO.....2	YES.....1 NO.....2
05 Other methods Specify_____	YES.....1 NO.....2 → 614	YES.....1 NO.....2	YES.....1 NO.....2

No.	QUESTIONS	CODING CATEGORIES	SKIP TO
614	What is your position or title here?	_____	

QUESTIONS 615 AND 616 ARE TO BE ANSWERED BY THE INTERVIEWER AFTER THE FACILITY VISIT IS COMPLETED.

615	DID THE INFORMANT SEEM KNOWLEDGEABLE?	YES.....1 NO.....2	
616	ADDITIONAL COMMENTS: _____ _____ _____		