Palestinian National Authority
Palestinian Central Bureau of Statistics

Demographic and Health Survey – 2004
Final Report

February, 2006

"Cover Price (6) US$"

Suggested Citation:

Palestinian Central Bureau of Statistics, 2006. *Demographic and Health Survey – 2004: Final Report.* Ramallah - Palestine

All correspondence should be directed to:
Dissemination and Documentation Department / Division of User Services
Palestinian Central Bureau of Statistics
P.O.Box 1647 Ramallah, Palestine.

Tel: (972/970)2 2406340 Fax: (972/970) 2 2406343
E-Mail: diwan@pcbs.gov.ps web-site: http://www.pcbs.gov.ps

Acknowledgment

Financial support for the Demographic and Health Survey conducted by PCBS is being provided by the Palestinian National Authority (PNA) and the Core Funding Group (CFG) represented by the Representative Office of Norway to the PNA; the Representative Office of Netherlands to the PNA; Swiss Agency for Development and Cooperation (SDC); UK Department for International Development (DFID); the European Commission (EC); and the World Bank (WB). The Palestinian Central Bureau of Statistics (PCBS) expresses its special thanks for the Core Funding Group (CFG) for their financial support.

The Palestinian Central Bureau of Statistics (PCBS) expresses its gratitude to UNICEF for providing anthropometric tools and iodine testing kits.

Notes for User

(0.0): Means that the percentage is equal or close to zero (less than 0.05%).

(-): Means there were no observations.

- There are some missing cases for certain variables such as education and age. Discrepancies will be noticed in the number of observation regarding these variable in different tables

- The percentages in the tables are weighted while the observations are un-weighted.

Team Work

- **Report preparation:**

Dr. Yahia Abed	Mr. Mohammed Omari
Dr. Samia Halileh	Mr. Abdullah Najjar
Dr. Salwa Najjab	Mr. Khalid Abu-Khalid
Mr. Rami Al-Dibs	Mr. Mohammed Duraidi
Mr. Khalid Qalalweh	

- **Preliminary Review:**

Khalid Abu Khalid	Mohammed Omari
Inaya Zeidan	

- **Final Review:**

Mahmoud Jaradat

- **General Supervision:**

Luay Shabaneh PCBS President

- **Secretarial work**

Magida Husain

Preface

The Demographic and Health Survey 2004 is the third in a series of surveys completed by the Palestinian Central Bureau of Statistics (PCBS) over a period of eight years. Beginning with the first survey in 1996, the second survey was completed in 2000, and the third in 2004. With the availability of the 2004 survey data, it becomes possible to examine time trends related to demography, fertility and maternal and child health in the context of changing population Socio-economic Situation, and utilize such information in future policy making and planning endeavors.

The surveys are designed to collect, analyze and disseminate demographic and health data pertaining to the Palestinian population living in the Palestinian Territory, with a focus on demography, fertility, family planning and maternal and child health. The 2004 survey also includes new sections and subjects, such as basic health information on different groups within the population, and other issues besides married women of childbearing age and children less than five years old. It is hoped that by the gradual introducing of new sections into the Palestinian Demographic and Health Survey, it can cover all population groups.

This report presents data on various health indicators related to households and health services in the Palestinian Territory. In addition to providing baseline data on health of mother and children under five years of age.

The Palestinian Central Bureau of Statistics hopes that this report will enable planners and decision makers to build on for development and health promoting in the Palestinian Territory and provide decision and policy makers engaged in the comprehensive national development process in the country with essential information for planning.

February, 2006

Luay Shabaneh,
President

List of Contents

List of Table

List of Figures

Definitions and Explanations

Acute Respiratory Infections (ARI): Acute respiratory infections are the most common illness suffered by children, no matter where they live. ARI are caused by a wide variety of disease agents; these include forms of vaccine-preventable tangent diseases: diphtheria, pertussis and tuberculosis. ARI are traditionally divided into two main categories: those of the upper respiratory tract (the common cold) and those of the lower respiratory tract (primarily pneumonia). The principal transmission factors are high population density, crowded conditions and seasonal changes that favor the spread of disease.

Adequate Iodized Salt: Food salt fortified with an adequate amount of iodine (15 ppm and above) to prevent iodine-deficiency disorder, including goiter, in adults and children and mental handicap in children.

Age: The completed age in years of the enumerated person, which is the difference between the date of birth and the survey reference period. The exact age is the time elapsed between the day of birth and a given day, including parts of a year.

Age – Sex structure: The composition of a population as determined by the number or proportion of males and females in each age category. The age structure of a population is the cumulative result of past trends in fertility, mortality and migration rates. Information on age-sex composition is an essential prerequisite for the description and analysis of demographic data.

Age at Marriage: The age of the individual in years at the time a person is actually married.

Age Heaping: A general tendency to misreport a preferred number as one's age or to round one's age to a number ending with the digits 0 or 5 or as a multiple of 6 or 12 months for children. This type of age misreporting results in a false concentration of persons at particular ages or in particular age groups.

AIDS: Acquired Immunodeficiency Syndrome, a serious, often fatal disease of the immune system transmitted through blood products, especially by sexual contact or contaminated needles.

Anthropometry: The technique that deals with the measurement of size, weights and proportions of the human body. The anthropometric measurements described here are standing height, recumbent length and weight, in relation to the age and sex of the child and in accordance with the guidelines developed by the CDC and recommended by the WHO.

Assistant Measurer: An enumerator who assists the measurer by helping to hold the child in place during the measurement proceeding and records the measurements on a questionnaire. An untrained assistant such as the mother can be used to help hold the child. If so, then the measurer who measures the child also records the measurement.

BCG Vaccination: Vaccination through injection given to infants in the first month of life to protect against tuberculosis, an infection caused by the

	bacterium Mycobacterium tuberculosis, affecting primarily the respiratory system and spread by coughing and sneezing.
Birth Weight:	The first weight for the newborn obtained after birth.
Breastfeeding:	Refers to the method of feeding infants and children and is defined as feeding a child breast milk directly from the breast or expressed.
Composite Family:	Refers to families consisting of at least one nuclear family with other non-relatives.
Cell:	The smallest geographical unit in which fieldwork is carried out. Cell boundaries must be clear and easy to recognize in the field. Geographic markers such as road streets are usually used as a cell's boundaries.
Complementary Feeding:	The child has received both breast milk and solid or semi-solid food, i.e. juice, formula, etc.
Condom:	A sheet or covering made of thin latex rubber to fit over a man's erect penis or inserted into a woman's vagina.
Continued Breastfeeding Rate (CBFR):	The proportion of children aged 9-12 months who are still breastfeeding.
Contraceptive Injection:	A shot that is normally given every three or six months and is also known as Depo-Provera or Notriterat.
Contraceptive Pill:	One of the methods used by women for delaying or avoiding the coming pregnancy by taking a tablet every day.
De Jure Population:	The population enumerated as the basis of usual residence excluding temporary visitors and including residents temporarily absent. All persons who have been temporarily absent for up to one year are considered usual residents in this survey.
Dehydration:	Lack or shortage of body fluids. A child who has diarrhea soon looses a lot of fluids in her or his stools, thus becoming dehydrated.
Diaphragm, Foam, Jelly:	In this case we have grouped together a large number of female contraceptive methods that are used in the vagina, including diaphragm, sperm foam, jelly, foaming tablets, etc.
Diarrhea:	The passage of loose or liquid stools more frequently than is normal for the individual. Diarrhea may be defined as it is understood by respondents or mothers. The interviewers used the mother's definition in this survey.
Disease:	A disorder or impairment of the normal state of well-being.
Divorced:	An individual 12 years old and over who was married but his or her marriage was revoked by a legally registered divorce and he or she did not marry again.
DPT Vaccination:	Combination vaccination against diphtheria, pertussis (whooping cough) and tetanus, usually given in a series of injections starting at 2 months of age followed by 4 months, then 6 months with a booster at 12 months of age.

Dwelling Unit:	A room or number of rooms occupied or vacant and are used as a separate dwelling, providing that there is either: 1. Direct entrance from the outside or through a hall, or 2. Complete kitchen facilities available only to the unit's inhabitants regardless of whether they use them or not.
Exclusive breastfeeding:	Children aged 0-6 months who are being breastfed and have not received any other food or drink, except for vitamins and medications.
Extended Family:	Refers to families consisting of at least one nuclear families with other relatives.
Family Household:	Consists of household members who are related to each other by blood, marriage or adoption.
Family Planning Method	A method used for delaying or stopping pregnancy. Modern methods include pills, IUD, injection, vaginal methods, female jelly, female sterilization, male sterilization and condoms.
Fertility:	The actual reproductive performance of an individual, a couple, a group or a population.
Folic Acid tablets:	Medication containing folic acid in the form of a tablet to prevent or treat folic-acid deficiency, especially during pregnancy.
Female Sterilization:	Inability of women to conceive as a result of surgical operation. There are several types of sterilization operations women can have, for example, tubal ligation or removal of the uterus or ovaries.
Head of Household:	The person who usually lives with the household and is recognized as head of household by its other members. Often he or she is the main decision-maker or responsible for financial support and the welfare of the household at the time the survey is conducted.
Health Care Provider:	An individual whose responsibility involves one or more of the following: the provision, administration, teaching and development of health services, activities or supplies. The provider may have direct or indirect interest in health industry.
Health Insurance	Indemnity coverage against financial losses associated with occurrence or treatment of health problems.
Health Status:	The state of health (often in a broad sense) of a specified individual, group or population.
Health:	Many definitions exist. As defined by the World Health Organization: "A state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".
Height:	Height of the child measured in centimeters as: 1. Recumbent Length: distance from the crown of the head to the sole while the child is measured lying supine (for children less than 2 years of age). 2. Standing Height: distance from the crown of the head to the sole while the child is measured standing (children more than 2 years of age).

Height for Age:	This parameter reflects the achieved linear growth and its deficit indicates long-term cumulative inadequacies of health or nutrition. Two related terms are used when describing this parameter: length and stature. Length is the measurement while in a recumbent position and is used for children under 2 years of age, while stature refers to standing height. For simplification, the term height is used for both measurements in this report. Low height for age (below – 2SD of the NCHS/WHO reference) ranges from 5 to 65% among less developed countries. In low prevalence countries, it is most likely due to normal variation, i.e. shortness; in less developed countries it is likely to be due to a pathological process, resulting in stunting. A pathological process can be from the past or a continuous process.
High Birth Weight:	Weight of a newborn of more than 4 kgs.
Height Measuring Board:	A measuring board that can be used to measure either standing height or recumbent length, to the nearest 0.1 cm.
Hospital:	An institution whose primary function is to provide services (diagnostic and therapeutic) for a variety of medical conditions, both surgical and non-surgical. Most hospitals also provide some outpatient services, particularly emergency care.
Household Membership:	Persons staying in the dwelling unit at the time of an interview are considered members of the household if (1) the dwelling unit is their usual or only place of residence or (2) a place of residence is maintained for them here and elsewhere, but they spend most of their time in this residence.
Household:	One person or a group of persons with or without a family relationship who live in the same dwelling unit, share meals and make joint provisions for food and other essentials of living.
Illiterate:	A person who cannot read or write a short abstract about his or her life and understand it.
Immunization:	Immunization is one of the sharpest tools for cutting into the vicious infections cycle and reducing the severity and frequency of setbacks to the normal development of the child in his or her formative years.
Infant:	A live-born child from the moment of birth through the completion of the first year.
Infant Mortality Rate:	The number of infant deaths under one year of age in a given year per 1,000 live births during the year.
Iron Tablets:	Medication containing an iron supplement given in the form of a tablet or syrup to prevent or treat iron-deficiency anemia.
IUD:	A flexible, plastic intrauterine device. It often has copper wire or sleeves on it. It is inserted into the women's uterus through her vagina.
Live Birth:	A birth is considered live if the newborn has shouted, cried or shown any signs of life upon birth.
Low Birth Weight:	Weight of a newborn of less than 2.5 kg.

Male Sterilization: This is a comparatively minor operation done on men for contraceptive purposes.

Malnutrition: Malnutrition means "badly nourished" but it is more than a measure of what we eat or fail to eat. Clinically, malnutrition is characterized by an inadequate intake of protein, energy and micronutrients and by frequent infections or disease. Nutritional status is the result of the complex interaction between the food we eat, our overall state of health and the environment in which we live – in short, food, health and caring, the three "pillars of well-being".

Marital Status: The status of those 12 years old and over in terms of marriage traditions and laws in the country.

Married: An individual 12 years old and over who is actually married according to the existing norms, regardless of whether he or she is living with a spouse at the time of the interview or not.

Marriage Duration: The duration between the date of the actual marriage and the survey reference date, calculated in years.

Maternity Care/ Antenatal Care: Giving birth requires the most sustained medical attention that should be provided through a comprehensive program of maternity care. Such a program should include examination, evaluation, observation, treatment and education of the pregnant woman and should be directed toward making pregnancy, labor and delivery as normal and safe as possible for mothers and their infants.

Measles Vaccination Vaccination through injection given once at 9 months of age to protect against measles, which is an acute and highly contagious viral disease occurring primarily in children. A second dose follows at 15 months of age, combined with Rubella and Mumps vaccines and called MMR.

Measurer: A trained enumerator who actually measures the height and weight of children.

Median Age: The age that divides a population into two numerically equal groups, that is, half of the people are younger than this age and half are older.

MMR: An injection given at 15 months of age in order to immunize the child against Measles, Mumps, and Rubella.

Modern Methods of Contraception: These include male and female sterilization, pills, IUD, injection, male and female condoms, diaphragms and foam/jelly.

Mortality: Deaths as a component of population change.

Neonatal Death Rate: The number of infant (1 month of age) deaths per 1,000 live births in a given year.

Neonatal Period: The first 28 days of life.

Neonatal Tetanus:	A disease that kills many babies. This disease can be easily prevented by a woman receiving immunization against tetanus while she is pregnant with the baby before birth. This immunization is usually given to pregnant women as an injection in the arm. However, more than one injection may be required in order to provide protection.
Normal Birth Weight:	Weight of the newborn between 2.5-4.0 kgs.
Nuclear Family:	Refers to families consisting of married couples without children, married couples with unmarried children, or single parents with unmarried children.
Nutritional Status:	A description of the current status of the child, both in terms of immediate acute factors such as inadequate current intake of food, childhood diseases and diarrhea leading to wasting, as well as the accumulated impact of chronic deprivation leading to stunting.
Occupation:	Refers to the kind of work done by employed persons, irrespective of their training or education. Thus, the occupation refers to the tasks carried out by a person. If the person has more than one occupation, the one in which he or she spent most of his or her time was accepted as his or her occupation.
Oral Rehydration Solution (ORS):	Solutions for the prevention of dehydration in infants and children. These are either commercially produced sachets or tablets or can be prepared at home with fluids that contain both salt and nutrients.
Oral Rehydration Therapy (ORT):	ORT is given to prevent and treat dehydration during episodes of diarrhea by giving a child fluids by mouth. ORT is a threefold strategy that combines administration of a simple solution of sugar and salt with continued feeding through a diarrhea episode and referral when appropriate.
Pilot Survey:	Duplication of the final proposed survey design on a small scale from beginning to end.
Place of Residence:	Place of residence is divided into urban, camps and rural. A population outside municipal boundaries and camps are considered a village population.
Polio Vaccination:	Vaccination by oral drops against an acute infection that can cause paralysis in children. It has the same schedule as DPT in children under 5 years of age with am addition of two injectable doses given at 1 and 2 months of age.
Post Neonatal Death Rate:	The number of infant (from 1-11 month of age) deaths per 1000 live births in a given year.
Post-Neonatal Period:	The time between the end of the first month of life and the first year.
Prevalence:	The number of cases of disease-infected persons with some other attribute present at a particular time and in relation to the size of the population from which it is drawn.

Primary Health Care:	First contact and continuing comprehensive health care, including basic or initial diagnosis and treatment, health, supervision, management of chronic conditions and preventive health services. The provision of primary care does not necessarily require highly sophisticated equipment or specialized resources.
Reference Date:	The date referred to is 17/05/2004, in which the calculation of vital rates and ages was done.
Reproductive Health:	Defined by WHO as a state of physical, mental and social well-being in all matters relating to the reproductive system at all stages of life. The term implies that people are able to have the capability to reproduce and the freedom to decide if, when and how often to do so. Implicit in this are the rights of men and women to be informed and to have access to safe, effective, affordable and acceptable methods of the family planning method of their choice and the right to appropriate health-care services that enable women to safely go through pregnancy and childbirth.
Room:	The dwelling unit or a part of it surrounded by walls and with a ceiling providing that its area is not less than four square meters. Balconies surrounded with glass are considered rooms, while kitchens, bathrooms, other balconies, corridors, halls and half-rooms are not considered rooms. Also, rooms used for work purposes, such as a doctor's room or a sewing room, are not considered rooms in this survey.
Safe Drinking Water:	Water piped into the dwelling or yard, a public tap, a tube, a well or borehole with pump, a protected well or spring or rainwater.
School:	Any educational institution excluding kindergartens, regardless of students' number and grade structure, providing that the lowest grade is the first basic grade and the highest grade is the last grade (university degree and above).
Single:	An individual 12 years old and over who has not actually married according to the existing norms and traditions.
Skilled Health Personnel:	Doctors, nurses, midwives, community health workers, health educator, etc.
Smoker:	The individual (10 years old and over) who smokes one cigarette or more a day, including pipe and narghile smokers.
Supplementary Feeding:	Any liquid (including milk) or solid given while the child is still receiving breast milk.
Tetanus:	A life-threatening disease caused by toxins produced by the bacterium Clostridium tetani, which often grows at the site of a cut or wound. Tetanus usually occurs after an acute injury, such as a puncture wound or laceration that has been contaminated with dirt containing the clostridium spores.
Tetanus Toxoid Vaccination:	Tetanus toxoid injections are given during pregnancy for the prevention of neonatal tetanus.

Timely Complementary Feeding Rate:	The proportion of infants 6-9 months of age who are receiving breast milk and complementary foods.
Total Fertility Rate:	The average number of children that would be born alive to a women (or group of women) during her lifetime if she were to pass through her childbearing years conforming to the age-specific fertility rates of a given year. The sum of age-specific fertility rates is multiplied by five.
Under-Five Mortality:	The proportion of children born alive who die before reaching their fifth birthday.
Vitamin A/D:	Vitamin A and D drops, given to children from birth until 1 year of age at the maternal child health clinics of the Ministry of Health. It is not provided at UNRWA clinics.
Wasting:	Low weight-for-height indicates wasting (i.e. "thinness"), which is one of the best indicators of current and acute malnutrition, i.e. a deficit in tissues and fat mass compared with what expected in a normal child of the same length/height. It is generally associated with failure to gain weight or loss of weight.
Weaning:	The process whereby the child becomes accustomed to taking liquids or solids other than breast milk.
Weight:	Measurement of a child's total body mass underside.
Weight for Age:	This parameter is influenced by both the height and weight of the child. It reflects the long- and short-term health of an individual or population. Lightness and underweight have been used to describe normal and pathological processes. High weight for age is not used to describe obesity.
Weight for Height:	This parameter reflects body weight to height. Its use carries the advantage of requiring no knowledge of age. However it is not a substitute for other indicators. Low weight for height is called thinness, if normal, or wasting, if pathological, and can reflect a recent or chronic condition. Prevalence in non-disaster areas is around 5%. A lack of evidence of wasting in a population does not imply the absence of current nutritional problems.
Widower:	The individual 12 years old and over who was married, but his or her marriage was revoked because of the death of his or her partner, and he or she did not marry again.
Withdrawal:	A traditional family-planning method used by couples by ejaculating outside the vagina.
Years of Schooling:	The total number of years that have been completed successfully at a school or university by the respondent.

Chapter One

Introduction

1.1 Introduction:

States rely on data available at statistical institutions in planning and policy-making. Such institutions are the main and official source to provide documented and scientific statistical data about the local community thus largely contributing to assisting policy-makers and decision-makers in making present and future policies and in making development and planning decisions that may develop local community and improve delivered services, as well as measuring the extent of consistency between policy and services delivered to the public. Since a bureau of statistics is a key component of the civil system of any society, the employees of the Palestinian Central Bureau of Statistics (PCBS) have from day one of establishing a statistical system in Palestine sought to bridge the statistical gap through collecting all social, economic, geographic, and environmental data according to programs with specific priorities. Also, provide a reliable statistical figure for the policy-makers and decision-makers in the first place, and the individual interviewers, scholars, and institutions, in addition to international statistical organizations.

PCBS has planned and carried out a number of surveys in order to create a database that can be used for studying and analyzing demographic, social, health, and environmental characteristics of the Palestinian society. It all comes within the PCBS plan to provide and update citizens' health data, which will determine the basic health requirements and the priorities of health work and the consistency of the health plans and services. The first health survey was conducted in 1996; it included a number of key indicators relevant to maternal, child, and household health. The second survey was conducted in 2000; it covered reproduction, fertility, newborn and children mortality, along with housing conditions indicators, in addition to maternal, child, and household health indicators. PCBS has also conducted the Demographic and Health Survey 2004 to complete evaluation and comparison and monitoring of the health and demographic conditions of the Palestinian Territory. The Demographic and Health Survey 2004 has attained great significance because it monitors the changes taking place at the demographic and health situation of the Palestinian Territory during the past four years. The Survey focuses on reproduction, fertility, child and newborn mortality, family planning and maternal and child health topics. The Survey also includes new topics about the health of the females in child-bearing age and indicators related to health in general including disabilities, smoking, and chronic diseases.

This chapter discusses a number of issues: Survey objectives; population conditions, health situation in the Palestinian Territory, organization of the Survey phases, and the data quality of the Survey.

1.2 Socioeconomic Situations:

1.2.1 Population and household:

Population estimates indicate that the number of population of the Palestinian Territory in mid 2004 was 3,637,529 (2,300,293 in the West Bank and 1,337,236 in Gaza Strip). The population is distributed as follows: 56.6% are living in urban areas; 28.3% are living in rural areas; and 15.1% are living in refugee camps in the Palestinian Territory. Age structure of the population of the Palestinian Territory tells us that the percentage of the population under 15 is 45.7%; meanwhile, the percentage of the population aged 65 and above is 3.1%, compared

with the results of the Population, Housing, and Establishment Census 1997, when the population of the Palestinian Territory[1] totaled 2,895,683 including 1,873,476 in the West Bank and 1,022,207 in Gaza Strip distributed as follows, 53.1% lived in urban areas; 31.0% lived in rural areas; and 15.9% lived in refugee camps. Consequently, the population has increased by 25.6% compared to 1997.

The number of Palestinian households in the Palestinian Territory, according to the revised estimates of PCBS in 2004, totaled approximately 575,741 households, including 382,839 in the West Bank and 192,902 in Gaza Strip. The average household size reached 5.7 people, including 5.5 in the West Bank and 6.2 in Gaza Strip. The percentage of households headed by women totaled 8.9%, including 9.9% in the West Bank and 7.0% in Gaza Strip; crowdedness rate in housing totaled 1.86/ per room (or almost two people per room). Population density in the Palestinian Territory in 2004 is estimated at 625 persons/ square km.

Medium age at marriage for women reached 19.0 years for both regions of the West Bank and Gaza Strip. The percentage of ever married women who are married to first degree relatives in the Palestinian Territory reached 27.5%. According to findings, 17.8% of marriages were among the members of the same family.

Fertility levels of the Palestinian Territory are considered high when compared to presently dominant levels at other societies. However, it has been noticed that fertility levels in the Palestinian Territory dropped in the past few years. When the total fertility rate (the medium of children a woman can give birth to during her reproductive life) is taken into consideration, data shows that the total fertility rate has dropped from 6.4 births during 1985-1989 to 6.1 in 1997, according to the final findings of the Population, Housing, and Establishment Census 1997. The rate continued to drop and reached 4.9 births in 2003, compared to 5.93 births in 1999.

The drop may be due to the rising percentages of education especially among females, improved health conditions, or high percentage of using family planning methods, which reached 50.6% among women aged 15-49 in 2004 according to the findings of the Demographic and Health Survey 2004, compared to 45.2% in 1996 and 51.4% in 2000. The gradual drop in fertility levels is expected to continue during the coming years due to increasing attention to woman health and education and reproductive health and increase in the use of family planning methods.

The total fertility rate of the Palestinian Territory, using direct method, reached 4.6 births in 2003, including 4.1 in the West Bank and 5.8 in Gaza Strip. The average number of ever born children to an ever married Palestinian woman is 4.5 children; the average number of the children who stayed alive out of the ever born children in the Palestinian Territory is 4.3.

The World Bank, using macroeconomic data, estimated poverty rates in the Palestinian Territory in 2003 at 38% and 51%. According to PCBS reports, based on a number of surveys most importantly the series of surveys on the impact of Israeli measures on the economic and social situation of the Palestinian households between 2001 and 2003, the percentage of households living below the poverty line was between 61% and 72%. The series of the labor force surveys of 2003 indicated that the percentage of laborers who earned an income below the poverty line was 59%-61%. However, the distribution of the unemployed dropped sharply

[1] Includes population counted during December 10-24, 1997, uncounted population estimates according to post enumeration survey and population estimates for those parts of Jerusalem annexed by Israel in 1967

in 2003 from 221,000 in 2002 to 203,000 in 2003 compared to 98,000 unemployed people in 2000. It is worth noting that the numbers of the Palestinians joining the labor force in the West Bank and Gaza Strip rose from 695,000 in 2000 to 794,000 in 2003.

The data of the household expenditure and consumption in the Palestinian Territory 2004 showed a drop in the household and individual expenditure and consumption rates in current prices. Consequently, the average monthly consumption of a household in the Palestinian Territory dropped by 5.7% compared with 1996 that reached 601 Jordanian dinars. In 2004, however, the average monthly consumption of a household totaled 535 Jordanian dinars in current prices, a 9.6% drop in comparison with 1996. The data of the average individual expenditure in the Palestinian Territory showed similar results; such average dropped in 2004 by 4.1% compared with 1996.

1.2.2 Public Health:

The rapid health, economic, and social changes in the Palestinian Territory caused the indicators of public health to swing. The results of the Health and Demography Survey 2004 concerning health insurance coverage, for instance, showed that the percentage of people who have health insurance in the Palestinian Territory is 76.1% including 65.8% in the West Bank and 93.8% in Gaza Strip. A rise in insurance coverage is noticed when results are compared to the results of 2000, i.e. before the Intifada broke out. The results of the Health Survey of 2000 showed that 60.4% of individuals in the Palestinian Territory had health insurance, including 51.8% in the West Bank and 75.6% in Gaza Strip. It is worth noting that Al Aqsa Insurance was originated after the Al Aqsa Intifada broke out upon a presidential decree with minimum insurance premium causing government health insurance coverage to shoot up. Needless to say that the health insurance coverage increase is a good sign; however, it adds to the burdens of the government by mounting health services to cover a large number of insured people.

Results showed that 19.6% of people aged 12 and above in the Palestinian Territory smokes, including 36.3% are males and 2.1% are females. However, the percentage of smokers dropped during the past four years, according to the Health Survey 2000; the percentage of smokers aged 12 and above was 22.1%. The reduction in the percentages of smokers may be due to economic reasons when unemployment percentage soared after the Intifada broke out.

1.2.3 Maternal and Child Health:

The study of indicators measuring maternal and child health are among key indicators monitoring changes in public health and social and economic adaptation. The health and living standards and levels of any society can be measured reviewing specific maternal and child health indicators. Mothers and children are the most vulnerable among the marginalized groups; therefore, they are the most susceptible to changes in the household conditions, which can be a reflection of the prevailing conditions of the society. There are many indicators measuring maternal and child health such as infant and child mortality rates, measuring the nutritional status of children; spread of infectious diseases; prenatal care, safe delivery; postnatal care; and other relevant indicators.

A development is noticeable in the health situation during the last five years; this can be realized when health indicators are compared. Infant mortality rates in the Palestinian Territory, for instance, dropped in 2004 compared to 2003. The level of child and infant mortality in the Palestinian Territory is low compared with developing countries and neighboring countries. Infant mortality rates in the Palestinian Territory during the five years preceding the survey (1999-2003) reached 24.2 per 1000 births, including 20.0 in the West

Bank and 30.2 in Gaza Strip. The mortality rate among children below five during the same period is 28.3 per 1000 live births (23.7 in the West Bank and 34.8 in Gaza Strip) per 1000 live births. According to the Health Survey 2000, infant mortality rate during 1995-1999 in the Palestinian Territory was 25.5 per 1000 live births (24.4 for the West Bank and 27.3 in Gaza Strip) per 1000 live births.

Many common and infectious childhood diseases have been brought under control including mumps, Pertussis (whooping cough), tetanus, measles, and polio. However, a gap still exists among many indicators of maternal and child health. For instance fatalities due to weight at birth and premature birth are the most common causes (25.9%) of newborn mortality followed by birth defects at 21.8% of the total mortalities among the newborns. The reduction of newborn mortality causes must be a priority for the decision-makers and planners in the government and NGOs involved in the health sector since such causes may be resulting from shortcomings in the quality and availability of pregnancy care and safe delivery. The percentage of pregnant women vaccinated against tetanus is still low as compared to receiving prenatal care. Also, the percentage of receiving postnatal care is low. In any case, maternal healthcare improved since the past period witnessed enhanced percentages of prenatal care and deliveries at health establishments by qualified medical teams.

1.3 Health System:

The health services in the Palestinian Territory can be divided in two key types; primary healthcare including comprehensive and continuous health services, which also includes diagnosis, primary cure, health supervision, preventative health service management, and chronic diseases. The second type is secondary healthcare services including hospitals, which provide diagnostic and cure services as well as surgeries. Most hospitals provide outpatient services especially emergencies.

There are four parties that provide health services in the Palestinian Territory:

1. **Ministry of Health (MoH):**

   The so-called "*Civil Administration*" of the Israeli occupation authorities ran a number of clinics and hospitals that provided health services to Palestinian people before the Palestinian National Authority (PNA) took control over the affairs of the Palestinian Territory. The responsibility was transferred to MoH in May 1994 in Gaza Strip and in November 1994 in the West Bank. MoH was handed a worn-out health sector with infrastructure that was neglected for approximately three decades. The PNA has paid special attention to the health sector and primary care as well as the child health. For the PNA, the health sector is the second most important sector after education in the development plan. Moreover, the PNA coordinates and cooperates with international organizations involved in health mainly the World Health Organization (WHO).

   The 2004 data indicated that MoH runs 35% of the hospitals and approximately 31% of the total hospital beds in the Palestinian Territory. Moreover, MoH supervises 56% of primary healthcare clinics that deliver services in the Palestinian Territory. In short, the process of health service delivery in the Palestinian Territory is the responsibility of MoH.

2. **United Nations Relief and Works Agency (UNRWA):**

   The UNRWA health program focuses on primary, preventative, and comprehensive healthcare. It provides free-of-charge healthcare services to Palestinian refugees at refugee camps where it runs approximately 7% of the primary healthcare clinics in the West Bank and Gaza Strip. UNRWA also delivers secondary healthcare in the West Bank only; it

runs only 1 hospital. The UNRWA runs 1.2% of the hospital beds in the Palestinian Territory. The international organization has been reducing its services especially hospital transfer services since the mid nineties due to their high costs and reduction in its budget despite the fact that a large sector of the Palestinian people rely on its health services (especially refugee camp dwellers whose number is estimated at one million). UNRWA increased refugees' contributions to the medical bill by 12-40%. The organization also reduces transfers and abstains from covering the expenses of certain cases. UNRWA only covers entire medical bill of the poorest refugees in worst medical cases. The reduction in services was gradual and consistent with reduction in funding. Donations were insufficient to cover the rising demand for health services and increase in the refugee population. Consequently, thousands of Palestinian refugees have been deprived of receiving health services.[2]

3. **Non Governmental Organizations (NGOs):**
   NGOs are the second most important health service provider after the government. Some of the NGOs initiated operations in the 1950s in Jerusalem and spread in the remaining Palestinian Territory. NGOs played a major role in healthcare service provision during the Israeli occupation years especially in remote rural areas with marginalized and impoverished people where they provide health services for minimal charges. NGOs role was most prominent during the 1st Palestinian Intifada in 1987 as well as the al Aqsa Intifada in 2000. Despite the policy the military occupation imposed on the Palestinian people, which stopped the development of the Palestinian healthcare services, many NGOs found an incentive in such policy to work harder in healthcare service delivery. NGOs sector has the highest number of general and specialized physicians compared to the clinics the sector runs. NGOs supervise 35% of hospitals and approximately 30% of the hospital beds as well as 36% of the primary care clinics in the Palestinian Territory. Most healthcare clinics of the NGO sector provide preventative and guiding medical services; also, they help in reducing the enormous pressure on the government health establishments, for instance, NGO helped treating the wounded during the 5-year-long Al Aqsa Intifada.

4. **The Private Sector:**
   The private sector, despite its profitable nature, has become one of the most important sectors in providing curative and diagnostic services to Palestinian people in the Palestinian Territory. It supervises approximately 31% of the hospitals and almost 10% of the hospital beds. The private sector started to grow and expand when the PNA took control of the health system in Palestine. The expand of the private sector was accompanied by a reduction in the number of people benefiting from the government sector because it created new concepts among people that it could better quality services. The health services of the private sector are limited to people with better economic capabilities and can afford the private medical services bill.

1.4 Survey objectives:

PCBS Health Demography Survey 2004 is part of PCBS plan to provide inclusive data on all indicators related to demographic and health situation, which enable reviewing and assessing the demographic and health status of the Palestinian society.

[2] UNRWA website is UNRWA Official Homepage (United Nations Relief and Works Agency for Palestine Refugees in the Near East)

The aim of this survey is to collect data on the health status of the Palestinian population in the Palestinian Territory in order to facilitate monitoring of maternal and child health. The collected data are expected to serve as an asset for health planners, health providers, policy makers and researchers. The main objectives of the survey are:

1. To update the available database on the demographic and health status of the Palestinian population, particularly women and children.
2. To provide important data for use by researchers and for policy formulation and program development in the Palestinian Territory.
3. To provide a database on the different demographic, social and economic characteristics.
4. To assess health service provision in relation to maternal and child health.
5. To enable policy and decision makers to develop future plans and programs on the basis of findings of this survey.

1.5 Methodology:

1.5.1 The Survey Questionnaire:

The questionnaire was developed by the Palestinian Central Bureau of Statistics after revision and adaptation of the following standard questionnaires:

1. Health Survey questionnaire that was implemented by the Palestinian Central Bureau of Statistics in 2000
2. Demographic Survey questionnaire that was implemented by the Palestinian Central Bureau of Statistics in 1995
3. UNICEF questionnaire for Multiple Indicator Cluster Survey (MICS II)
4. Standard Demographic and Health survey questionnaire
5. PAP FAM standard questionnaire
6. Demographic and Health Survey questionnaires (DHS) from other countries.

The demographic and health survey in 2004 questionnaire consisted of four main parts:

1. Control Sheet, which includes items related to quality control, sample identification, interview schedule and interview outcome.

2. Household questionnaire, which includes the following sections:
   - The Household Roster including demographic variables such as age, sex, relation to the head of the household, date of birth and health variables such as health insurance and smoking.
   - The Housing section including questions on housing conditions, such as water, sanitation and iodized salt.

3. Women's health questionnaire. This questionnaire was designed to collect data for all ever-married women 15-54 years old. It consists of six sections:
   - Reproduction
   - Family planning
   - Antenatal care and breastfeeding
   - Tetanus toxoid vaccination
   - Desire for reproduction
   - Knowledge of HIV

4. Child health questionnaire**:** This part consists of three sections:
   - Child health and child immunization for under-five children
   - Anthropometry for under-five children
   - Child education for children aged 5-17 years

1.5.2 Sampling:

1. Target Population:
The target population consisted of all Palestinian households that usually reside in the Palestinian Territory. This type of survey concentrated on two subpopulations: The first is ever-married women 15-54 years old, and the second is under-five children.

2. Sample Frame:
The list of all Palestinian households has been constructed by updating some identification variables from the data collected through the Population Census of 1997. The master sample was drawn up to be used for different sample surveys. It consists of 481 enumeration areas (EA) (the average size of about 150 households). The master sample was the sample frame for the current Demographic and Heath Survey of 2004. The selected EA were divided into small units called cells (with an average size of 25 households). One cell per EA was selected.

3. Sample Size:
The number of households in the sample was 6,574 households: 4,456 in the West Bank and 2,118 in the Gaza Strip.

4. Sample Design:
The sample type was a stratified two-stage random sample:
First stage: 260 EAs were selected from all Palestinian territory.
Second stage: A systematic random sample of 25 households was selected from each EA in the West Bank and the Gaza Strip. For the part of Jerusalem that was annexed by Israel after the 1967 war, 30 households were selected from each EA.

5. Response rate:

Table 1.1: Number of households, eligible women, and children and the response rate by region, 2004

Sample and response rate	Palestinian Territory	West Bank	Gaza Strip
Number of households in the sample	6,574	4,456	2,118
Number of interviewed households	5,799	3,746	2,053
Response rate	88.2	84.1	96.9
Number of ever married women aged 15-54	5,092	3,198	1,894
Interviewed women	4,972	3,087	1,885
Response rate	97.6	96.5	99.5
Number of children below 5	5,034	2,929	2,105
Number of interviewed children	4,839	2,788	2,051
Response rate	96.1	95.2	97.3

Weights have been calculated for each sampling unit. Weights reflect the sampling procedures. To make the weighing procedure feasible and simple, we assumed that the households have been selected directly within the EA.

The weighing procedure considered the total Palestinian population in the beginning of the second quarter of the year 2004 and their distribution by region, sex and age group.

6. Variance:
It is important to calculate the sampling error and to show it beside the estimates. This gives the data user an idea about the efficiency and accuracy of the estimates.

The total survey errors are divided into two types: sampling errors and non-sampling errors. Non-sampling errors arose from implementing data collection and data processing, such as failure to interview the correct unit or mistakes made by the interviewer or the respondent. It is still difficult to estimate the non-sampling errors. However, many procedures have been adopted to reduce the non-sampling errors.

Sampling errors on the other hand are a measure of the variability between all possible samples. Sampling errors can be estimated from the survey results.

The variance calculation uses the method of Ultimate Clusters; the variance formula depends on the type of estimate (ratios, means, totals, etc.). For this purpose we use a statistical package for variance calculation called CENEVAR.

1.5.3 Reference Date:
The reference date for the Demographic and Health Survey was 17/05/2004.

1.5.4 Pilot Study:
The aim of the pilot study was to test all activities related to the main survey, questionnaire, training, survey instructions and procedures, sample, interviews, data entry and data processing.

The pilot took place in April 2004. The sample size was 150 households, or 75 households in the West Bank and in the Gaza Strip. The survey was carried out by two fieldwork teams, each consisting of six interviewers, one supervisor, one editor, one assistant and one field work coordinator.

The survey results were evaluated by several means through conducting debriefing meetings with fieldwork teams, and changes in the survey plan were carried out as required.

1.5.5 Field Work Operations:

1. Recruitment:
Recruitment of fieldworkers was restricted to women. The fieldwork directorate at PCBS screened all available female applicants. A scale was designed to rank applicants using objective criteria. Four committees to interview applicants in Ramallah, Nablus, Hebron and Gaza were formed. Seventy-nine interviewers, 16 interviewers' assistants and 32 coordinators, supervisors and editors were selected to work in the West Bank and the Gaza Strip.

2. Training:
The draft fieldwork manual prepared for the pilot was reviewed, edited and utilized for the main fieldwork training.

The main training was via videoconference between the West Bank and the Gaza Strip. Training lasted for an intensive 11 days. A group of doctors was recruited to deliver lectures on different parts of the questionnaires.

The training materials consisted of the following basic survey documents: questionnaires and interviewer and supervisor's instructions manual.

The training course for interviewers consisted of:
- Classroom lectures on the objectives and organization of the survey
- Detailed explanation of the questionnaire
- The art of asking questions

The principles of interviewing were addressed by the demonstration of an interview through role-playing and practice interviews.

3. Fieldwork Organization:
The main fieldwork in the West Bank and Gaza Strip started on May 20, 2004, and was completed on July 7, 2004.

Seventeen mobile teams in the West Bank and the Gaza Strip undertook fieldwork. Each team consisted of three to five interviewers, one supervisor, one assistant and one field editor.

Fieldwork teams implemented field editing, which included further spot-checks if needed. The field editor thoroughly checked and corrected any obvious mistakes and slips.

4. Editing in the Field:
Fieldwork procedures and organization were designed to ensure adequate supervision and the collection of high quality data. To this end, several quality-control measures were used, including periodic sudden visits by the professional staff to the field team, adequate communications between the central office staff and the field in the form of daily and weekly reporting, re-interviewing of about 10% of the sample households by supervisors, spot-checking ages of eligible women, observation of interviewers by supervisors, distribution of written memos to the field when confusion arose, adequate documentation of the flow of the questionnaire through control sheets and limiting call backs to three visits per household.

1.5.6 Data Processing:
BLAIZE was used in the data entry. Data entry was organized in a number of files, corresponding to the main parts of the questionnaire.

A data-entry template was designed to reflect an exact image of the questionnaire and included various electronic checks: logical check, consistency checks and cross-validation. Continuously thorough checks on the overall consistency of the data files were conducted, and some questionnaires were sent back to the field for corrections.

Data entry started in May 25, 2004, and finished on July 30, 2004. Data cleaning and checking processes were initiated simultaneously with the data entry. Thorough data quality checks and consistency checks were carried out.

Final tabulation of results was performed using the statistical package SPSS for Windows (version 8.0) and specialized health and demographic analysis programs.

1.6 Data quality:
Since the data reported here are based on a sample survey and not on complete enumeration, they are subjected to two main types of errors: sampling errors and non-sampling errors.

Sampling errors are random outcomes of the sample design and are, therefore, easily measurable.

Non-sampling errors can occur at various stages of the survey implementation in data collection and data processing and are generally difficult to be evaluated statistically. They cover a wide range of errors, including errors resulting from non-response, sample frame coverage, data processing and response (both respondent and interviewer-related). The use of effective training and supervision and the careful design of questions are measures that have direct bearing on the magnitude of non-sampling errors and, hence, on the quality of the resulting data.

1.6.1 Evaluation of Demographic and Health Data:
Demographic data are in particular subjected to various other sources of non-sampling errors, and there are standard techniques to assess the seriousness of these errors. The quality of the age data is of particular importance in demographic surveys, because the age distribution is needed for various demographic purposes.

Age-reporting errors result from incorrect reporting by respondents during enumeration, misunderstanding of the questions concerning age, mistakes during data entry or, more importantly in our context, respondents not knowing their exact age. Age-reporting errors occur in all surveys, and this one is no exception. However, the quantum and seriousness of the errors varies a great deal among surveys. It should be mentioned that questions were asked about both completed age and dates of birth in this survey, and official documents were used whenever possible to obtain these data.

A standard way to evaluate the data is to check the extent of age heaping in convenient digits, most commonly 0 and 5. The Wipple index was 103.9 for both sexes, indicating that the data are free of age heaping at digits 0 and 5. The Mayers and Bachi indices are 5.1 and 2.9 respectively, showing little heaping at single years.

1. Antenatal Care:
37.4% of women with recent births in Palestinian Territory are protected against neonatal tetanus. The vast majority of these women received two or more doses of tetanus toxoid within the last three years. Among the regions, women living in the West Bank are most likely to be protected (43.6%) while those living in the Gaza Strip are the least likely to be protected (33.3%).

Female respondents who had births in the three years prior to the survey were asked whether they had received antenatal care for any birth and, if so, what type of person provided the care. If the woman saw more than one type of provider, all were recorded in the questionnaire.

2.Child Immunization:
In the Demographic and Health Survey of 2004, mothers were asked to provide vaccination cards for children under the age of five. Interviewers copied vaccination information from the cards onto the survey questionnaire. Mothers were also probed to report any vaccinations the child received that did not appear on the card. Overall, 72.9% of children had health cards. If

the child did not have a card, the mother was briefed with a short description of each vaccine and asked to recall whether or not the child had received it and, for DPT and polio vaccines, how many times. In this survey we found that only 7.9% of children under the age of five did not have health cards.

3. Breastfeeding:

Complementary feeding refers to children who receive breast milk and solid or semi-solid food. In this survey, data on breastfeeding was collected for children born in the last three years preceding the survey.

4. Child Nutrition:

Children were weighed and measured (approximately 95.4% of children), and those whose measurements are outside a plausible range were excluded. In addition, a small number of children whose birth dates were not known were excluded.

Children under the age of two years were measured lying down, while children under the age of five years were measured standing up as recommended.

5. Illness:

In the Demographic and Health Survey of 2004 questionnaire, mothers (or caretakers) were asked to report whether their child had had diarrhea in the two weeks prior to the survey. If so, the mother was asked a series of questions about what the child had to drink and eat during the episode and whether this was more or less than what the child usually ate and drank.

Children with acute respiratory infection are defined as those who had an illness with a cough accompanied by rapid or difficult breathing and whose symptoms were due to a problem in the chest, or both a problem in the chest and a blocked nose, or whose mother did not know the source of the problem.

Chapter Two

Socioeconomic Characteristics of the Sample Households and Individuals

2.1 Introduction:

Chapter Two discusses the most important demographic, social, and economic selected characteristics of the surveyed household members and women. The chapter briefly describes the following characteristics: Population age and sex structure; household structure; education of household members; enrollment; dwelling characteristics; eligible women age structure and their education; women relation to labor force; and the characteristics of children under five years of age and those in the age group 5-17.

2.2 Population characteristics:

A special questionnaire was used for the Demographic and Health Survey 2004 to collect demographic and social data for all individuals living regularly in the Palestinian Territory from the selected households sample for the survey. The following contains a presentation of the most important demographic and social characteristics:

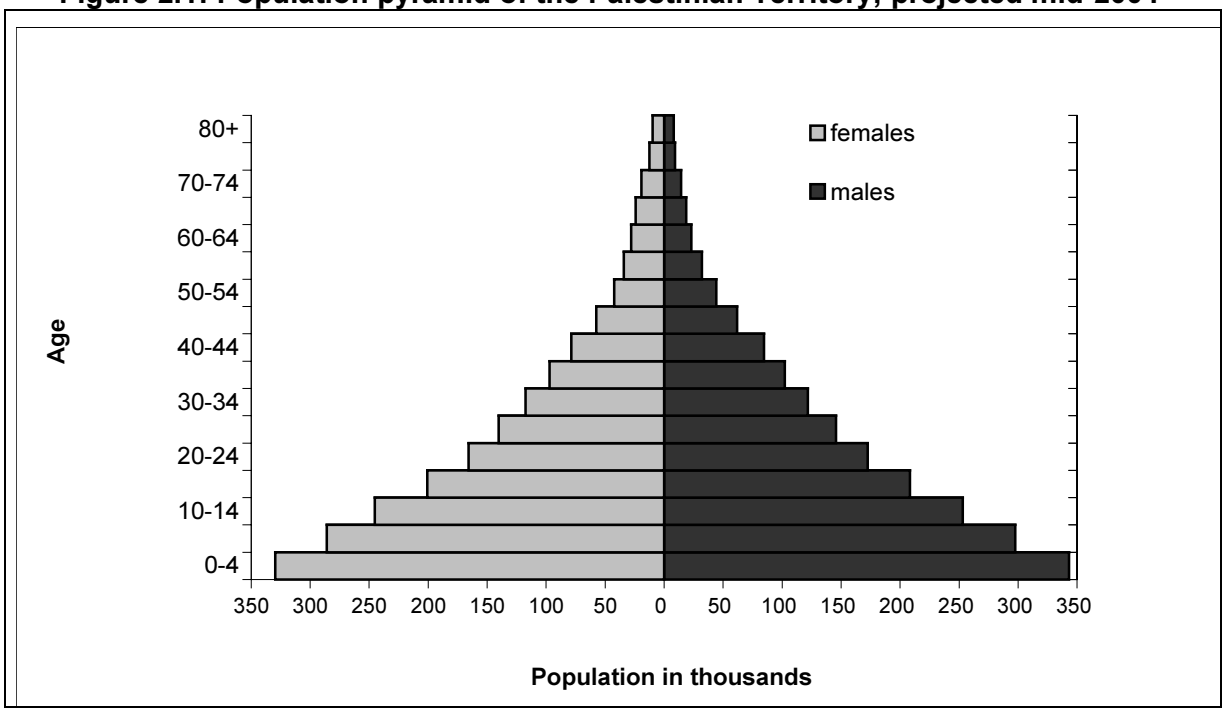
2.2.1 Population age and sex structure:

Table 2.1 shows the percentage distribution of the individuals of the sample by age and sex. According to the Table, the pattern of age distribution in the Palestinian Territory is similar to the patterns of countries of high fertility rates. The percentage of individuals below fifteen years of age is high and reaches 45.6% despite a drop of 1.9% from 2000. The percentage of elderly citizens (65+) totaled 3.6%, which is close to the 2000 percentage of 3.4%. The percentages indicate a relative inclination towards a drop in fertility rates in the Palestinian Territory.

According to the data of population age distribution for different years from different sources as explained in Table 2.2, the median age remained fixed during the period between 1995 and 2004 at 16.0 years. Also, the percentage of population in the large age groups including 0-4 years and the age groups 10-14 years and 20-24 years is almost equal during the same period between 1995 and 2000; however, the percentage inclined to drop in 2004. For instance, the percentage of population below fifteen reached 45.6% in 2004, which indicates an inclination to a drop in the fertility rates.

The dependency ratio dropped by 4.6% during the period between 2000 (101.2) and 2004 (96.5); therefore, and based on the percentage of individuals in the age group 15-64 and the dependency rate of 2004, it is possible to say that dependency ratio is relatively falling, which is consistent with the assumed fixed fertility rates and their relative inclination to drop.

Figure 2.1: Population pyramid of the Palestinian Territory; projected mid-2004



Source: PCBS, *Population Projections, Revised Data*, Ramallah, Palestine

Table 2.1: Percentage Distribution of Individuals by Age, Sex, and Region, 2004

Age groups	Palestinian Territory			West Bank			Gaza Strip		
	Males	Females	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
0-4	17.5	17.7	17.5	16.7	16.8	16.7	19.0	19.2	19.0
5-9	15.2	15.3	15.1	14.8	14.9	14.7	15.9	16.0	15.8
10-14	13.0	13.0	13.0	12.6	12.6	12.5	13.8	13.8	13.8
15-19	10.7	10.7	10.6	10.5	10.5	10.4	11.0	11.1	11.0
20-24	8.8	8.9	8.8	8.9	9.0	8.8	8.7	8.7	8.7
25-29	7.5	7.5	7.4	7.7	7.8	7.6	7.1	7.1	7.1
30-34	6.3	6.3	6.2	6.7	6.7	6.6	5.5	5.5	5.5
35-39	5.2	5.3	5.1	5.5	5.6	5.5	4.7	4.8	4.6
40-44	4.3	4.4	4.2	4.5	4.6	4.4	3.9	4.0	3.7
45-49	3.1	3.2	3.0	3.3	3.4	3.2	2.8	2.9	2.7
50-54	2.3	2.3	2.2	2.3	2.3	2.3	2.2	2.2	2.2
55-59	1.7	1.6	1.8	1.8	1.7	1.9	1.6	1.5	1.6
60-64	1.3	1.2	1.5	1.5	1.3	1.6	1.1	1.0	1.3
65-69	1.1	1.0	1.3	1.2	1.0	1.4	1.0	0.8	1.1
70-74	0.9	0.7	1.1	0.9	0.8	1.1	0.8	0.7	0.9
75-79	0.6	0.5	0.7	0.6	0.5	0.7	0.5	0.4	0.6
80 +	0.5	0.4	0.5	0.5	0.5	0.6	0.4	0.3	0.4
No. of individuals	**16,834**	**16,413**	**33,247**	**10,333**	**10,132**	**20,465**	**6,501**	**6,281**	**12,782**

Source: PCBS, *Health Demographic Survey 2004, Main Findings*, Ramallah, Palestine

Table 2.2: Percentage Distribution of the Population of the Palestinian Territory by Age, 1995, 1997, 2000, and 2004

Age	Demographic survey 1995*	1997 Census**	Health survey 2000***	Health demographic survey 2004
Below 15	46.5	47.0	46.9	45.5
15-64	50.1	49.5	49.7	51.0
65+	3.4	3.5	3.4	3.5
Total	**100**	**100**	**100**	**100**
Dependency ratio	**99.6**	**102.0**	**101.2**	**96.5**
Median age	**16.0**	**16.0**	**16.0**	**16.0**

Sources: * PCBS, *Demographic Survey of the West Bank and Gaza Strip, Final Results*, 1997, Ramallah, Palestine
** PCBS, *the Population, Housing, and Establishment Census 1997, (summary of the census findings)* Ramallah, Palestine
***PCBS, *Health Survey 2000, Main Findings*, Ramallah, Palestine

2.3 Household structure:

According to the data of Table 2.3 about the distribution of the sample households by sex of the head of the household, number of individuals in the household and region, two thirds of the households live in the West Bank and one third lives in Gaza Strip.

Table 2.3: Percentage Distribution of Households by Household Size, Head of Household, and Selected Background Characteristics, 2004

Background characteristics	Region			Type of locality		
	Palestinian Territory	West Bank	Gaza Strip	Urban	Rural	Refugee camp
Household head						
Males	91.1	93.0	90.1	90.8	90.8	92.7
Females	8.9	9.9	7.0	9.2	9.2	7.3
Number of individuals						
1	3.8	4.3	2.8	2.4	4.0	4.0
2	9.1	9.4	8.4	6.2	9.6	9.4
3	9.3	9.5	8.8	7.7	9.5	9.6
4	12.2	12.7	11.1	12.1	12.4	11.6
5	13.6	15.6	10.2	13.2	14.3	12.7
6	14.0	14.7	13.1	11.5	14.8	14.3
7	12.0	11.8	12.2	12.3	11.8	12.2
8	10.3	9.8	11.1	13.2	9.3	10.7
9	6.7	5.8	8.5	8.2	6.3	6.9
10+	9.0	6.4	13.8	13.2	8.0	8.6
Total	**100**	**100**	**100**	**100**	**100**	**100**
Average household size	**5.7**	**5.5**	**6.2**	**5.6**	**5.7**	**6.2**
No. of households	**5,799**	**3,746**	**2,053**	**3,276**	**1,624**	**899**

The table shows the mean household size, which is important in determining the density at dwelling and its impact on health and economic environment of the household.

The mean size of a household in the Palestinian Territory dropped from 6.1 to 5.7 during the years separating 2000 from 2004. The drop in mean household size measured 0.7 in Gaza Strip, which is higher than the West Bank, which scored 0.2. The drop in the mean household size was highest at refugee camps at 0.5; however, the drop in mean household size at rural and urban areas was almost the same. There is a noticeable drop in the mean household size in comparison with 1995 when the mean household size was 7 persons in the Palestinian Territory; 6.6 in the West Bank and 7.8 in Gaza Strip.[1]

In any case, the Palestinian household is still large; 15.7% of households have more than 8 members; however, in comparison with 2000, the figure for 8+ household members was 20.1%. The large household size has its impact on the household's social, health, and economic conditions. It is noticed that the large household size in developing and transitional countries deprives some household members of continuing their education and failure to ensure sufficient health care in most cases; also, societies with large size households have bad living and dwelling conditions as a result of population density and crowdeness.

The rise in the percentages of households headed by women in 2004 is hardly noticeable as is the case in 2000. According to the 2004 results stated in table 2.3, 8.9% of households are headed by a woman. The percentage increased to 9.9% in Gaza Strip and dropped to 7.0% in the West Bank. The percentages are equal between urban and rural areas at 9.2% and dropped to 7.3% at refugee camps. In comparison with 1995, a slight rise is registered when the percentage was 7.7% in the Palestinian Territory including 8.3 for the West Bank and 6.4% for Gaza Strip. Finding out about households headed by women is important because it has effects on the living and economic conditions of the household especially if the female head the household was unemployed. In most cases, such households consist of a mother and children, or a woman without children, or a woman who was not married before. Experiences in Arab countries show woman sensitivity to economic changes; hence the concept of feminizing poverty due to deteriorating living conditions of the woman.

2.3.1 Type of household:

Table 2.4 shows distribution of households in the Palestinian Territory by type of household. The percentages of nuclear families tend to have progressively increased since 1995 to 2004 (69.4% and 83.0% respectively). Percentages of extended families, on the other hand, decreased from 27.6% in 1995 to 12.6% in 2004. The percentages of one-person family doubled between 1995 and 2004 (2.8% and 4.3% respectively). The emergency and exceptional circumstances due to the Israeli policies of killing and destruction and severing the Palestinian Territory since September 2000 may be one of the major reasons for the noticeable increase in the percentages of nuclear families between 2000 and 2004. Henceforth, the increase in the percentages of nuclear families and drop in the percentages of composite families and extended families call for an increase in housing units and services especially those concerning daycare centers and elderly people homes.

[1]PCBS, *Demographic Survey of the West Bank and Gaza Strip, Final Results*, 1997, Ramallah, Palestine

Table 2.4: Households by Type and Region, 1995, 1997, 2000, and 2004

Household type and year	West Bank	Gaza Strip	Palestinian Territory
1995*			
One-person family	3.1	1.9	2.8
Nuclear family	72.2	62.7	69.4
Extended family	24.4	35.3	27.6
Composite family	0.3	0.1	0.2
Total	**100**	**100**	**100**
1997**			
One-person family	3.7	2.6	3.3
Nuclear family	74.0	71.8	73.2
Extended family	21.7	25.3	23.0
Composite family	0.6	0.3	0.5
Total	**100**	**100**	**100**
2000***			
One-person family	4.3	2.3	3.7
Nuclear family	79.0	74.3	77.5
Extended family	16.5	23.0	18.6
Composite family	0.2	0.4	0.2
Total	**100**	**100**	**100**
2004			
One-person family	5.0	3.0	4.3
Nuclear family	82.7	83.5	83.0
Extended family	12.2	13.4	12.6
Composite family	0.1	0.1	0.1
Total	**100**	**100**	**100**

Sources: * PCBS, *Demographic Survey of the West Bank and Gaza Strip, Final Results*, 1997, Ramallah, Palestine
** PCBS, *the Population, Housing, and Establishment Census 1997, (summary of the census findings)* Ramallah, Palestine
***PCBS, *Health Survey 2000, Main Findings*, Ramallah, Palestine

2.4 Education:

Education is a tool that measures people's progress and development. Education of household members is among the most important social indicators since it is connected to many phenomena such as reproduction, use of family planning methods, and childcare and health; education also influences many economic and health indicators.

2.4.1 Liberation from illiteracy:

The Demographic and Health Survey 2004 and the Health Survey 2000 asked among other things about the highest level of education accomplished by the individual and about enrollment for children aged 5 and above. Table 2.5 shows the percentages of literate people among those aged 15 and above. Comparison of surveys results between 2000 and 2004 shows that the percentage of literate people rose in 2004 by 3.6% to reach 92.4%. The gap between illiterate males and females declined in 2004 compared with 2000 (6.2% and 10.5%

respectively). The percentage of literate males in 2004 totaled 96.8% whereas among females the percentage reached 90.6%. The gap between illiterate people in urban and rural areas remained. The current development in the compulsory education program and the decrease in dropouts lead to proportional relation between illiteracy and age.

Table 2.5: Percentage of Literate Individuals Aged 15 and over by Selected Background Characteristics and Sex, 2004

Background characteristics	Males		Females		Total	
	Literate	No. of individuals	Literate	No. of individuals	Literate	No. of individuals
Age						
15-24	98.5	3,305	99.2	3,183	98.9	6,488
25-34	98.6	2,323	98.6	2,238	98.6	4,561
35-44	98.5	1,623	93.8	1,529	96.2	3,152
45-54	97.6	921	84.6	866	91.3	1,787
55-64	90.8	477	47.7	539	67.9	1,016
65+	60.4	437	20.0	569	37.6	1,006
Locality Type						
Urban	96.8	6,306	91.6	6,193	93.0	12,499
Rural	96.8	3,217	87.9	3,103	90.8	6,320
Refugee camp	97.2	1,761	91.8	1,754	93.2	3,515
Region						
Palestinian Territory	96.8	11,284	90.6	11,050	92.4	22,334
West Bank	97.1	7,286	90.1	7,122	92.4	14,408
Gaza Strip	96.3	3,998	91.4	3,928	92.5	7,926

2.4.2 Educational attainment for Males:

Table 2.6 shows the education of male individuals aged 10 and above. 3.2% of males are illiterate. It is worth noting that the percentage of illiterate males dropped by 32.0% compared to 2000. The percentage of those who can write and read in 2004 dropped by 22.2% to reach 14.4%. More than half of the male individuals received less than secondary education (54.1%) The percentage of those who completed secondary education rose by 19.7% to reach 16.4% in comparison with 2000. Additionally, the percentage of males aged 10 and above with associated diploma and higher rose by 12.3% to arrive to 11.8%. The gap between illiterate males remained as is the case in 2000 between the West Bank and Gaza Strip; however, the gap of illiteracy between urban and rural areas and refugee camps dropped.

According to data, the gap in the percentages of males who have associated diploma and higher between the West Bank and Gaza Strip is increasing compared to 2000 when it was 10.4% for the West Bank and 10.7 for Gaza Strip; whereas in 2004 the percentages reached 11.4% for the West Bank and 12.7% for Gaza Strip. Moreover, the gap in the percentages of males with associated diploma and higher is on the rise between rural areas on the one hand and urban and refugee camps on the other.

Table 2.6: Percentage Distribution of Males Aged 10 and over by Education and Selected Background Characteristics, 2004

Background characteristics	Illiterate	Literate	Elementary	Preparatory	Secondary	Associated diploma and higher	Total	No. of individuals
Age								
10-14	0.4	44.1	51.8	3.7	0.0	0.0	100	2,194
15-19	1.4	2.7	18.4	63.2	13.8	0.5	100	1,804
20-24	1.6	4.5	14.5	32.2	37.5	9.7	100	1,499
25-29	0.9	4.5	18.7	35.7	20.3	19.9	100	1,265
30-34	2.0	5.2	19.8	30.0	24.1	18.9	100	1,059
35-39	1.2	6.9	20.9	28.3	20.2	22.5	100	888
40-44	1.9	8.1	22.8	25.5	16.2	25.5	100	735
45-49	1.5	12.1	25.4	24.4	12.5	24.1	100	535
50-54	3.6	9.9	25.2	19.2	17.4	24.7	100	384
55-59	6.4	15.8	21.4	18.9	16.1	21.4	100	280
60-64	13.6	20.3	24.7	12.6	12.6	16.2	100	198
65+	39.4	29.4	14.8	5.0	4.8	6.6	100	438
Locality Type								
Urban	3.2	14.7	26.8	27.4	16.4	11.5	100	6,304
Rural	3.2	13.8	25.5	31.9	14.8	10.8	100	3,218
Refugee camp	2.8	15.0	22.3	26.3	19.0	14.6	100	1,762
Region								
Palestinian Territory	3.2	14.4	25.6	28.5	16.4	11.8	100	11,286
West Bank	2.9	13.2	26.2	30.8	15.4	11.4	100	7,284
Gaza Strip	3.7	16.6	24.6	24.4	18.2	12.7	100	4,000

2.4.3 Educational attainment for Females:

Table 2.7 explains females' education for those aged 10 and above. According to the table, there is a drop in the percentage of illiterate females compared with 2000 by 28.7%; the percentage of illiterate women is 9.4%; as for those who can write and read, their percentage totaled 14.5%. It is also clear that the percentage of women with a level of education less than secondary is slightly more than the half; whereas in 2000, half of the women had their less than secondary education, and 24.4% of the women had secondary and higher education. The table also shows that the percentage of women with no education increases in rural areas and in the West Bank. The phenomenon of high education among women is the opposite of that of males with respect to associated diploma and higher between the West Bank and Gaza Strip when the gap is in favor of males in Gaza Strip while it was in favor of females in the West Bank. The pattern is, in any case, illiteracy rises with age; for instance, the percentage of those with preparatory education and higher in the age group 15-19 is 97.0% whereas it is 68.0% among women in the age group 50-54.

Table 2.7: Percentage Distribution of Females Aged 10 and over by Education and Selected Background Characteristics, 2004

Background characteristics	Illiterate	Literate	Elementary	Preparatory	Secondary	Associated diploma and higher	Total	No. of individuals
Age								
10-14	0.8	43.5	51.7	4.0	0.0	0.0	100	7,212
15-19	0.9	2.1	14.3	66.0	16.5	0.2	100	1,743
20-24	0.7	4.0	12.2	30.1	39.6	13.4	100	1,441
25-29	1.6	5.3	16.5	34.0	20.3	22.3	100	1,219
30-34	1.3	7.3	23.9	30.9	20.5	16.1	100	1,019
35-39	5.2	10.5	21.1	30.9	17.7	14.6	100	844
40-44	7.1	13.2	26.4	24.7	16.4	12.2	100	683
45-49	12.0	16.8	26.3	20.2	13.6	11.1	100	501
50-54	20.0	12.0	26.6	19.2	12.6	9.6	100	365
55-59	41.6	17.2	19.3	9.1	7.8	5.0	100	296
60-64	65.4	12.8	11.5	4.9	2.5	2.9	100	243
65+	80.1	9.9	6.5	1.2	1.2	1.1	100	568
Locality Type								
Urban	8.3	14.2	23.8	27.0	17.3	9.4	100	6,192
Rural	12.2	14.2	26.1	28.7	11.7	7.1	100	3,103
Refugee camp	8.1	15.8	22.6	27.4	16.8	9.3	100	1,754
Region								
Palestinian Territory	**9.4**	**14.5**	**24.2**	**27.5**	**15.6**	**8.8**	**100**	**11,049**
West Bank	10.0	13.5	25.4	28.3	13.5	9.3	100	7,122
Gaza Strip	8.5	16.4	22.2	26.1	19.4	7.4	100	3,927

According to results, there is a big gap in the education level between males and females; the percentage of illiteracy among females is three times that of males; also, the percentage of males who have associated diploma and higher is higher than that of females. However, the variations in the levels of education among males and females are smaller among the young age groups.

2.5 Enrollment rates:

Table 2.8 shows the enrollment rates of the individuals aged 6 years and above by sex and region. According to the table, the percentage of enrollment of individuals aged 6 years and above increased by 7.4% in comparison with 2000. There were no variations in the increase in education enrollment between males and females. However, the education enrollment rate in Gaza Strip is higher than that of the West Bank compared with 2000.

The variation in education enrollment between both sexes is in favor of males aged 18 years and above compared with 2000; the males' education enrollment rates reached 12.8% whereas the females' education enrollment rates reached 10.7%

Table 2.8: Enrollment Rates by Age, Sex, and Region, 2004

Region and sex	Age				Total	Enrollment rate or 2000
	6-11	12-14	15-17	18+		
Palestinian Territory	**96.0**	**96.4**	**84.2**	**11.7**	**44.6**	**41.5**
Males	96.2	96.2	81.8	12.8	45.1	42.3
Females	95.8	96.7	86.6	10.7	44.0	40.6
West Bank	**95.9**	**96.3**	**83.9**	**10.8**	**42.5**	**39.4**
Males	96.0	96.1	79.8	11.1	42.6	39.8
Females	95.9	96.6	88.1	10.5	42.4	39.0
Gaza Strip	**96.1**	**96.5**	**84.7**	**13.6**	**48.3**	**45.2**
Males	96.6	96.4	85.2	15.9	49.6	47.0
Females	95.6	96.7	84.2	11.2	49.6	43.3

2.6 Dwelling characteristics:

Dwelling characteristics have major influence on health condition of the household with respect to coming down with certain diseases; they also reflect the general economic conditions of the household. The questionnaire of the Demographic and Health Survey 2004 asked a number of questions about the environment of the respondent and related characteristics such as the number of rooms in the dwelling, the material the floor is made of, having a source of safe drinking water for the household, and sewers systems.

2.6.1 Type of floor material:

Table 2.9 shows that the percentage of households living in dwellings where the floor is made of marble, ceramic, or tiles has risen from 82.0% in 2000 to 88.0% in 2004. The other percentages remained the same where they are higher at urban and refugee camps than rural areas.

The percentages of households living at dwellings where the floor is made of cement dropped to 11.0% in 2004 compared with 17.4% in 2000. Table 2.9 also shows that the percentage of households living in dwellings where the floor is made of cement is twice as much at rural areas than urban areas. 1.0% of Palestinian households in the Palestinian Territory live in dwellings where the floor is made of sand/soil or wood and other materials.

2.6.2 Number of rooms:

Table 2.9 shows a relative drop in the density rates at 7.0% compared with 2000 and 2004 to reach 1.86 person per room. The drop was almost the same at the entire Palestinian Territory. Refugee camp households; however, remain the highest in density compared with rural and urban areas since the density at refugee camps registered 2.03 person per room, which is higher than the total rate on the level of the Palestinian Territory. The largest part of the drop in density rate was among households living in dwellings that consist of one room, which registered 7.3% in 2000 and dropped to 5.5% in 2004; no noticeable change occurred to the percentage of households living in a dwelling of five or more rooms in 2004 compared to 2000.

2.6.3 Drinking water sources:

A major deterioration affected the percentage of Palestinian households with safe drinking water source in comparison with 2000 and 2004. The percentage dropped to 80.6% whereas it

was 96.2% in 2000. The percentage of households with safe drinking water source in Gaza Strip dropped to 60.1% compared with 2000 when it was 98.6%. This major drop in the percentage is cause by Gazan households reliance on water tanks as a main source of drinking water due to the high salinity of water in Gaza Strip since occupation forces draw Gaza Strip groundwater, which is drinkable, to irrigate plantations in Israel and settlements.

Two thirds of the population use water coming from the public water network connected to the houses. A little less than one-fifth of the population (16.2%) buy water from water tanks. 9.0% of the households rely on wells for drinking water; this percentage is higher in the West Bank and rural areas. The remaining percentage; however, relies on other sources.

2.6.4 Sewage system:

According to results, 99.6% of households have a method to discharge their wastewater; one-third of households have modern bathrooms, one-third of households have hole-in-the-floor toilets. Table 2.9 also shows that half of households are connected to public sewers network. The percentage increased by 16.0% in comparison with 2000 and 2004. The table shows clear variations based on type of locality where urban and refugee camp households have higher percentage of connection to public sewers compared with rural areas. However, this does not mean that refugee camps enjoy excellent conditions since many sewers networks are open. 86.7% of rural households rely on cesspits for discharging their wastewater. The percentages remain the same when types of locality are compared.

Table 2.9: Percentage Distribution of Households by Dwelling Characteristics, Region, and Type of Locality, 2004

Dwelling characteristics	Region			Type of locality		
	West Bank	Gaza Strip	Palestinian Territory	Urban	Rural	Refugee camp
Type of housing						
Villa	1.4	0.6	1.1	1.1	1.3	0.7
House	66.3	44.6	59.0	50.5	78.5	54.0
Apartment	29.8	52.0	37.3	46.5	16.8	41.3
Independent room	2.1	1.9	2.0	1.5	2.6	2.8
Other	0.4	0.9	0.6	0.4	0.8	1.2
Housing floor						
Tiles	74.1	79.1	75.7	78.5	69.0	78.2
Marble/ ceramic	14.2	8.5	12.3	11.8	13.8	11.3
Cement	10.4	12.0	11.0	8.8	15.5	10.4
Other	1.3	0.4	1.0	0.9	1.7	0.1
No. of rooms in household						
1	5.6	5.3	5.5	4.4	7.6	6.0
2	16.8	16.2	16.6	16.8	16.3	16.3
3	31.4	29.6	30.8	31.6	29.1	30.3
4	27.5	30.0	28.3	28.2	27.9	29.9
5+	18.7	18.9	18.8	19.0	19.1	17.5
Housing density (person per room) 2004	**1.79**	**1.98**	**1.86**	**1.80**	**1.89**	**2.03**
Source of drinking water						
Public water network	80.4	58.2	72.9	77.7	64.6	71.2
Purchasing water tanks	6.2	36.0	16.2	16.2	13.0	22.1
Well at home	10.6	1.9	7.7	4.9	17.0	0.4
Spring or well	1.9	0.1	1.3	0.7	3.0	0.3
Other source	0.9	3.8	1.9	0.5	2.4	6.0
Safe drinking water resource*	91.0	60.1	80.6	82.6	81.6	71.6
Sewers						
Public sewers network	40.5	71.6	50.9	63.0	12.1	80.1
Cesspit	58.6	27.9	48.3	36.3	86.7	19.5
Other ways	0.9	0.5	0.8	0.7	1.2	0.4
Method of sewers						
Modern bathroom	35.4	26.8	32.5	38.7	23.5	25.7
Traditional bolict	34.0	37.2	35.1	27.5	46.4	42.6
Both	30.1	35.9	32.0	33.5	29.3	31.6
Other	0.0	0.0	0.0	0.0	0.0	0.0
None	0.5	0.1	0.4	0.3	0.8	0.1

*Including public water network and well at home

2.7 Background characteristics for eligible women who were interviewed:
Table 10.2 shows the distribution of women aged 15-54 who were interviewed by selected background characteristics including age, region, education, type of locality, and marital status.

Women distribution by age shows that more than half of women are less than 30 years old and that approximately one-fifth of women are 40 years or more. As for marital status of the eligible women, the Table shows that approximately two-thirds of the women are currently married. The percentages of widows and divorcees are close; they are 1.5% and 1.2% respectively. The percentage of separated women, on the other hand, reached 0.3%.

Table 2.10: Percentage Distribution of Eligible Interviewed Women Aged 15-54 by Selected Background Characteristics, 2004

Background characteristics	Percentage
Region	
West Bank	64.9
Gaza Strip	35.1
Type of locality	
Urban	56.4
Rural	27.7
Refugee camp	15.9
Age	
15-19	22.3
20-24	18.4
25-29	15.6
30-34	13.1
35-39	10.8
40-44	8.7
45-49	6.4
50-54	4.7
Marital status	
Never married	33.0
Legally married	2.2
Married	61.8
Divorced	1.2
Widowed	1.5
Separated	0.3

Table 2.11 shows the percentage distribution of eligible women who were interviewed by their highest education attainment, age, type of locality, and region. According to the table, the level of education among women drops as age increases; for instance, illiteracy totally diminishes between women aged 15-19; whereas it reaches 21.6% among women aged 45-49. Illiteracy percentage among women is high in rural areas and West Bank. On the other hand,

the percentage of women with associated diploma and higher in the age group 30-34 reached 10.4% compared with 8.1% among women in the age group 40-44.

Table 2.11: Percentage Distribution of Eligible Interviewed Women Aged 15-54 by Education and Selected Background Characteristics, 2004

Background characteristics	Illiterate	Literate	Elementary	Preparatory	Secondary	Associated Diploma And higher	Total	No. of women
Age								
15-19	0.0	4.2	24.9	60.8	8.5	1.6	100	189
20-24	0.5	6.2	20.4	42.4	26.6	3.9	100	1,539
25-29	0.9	7.1	20.4	42.2	18.8	10.6	100	3,006
30-34	1.0	8.0	26.4	34.1	20.1	10.4	100	3,937
35-39	5.0	11.2	23.3	33.3	16.4	10.8	100	4,248
40-44	6.3	14.7	29.2	26.3	15.4	8.1	100	4,011
45-49	21.6	13.0	26.0	18.8	12.8	7.8	100	2,453
50-54	14.0	18.3	29.2	19.5	12.2	6.8	100	3,068
Locality Type								
Urban	6.4	10.8	25.6	30.8	18.1	8.3	100	12,571
Rural	10.2	15.1	26.3	29.7	11.6	7.1	100	6,143
Refugee camp	2.3	7.8	23.3	32.2	21.3	13.1	100	3,737
Region								
Palestinian Territory	6.7	11.5	25.4	30.7	16.9	8.8	100	22,451
West Bank	8.3	13.2	26.7	30.7	12.4	8.7	100	13,472
Gaza Strip	4.3	8.9	23.5	30.8	23.6	8.9	100	8,979

It has been noticed that the percentage of women with secondary education and higher among refugee camp women is higher than rural and urban areas; the percentage is also higher in Gaza Strip than the West Bank.

2.8 Eligible children aged 0-17 years interviewed in the sample:

A questionnaire was specially allocated for children 0-17 in the Demographic and Health Survey 2004; the questionnaire asked questions about the education of the children aged 5-17; registration of births; vaccines; children diseases; and the nutritional status of those below 5.

2.8.1 Background characteristics of children under five:

Table 2.12 shows the percentage distribution of children under five by sex, region, type of locality, and other selected background characteristics. According to the table, the percentage of male children under five is a little more than female children of the same age (51.0% and 49.0% respectively). The results are consistent with those of developing countries where the sex ratio at birth is in favor of males. There are little variations among the mortality rates of the newborn and children by sex; however, such variations do not cause major effect on the sex ratio between children under five years of age as it is at birth.

About two-thirds of children under five live in the West Bank, half of them live in urban areas and one-third of children under five live in Gaza Strip.

Table 2.12: Percentage Distribution of Children below 5 by Selected Background Characteristics, 2004

Background characteristics	Percentage
Sex	
Males	51.0
Females	49.0
Region	
West Bank	60.0
Gaza Strip	40.0
Locality Type	
Urban	54.6
Rural	28.6
Refugee camp	16.8
Age in months	
Less than 6	11.5
6-11	10.8
12-23	19.3
24-35	19.0
36-47	20.9
48-59	18.5
Refugee status	
Registered refugee	41.4
Unregistered refugee	2.0
Non-refugee	56.6
No. of children	**5,034**

According to age distribution, the percentage of children in the age groups 12-23 months and 24-35 months reached 19.3% and 19.0% respectively. The percentage of children in the age group 6-11 months totaled 10.8% and the number of eligible children under five in the survey sample totaled 5,034 children.

2.8.2 Background characteristics of children aged 5-17 years:

Table 2.13 shows the percentage distribution of the survey sample children aged 5-17 years by selected background characteristics. According to the Table, the percentage of children aged 5-9 is 43.8%. The percentages of males and females in this age group are close. They are equally distributed by place of residence at urban, rural, and refugee camps. The percentage of children aged 10-12 is 23.1%; the percentage of children aged 13-14 is 14.3%; and the percentage of children aged 15-17 is 18.7%.

Table 2.13: Percentage Distribution of Children (5-17) Years by Selected Background Characteristics, 2004

Background characteristics	Age				Total	No. of children
	5-9	10-12	13-14	15-17		
Sex						
Males	44.0	22.8	14.7	18.5	100	5,864
Females	43.6	23.5	13.9	19.0	100	5,691
Region						
West Bank	44.1	23.0	14.3	18.6	100	7,078
Gaza Strip	43.6	23.3	14.3	18.8	100	4,477
Type of locality						
Urban	44.1	23.0	14.5	18.4	100	6,335
Rural	43.5	23.1	14.4	19.0	100	3,315
Refugee camp	43.8	23.5	13.5	19.2	100	1,905
Total	**43.9**	**23.1**	**14.3**	**18.7**	**100**	**11,555**

Executive summary:

- People under fifteen years of age constitute 45.6% of the total of the population of the Palestinian Territory; elderly people aged 65 and above constitute 3.4% of the population of the Palestinian Territory. A slight drop occurred to the percentage of children under five years of age.

- Two-thirds of household live in the West Bank; whereas, one-third lives in Gaza Strip.

- Palestinian families are still large; 15.7% of such households have more than 8 members; whereas the percentage in 2000 was 20.1%.

- 8.9% of families are headed by women; the percentage rises in the West Bank and refugee camps; however, the percentage did not change compared with 2000.

- The percentage of nuclear families rose to 83.0% of the total of Palestinian families in the Palestinian Territory compared to 77.5% in 2000; extended families constitute 12.6%, composite families constitute 0.1%, and one member families registered 4.3%.

- 92.4% of individuals aged 15 and above in the Palestinian Territory are literate; the percentage of literate people in 2000 was 89.2%.

- The percentage of literacy among males and females increases with age.

- 44.6% of individuals aged 6 years and above in the Palestinian Territory are enrolled at education including 45.1 males and 44.0% females. Enrollment percentages in Gaza Strip are higher than those of the West Bank.

- Housing density rate in the Palestinian Territory dropped to 1.86 persons per room; whereas the rate in 2000 was 2 persons. However, refugee camp families still suffer from

higher density than urban and rural areas (2.03, 1.89, and 1.80 respectively) persons per room.

- The percentage of Palestinian dwellings with safe source of drinking water deteriorated largely in comparison with 2000; it dropped from 96.2% in 2000 to 80.6% in 2004. The same percentage dropped in Gaza Strip from 98.6% in 2000 to 60.1% in 2004.

- 99.6% of households have a method of discharging wastewater; half of households are connected to public sewers network.

- The percentage of male children under five years of age is slightly higher from the percentage of female children of the same age (51.0% and 49.0% respectively). The percentages are consistent with those of developing countries where the sex ratio is 103.6 males to 100 females in this age group.

Chapter Three

Fertility

3.1 Introduction:

This chapter focuses on the fertility rates, which include levels and trends of fertility and reproduction age of a woman. Having such information is important to follow up on the development of the impact of the health and population programs and policies in the Palestinian Territory and the need for alternative policies. The changes in fertility during previous years will be dealt with in this chapter. Moreover, the chapter will analyze the demographic and social as well as the economic factors related to fertility and fertility variation by region. Other topics, which may contribute to determining fertility levels and trends, will be discussed including birth intervals, age at first birth, education, marital status, and teenage fertility.

The chapter aims at studying the status and levels of fertility in the Palestinian Territory through the data of the Demographic and Health Survey 2004 compared with the Health Survey 2000. The calculation of fertility rates in this chapter is based on the records and dates of birth indicated by interviewed ever-married women in the age group 15-54. However, fertility estimates include all women at marriage age regardless of marital status. Data were collected during the survey in two sections of the questionnaire where every woman was asked a series of questions about the number of male and female children living with her, and those who did not live with her, as well as those who died. Then questions were asked about living children where each woman was asked about the sex of the living child, date of birth, and if there were twins or one child, and whether the child lived with the household or somewhere else. The age of the deceased children was recorded at the time of death. Data were collected about whether married woman were pregnant at the time of the interview or not to be used as indicator for future fertility indicator. It is worth noting that the significant quality of data about age and dates of reporting adds trust to the quality of the basic data used in estimating the fertility measurements.

3.2 Levels and variations of current fertility:

Data enable estimation of total fertility rates and detailed fertility rates by age for the year preceding the survey. The calculation of these rates benefits understanding age patterns of reproduction and the total levels and variations of such patterns. The rates for all women is calculated using age structure from the household questionnaire and individuals' characteristics based on the fact that women who have never been married do not have children.

Table 3.1 shows the age specific fertility (per 1000 women) and total fertility rates for the year preceding the Demographic and Health Survey 2004. Total fertility rate is the total age-specific fertility rates; it is the average number of children who would be born to a woman during her lifetime if she were to pass through her childbearing years conforming to the age specific fertility rates in a certain year. According to current levels, a woman can give birth to 4.6 children throughout her childbearing years. This indicator was calculated using direct methods since the nature of data available by the survey allowed using such method for their accuracy compared with indirect methods. Moreover, direct method is used in most countries that carry out woman and child health surveys. Obviously, age-specific fertility rate by age reached highest levels in the age group 20-24 and 25-29.

Table 3.1: Age-Specific Fertility Rates (per 1000 women) and Total Fertility Rates by Region, 2003

Age group	Palestinian Territory	West Bank	Gaza Strip
15-19	69.4	65.2	76.4
20-24	236.0	203.4	293.3
25-29	230.2	193.8	297.2
30-34	205.9	189.5	240.4
35-39	126.2	120.7	137.5
40-44	56.5	36.9	99.6
45-49	1.2	0.0	3.8
Total fertility rate	**4.6**	**4.1**	**5.8**

The total fertility rates of the Palestinian Territory are high to a certain degree compared with the data of the demographic and health surveys of neighboring and other Arab countries where such data are available. Most of these countries, according to data, enjoy lower fertility rates such as Jordan (3.7), Egypt (3.5), Tunisia (2.1), Morocco (2.7), Lebanon (2.4) and Syria (3.8). However, Yemen is the only country that has higher fertility rates (7.0)[1].

The high fertility rate in the Palestinian Territory is due to a number of social, demographic, economic, cultural, and political factors. Also, there is a number of other factors that contribute to having a high fertility levels in the Palestinian Territory including young age at first marriage and first pregnancy where mean age at first marriage is 19 years and the mean age at first pregnancy is 20; in addition to the desire to have large families, low participation of the woman in the labor force, and the importance of the demographic factor in the Palestinian-Israel conflict.

According to results, there are significant variations in total fertility rates in the Palestinian Territory by region. The total fertility rates of the West Bank reached 4.1 whereas Gaza Strip recorded 5.8. According to table 3.1, which shows the age-specific fertility rates (per 1000 women) during the year preceding the Demographic and Health Survey 2004 for each region, Gaza Strip has higher age-specific fertility rates than those of the West Bank in the different age groups. The variations between the West Bank and Gaza Strip increase among the age groups 20-24 and 25-29; the most reproductive age groups in both regions. The variation could be the result of different economic and social conditions in the West Bank and Gaza Strip.

Moreover, the total fertility rates of the Palestinian Territory dropped from 6.1 in 1994 to 4.9 in 1999 and 4.6 in 2003. The total fertility rates varied between the two regions during the past period.

[1] Population Reference Bureau, *World Population Data Sheet*, 2004

Table 3.2: Age Specific Fertility Rates (per 1000 women), 1994, 1999, 2003

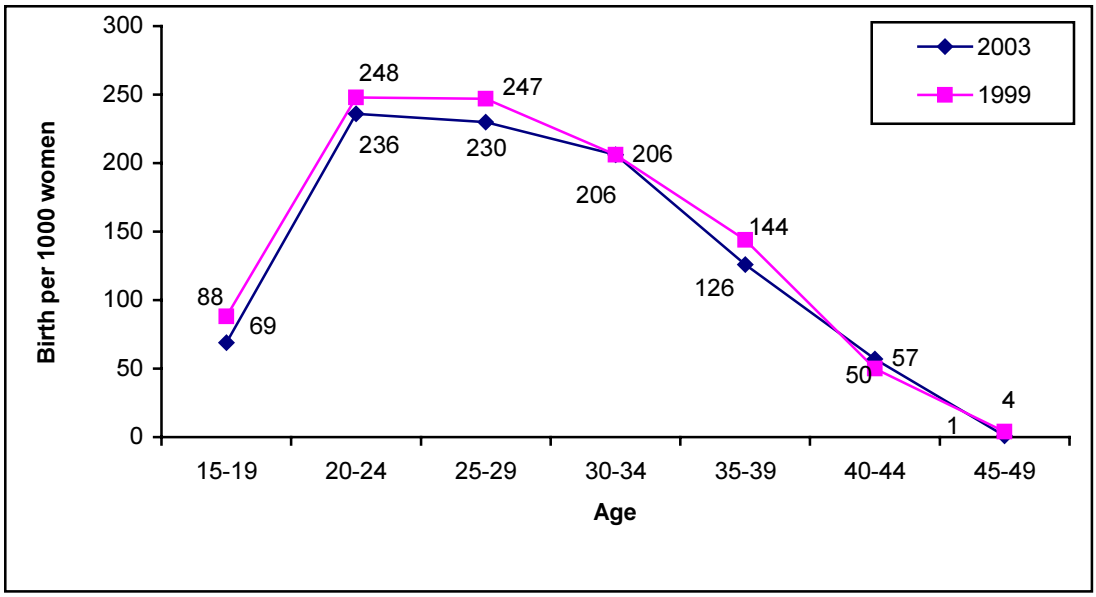
Age group	1994*	1999**	2003
15-19	114	88	69
20-24	294	248	236
25-29	291	247	230
30-34	248	206	206
35-39	177	144	126
40-44	82	50	57
45-49	5	4	1
Total fertility rate	**6.1**	**4.9**	**4.6**

***Source: PCBS, *Demographic Survey 1995 Database*,** Ramallah, Palestine
****** Source: PCBS, *Health Survey 2000 Database*,** Ramallah, Palestine

3.3 Fertility trends:

Figure 3.1 shows age-specific fertility rates (per 1000 women) during the year preceding the Demographic and Health Survey 2004 and the Health Survey 2000 in the Palestinian Territory. The age-specific fertility rates for women in the age group 15-49 dropped during 1999-2003.

Figure 3.1: Age-Specific Fertility Rates, 1999, 2003



Source: PCBS, Health Survey 2000 Database. Ramallah, Palestine

Table 3.3 shows that fertility rates drop at urban areas; whereas at refugee camps they rise clearly. At urban areas, fertility rates reached 4.5 births compared to 4.7 birth for rural areas and 5.1 at refugee camps. These results seem to be logical since fertility rates are usually low at urban areas when compared with rural areas for different life patterns and requirements. The request for children is higher at rural areas than urban areas. Also, mother education influences fertility levels, which drop among educated women compared with other women, according to the Demographic and Health Survey 2004. Consequently, the total fertility rates for the women whose education is below the general secondary certificate reached 4.8;

whereas they reached 4.5 among women who have the general secondary certificate, and 4.6 among women of whose education is higher than just the general secondary certificate.

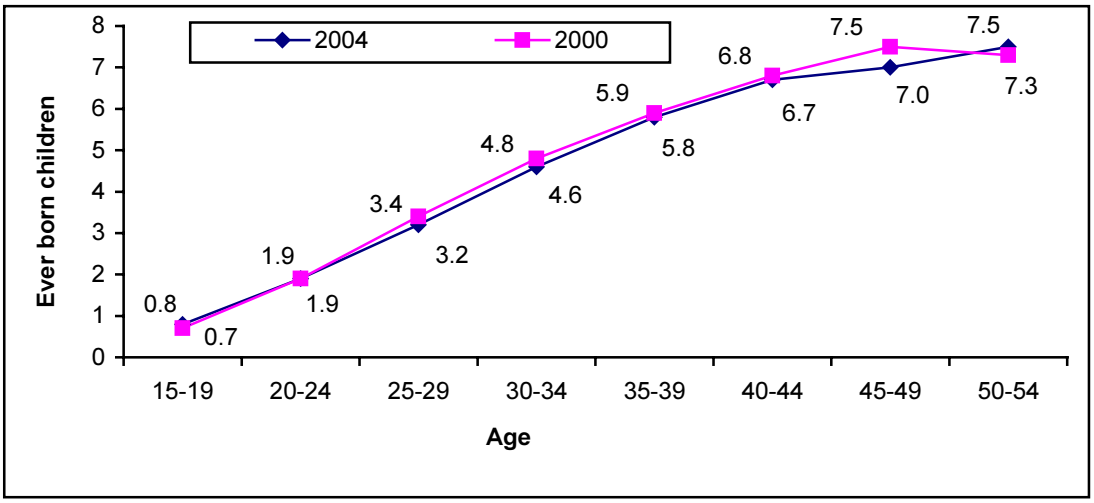
Table 3.3: Total Fertility Rates in 2003 by Selected Background Characteristics

Background characteristics	Total fertility rates
Type of locality	
Urban	4.5
Rural	4.7
Refugee camp	5.1
Education	
Less than secondary	4.8
Secondary	4.5
Higher than secondary	4.6

3.4 Accumulative fertility

Accumulative fertility is the mean number of live children born to a woman until the date of the survey; therefore, it does not reflect the total fertility for women during their reproduction lifetime especially young women who still have sufficient time to reproduce. The mean number of ever-born children is, therefore, an indicator of accumulative fertility and reflects the fertility of elder women who approach the end of reproduction period.

Figure 3.2: Mean Number of Children Ever Born to Ever-Married Women by Age Group, 2000, 2004



Source: PCBS, Health Survey 2000 Database. Ramallah, Palestine

Figure 3.2 shows the mean number of ever-born children to women in the Palestinian Territory by age during 2000 and 2004. Noticeably, the mean of ever-born children remained fixed during the years though it dropped from 4.7 in 1995 to 4.5 in 2000 and 2004.

Table 3.4 shows percentage distribution of ever-married and currently married women by number of children ever-born, mean number of children ever-born and living. It is worth noting that 28.5% of ever-married women of all age groups have 2 or less children. On the other hand, the percentage of ever-married women and have 10 or more children reached 7.3%. On average, the mean number of children ever-born to ever-married women is 4.5

children; the mean number of the living is 4.3. The percentage of women who have not had any children yet is 8.1%; mostly young women whose ages are still less than 25 years. Focusing on women who have completed the reproduction cycle and are in the age group 50-54 shows that 3.0% of them had not had any children; on the other hand, approximately 30% of them had 10 children and more, which is a high percentage. The mean number of living children for women in the age group 50-54 totaled approximately 7.5 births. This clearly indicates the fertility levels, which were prevalent not so long ago are very high levels.

Table 3.4: Percentage Distribution of Ever-Married and Currently Married Women by Number of Children Ever-Born, Mean Number of Children Ever-Born and Living by Age, 2004

Age	No. of ever born children											No. of women	Average no. of children ever born	Average no. of alive children
	0	1	2	3	4	5	6	7	8	9	10+			
	Ever married women													
15-19	44.9	35.6	16.1	3.4	—	—	—	—	—	—	—	**233**	0.8	0.7
20-24	14.2	24.7	32.3	19.7	7.6	1.3	0.2	—	—	—	—	**851**	1.9	1.8
25-29	7.1	9.2	16.5	21.6	23.7	15.0	4.6	1.7	0.4	0.1	0.1	**918**	3.2	3.1
30-34	3.4	2.7	6.5	14.4	22.3	22.0	14.6	6.7	4.7	2.0	0.7	**836**	4.6	4.4
35-39	3.3	1.4	3.8	6.5	11.9	18.7	18.2	14.4	9.5	6.6	5.7	**728**	5.8	5.5
40-44	4.1	1.8	1.6	5.6	8.7	10.4	14.0	15.5	10.6	10.2	17.5	**655**	6.7	6.3
45-49	5.9	1.8	4.3	5.7	5.5	7.5	12.4	9.2	10.3	12.8	24.6	**438**	7.0	6.6
50-54	2.9	0.9	4.5	5.6	4.9	10.3	10.7	10.1	7.1	12.6	30.4	**312**	7.5	6.9
Total	**8.1**	**8.6**	**11.8**	**12.5**	**13.2**	**12.2**	**9.7**	**7.0**	**5.0**	**4.6**	**7.3**	**4,971**	**4.5**	**4.3**
Currently Married women														
15-19	44.6	35.6	16.3	3.5	—	—	—	—	—	—	—	**230**	0.8	0.7
20-24	14.0	24.7	32.4	19.9	7.5	1.3	0.2	—	—	—	—	**841**	1.9	1.8
25-29	6.4	8.4	16.4	22.0	24.2	15.4	4.8	1.8	0.4	0.1	0.1	**892**	3.3	3.2
30-34	2.6	2.1	6.2	14.7	23.0	22.2	15.0	6.6	4.8	2.1	0.7	**815**	4.6	4.5
35-39	2.8	1.3	2.8	6.2	12.1	18.7	18.8	15.1	9.7	6.7	5.8	**694**	5.9	5.6
40-44	3.4	1.4	1.6	5.1	8.5	10.4	14.3	16.0	10.4	10.4	18.5	**626**	6.8	6.5
45-49	5.5	1.2	3.6	5.7	5.3	7.3	12.6	8.9	10.7	13.4	25.8	**394**	7.2	6.8
50-54	2.7	0.4	4.1	5.3	5.2	10.2	10.5	9.4	7.2	13.1	31.9	**265**	7.7	7.0
Total	**7.7**	**8.4**	**11.8**	**12.7**	**13.5**	**12.4**	**9.8**	**7.0**	**4.9**	**4.5**	**7.3**	**4,757**	**4.6**	**4.3**

Table 3.4 also shows that the mean number of ever-born children to a woman and the mean number of living children to ever-married and currently married women increase with the increase in the woman's age in the age group 15-54.

Table 3.5 shows the mean number of children ever-born to a woman and the mean number of children ever-born and living to ever-married women by region and age group. The table shows that the mean number of children ever-born to a woman and the mean number of living children is higher among Gazan women in the age group 20-54 than women of the same age group in the West Bank.

Table 3.5: Mean Number of Children Ever-Born and Mean Number of Children Ever-Born and Living to Ever-Married Women by Age and Region, 2004

Age group	West Bank		Gaza Strip	
	Average no. of children ever born	Average no. of alive children	Average no. of children ever born	Average no. of alive children
15-19	0.8	0.8	0.9	0.7
20-24	1.8	1.7	2.0	1.9
25-29	3.0	2.9	3.6	3.5
30-34	4.2	4.1	5.2	4.9
35-39	5.3	5.1	6.6	6.3
40-44	6.3	6.0	7.5	7.1
45-49	6.8	6.5	7.4	6.9
50-54	7.1	6.5	8.1	7.5
Total	**4.3**	**4.1**	**4.9**	**4.7**

3.5 Birth intervals:

A birth interval is the period of time between two successive live births. Mean birth interval for women in the Palestinian Territory in the five years preceding the survey was approximately 34 months. Table 3.6 contains information about the number of births and birth intervals during the five years preceding the survey by selected characteristics about the topic. Birth intervals are positively linked with the woman age; they are approximately 20.0 months for women in the age group 15-19 and approximately 48.3 months for women in the age group of 40-44.

Additionally, West Bank women enjoy longer birth intervals compared with women in Gaza Strip (34.7 months and 32.3 respectively). Also, Urban and rural women have longer birth intervals compared with women living in refugee camps (33.9 and 34.0 respectively).

Comparing these rates with the rates of 2000 shows that slight increase took place in birth intervals. The mean birth intervals increased in the Palestinian Territory from 33.0 months in 2000 to 33.7 in 2004. It is also noticed that a similar increase in birth interval in the West Bank (34.1 months in 2000 to 34.7 months in 2004) and Gaza Strip (31.2 months in 2000 to 32.3 months in 2004). The short birth intervals are those that are less than 18 months. The process of measuring having women enjoying short birth intervals receives special attention since short birth intervals have negative impact on the health of the mother and child.

Table 3.6: Birth Intervals (months) in the Five Years Preceding the Survey by Selected Background Characteristics, 2004

Background characteristics	2000*	2004
Age		
15-19	18.8	20.0
20-24	22.6	22.8
25-29	28.5	30.6
30-34	34.9	36.5
35-39	41.6	42.8
40-44	48.8	48.3
45-49	46.0	60.0
Type of locality		
Urban	33.6	33.9
Rural	33.6	34.0
Refugee camp	30.0	32.5
Region		
Palestinian Territory	33.0	33.7
West Bank	34.1	34.7
Gaza Strip	31.2	32.3

***Source: PCBS, Health Survey 2000, Database**. Ramallah, Palestine

Table 3.7: Proportion of Women with Short Birth Intervals (less than 18 months) by Women's Current Age and Region, 2004

Current age	Palestinian Territory	West Bank	Gaza Strip
15-19	44.1	47.4	40.2
20-24	36.2	36.1	36.4
25-29	28.2	28.4	28.0
30-34	26.0	24.9	27.5
35-39	27.8	26.8	29.3
40-44	28.4	27.8	29.3
45-49	29.3	29.6	28.8
Total	**28.4**	**27.8**	**29.1**

The percentage of women who gave birth to children within short birth intervals totaled 28.4% of the total deliveries in the age group 15-49; the same percentage is higher among Gaza Strip women compared with West Bank women (29.1% and 28.4% respectively).

3.6 Age at first birth:

Woman age at first birth is an important indicator of fertility since delaying having first birth (reflects marriage at a later age) is mostly related to low fertility rates. Table 3.7 shows the percentage distribution of women by age at first birth and current age. The table shows that approximately 40% of women in the Palestinian Territory had their first birth at the age of 18

years or less; moreover, 66.4% of women had their first birth before they turned 20 years. Only 7% of ever-married women had their first birth at the age of 25 years and above.

Table 3.8: Percentage Distribution of Women by Age at First Birth and Current Age, 2004

Age at first birth	Current age								
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	Total
17 and below	78.6	42.3	41.7	37.3	32.5	36.1	43.0	33.6	40.2
18	15.1	18.9	12.7	15.1	11.5	10.3	12.5	17.3	14.1
19	6.3	16.7	12.0	12.8	12.4	11.0	6.6	10.9	12.1
20	—	10.2	7.9	9.0	12.1	9.5	9.2	6.2	8.9
21	—	5.3	7.8	5.5	7.6	6.4	3.6	4.6	5.8
22	—	4.4	5.5	6.7	6.9	6.4	5.4	4.2	5.5
23	—	1.9	5.4	3.7	4.9	4.4	4.4	5.2	4.0
24	—	0.3	2.8	2.7	2.9	3.3	3.6	2.6	2.4
25+	—	—	4.2	7.2	9.2	12.6	11.7	15.4	7.0
No. of women	**233**	**851**	**918**	**836**	**728**	**655**	**438**	**312**	**4,971**

There is no clear difference of women mean age at first birth in the age group 25-49, according to current age, region, or type of locality. The Table tells us that the mean age of women at first birth in the Palestinian Territory is 20.

Table 3.9: Median Age at First Birth for 25-49 Years Old Women by Current Age and Selected Background Characteristics, 2004

Background characteristics	Current age					
	25-29	30-34	35-39	40-44	45-49	Total
Type of locality						
Urban	20	20	20	20	20	**20**
Rural	20	20	21	20	19	**20**
Refugee camp	19	20	21	21	21	**20**
Region						
Palestinian Territory	19	20	20	20	20	**20**
West Bank	20	20	21	20	19	**20**
Gaza Strip	19	19	20	21	21	**20**

The comparison with the data with data from 1995 and 2000 shows that the mean age at first birth dropped slightly from 20.7 in 1995 to 20.0 in 2000 and remained the same in 2004.

3.7 Teenage fertility:

Women below twenty years of age and their births are subjected to major health risks compared to those aged 20 and above; also, pregnancy and delivery below the age of twenty has negative social results especially on female education. Such pregnancy and delivery also make women lose their opportunity to continue their education and joining the labor force; henceforth, negatively influencing the woman's social and economic conditions. Table 3.10

sheds some light on the percentage of women 15-19 years old who are mothers or pregnant for the first birth by single years of age and region through the data of the Health Survey 2000. The table shows that the percentage of women who became mothers in the age group 15-19 in the Palestinian Territory reached 8.6%. Also, 4.4% of women of the same age group became pregnant with their first birth during this period of their lives. Moreover, approximately one third of Palestinian women became mothers at the age of 19 years.

Table 3.10: Percentage of Women 15-19 Years Old Who Are Mothers or Pregnant for the First Birth by Single Years of Age and Region, 2000

Single years of age	Palestinian Territory		West Bank		Gaza Strip	
	Pregnant for the first birth	Mothers	Pregnant for the first birth	Mothers	Pregnant for the first birth	Mothers
15	0.9	0.0	1.1	0.0	0.6	0.0
16	1.9	0.7	2.1	0.0	1.4	1.7
17	7.8	6.0	5.4	7.4	12.1	3.3
18	6.9	13.0	6.9	14.7	7.0	9.9
19	4.8	26.2	4.5	26.3	5.3	26.1
Total	**4.4**	**8.6**	**4.0**	**9.2**	**5.1**	**7.6**

Table 3.10 shows the percentage of women aged 15-19 who became mothers or pregnant with their first birth by single years and region in 2004. Noticeably, there is a drop in teenage pregnancy from 4.4% in 2000 to 2.7% in 2004, and mothers from 8.6% to 7.2% for the same period respectively. The percentage of the drop in teenage pregnancy can be noticed at the age of 15, 16, and 19; a drop is recorded with respect to teenage mothers at 17 to 18 years of age.

Table 3.11: Percentage of Women 15-19 Years Old Who Are Mothers or Pregnant for the First Birth by Single Years of Age and Region, 2004

Single years of age	Palestinian Territory		West Bank		Gaza Strip	
	Pregnant for the first birth	Mothers	Pregnant for the first birth	Mothers	Pregnant for the first birth	Mothers
15	0.7	0.4	0.5	0.0	1.1	1.2
16	2.2	0.8	1.0	0.5	3.8	1.1
17	2.8	4.4	2.7	2.8	3.0	6.8
18	3.0	13.6	2.6	12.9	3.8	15.0
19	5.1	18.8	4.7	18.5	5.8	19.4
Total	**2.7**	**7.2**	**2.2**	**6.9**	**3.4**	**7.7**

Table 3.12 shows the percentage of women in the age group 15-19 who became mothers of pregnant with their first birth by single years of age by type of locality. The percentage drops among mothers in refugee camps and urban areas compared with rural women (7.1%, 7.0%, and 7.7% respectively).

Table 3.12: Percentage of Women 15-19 Years Old Who Are Mothers or Pregnant for the First Birth by Single Years of Age and Type of Locality, 2004

Single years of age	Urban		Rural		Refugee camp	
	Pregnant for the first birth	Mothers	Pregnant for the first birth	Mothers	Pregnant for the first birth	Mothers
15	0.4	0.4	1.0	0.0	1.1	1.2
16	2.1	1.0	1.9	0.8	2.9	0.0
17	3.8	5.3	2.6	2.4	0.0	4.6
18	2.3	12.6	4.1	17.0	3.8	10.7
19	4.1	16.4	7.6	20.4	3.9	24.8
Total	**2.5**	**7.0**	**3.3**	**7.7**	**2.2**	**7.1**

8.3 Marital status:

Undoubtedly, the marriage phenomenon has social, economic, and demographic dimensions. The current marital status data of females provide information on the marriage phenomenon and expected marriage age, the role of marital status in strengthening and determining fertility since it is the demographic factor with most influence on population growth rates, whether positively or negatively.

Table 3.13: Percentage Distribution of Women 15-49 Years by Age, Marital Status, and Region, 2004

Age and region	Marital status				
	Single	Married	Divorced	Widow	Separated
Palestinian Territory					
15-19	86.5	13.2	0.2	0.1	0.0
20-24	41.3	57.8	0.7	0.2	0.0
25-29	22.2	75.4	1.6	0.7	0.1
30-34	13.8	83.5	2.0	0.4	0.3
35-39	11.7	84.2	2.1	1.4	0.6
40-44	9.0	86.8	1.6	2.1	0.5
45-49	7.9	82.6	1.9	6.6	1.0
Total	36.5	61.1	1.2	1.0	0.2
West Bank					
15-19	87.5	12.2	0.2	0.1	0.0
20-24	44.6	54.5	0.7	0.2	0.0
25-29	24.6	73.2	1.3	0.8	0.1
30-34	16.1	81.4	2.2	0.0	0.3
35-39	13.2	82.2	2.3	1.4	0.9
40-44	11.7	83.9	1.6	2.1	0.7
45-49	10.8	78.8	2.1	7.2	1.1
Total	37.7	59.6	1.3	1.0	0.3
Gaza Strip					
15-19	84.9	14.8	0.3	0.0	0.0
20-24	35.5	63.5	0.6	0.4	0.0
25-29	17.7	79.7	2.1	0.5	0.0
30-34	9.3	87.5	1.7	1.2	0.3
35-39	8.7	88.1	1.7	1.5	0.0
40-44	3.5	92.8	1.5	2.2	0.0
45-49	1.9	90.6	1.4	5.4	0.7
Total	34.0	63.8	1.1	1.0	0.1

Table 3.13 shows the percentage distribution of women aged 15-49 by marital status. According to the table, 61.1% of women in childbearing age are currently married; 1.0% of the same category of women are widowed; 1.2% are divorced; and 36.5% have never been married before. Data show that 13.2% of women of the age group 15-19 are married. The percentage of married women reached in the age group 20-24 to 57.8%. The percentage of being widowed increases as age advances; the percentage of widows in the age group 45-49 totals approximately 6.6%. The percentage of divorced women aged 25 and above ranged between 1.6% and 2.1%.

Table 3.13 shows that 59.6% of women in childbearing age in the West Bank are currently married. The percentage; however, is higher in Gaza Strip as it reached to 63.8%, which

explains in part the high fertility rates that have their impact on population growth rates. The percentage of widows and divorced women in the West Bank and Gaza Strip is almost similar. According to results, the percentage of women who have not gotten married yet is higher in the West Bank in comparison with Gaza Strip for all age groups.

3.9 Marriage among relatives:

Marriage among blood relations, cousins marriage, marriage from the same family, is common in the Palestinian Territory as is the case with other Arab countries.

Table 3.14 shows how common is this phenomenon in the Palestinian Territory. According to the table, 45.3% of ever-married women are married to their cousins or relative from the same family. This percentage is higher in Gaza Strip than the West Bank (51.0% and 41.9% respectively). The percentages do not largely differ from 2000 where the Health Survey results showed that the percentage of ever-married women who were married to cousins or relative from the same family were 53.1% in Gaza Strip and 46.1% in the West Bank. This phenomenon has negative impact especially on children health where the potential of having congenital diseases is higher compared with marriages that are not among relatives. Protecting social and family relations is one of the reasons for this type of marriage; it could also be among the reasons leading to early marriage and consequently to high fertility rates since the family plays a major role in determining the number of children especially male children. Sons are viewed as support and social security for the parents as they grow older. Sons are expected to work and bring income to the household thus helping it improve its economic conditions and parents support. Having male children also guarantees protecting the family name and sons and having more sons is viewed as an influential demographic factor in the region.

Table 3.14: Percentage Distribution of Ever-Married Women 15-54 Years by Degree of Consanguinity, Age, and Region, 2004

Degree of Consanguinity	Age								Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	
Palestinian Territory									
First cousins	26.0	26.1	25.2	27.2	28.6	30.3	29.7	28.3	27.5
From the same family	17.0	17.0	16.0	17.0	17.0	20.9	19.6	21.0	17.8
No relative	57.0	56.8	58.7	55.8	54.4	48.8	50.7	50.7	54.8
No. of women	233	851	918	836	728	655	438	312	4,971
West Bank									
First cousins	20.5	25.5	21.0	23.7	26.7	28.8	24.7	26.3	24.7
From the same family	15.2	16.4	14.9	18.0	16.6	19.8	17.8	20.3	17.2
No relative	64.3	58.1	64.1	58.3	56.7	51.4	57.5	53.4	58.1
No. of women	125	497	564	523	484	409	291	193	3,086
Gaza Strip									
First cousins	33.3	27.0	32.4	33.8	32.3	33.0	38.9	31.4	32.2
From the same family	19.3	17.9	18.0	15.1	17.7	22.9	22.8	22.1	18.8
No relative	47.4	55.1	49.6	51.1	50.0	44.1	38.3	46.5	49.0
No. of women	108	354	354	313	244	246	147	119	1,885

According to table 3.15, there is a minor difference among those who marry outside the family where the number of ever-born children born to parents who are relatives reached 4.9 whereas the number of ever-born children born to parents who are not relatives reached 4.2 births.

Table 3.15: The Mean Number of Ever-Born Children to Ever-Married Women by Relationship between Couples and Region, 2004

Relationship between spouses	Mean number of children
Palestinian Territory	
Not related spouses	4.2
Related spouses	4.9
Total	4.5
West Bank	
Not related spouses	4.0
Related spouses	4.7
Total	4.3
Gaza Strip	
Not related spouses	4.7
Related spouses	5.2
Total	**4.9**

Executive summary:

- According to the Demographic and Health Survey 2004, the fertility rates are still high despite the drop; results show that the total fertility rate of a Palestinian woman is 4.6 children in 2003.

- The fertility levels vary according to geographic region; the total fertility rate in the West Bank totaled 4.1 children compared to 5.8 children in Gaza Strip.

- Fertility levels largely vary with education of the woman; the total fertility rates among women whose education is less than secondary is 4.8 children whereas the figure for women who have completed secondary education is 4.5; and the rates for those with education higher than secondary education reached 4.6 children.

- The mean number of ever-born children to women remains the same at 4.5 for 2000 and 2004.

- The mean birth interval among women in the Palestinian Territory during the five years preceding the survey is 33.7 months with obvious variations between the West Bank and Gaza Strip.

- Approximately 40.0% of women in the Palestinian Territory have their first birth at the age of 17 or less; 86.6% of women in the Palestinian Territory have their first birth at the age of 22 or less; and only 7% of women in the Palestinian Territory have their first birth at the age of 25 or more.

- The Palestinian society is among the societies whose women marry at a relatively early age, which increase fertility rates.

- 7.2% of women aged 15-19 in the Palestinian Territory were mothers at the time when the survey was conducted. Also, 2.7% of women of this age group were pregnant with their first birth.

- Marriage among relatives is still common in the Palestinian society; however, it is more widespread in Gaza Strip than the West Bank.

- There are differences among those who marry their relatives and those who do not marry their relatives with respect to the number of children; the mean number of ever-born children born to parents who are relatives reached 4.9 whereas the number of ever-born children born to parents who are not relatives reached 4.2 children.

Recommendations:
Maternal and child health educational programs should focus on the health benefit woman and child can achieve when having smaller size families; longer birth intervals; delay first birth until reaching 20s. Such issues will protect mother and child health as well as giving each child his/ her right to sufficient upbringing and care; and

Institutions involved in family planning must contribute to directing people towards family planning and the importance of family planning; the importance of birth intervals; delaying pregnancy and delivery to after teenage years. It is insufficient to guide women only; men should be allowed to involve themselves in such issues since they play a role in deciding about family planning.

Chapter Four

Family Planning

4.1 Introduction:

Palestinian people have undergone harsh situations for many decades as a result of occupation and the continuation of arbitrary measures the occupation have imposed for the past five years starting September 2000. Therefore, the interests of the Palestinian people and the Palestinian government differ from those of the countries that enjoy stability and independence; consequently; policy-makers and the public do not often consider population increase issues and the factors that have influence over such issues, as well as the affect of such increase on the processes of sustainable development and planning. Considerations are therefore focus on adopting policies that ensure minimum delivery of basic services, end the occupation, and become independent.

Palestine, from a concept viewpoint, is categorized as a state that does not adopt a population policy; the Palestinian Territory lacks an approved an implemented population policy on the political level. However, there are sector policies that indirectly serve a population policy, which influences efforts and joint work to achieve clear policy serving the planning and control of population growth. On the other hand, many developing countries, including Arab countries, adopt clear population policies. Population councils are formed to follow up on implementation of such policies for the benefit of development purposes; for instance, Jordan, Egypt, Tunisia, and Yemen have adopted clear population policies aiming at relating population growth with development. Development and growth are noticeable in the countries that adopt population policies and achieved internationally competitive development and growth rates including some Asian countries such as Malaysia, South Korea, and Indonesia. Palestine must benefit from other people experiences and start planning to achieve development through controlling population growth in a place where resources are limited, fertility is high, there is an early marriage phenomenon, and improvement in the health situation, which leads to life expectancy at birth. Demographic and health surveys results proved the impact of the aforementioned factors on delaying progress in the development process during the past ten years.

The family planning chapter deals with studying the situation of one of the components of reproductive health with respect to knowledge of the concept, the use or not, and reasons for not using, and the rates of prevalence and use of modern and traditional family planning methods. The data of health and demographic surveys of 1996, 2000, and 2004 will be utilized in understanding the reality of family planning in the Palestinian Territory through comparisons whenever possible as allowed by used methodology and available indicators from the surveys.

4.2 Knowledge of family planning methods:

Despite having no population policy in the Palestinian Territory as stated in the introduction, there is an approval of the rights of reproductive health since there are health services for reproductive health through the Ministry of Health programs, which are run by the specialized Woman Health Directorate. The Directorate provides reproductive health services including family planning, which is one of the main components of reproductive health services. Also, there are the activities and services of the NGOs such as the Palestinian Family Planning and Protection Association (PFPPA).

Knowledge is a key component for the use of family planning methods because having no knowledge limits and weakens such use. The demographic and health surveys of PCBS showed that the percentage of ever-married women knowledge of any method or any modern method of family planning in 2004 was 99.4%; the variations in such knowledge by place of residence and region are hardly noticeable.

The percentage of knowledge of family planning methods totaled 99.3% in the West Bank and 99.6% in Gaza Strip. The percentage of knowledge increases with increase in the level of education of the woman; consequently, the percentage of the knowledge of family planning methods of women with no education reached 98.4%; on the other hand, the same percentage reached 99.8% among women with associated diploma and higher; however, the difference is not so big. The percentage of knowing about pills totaled 98.7% and the percentage of knowing about IUD was 99.3%. The results of 2004 did not differ from the results of the health surveys of 1996 and 2000 where results indicated having almost same results regardless of region, place of resident, and education.

4.3 Source of obtaining family planning methods:

The data of the Demographic and Health Survey 2004 showed a variety of sources of obtaining family planning methods; there is also a difference in main sources of obtaining family planning methods between the West Bank and Gaza Strip. In the West Bank, for instance, the main source of obtaining family planning methods is the private sector (hospitals, health centers, specialized physicians) with a percentage of 47.6%. This could be due to the good economic situation and the ability to afford the costs of the private sector services. In Gaza Strip; on the other hand, obtaining family planning methods from the private sector registered 7.1% only, which could be referred to the deteriorated economic situation in Gaza Strip as well as the spread of the free UNRWA services. The main source of obtaining family planning methods in Gaza Strip is the centers, clinics, and hospitals of the UNRWA at 58.1%. Pharmacies in the Palestinian Territory accounts for 13.3% in the provision of family planning methods; 14.3% in the West Bank and 11.3% in Gaza Strip. The data showed weak approach of obtaining family planning methods from government sources in comparison with the private sector or the UNRWA; such government sources constituted only 16.3% in the Palestinian Territory.

Table 4.1: Percentage Distribution of Women Aged 15-49 Who Use a Family Planning Method by Source of Method and Region, 2004

Source of method	Palestinian Territory	West Bank	Gaza Strip
Government center/ hospital	16.3	15.2	18.4
NGO center/ hospital	8.6	10.4	4.9
UNRWA center/ hospital	25.8	10.4	58.1
Private physician center/ hospital	34.5	47.6	7.1
Pharmacy	13.3	14.3	11.3
Other	1.5	2.1	0.2
Total	**100**	**100**	**100**

No statistical trend were noticed in showing any impact of woman education on the source of obtaining family planning methods. 37.2% of women with less than elementary education sough family planning methods at the private sector compared to a range of 33-35% for those with elementary, preparatory, and secondary education and above. Also, 17.8% of women

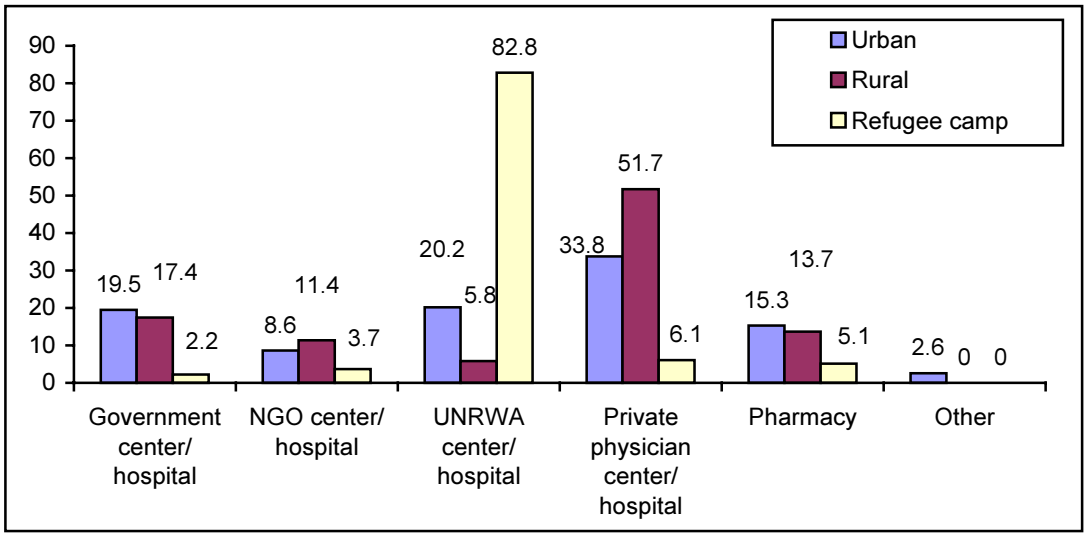
with secondary and higher education obtain their family planning methods from pharmacies compared to 11.4% for those with less than elementary education.

Table 4.2: Percentage Distribution of Women Aged 15-49 Who Use a Family Planning Method by Source of Method and Education, 2004

Source of method	Less than elementary	Elementary	Preparatory	Secondary and above
Government center/ hospital	23.5	17.5	17.8	11.7
NGO center/ hospital	7.3	8.9	10.9	6.4
UNRWA center/ hospital	20.0	25.5	26.0	27.5
Private physician center/ hospital	37.2	34.0	33.8	34.9
Pharmacy	11.4	12.0	10.4	17.8
Other	0.6	2.1	1.1	1.7
Total	**100**	**100**	**100**	**100**

UNRWA is the main source of family planning methods at refugee camps at 82.8%; the private sector is the rural and urban areas main source of family planning methods at 51.7% and 33.8% respectively.

Figure 4.1: Percentage Distribution of Women Aged 15-49 Who Use a Family Planning Method by Type of Locality, 2004



4.4 Use of family planning methods:

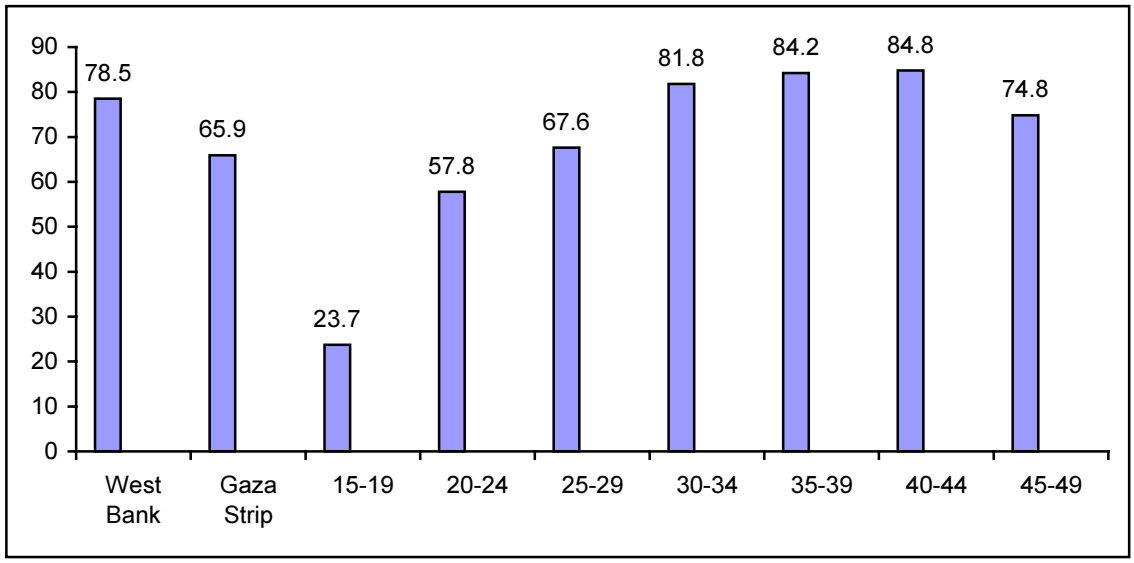
Couples use family planning methods either for child spacing or to limit and stop having children; married women are either ever-used family planning methods or currently using such methods.

4.4.1 Ever-use family planning methods:

According to data, the percentage of married women who ever-used any family planning method is 73.9%; 78.5% for the West Bank and 65.9% for Gaza Strip. An increase in the use of family planning methods is noticeable; such use rose from 70.6% among women with less than elementary education to 74.4% among those with elementary education. The percentage of using family planning methods rises slowly without any noticeable variations to reach 74.9% among women with secondary and higher education.

There is a strong relationship between woman age and the use of family planning methods, which rises with the increase in the woman age. The percentage of using family planning methods among women aged 15-19 is 23.7%; it rises to 57.8% among women aged 20-24; and to 84.8% among those aged 40-44; however the percentage drops to 74.8% among women aged 45-49.

Figure 4.2: Percentage of Women Aged 15-49 Years Ever-Used Family Planning Methods by Region and Age, 2004



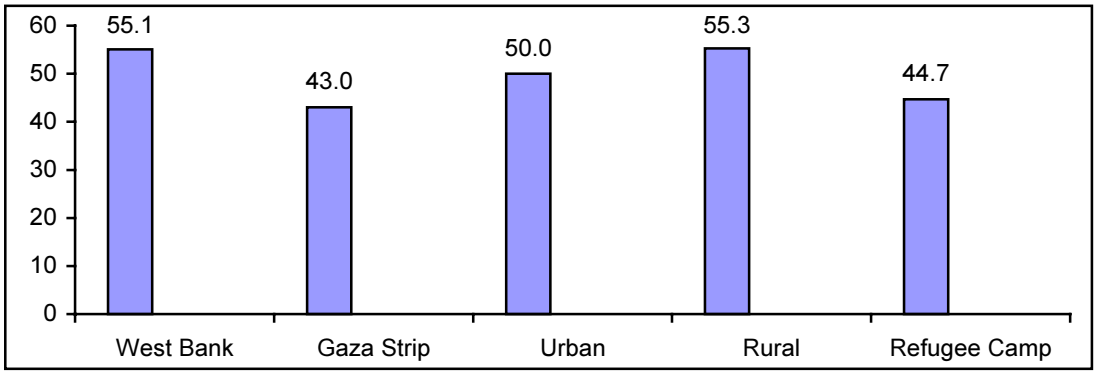
4.5 Contraceptive prevalence rate:

The results of the Demographic and Health Survey 2004 showed that the contraceptive prevalence rate in the Palestinian Territory rose from 45.0% in 1996 to 50.6%; 55.1% for the West Bank and 43.0% for Gaza Strip.

Despite the rise in the contraceptive prevalence rate in Gaza Strip to 43.0% in 2004 compared with 33.9% in 1996, the contraceptive prevalence rate in the West Bank is still higher; the same results were indicated in the Health Survey 1996 and the Health Survey 2000.

Survey results showed that rural women use more family planning methods (55.3%) compared with urban and refugee camps women (50.0% and 44.7% respectively).

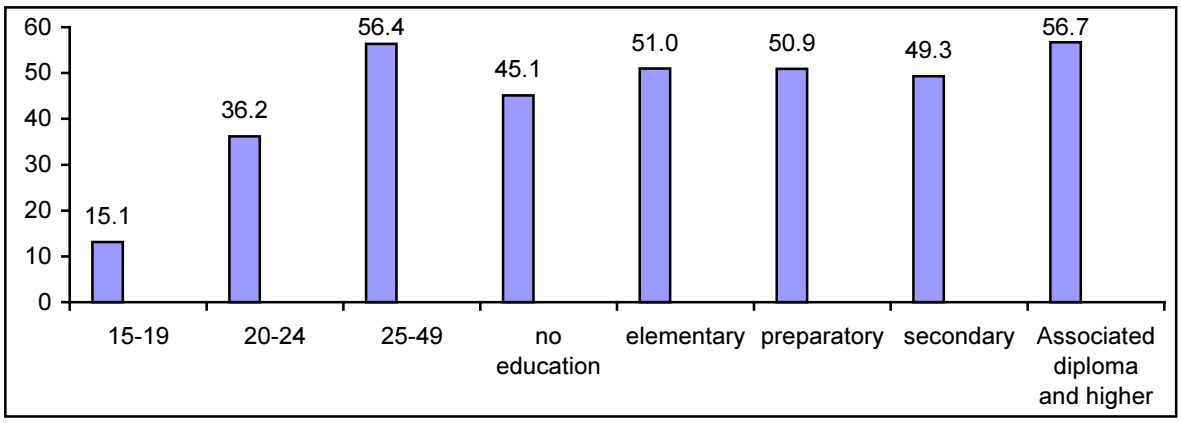
Figure 4.3: Percentage of Women Aged 15-49 Who Currently Use Family Planning Methods by Region and Type of Locality, 2004



4.6 Current use of family planning methods by age and education:

The current use of family planning methods is also influenced by woman age; those who least use family planning methods are those who are below 20 years of age, their percentage stands at 15.1% compared to 36.2% among women aged 20-24. The impact of education on the family planning methods has also been noticed; more education among women means more use of family planning methods. The percentage of women with no education who use such methods reached 45.1%; the percentage rose to 51.0% among women whose education ranged between elementary and secondary and to 56.7% among those with associated diploma and higher.

Figure 4.4: Percentage of Women Aged 15-49 Who Currently Use Family Planning Methods by Age and Education, 2004



4.7 Used family planning methods:

The used family planning methods range between modern and traditional methods according to effectiveness of such methods.

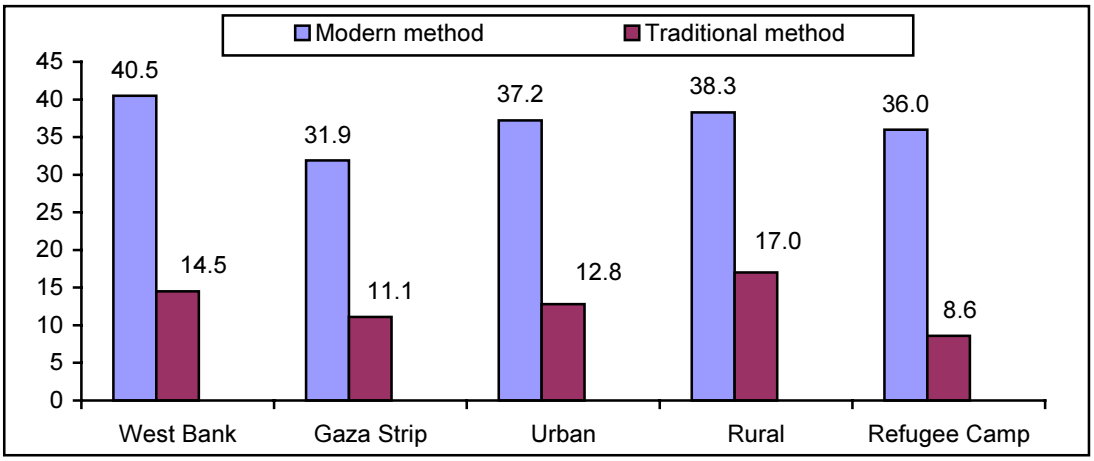
The IUD is the most commonly used method in the Palestinian Territory at 23.7%; pills at 6.2%, and withdrawal at 5.2%. The remaining percentage is distributed on other methods including male and female sterilization, condoms, injection, safe period, and breastfeeding. The use of modern methods stands at 37.7% and the use of traditional methods stands at 13.3%.

Table 4.3: Percentage of Currently Married Women Aged 15-49 Who Use Family Planning Methods by Type of Method, Region, and Type of Locality, 2004

Method	Palestinian Territory	West Bank	Gaza Strip	Urban	Rural	Camp
Pills	6.2	6.1	6.4	6.6	5.4	6.3
IUD	23.7	28.1	16.2	23.1	27.4	19.2
Condom	3.8	2.4	6.1	4.0	1.7	6.7
Female sterilization	2.7	3.3	1.8	2.6	3.2	2.3
Injection	0.7	0.5	1.0	0.8	0.2	1.1
Safe period	3.8	4.2	3.0	4.3	3.8	2.1
Withdrawal	5.2	6.6	2.9	4.4	8.3	2.8
Breastfeeding	4.2	3.6	5.1	4.0	4.9	3.7
Jell	0.2	0.2	0.3	0.1	0.4	0.4
Male sterilization	0.0	0.0	0.1	0.0	0.0	0.0
Other	0.1	0.1	0.1	0.1	0.0	0.0

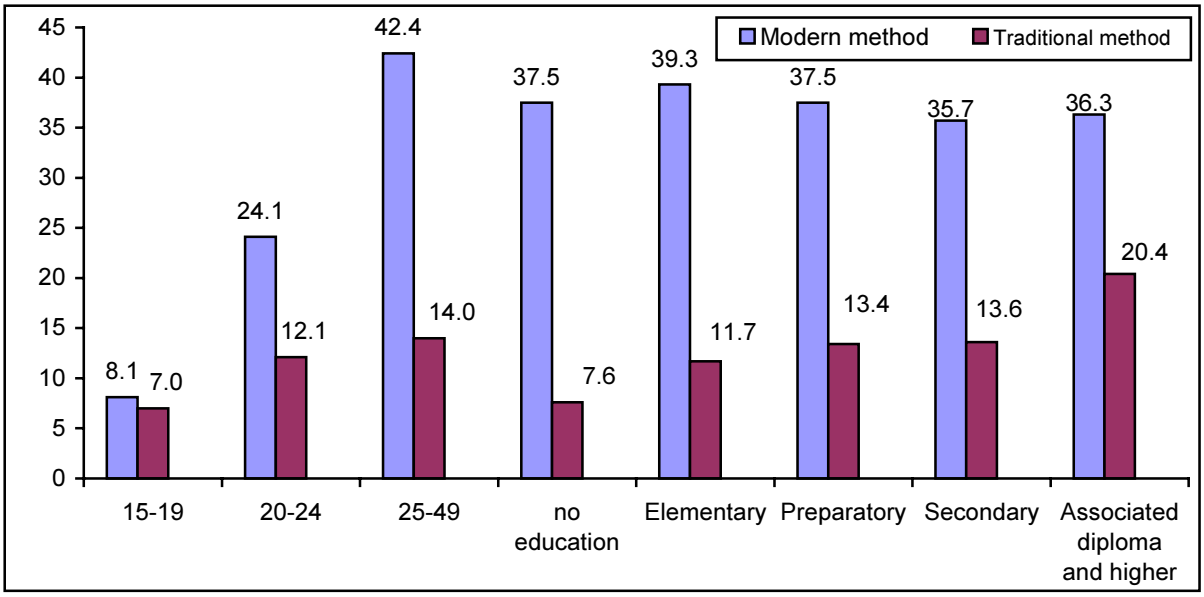
The data of the Demographic and Health Survey 2004 indicated that the percentage of currently married women who use modern family planning methods is 37.3%; no major variations were indicated by type of locality where the percentage of refugee camp women registered 36.0% compared with 38.3% for rural areas and 37.2% for urban areas.

Figure 4.5: Percentage of Currently Married Women Aged 15-49 Who Use Family Planning Methods by Type of Method, Region, and Type of Locality, 2004



The percentage of using traditional family planning methods registered 13.3%, which is high and may limit the effectiveness of the process of family planning. Clear variations were noticed with respect to using traditional family planning methods according to type of locality when rural areas recorded 17.0%, urban areas recorded 12.8% and the lowest was for refugee camps at 8.6%. Withdrawal was the main traditional method used at 5.2%, breastfeeding stood at 4.2%, and safe period stood at 3.8%. In any case, no major variations in the percentages of using traditional family planning methods between 1996 and 2004 when the 1996 percentage stood at 14.0%.

Figure 4.6: Percentage of Currently Married Women Aged 15-49 Who Use Family Planning Methods by Type of Method, Age, and Education, 2004



The data on the use of modern and traditional family planning methods are the opposite of what had been anticipated. It was anticipated that the percentage of using traditional methods would drop as education increased but the data showed that the percentage of using traditional methods rose with education. Moreover, the use of such methods rises with woman age. This requires more research to identify the reason for using traditional methods because of the significance and effectiveness of modern family planning methods in family planning.

4.8 Reasons for not using family planning methods:

The results of PCBS health surveys conducted between 1996 and 2004 showed the women who do not use family planning methods referred it many reasons including the desire to have children, objection from the in-laws, reasons based on religious grounds, and fear of side effects (in 9.5% of the cases of 2004 compared with 9.1% in 1996). Objection (of the husband, relatives, the woman herself, and for religious reasons) constituted 9.0% in 2004; 5.3% of women reject family planning methods for being inconvenienced with them. It is noticed that one-quarter of the reasons or 25.7% can be reduced with awareness and education and outreaching health messages based on accurate scientific information thus influencing the contraceptive prevalence rate.

4.9 Birth intervals:

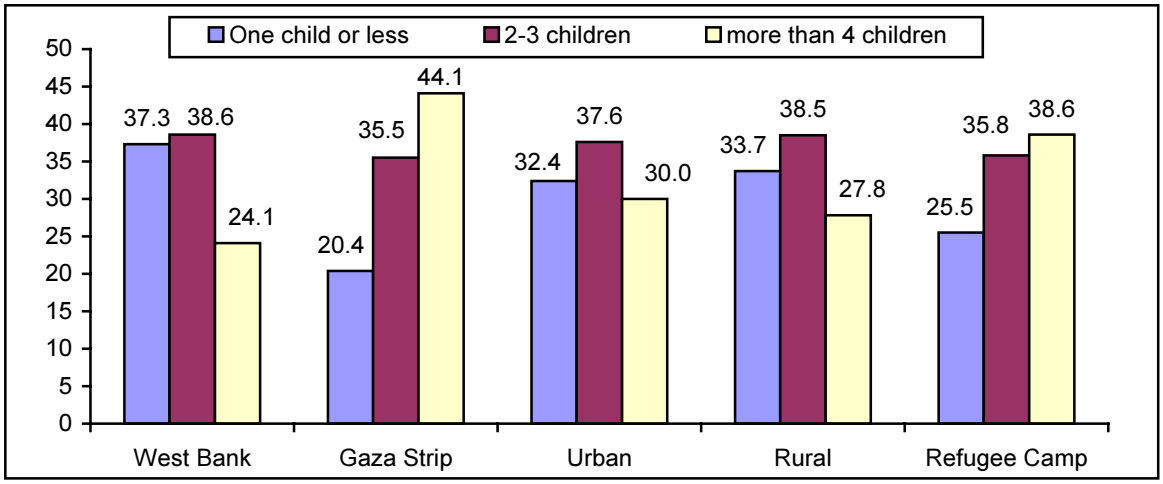
The use of family planning methods result in birth intervals. According to the results of the 2000 and 2004 health surveys, the mean birth interval during the five years preceding the survey was 33 months. Percentages indicated that more than two-thirds of women who had children before use short birth intervals (less than 18 months). The results of the Demographic and Health Survey 2004 indicated that 53% of women who had children during the five-year period before the survey had a birth interval of les than 24 months; therefore, despite the increase in the use of family planning methods in the Palestinian Territory, their impact on reproduction and fertility rates is still small.

Awareness and health education campaigns may contribute to increasing birth intervals, which may have positive impact on maternal and child health and reduce the high fertility rates.

4.10 First use of family planning methods and the number of born children:

The results of the Demographic and Health Survey 2004 showed that 37.6% of the women who use family planning methods used it for the first time after having 2 or 3 children, Moreover, 30.6% used family planning methods after having 4 or more children. Results showed that educated women used family planning methods for the first time more at the beginning of marriage or after the first birth. The percentage of women with university education and higher who use family planning methods is 50.8% compared to 39.7% among those with secondary education and 26.0% among women with lower than elementary education.

Figure 4.7: Percentage of Women Aged 15-49 Ever-Used Family Planning Methods for First Time by Region, Type of Locality, and Number of Born Children, 2004



Executive summary:

- The results of the health surveys showed that the percentage of knowledge of family planning methods in the Palestinian Territory is high and stands at 99.0%, which indicates a widespread of knowledge of family planning methods in the Palestinian Territory.
- A rise in the rate of using family planning methods in 2000 and 2004 compared with 1996; it rose from 45.0% in 1996 to 51.4% in 2000 and 50.6% in 2004.
- There is a little increase in the use of modern family planning methods from 32.0% in 1996 to approximately 37.0% in 2004.
- The use of traditional family planning methods is still high; it registered 13.0% in 2004 compared with 14.0% in 1996.
- IUD is still the most commonly used family planning method among women followed by pills.
- Education has clear impact on the rate of using family planning methods; more education means more use of family planning methods.
- More than two-thirds of women start using family planning methods after the second or more births; 30.0% use family planning methods after the first birth.
- It is noticed that one-quarter of the reasons or 25.7% can be reduced with awareness and health education such as fear of side effects, which stands at 9% and fearing the side effect of using family planning methods, which registers 5%. Women can be educated to use the methods that suit their condition. The objections from husband and relatives and rejection of family planning methods for religious reasons can also be influenced.

Recommendations:

Despite the high rate of using family planning methods, there is still a need to concentrate the efforts of those concerned with the public health and sustainable development on more effective use of family planning methods to improve reproductive health of women and organize and control population growth at rates where development can be achieved using available resources. The following can be recommended:

- Concentrate health education campaigns on refugee camps women and in Gaza Strip in general to influence the contraceptive prevalence rate;
- Concentrate awareness efforts on the use of modern family planning methods and reduce reliance on traditional family planning methods, which reduce the chances of successful

birth intervals. Also, study the reasons for using traditional family planning methods since their use among the more educated is more than their use among the less educated;

- Concentrate awareness campaigns on the reasons for not using family planning methods through health messages explaining that using family planning methods does not have side effects that harm the health. Also, direct women to other choices when one method does not fit and spread religious messages proving that religion is not against family planning;
- Increase awareness about the importance of lengthy birth intervals and their positive impact on maternal and child health; such interval should be at least 3 years; and
- Utilize school textbooks in increasing the awareness of males and females of the scientific and health messages based on the results of scientific studies about family planning and encourage males as well as females to use family planning methods.

Chapter Five

Fertility Preferences

5.1 Introduction:

Fertility is the main component of the population size change, especially that it is the factor that increases population and has large relative impact on the size of the population in comparison with the migration and death factors. Moreover, the migration factor does not affect population number; it only affects their geographic distribution. The death factor has relatively limited affect because of the huge improvement in health services during the past century in different places at different degrees in developing countries and all over the world. Fertility preferences and their relationship with family planning is one of the key areas of building national population policies.

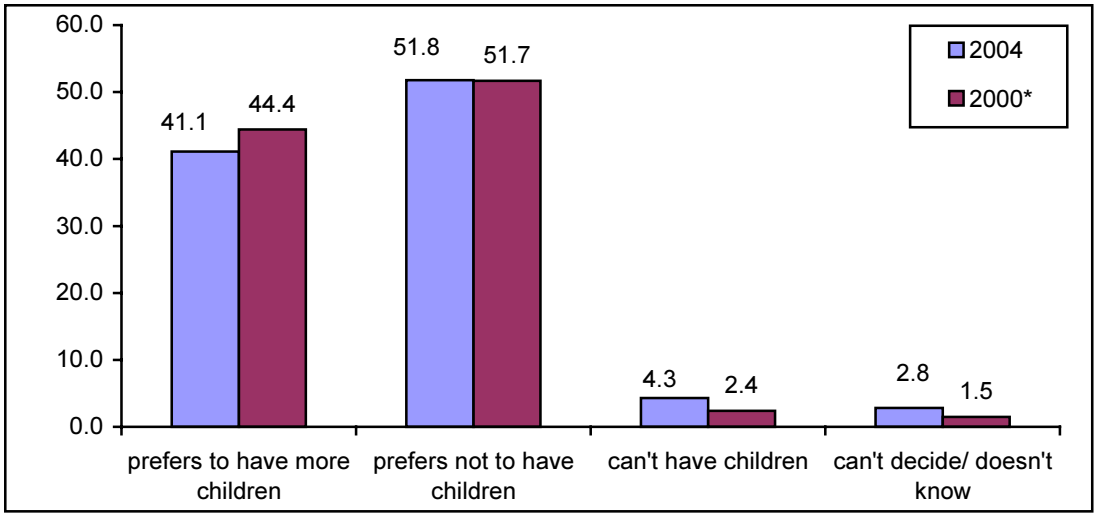
Chapter five discusses the fertility preferences among currently married women in the childbearing age (15-49 years) only. The eighth section of the Demographic and Health Survey 2004 focuses on fertility preferences; non-pregnant respondents at the time of conducting the survey were asked about fertility preferences. They were asked whether they wished to have more children; and if so, they were asked about the birth interval. Pregnant women were also asked about having more children after delivery and the birth interval. Pregnant and non-pregnant women were asked about the number of male and female children they would like to have in the future in addition to what they already had. They were also asked about the person(s) who decide about the number of children in the family and the number of children they would like to have in their entire childbearing years. The obtained information would then be used to study the subject of fertility preferences based on the following provisions: Women desire to have children; the preferred additional number of male and female children; the need for the family planning services; and the ideal number of children.

5.2 The desire to have children:

The desire to have more children among married women and able to have children is one of the factors that affect future fertility and the future behavior of couples with respect to using family planning methods and decision related to having or not having children. The preferences to have children are influenced by women age and the number of living children ever-born, the level of education, relation to labor force, and other background characteristics.

The data of table 5.1 shows that more than half of the currently married women 51.8% at childbearing age would like to stop having more children; 41.1% would like to have more children; 4.3% are unable to have more children; 1.6% have not decided or do not know; and 1.2% stated that it was not their decision.

Figure 5.1: Fertility Preference for Currently Married Women Aged 15-49, 2000 and 2004



* **Source: PCBS, Health Survey 2000**, Final Report, 2001, Ramallah, Palestine

Figure 5.1 shows that during 2000-2004, the percentage of women who want to have more children dropped; however, the percentage of women who do not want to have children remained almost the same. The percentage of those who cannot have children rose.

As for fertility preferences by region and type of locality, table 5.1 shows us that the percentage of women who want to have more children in Gaza Strip is 44.8%, which is higher than that of the West Bank of 38.9%. At the same time, more than half of the West Bank women 53.7% expressed their wish to stop having children compared with 48.6% in Gaza Strip.

Table 5.1: Percentage Distribution of Currently Married Women Aged 15-49 by Preferred Fertility, Region, and Type of Locality, 2000* and 2004

Preferred fertility	Region		Type of locality			Total		No. of women
	West Bank	Gaza Strip	Urban	Rural	Refugee camp	2004	2000*	
Prefers to have more children	38.9	44.8	40.6	40.6	43.5	41.1	44.4	1492
Prefers not to have more children	53.7	48.6	51.7	53.7	48.9	51.8	51.7	1882
Can't have children	4.4	4.1	4.8	3.5	3.9	4.3	2.4	164
Not her decision	1.0	1.5	1.3	0.7	1.8	1.2	0.7	46
Can't decide / doesn't know	2.0	1.0	1.6	1.5	1.9	1.6	0.8	62
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**3,646**

***Source: PCBS, Health Survey 2000**. Final Report, 2001, Ramallah, Palestine

Data also shows that the percentage of women at refugee camps who want to have more children is 43.5%, which is higher than the percentages of urban and rural areas, which stand equally at 40.6%.

The percentage of women who want to stop having more children, on the other hand, is higher at rural areas 53.7% than urban areas 51.7% and refugee camps 48.9%.

The trends among women aged 15-49 with respect to fertility preferences by region and type of locality between 2000 and 2004 are explained in table 5.2, which sheds light on the percentage of women who want to stop having more children according to the results of the Health Survey 2000 and Demographic and Health Survey 2004.

Table 5.2: Percentage of Currently Married Women Aged 15-49 Who Wish to Stop Giving Birth by Region and Type of Locality, 2000*, 2004

Region and type of locality	Wish to stop giving birth	
Region	2000	2004
West Bank	54.3	53.7
Gaza Strip	46.8	48.6
Type of Locality		
Urban	49.9	51.7
Rural	56.2	53.7
Refugee camp	49.7	48.9
Total	**51.7**	**51.8**

***Source: PCBS, Health Survey 2000**. Final Report, 2001, Ramallah, Palestine

Data in table 5.2 shows that there are no major variations in the percentages of women who want to stop having children in the Palestinian Territory during 2000 and 2004; the percentages changed from 51.7% to 51.8% only. However, there are small variations based on region and type of locality. The percentage of women who wish to stop having any more children in the West Bank has minimal reduction; the same percentage rose slightly in Gaza Strip from (46.8% to 48.6%). As for type of locality, the percentage of those who wish to stop having any more children in urban rose from (49.9% to 51.7%); it noticeably dropped in rural areas from (56.2% to 53.7%); the percentage remained almost the same in refugee camps.

It is worth noting that the phenomenon of fertility preferences is a little sensitive on the short term to factors affecting it since such phenomenon is related to many factors and has to do with social behavior and traditions.

5.3 Fertility preferences and woman current age:

Table 5.3 shows age distribution of currently married women who want to stop having children. An increase is noticed among women who prefer not to have children after turning 35 years of age. The percentage dropped during the period separating between 2000 and 2004, which indicates slight changes in the society trends towards a reduction in the desire to have children as age progresses.

Table 5.3: Percentage Distribution of Currently Married Women Aged 15-49 Who Wish to Stop Giving Birth to Children by Age Group and Region, 2000*, 2004

Current age	2004			Palestinian Territory 2000
	West Bank	Gaza Strip	Palestinian Territory	
15-19	0.8	0.6	0.7	1.4
20-24	5.9	6.2	6.0	9.0
25-29	14.2	13.4	13.9	17.6
30-34	21.3	20.8	21.1	22.6
35-39	23.5	22.6	23.2	21.2
40-44	21.7	21.8	21.7	16.8
45-49	12.7	14.7	13.4	11.4
Total	**100**	**100**	**100**	**100**

*Source: PCBS, Health Survey 2000, Final Report, 2001, Ramallah, Palestine

This means that the percentage of older women (35 years and over) who want to stop having children is higher in 2004 than that of 2000, which indicates a social move towards an increase in the desire of stopping having children. On the other hand, the effect of such social move on elderly women is less than that on younger women. The table shows that there are no noticeable variations of age distribution of women who want to stop having children between the West Bank and Gaza Strip.

Figure 5.2 shows a comparison in the distribution of women who wish not to have more children by age and type of locality.

Figure 5.2: Percentage of Currently Married Women Aged 15-49 Who Wish to Stop Giving Birth to Children by Age and Type of Locality, 2004

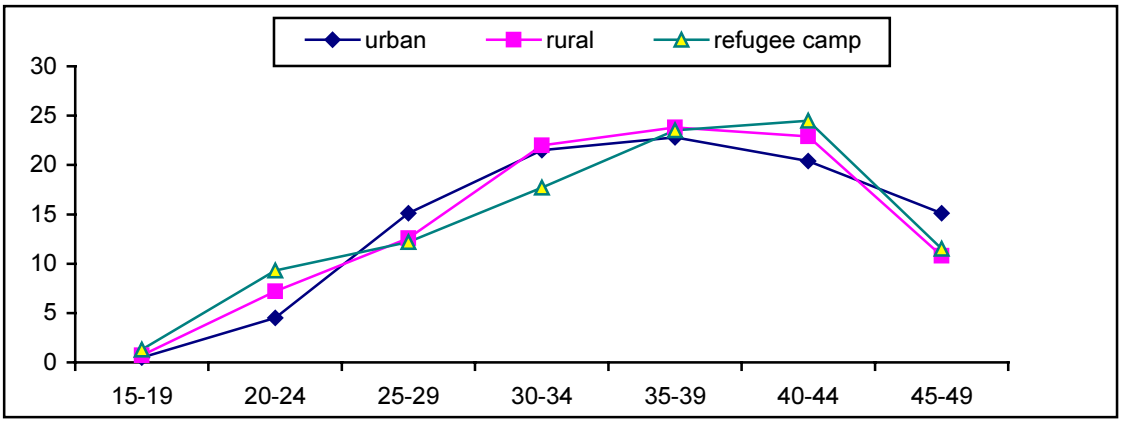


Figure 5.2 shows that the percentage of women who want to stop having children in the first and second age categories at refugee camps is higher than in urban and rural areas; on the other hand, the highest percentage in the fourth and fifth categories is in favor of rural and urban areas.

Table 5.4 shows the relationship between the current age categories of married women (15-49) with respect to fertility preferences. According to the table, the percentage of women who wish to have more children shrinks as age advances; it dropped from 91.0% among the age group of 15-19 to 6.1% among the age of 45-49. Also, the percentage of women who do

not wish to have more children is positively connected to the current age of the woman, which ranges between 8.4% in 2004 for women aged 15-19 and 78.8% for women aged 40-44.

Table 5.4: Percentage Distribution of Currently Married Women Aged 15-49 by Preferred Fertility and Age, 2004

Preferred fertility	Age							
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Prefers to have more children	91.0	77.5	58.5	38.3	20.1	12.5	6.1	**41.1**
Prefers not to have more children	8.4	19.1	36.9	56.1	72.7	78.8	72.0	**51.8**
Can't have children	0.0	0.1	1.0	1.7	3.8	7.8	20.7	**4.3**
Not her decision	0.0	1.1	1.4	1.4	1.6	0.8	1.1	**1.2**
Can't decide / doesn't know	0.6	2.2	2.2	2.5	1.8	0.1	0.1	**1.6**
No. of women	**156**	**596**	**697**	**685**	**592**	**568**	**352**	**3,646**

It is worth noting that the main reason for the drop in the percentage of women who wish not to have children in the last two age groups 40-44 and 45-49 is the noticeable increase in the percentage of women who cannot have children in the last category.

Table 5.5 shows a comparison in the age distribution of the women who wish to stop having children between the results of the Demographic Survey 1995; the Health Survey 2000; and the Demographic and Health Survey 2004.

Table 5.5: Percentage Distribution of Currently Married Women Aged 15-49 Who Wish to Stop Giving Birth by Age Group, 1995, 2000, 2004

Age group	1995*	2000**	2004
15-19	1.1	1.4	0.7
20-24	7.2	9.0	6.0
25-29	13.8	17.6	13.9
30-34	19.9	22.6	21.1
35-39	22.4	21.2	23.2
40-44	19.4	16.8	21.7
45-49	16.2	11.4	13.4

Sources: * PCBS, *Demographic Survey of the West Bank and Gaza Strip, Final Results*, 1997, Ramallah, Palestine

**PCBS, *Health Survey 2000, Final Report*, 2001, Ramallah, Palestine

It is noticed that during the period of 1995 and 2000, the percentage of women in the first four age groups (15-34) increased and dropped in the last three age groups (35-49). Also, the age distribution in 2004 is similar to that of 1995 when the percentage of women in the first four age groups dropped and increased in the last three age groups.

Reading the Table diagonally (i.e. most women aged 25-29 in 2004 were part of the age group 20-24 in 2000, and were part of the age group 15-19 in 1995) enables us to notice that the desire to stop having children among women increases with age.

5.4 Fertility preferences and the number of living children:

Table 5.6 shows the distribution of women who wish to have more children by the number of living children. This chapter focuses on the factor of "living children" rather than the ever-born children since the desire to have children is influenced more by the number of living children than the number of ever-born children throughout the marital life.

Table 5.6: Percentage Distribution of Currently Married Women Aged 15-49 by Preferred Fertility and Living Children, 2000*, 2004

Preferred fertility	Number of living children							Total	
	0	1	2	3	4	5	6+	2004	2000
Prefers to have more children	80.5	88.9	73.6	52.9	38.4	24.5	10.7	41.1	**44.4**
Prefers not to have more children	0.5	7.8	21.4	41.9	55.9	69.0	81.2	51.8	**51.7**
Can't have children	17.4	2.4	1.7	2.1	2.3	3.7	4.7	4.3	**2.4**
Not her decision	1.1	0.3	1.3	0.7	1.1	1.4	1.9	1.2	**0.7**
Can't decide / doesn't know	0.5	0.6	2.0	2.4	2.3	1.4	1.5	1.6	**0.8**
Total	100	100	100	100	100	100	100	100	**100**

***PCBS, Health Survey 2000, Final Report**, 2001, Ramallah, Palestine

According to table 5.6, the increase in the number of living children means a decrease in the percentage of women who wish to have more children and the percentage of those who prefer to have more children. The percentage of women who wish to stop having children is positively linked with the number of living children of those ever-born, which ranges between 0.5% among those who did not have living children and 81.2% among those who have six or more living children. On the other hand, the percentage of women who prefer to have more children is 80.5% among those who do not have any children and 10.7% among those who have six or more living children.

Despite the fact that the last category of women has 6 or more living children; more than 10.0% of them still want to have more children, which indicates that there is still a desire to have large families.

Upon comparison of fertility preferences between 2000 and 2004, it is noticed that despite the fact that the percentage of women who do not want to have more children (prefer not to have more children) is close, the percentage of those who wish to have more children dropped from 44.4% to 41.1%, which indicates a slight drop in the fertility rates during such period.

5.5 Fertility preferences and education level:

Table 5.7 shows the relationship between fertility preferences and the level of education.

Table 5.7: Percentage Distribution of Currently Married Women Aged 15-49 by Preferred Fertility and Education, 2004

Proffered fertility	Education						Total
	Illiterate	Elementary	Preparatory	Secondary	Associated diploma	BA and higher	
Prefers to have more children	27.0	33.6	44.4	46.5	40.5	55.2	**41.1**
Prefers not to have more children	59.1	58.8	49.1	47.6	53.6	41.9	**51.8**
Can't have children	10.9	4.5	3.3	3.6	2.6	1.3	**4.3**
Not her decision	1.8	1.1	1.2	0.9	2.3	0.6	**1.2**
Can't decide / doesn't know	1.2	2.0	2.0	1.4	1.0	1.0	**1.6**
No. of women	**403**	**777**	**1,259**	**763**	**240**	**204**	**3,646**

According to the table, there is a contradictory phenomenon that may be interpreted incorrectly. The phenomenon shows that there is an increase in the percentage of women who wish to have children with the increase in the level of education attainment in general. However, that could be mainly related to the fact that most women who have given birth to the desired number of children and decided not to have more children are in the lower levels of education attainment.

Moreover, the mean number of living children among educated women is lower than other women, and most educated women marry at a later age compared to uneducated women, which reduces the childbearing years of the marital life (see table 5.8).

Table 5.8 shows that when the first category of education level of illiterate women or those who did not attain any educational level is compared with the last category of women with BA and higher, a number of issues explain the contradictory relationship including the mean age at first marriage for the first category is almost five years less; the mean age and mean marital life for the first category is higher; the mean number of living children is close to 6 children for the first category whereas it is less than 2.5 per woman for the last category, henceforth, the desired relative number of born children is not achieved among each age group of women in the last category of educated women.

Table 5.8: Means of Selected Indicators by Education, 2004

Means of selected indicators	Education						Total
	Illiterate	Elementary	Preparatory	Secondary	Associated diploma	BA and higher	
Mean age	37.1	33.0	30.0	30.3	33.9	31.0	**31.8**
Mean ideal no. of children	4.53	4.43	4.3	4.24	4.21	3.93	**4.30**
Mean no. of living children	5.92	4.98	3.91	3.51	3.78	2.38	**4.20**
Mean age at first marriage	18.04	17.60	17.95	19.57	22.43	22.88	**18.80**
Mean period of marriage life	18.85	15.23	11.82	10.68	11.32	7.86	**12.79**
No. of women	**403**	**777**	**1,259**	**763**	**240**	**204**	**3,646**

It is also noticed that the mean number of living children for women with elementary and lower education is higher than the ideal mean number of children, the difference between them is almost one and a half births of the illiterates, which means that there are unwanted born children; they are usually female children.

This means that the relationship between education level and fertility preferences need further studies and research using direct and indirect methods of standardization to isolate the influence of other factors such as age, the number of living children, the period of marital life, and other factors from the influence of the education level and its relationship with fertility preferences.

5.6 Fertility preferences and relationship with labor force:

Figure 5.3 shows the percentage distribution of currently married women aged 15-49 by fertility preferences and relationship with the labor force.

Figure 5.3: Percentage Distribution of Currently Married Women Aged 15-49 by Preferred Fertility and Relation with Labor Force, 2004

Figure 5.3 shows that the percentage of unemployed women who wish to stop having children is 50%, which is high when compared with women looking for jobs 43.3%. The percentage of women who wish not to have any more children of women outside the labor force is 52%, which is higher than women involved in the labor force. This can be explained by table 5.9 where the mean age at first marriage for employed women is more than 4 years higher than women outside the labor force, which leads to an increase in the marital life at certain ages and therefore increase in the mean number of living children of this category. This reduces the number of women who wish to have children despite the fact that they are unemployed or looking for jobs. They mostly constitute of housewives; consequently, a high percentage of them wish to stop having children and it is possible to say that they have had enough children.

Table 5.9: Means of Selected Indicators by Relation with Labor Force, 2004

Means of selected indicators	Relation with the labor force			
	Employed	Unemployed	Outside labor force	Total
Mean age	34.4	32.4	31.5	**31.8**
Mean ideal no. of children	4.06	4.27	4.33	**4.31**
Mean no. of living children	3.5	3.5	4.3	**4.2**
Mean age at first marriage	22.51	20.98	18.43	**18.8**
Mean period of marriage life	11.67	11.06	12.93	**12.79**
No. of women	**269**	**118**	**3,259**	**3,646**

When the education level is linked to the relationship with the labor force, the percentage of women with associated diploma and higher would reach 68.9% of the total number of employed women, which means that most employed women are educated women. On the

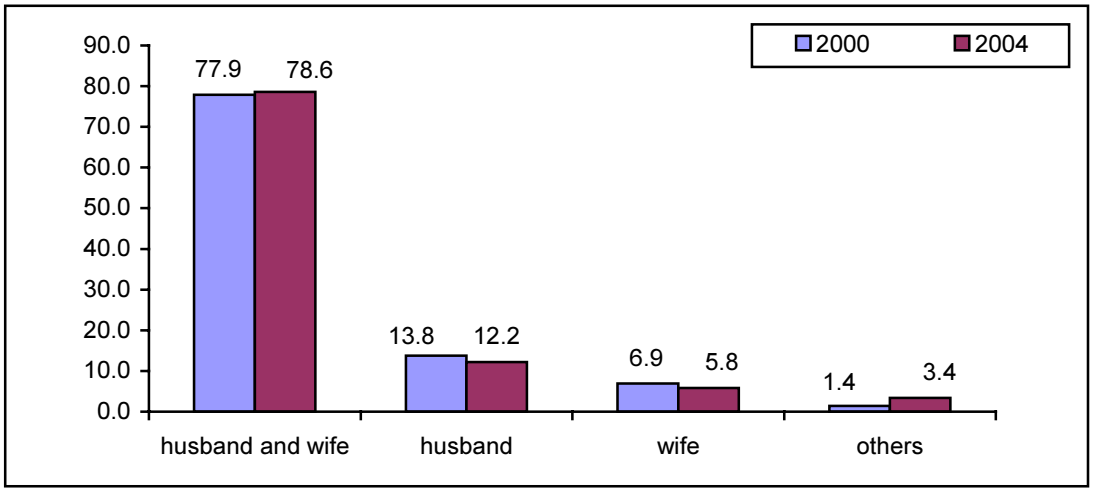
other hand, approximately 95.0% of women whose education level is below secondary are outside the labor force, which reflects a relationship between education and employment.

We can conclude that women education increases age at first marriage, which reduces the years of potential pregnancy thus reducing the number of living children and causes higher percentage of women in the labor force who want to have more children; however, such percentage does not reach that of women outside the labor force. The increase in the level of education increases the work opportunities of the woman and reduces the number of ideal children compared with lower levels of education.

5.7 Deciding on fertility:

As for the decision-makers concerning having or not having children, Figure 5.4 shows that the percentage of both husband and wife taking the decision concerning the number of children in the family in 2004 was 78.6%, which is higher than the percentage of 2000, which was 77.9%. The wife alone decides in 5.8% of the cases and in 12.2% of the cases it is the husband's decision. The percentages of both cases slightly dropped in comparison with 2000 where there is an increase in the percentage of "others" who decide about the number of children in the family during the same period. Henceforth, in 18.0% of the cases the couples do not take part in the decision about the number of children while in 3.4% the cases the decision is made by others, which calls for both women and men participation in family planning and health education programs.

Figure 5.4: Percentage Distribution of Persons Who Decide on Number of Family Children, 2000*, 2004



***PCBS, Health Survey 2000, Final Report**, 2001, Ramallah, Palestine

5.8 Additional preferred number of male/female children:

The percentage of women who want to stop having children or those who cannot have more children is positively connected with the number of living children born to a woman. For instance, the women who have zero living births (have no children) recorded 80% with respect to having the desire to have more children whereas those of the same category who do not want to have any more children registered only 0.5%.

It is also noticed that despite the fact that the last category of women have six or more living children, 10.0% of them still want to have more children, which means that there is still a desire to have large families, or a sign of preferring male children because women with female children only keep having children until they have one or more male children.

Women were asked a number of questions about the number of male and female children they want to have in the future in addition to the ever-born living children.

Table 5.10 shows details of the additional number of males and females women would prefer to have. A high percentage of respondents' answers were unlimited to specific numbers and at close percentages for males and females approximately 18.0%. It is noticed that the more living male and female children the less number of additionally desired male and female children. At level 2 of additionally preferred male children, the percentage drops to 44.4% at zero level of living children to equal zero at level six of living children; the same goes for females.

Table 5.10: Percentage Distribution of Currently Married Women Aged 15-49 Who can Have Children and Prefer not to Stop Having Children by Number of living Males/ Females and Additional Preferred Number of Males/ Females Children, 2004

No. of living males	No. of additional preferred males								No. of women
	0	1	2	3	4	5	6+	Not limited to a number	
0	0.2	12.3	44.4	16.2	5.0	1.8	1.5	18.6	637
1	1.0	38.1	26.1	12.3	3.8	1.5	2.3	14.9	618
2	14.0	33.0	16.1	9.3	4.9	2.5	0.9	19.3	420
3	19.2	27.2	13.7	5.9	4.2	2.1	4.2	23.5	170
4	31.3	18.7	14.1	0.0	6.1	1.3	3.0	25.5	64
5	12.7	36.7	7.6	7.2	5.7	0.0	0.0	30.1	15
6+	34.8	29.7	0.0	0.0	0.0	11.7	0.0	23.8	9
Total	**6.4**	**27.0**	**28.1**	**11.8**	**4.5**	**1.9**	**1.9**	**18.4**	**1,933**
No. of living females	**No. of additional preferred females**								
0	2.0	22.7	47.2	7.1	1.7	0.6	0.5	18.2	625
1	6.8	44.1	25.1	2.9	2.0	0.8	0.2	18.1	611
2	41.5	20.7	13.6	3.9	1.8	0.3	0.2	18.0	349
3	56.7	8.4	2.6	11.0	0.5	0.5	0.6	19.7	190
4	68.5	9.4	2.2	0.0	9.9	0.0	1.2	8.8	84
5	68.5	0.0	0.0	1.8	1.9	0.0	0.0	27.8	47
6+	69.7	3.4	0.0	0.0	0.0	4.1	11.5	11.3	27
Total	**21.7**	**26.2**	**25.8**	**5.1**	**2.0**	**0.6**	**0.5**	**18.1**	**1,933**

Variations are also noticeable between males and females from a number of prospects mainly:

- Most percentages in right-hand-side of the table (additional number 3 or more) has higher male percentages than female percentages, which means that those who wish to have more male children is higher than those who wish to have female children.
- The percentages are higher in favor of females at all percentages in the first column (additional number of male and female children is zero); at all levels of the number of living children, the percentage is higher for females. For instance, when a woman has six male living children, a percentage of 34.8% only of women would rather not have any more male children; on the other hand, 69.7% of women would rather not have any additional female children; the percentage draws closer at level 4 female living children. This shows preference

to have male children rather than female children; however, the preference degree is not so high.

The difference between the ideal number of males and females was calculated in order to determine the gap between preferring to have male or female children. According to the calculations, the differences between the mean of ideal number of males and females was approximately one quarter of a birth per woman who gave a numerical answer; the difference is somehow close concerning region and type of locality; however, it is rather high at refugee camps especially in the refugee camps in Gaza Strip.

In reality, the one-quarter mean male birth preference leads to an additional one-quarter female birth, which would be unwanted. This means that almost half a birth is due to preferring males to females, which needs to be considered when future population policies are drawn especially that Islamic religion is against the habit of preferring males to females.

5.9 Fertility preference and family planning services:

The often neglected family planning services are those services concerning non-pregnant women, who wish to delay pregnancy of the next birth, or those who do not use any family planning methods but do not want to have any more children, which would lead to unwanted pregnancy, as well as pregnant women whose last pregnancy was unwanted or came at the wrong time. Table 5.11 shows the relationship between fertility preferences and the use of family planning methods.

Table 5.11: Percentage of Currently Married Woman Aged 15-49 Who Use Family Planning Methods by Region and Preferred Fertility, 2000* and 2004

Using family planning methods and region	Preferred fertility					Total
	Prefers to have more children	Prefers not to have more children	Can't have children	Not her decision	Can't decide / doesn't know	
Palestinian Territory						
Uses family planning methods 2000	47.4	73.7	4.2	39.2	63.3	**60.0**
Uses family planning methods 2004	46.7	74.2	7.9	56.5	73.2	**59.9**
No. of women 2004	1,451	1,848	159	45	59	**3,562**
West Bank						
Uses family planning methods 2000	52.0	75.5	2.5	29.9	51.1	**63.1**
Uses family planning methods 2004	52.2	76.8	6.4	70.3	73.8	**64.0**
No. of women 2004	856	1,207	106	25	45	**2,239**
Gaza Strip						
Uses family planning methods 2000	40.1	69.9	9.3	53.3	77.8	**54.3**
Uses family planning methods 2004	38.4	69.1	10.6	39.4	71.4	**52.6**
No. of women 2004	595	641	53	70	14	**1,323**

*PCBS, *Health Survey 2000, Final Report*, 2001, Ramallah, Palestine

Table 5.11 shows that in 2004, 59.9% of the currently non-pregnant women in the Palestinian Territory used family planning methods compared with 60.0% in 2000. This means that the change is hardly noticeable during the period of 2000-2004.

However, on the regional level, there is slight increase in the West Bank and slight decrease in Gaza Strip in the percentage of women who used family planning methods during 2000-2004.

The percentage of using family planning methods among women who want to have more children in 2004 was 46.7% but the percentage among those who do not want to have children reached 74.2%. A rise in the percentage of women who use family planning methods is noticeable among those who want or do not want to have any more children in the West Bank compared with their counterparts in Gaza Strip.

It is worth noting that women who do not want to have more children but do not use family planning methods are subject to become pregnant, therefore, they need family planning services. The percentage of such women totals 25.8% of women who do not want to have any more children in the Palestinian Territory; they constitute 23.2% in the West Bank and 30.9% in Gaza Strip. This calls for relatively more concentration of health services in Gaza Strip than the West Bank with respect to family planning.
Women who prefer to have more children, those who said it was not their decision, those who stated that they have not decided yet, and those who said they did not know were asked the length of the birth interval. Pregnant women who wanted to have more children were also asked about the birth interval. The results can be summarized as in table 5.12.

Table 5.12: Percentage Distribution of Pregnant and not Pregnant Currently Married Women Aged 15-49 Who Wish to Have More Children by Desired Birth Interval and Region, 2000, 2004

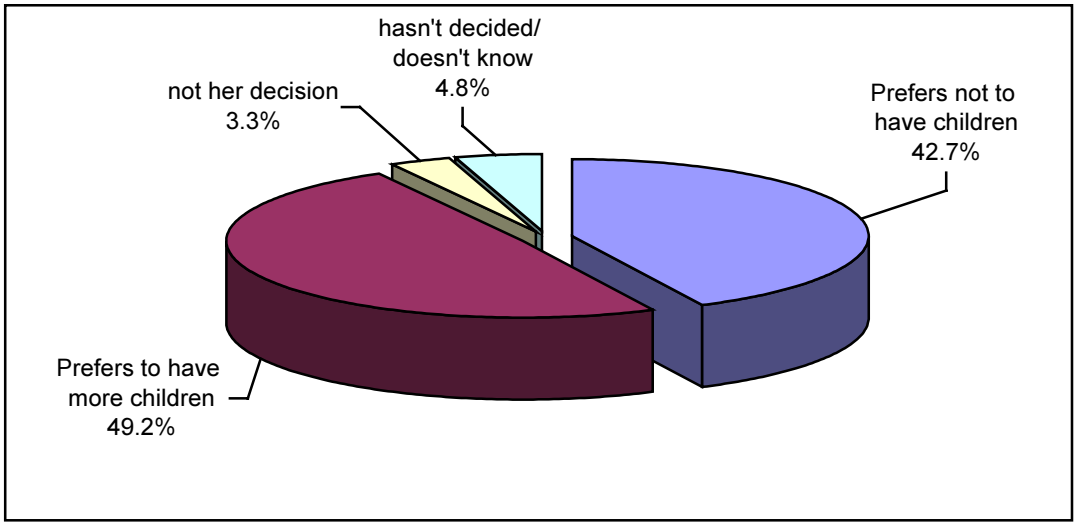
Birth interval	Year	West Bank	Gaza Strip	Palestinian Territory
Less than 2 years	2000	25.4	15.2	21.4
	2004	11.1	13.9	12.2
Two years or more	2000	50.8	54.3	52.2
	2004	55.9	52.8	54.7
Unlimited to a number	2000	23.8	30.5	26.4
	2004	33.0	33.1	33.2
No. of women	**2004**	**945**	**641**	**1,586**

Table 5.12 shows that 12.2% of women who wanted to have more children in 2004 would want to wait for a period of less than two years for the next birth compared to 21.4% in 2004. Also, 54.7% of women who wanted to have more children in 2004 indicated that they would wait for two or more years compared to 52.2% in 2000. Those who did not give specific period have a percentage of 33.2% in 2004 compared with 26.4% in 2000.

A larger number of West Bank women wanted to wait for less than two years for the next pregnancy in 2000; the situation reversed in 2004. Consequently, one might conclude that women tended to have longer birth intervals during 2000-2004.

Currently pregnant respondents were asked whether they preferred to have more children after delivery or preferred not to have any more children. Figure 5.8 shows the desire of currently pregnant women to have more children. 49.2% of currently pregnant women stated that wanted to have more children after delivery; 42.7% of them stated that they did not want to have more children after delivery; the remaining 8.1% said that it was not their decision, had not decided, or did not know.

Figure 5.5: Percentage Distribution of Currently Pregnant Women Aged 15-49 by Desire to Have Children after Delivery, 2004

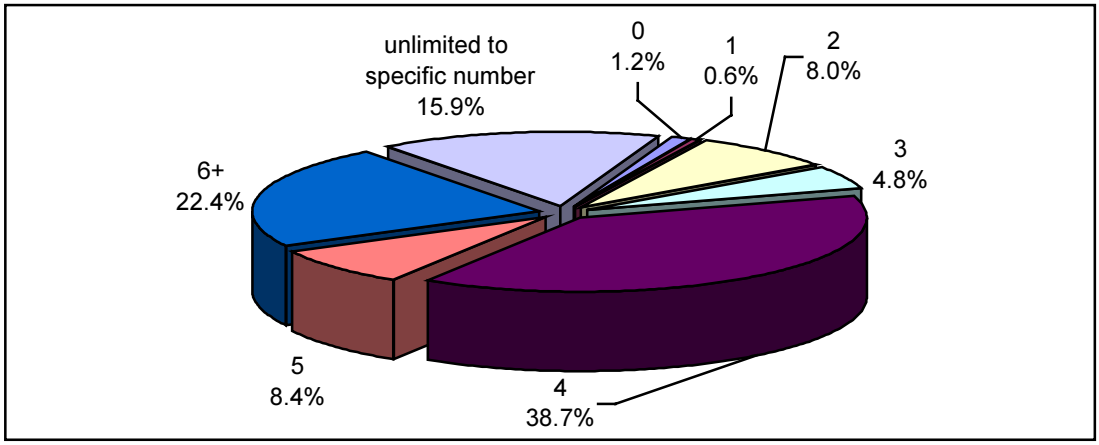


5.10 Ideal number of children:

Respondents were asked about the ideal number of children they wanted to have if they were to start having children; and the number of children they would like to have regardless of the number of children they gave birth to.

Figure 5.6 shows the ideal number of children for currently married women of the childbearing age (15-49). 1.8% of the respondents stated that the ideal size of the family is less than two children (level of substitution); 8.0% preferred and ideal size of two children; 4.8% stated an ideal number of three children; 38.7% stated that the ideal family size is four children; and 30.8% of respondents saw that five or more children is the ideal family size, the rest did not indicate a specific number. As a result, the desired number of children is 4.

Figure 5.6: Percentage Distribution of Currently Married Women Aged 15-49 by Their Opinion about the Ideal Number of Children, 2004



Respondents were also asked about the number of children a woman would like to have had she had the chance to go back to the time when she did not have any children; the results are listed in tables 5.13, 5.14, and 5.15.

Table 5.13: Ideal Mean Number of Children according to Women Opinion by Living Children and Current Women Age, 2000*, 2004

No. of living children by mother's current age	Ideal mean number of children	
	2000	2004
No. of living children		
0	4.00	4.27
1	3.97	4.37
2	4.14	4.42
3	4.20	4.25
4	4.37	4.39
5	4.83	4.51
+6	5.32	5.25
Mother's current age		
15-19	4.06	4.62
20-24	4.17	4.54
25-29	4.28	4.40
30-34	4.60	4.44
35-39	4.76	4.55
40-44	4.85	5.09
45-49	5.26	5.10
Total	**4.58**	**4.61**

Sources: PCBS, health Survey 2000. Final Report 2001, Ramallah, Palestine

Table 5.13 shows an increase in the ideal mean number of children in 2004 compared to 2000; however, the increase is unnoticeable. Also, the mean increases with the increase of the number of living children and with the increase in woman age. The mean ideal number of children in 2004 raged between 4.27 for those who have no living children and 5.25 for those who have six or more living children. The number is also varied according to age groups and ranged between 4.62 for those aged 15-19 and 5.1 for those aged 45-49.

Table 5.14 shows the 2004 variations in the ideal mean number of children among women by background characteristics. Women in Gaza Strip have high mean of ideal number of children compared with West Bank women (5.02 and 4.35 respectively). Moreover, women living in refugee camps have higher mean in the ideal number of children compared with urban and rural women (5.01, 4.49, and 4.61 respectively).

The mean ideal number of children has an opposite relation with the level of woman education; it ranges between 5.19 for women with no education and 4.23 for women with higher than secondary education.

Table 5.14: Ideal Mean Number of Children and Living Children according to Women Opinion by Selected Background Characteristics, 2000, 2004**

Background characteristics	Ideal mean no. of children		Mean number of living children
	2000	2004	2004
Region			
West Bank	4.46	4.35	3.38
Gaza Strip	4.80	5.02	4.42
Type of locality			
Urban	4.55	4.49	4.04
Rural	4.50	4.61	3.95
Refugee camp	4.81	5.01	4.29
Education			
None	5.16	5.19	5.75
Elementary	4.76	4.82	4.92
Preparatory	4.44	4.55	3.83
Secondary	*4.22	4.48	3.52
Higher than secondary	-	4.23	3.02
Total	**4.58**	**4.61**	**4.06**

* Also includes higher than secondary education
PCBS, **Health Survey 2000, Final Report, 2001, Ramallah, Palestine

It is also noticed that the mean number of living children is less than the mean ideal number of children for all categories except for elementary and below education, which explains the previously indicated contradictory relation between education and the desire to have more children. The reason for having a high percentage of uneducated women who want to stop having children is that they already have a sufficient number of living children; the mean number of living children here is 5.75 children for those who did not attain any level of education. The mean is even higher than the ideal mean number of the same category of 5.19 children.

Table 5.15 shows the percentage distribution of women by the number of living children and the ideal number of children; the table also shows the percentages of women who have a number of living children that is higher than the ideal number of children.

Table 5.15: Percentage of Currently Married Woman Aged 15-49 according to Women Opinion about Ideal Number of Children and Living Children, 2004

Ideal no. of children	No. of living children							
	0	1	2	3	4	5	6+	Total
0	1.0	0.3	1.8	0.6	0.7	1.6	2.4	**1.4**
1	0.9	2.0	0.6	0.9	0.9	0.2	0.3	**0.7**
2	12.6	9.5	10.1	10.1	11.0	10.8	6.7	**9.5**
3	7.4	8.5	6.2	11.0	2.8	4.9	3.2	**5.7**
4	52.0	48.9	49.4	51.7	54.0	38.0	37.8	**46.0**
5	7.6	10.9	11.6	10.4	6.5	17.9	7.7	**10.0**
6+	18.5	19.9	20.3	15.3	24.1	26.6	41.9	**26.7**
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
No. of women	**305**	**305**	**511**	**543**	**547**	**461**	**1,031**	**3,763**

If we divide table 5.15 into two parts using the diameter coming down from the upper angle of the table from the left side to lower angle from the right side, we will end up with three groups; and if we add the percentages of each group and divided them on the total of all percentages (700), the following will result:

1. First group: The ideal number is equal to the number of living children at 19.7%.
2. Second group: The ideal number is smaller than the number of living children at 20.5%.
3. Third group: The ideal number is bigger than the number of living children at 59.8%.

Hence, the ideal number is bigger than the number of living children; and the ideal number for 60% of the women who gave numerical number in their answers is bigger than the number of living children; such women sought to arrive to the ideal number of children through having more children.

Executive summary:

- More than half of the currently married women 51.8% who are in childbearing age want to stop having children; 41.1% want to have more children; 7.1% have not decide/ do not know and cannot decide.
- During 2000-2004, the percentage of women who wanted to have more children dropped; on the other hand, the percentage of women who prefer not to have children remained almost fixed; the percentage of those who cannot have children rose.
- The percentage of women who want to have more children in Gaza Strip is 44.8%, which is higher than that of the West Bank of 38.9%. At the same time, more than half of the West Bank women 53.7% expressed their wish to stop having children compared with 48.6% in Gaza Strip.
- The percentage of women who wish to stop having children is positively linked with the number of living children of those ever-born to a woman.
- Upon comparison of fertility preferences between 2000 and 2004, it is noticed that despite the fact that the percentage of women who do not want to have more children (prefer not to have more children) is close, the percentage of those who wish to have more children dropped from 44.4% to 41.1%, which indicates a slight drop in the fertility rates during such period.
- Completion of woman university education increase the mean age at first marriage by at lease 4 years, increases the woman chances of joining the labor force, and reduces the ideal number of children a woman wishes to give birth to.
- The main determinants of the decisions of fertility of the woman are: The number of living children, the number of children a woman wants to have especially male children, education, relationship with the labor force, age at first marriage, and the length of the marital life of the woman.
- The percentage of both husband and wife taking the decision concerning the number of children in the family in 2004 was 78.6%, which is higher than the percentage of 2000, which was 77.9%. The wife alone decides in 5.8% of the cases and in 12.2% of the cases it is the husband's decision. Henceforth, in 18.0% of the cases the couples do not take part in the decision about the number of children while in 3.4% of the cases the decision is made by others, which calls for both women and men participation in family planning and health education programs.
- Almost half a birth occurs due to preferring males to females, which needs to be considered when future population policies are drawn.
- 1.8% of the respondents stated that the ideal size of the family is less than two children (level of substitution); 8.0% preferred and ideal size of two children; 4.8% stated an ideal

number of three children; 38.7% stated that the ideal family size is four children; and 30.8% of respondents saw that five or more children is the ideal family size.

- In 2004, women in Gaza Strip had high mean of ideal number of children compared with West Bank women (5.02 and 4.35 respectively). Moreover, women living in refugee camps had higher mean in the ideal number of children compared with urban and rural women (5.01, 4.49, and 4.61 respectively).

Recommendations:

- Carry out more studies and researches on fertility preferences and their relationship with education, labor force, and the use of direct and indirect standardization methods to isolate other effects.
- Concentrate in maternal health programs on the neglected family planning services especially in Gaza Strip and engage couples in family planning issues.
- Concentrate on reducing the effect of preferring male children to female children in health education and awareness programs.

Chapter Six

Child and Infant Mortality

6.1 Introduction:

Studies of infant and child health indicators and their level and trends are important to demonstrate changes in the population health status through time. Estimates of child and infant mortality rates are one of the most important health indices, which reflect the health status and social level in the community. They help the process of health surveillance and evaluation of the population health programs. Many countries set their health polices based on change of these indices. Developing countries, develop hospital and diagnostic services with high cost to avoid any possible cause of death. While countries of the world adopted policies to support the primary health care services including maternal and child health services to minimize mortality due to preventable diseases responsible for the major component of the mortality in developing countries. These activities reduce child mortality due to common preventable diseases especially the vaccine preventable diseases. This policy resulted in a marked reduction in child mortality in most of the countries in the world whether developed or developing countries.

Generally it is observed that countries with high fertility and high birth rates, as demonstrated later in this chapter are suffering from higher infant and child mortality. There is a correlation between the two issues and one factor could cause the other. There are variations among countries in the reported child Mortality. In 2004 under 5 years mortality was less than 5 per 1000 live birth in Japan, Finland and Sweden. It was more than 200 deaths per 1000 live birth in Maley, and Somalia. Under five mortality in Afghanistan was 257 and in Angola 262 per 1000 live birth. This means, that more than a quarter of born children died before reaching five years old.[1]

In 1994 Palestinian Territory adopted a National Health plan[2]. According to this plan primary health services are the vertebral column of the Palestinian health care system. In this system women and child health has a top priority. One of the main goals is reduction of morbidity and mortality among women and children. One of the strategic goals is stated as: " By the year 2000 to reduce Infant mortality will be reduced by 30% of the present level [2]. Years latter a network of Maternal and child health centers are established, expanded and supported by the relevant health programs in both Gaza Strip and the West Bank. The strategic health plan for the years (1999-2003) calls for establishment of primary health care center that provide maternal and child health services in the deprived areas in the Palestinian Territory."[3]

In this chapter we are going to discuss four indicators to measure the level and trends of infant and child mortality. Each health Indicator reflects a time period of child life. These indicators are:

1. Neonatal Mortality: Probability of death in the first 28 days.
2. Post Neonatal Mortality: Probability of death after 28 day and before computation of the first year of life.
3. Infant Mortality: Probability of death during the first year of life. This includes the sum of the first and the second indicators.
4. Under five-year Mortality: probability of the children death before reaching their fifth birthday.

[1] World Health Organization (2004), The World Health Report 2004, Changing History, Geneva.
[2] The National Health Plan for the Palestinian People. Objectives and Strategies. April 1994
[3] Palestinian National Authority – Ministry of Health, National strategic Health Plan

These rates are calculated by dividing the number of deaths during the specified period by the total number of live births in the same year and multiplying by 1000. They are expressed as: mortality rate per one thousand live births.

Each of these indicators reflects associated specific health hazards and reflects the situation of the health services provided for the child and his mother. For example: Neonatal mortality is mainly contributed to pre-maturity, congenital anomalies and complications of delivery. Reduction of neonatal mortality necessitates improvement of antenatal care and improvement of delivery place and neonatal services in hospitals. Post-neonatal mortality is mainly caused from respiratory and enteric diseases. Reduction of post neonatal mortality necessitates improvement of the environmental conditions and support of the primary health care services.

6.2 Data quality:

Accuracy of child and infant mortality rates depends on the ability of investigators to have accurate numbers of total deaths during the period of investigation and accuracy of reported live births for the same population at the same time. We observed variation of the results in Palestinian land, this variation could be explained by:

1. Incomplete registry of live births in one locality or more.
2. Un-notified cases of deaths for different reasons specially during the early neonatal period.
3. Variations of the study areas where the figure of limited area survey could not be generalized for all the Palestinian society
4. Variation of study designs and data collection whether by the direct or indirect methods

During the demographic and Health Survey (2004) in Palestinian Territory [4]. There is a real attempt to avoid problems in the previous registrations and Demographic and Health Surveys.

1. The sample is not limited for specific localities, it is including all governments in the West Bank and the Gaza Strip and covers cites villages and refugee camps. The sample is two-stage random sample. The sample was appropriate to the population size in the area included in the survey. [4]
2. Child and infant mortality rates are calculated based on the data collected in the 3rd part of the questionnaire regarding reproductive history. Women were asked about number of born children (males or females) with details about name, sex and birth date. The same variables were reported for all Decayed children beside date of death. It is worth-wise to mention that during the survey the families were asked about two major events during life, birth and death. No one can forget these events. This will minimize the chance of recall bias in estimation of births and deaths.
3. Active steps improved validity and reliability of the collected data. Training of the field workers and pilot study were conducted to test and improve validity and reliability of the data collected. Response rate is high and exceeded 90%.

Data collected in this survey is exposed to some bias such as:

1. Inaccurate registry of birth and death dates leads to overlap of data. This may lead to a bias in Infant mortality estimation. This effect is mild where the group that could be affected is those died in the twelfth month, which is always very low. During this survey the data was calculated by day for those who died in the first month and by month for deaths in the first two years of life and by year for death after the 2nd year. This process minimizes the bias and improve the validity.

[4] Palestinian Central Bureau of statistics Demographic and Health Survey. Main findings 2004.

2. During determination of risk factors for infant and child deaths the survey depends on questioning woman about non documented variables such as years of education. This error is more among woman in the middle class of education. Anyhow the use of the scientific approach in the sample selection and training of the staff improve validity to have a realistic data.

6.3 Mortality Levels and trends:

During the Demographic and Health Survey 2004 Infant and child mortality are estimated in the last 15 years and this time is divided to 3 periods, five years each: 90 – 94, 95 – 99 and 2000 – 2004.

Table 6.1 and Figure 6.1 demonstrate a graduate and regular reduction in mortality rates through time. Neonatal mortality is reduced from 21.2 in the first period (90-94) to reach 16.4 per thousand live births in the last 5 years. Post-neonatal mortality rate is reduced from 11.6 in the first period to reach 7.8 per 1000 live birth in the last 5 years. This is reflected on infant mortality where probability of infant death is sum of neonatal and posts neonatal probability of death. During the first period (90-94) Infant mortality was 32.8 to reach 24.2 per l000 live birth in the last five years after gradual reduction through the past 15 years. Under five mortality was reduced by the same pattern from 37.7 in the first period to reach 28.3 per 1000 live birth in the last 5 years.

Table 6.1: Direct estimates of infant and child mortality rates for five years preceding the survey by region, 2004

Palestinian Territory	Neonatal Mortality	Post neonatal Mortality	Infant Mortality	Under 5 Mortality
1990-1994	21.2	11.6	32.8	37.7
1995-1999	19.0	9.0	28.0	31.0
2000-2004	16.4	7.8	24.2	28.3
West Bank				
1990-1994	20.7	8.2	28.9	32.9
1995-1999	14.9	8.3	23.2	27.6
2000-2004	13.5	6.5	20.0	23.7
Gaza Strip				
1990-1994	21.9	16.4	38.3	44.4
1995-1999	25.2	9.9	35.1	40.0
2000-2004	20.6	9.6	30.2	34.8

When child age increases the risk of death decreases. The chance of death during the neonatal period (less than 29 days) exceeds the chance of death during post-neonatal period (29-365 days). In the last 5 year period neonatal mortality rate is 2.1 times higher than post-neonatal rate. This indicates the high risk in the first 4 weeks of life if compared with the following eleven months of the first year of life.

Figure 6.1: Direct estimates of Infant and Child Mortality Rates per 1000 live birth for 5 years preceding the survey, 2004

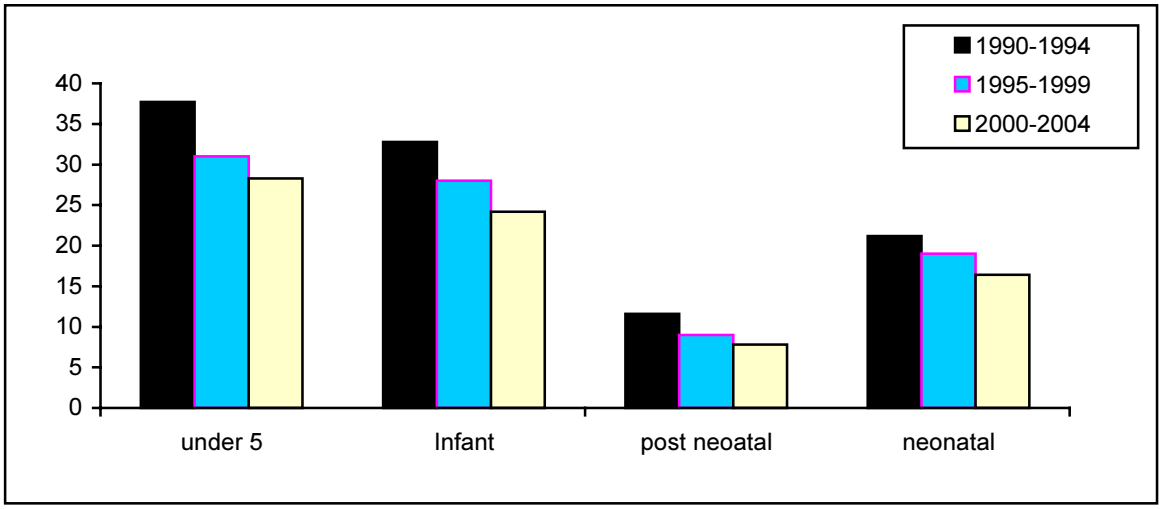


Table 6.1 and Figure 6.1 demonstrate the same trend of reduction in infant and child mortality in both the Gaza Strip and the West Bank. There are differences between the reported mortality rates in the two regions. The rates were higher in the Gaza strip than the West Bank in the first 5 years (90-94). Infant mortality was 38.3 per thousand in the Gaza Strip and 28.9 per thousand in the West Bank. Under five Mortalities were 44.4 per thousand in the Gaza Strip and 32.9 per thousand in the West Bank. Infant Mortality rate in the West Bank dropped to 20.0 per thousand and in the Gaza Strip to 30.2 per thousand. Under five year mortality in the West Bank reached 23.7 per thousand and in the Gaza Strip 34.8 per 1000 live birth during the period 2000-2004. The same table and Figure demonstrate constant differences between the West Bank and the Gaza Strip through the three periods described in the Demographic and Health Survey 2004.

Changes in the mortality trends in the two regions are referred to two major causes. The first is the expansion of the Maternal and child health services especially in the West Bank. These centers provide the population with better health services that reduce mortality. The second reason is improvement in data collection resulted in more accurate rates.

Generally there are regional differences between the Gaza Strip and the West Bank, where the infant and child mortality rates are higher in Gaza Strip. There is a marked difference between the two regions in mortality reduction, in the West Bank IMR reduced by 30% through the last 15 years while this reduction is 20% in the Gaza Strip.

Reduction of Infant and child mortality in the present estimation in Demographic and Health Survey 2004 is slightly less than the estimates of the Demographic and Health Survey 2000 for the West Bank and the Gaza Strip. The estimated infant mortality for the Palestinian Territory for the years 2000 was 25.5 compare to 24.2 in the present survey. Estimated infant mortality was 24.2 for the West Bank and 27.3 for the Gaza Strip, while the present direct estimate for infant mortality is 20.0 and 30.2 per thousand respectively for the two regions [5] .

Reported infant and child mortality by Ministry of Health is less than the rates reported by the Demographic and Health Survey 2004. For the year 2003 Ministry of Health reported infant

[5] Palestinian Central Bureau of statistics Demographic and Health Survey. Main findings 2000.

mortality 16.5 per-thousand with higher rate in the Gaza Strip (24 per thousand). The reported Under five-year mortality were 28.5 in the Palestinian Territory. Ministry of Health report refers to probability of under reporting where deaths included in the report are those notified and registered the official health offices[6]. In spite of the lower reported rates by MOH it is worthy to say that Demographic and Health Survey 2004 and MOH report come with full agreement in number of issues:

1. The gradual decrease of infant and child mortality through years.
2. Higher mortality rates in Gaza Strip than rates in the West Bank.
3. The highest probability of death occurs during the neonatal period

Figure 6.2: Direct estimates of infant and child mortality per 1000 live birth for 5 years preceding the survey by region, 2004

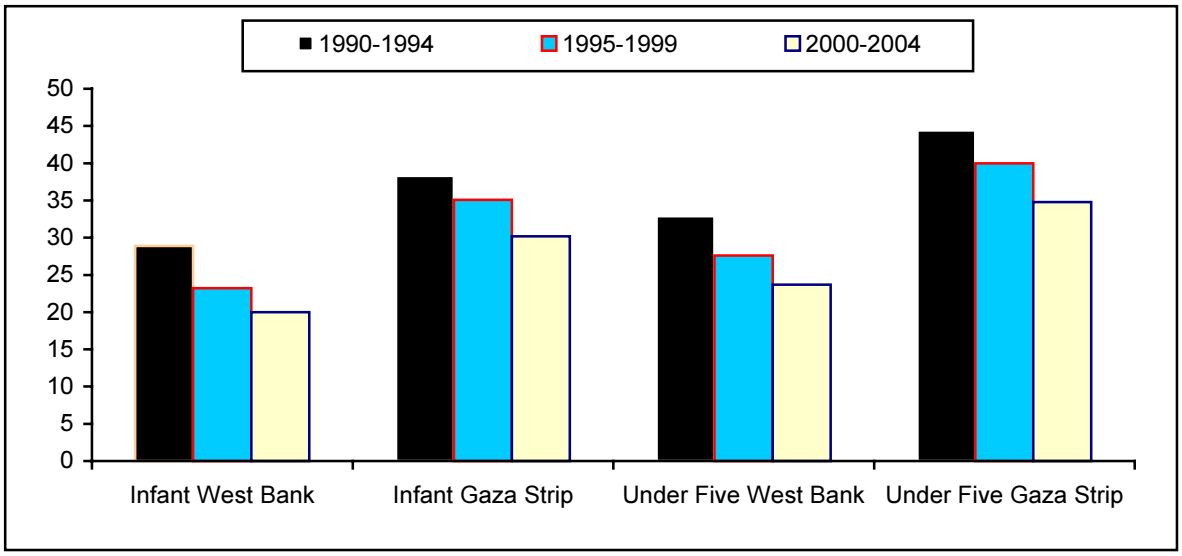
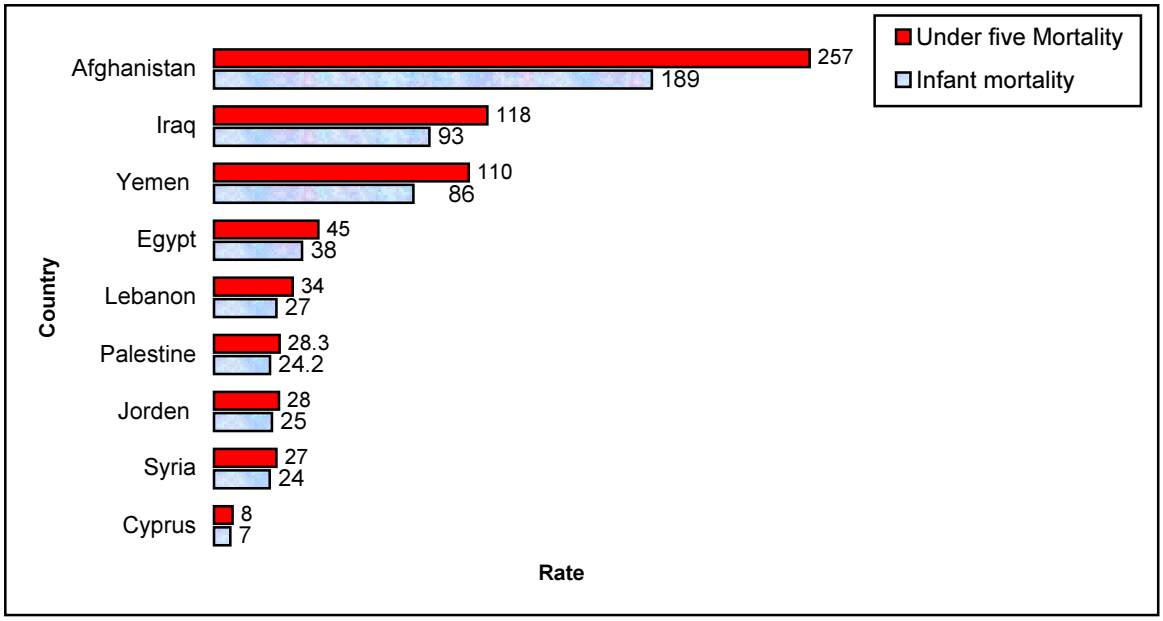


Figure (6.3) compare infant and child mortality as reported in the Demographic and Health Survey 2004 in the Palestinian Territory with the mortality rates in other countries mainly in the Eastern Mediterranean region as reported by the World Health Organization 2004. Infant and child mortality rates in the Palestinian Territory are similar to rates in the surrounding countries such as Syria, Lebanon and Jordan and less than other surrounding countries. These rates are far away from the rates reported a nearby country as Cyprus [1].

[6] Palestinian National Authority, Ministry of Health, The Status of Health in Palestine. Annual Report 2003, Palestine.

Figure 6.3: Compare infant and child mortality in the Palestinian Territory with the mortality rates in some of the World Countries



Source: WHO (2004) The World Health Report 2004, Changing History, Geneva.

6.4 Risk factors for infant and child mortality:

In this chapter we study some possible risk factors for infant and child mortality available in the Demographic and Health Survey 2004 in the Palestinian Territory. These risk factors are compared with similar risk factors studied during Demographic and Health Surveys in Arab countries as Egypt, Jordan, Yemen and Libya. We could not explore other risk factors from the available data.

1. Sex: Demographic and Health Survey 2004 results (table 6.2) demonstrated higher infant and child mortality among males. Probability of death among males is higher than females during the neonatal period while probability of female deaths during post neonatal period is equal. Similar results are reported in Demographic and Health Surveys in Egypt, Jordan, Yemen and Libya. The Demographic and Health Survey 2000 showed slight differences in mortality than the Demographic and Health Survey 2004. Infant mortality was 25.3 per thousand among males and 25.6 per thousand among females. Under five Infant mortality was 29.1 per thousand for males and 28.3 per thousand for females. Results of Demographic and Health Survey 2000 exclude presence of differences between males and females on the social level and health services provision level in the Palestinian Territory[4,5]. The results of the recent survey are similar to the 1995 Demographic survey where findings during that time demonstrated higher mortality rates among male infants and children[13].
2. Mothers Education: Table 6.2 shows that the probability of infant and children death is not affected by the years of the mother education. This result is far from previous findings where Child mortality decreases when Education levels increase. In the Demographic and Health Survey 2000 women with low education level have children with neonatal Mortality three folds higher than neonates of women with high education level. The relationship between mother education and child and infant mortality was reported in the previo us demographic surveys that demonstrated a negative relation ship between childhood mortality and the educational level of the mother[7]. This difference may be due to

[7] Palestine Central Bureau of statistic, Demography of the Palestinian Population in the West Bank and Gaza Strip, Current status report. 1994

the missing cases in the education of mother or related to data quality for this variable.

Table 6.2: Direct estimates of infant and child mortality rates for five years preceding the survey by selected background characteristics, 2000, 2004

Background Characteristics	Neonatal Mortality	Post neonatal Mortality	Infant Mortality	Under Five Mortality
Sex				
Male	18.9	7.8	26.6	31.8
Female	13.8	7.8	21.6	24.6
Education				
Less than secondary	15.6	7.8	23.4	27.3
Secondary	19.8	7.0	26.9	29.6
More than Secondary	14.7	9.4	24.1	31.2
Type of locality				
Urban	17.2	6.4	23.6	27.7
Rural	13.7	6.6	20.3	24.5
Camp	18.2	14.2	32.5	36.2
Region				
West Bank	13.5	6.5	20	23.7
Gaza Strip	20.6	9.6	30.2	34.8
Palestinian Territory	16.4	7.8	24.2	28.3

3. Type of locality: According to the results demonstrated in table 6.2 the Refugees inside the camps have the highest infant and child mortality rates. Residents of the rural areas have the lowest probability of death for the same age groups. In Demographic and Health Surveys conducted in neighboring countries village peoples reported higher infant and child mortality than the city population. Similar findings were reported during the Demographic and Health Survey 2000. Palestinian Demographic survey 1995 showed higher risk of infant and child mortality in the villages[8]. Variation between results could be due to change in changes in the characteristics of the localities where according to PCBS definition, rural areas are: "any locality whose population is less than 4000 persons or whose population varies from 4000-9990 persons but lacking four of the following elements: public electricity network, public water network, post office, health center with full time physician and a school offering a general secondary education certificate". This definition was used in the 2000 and 2004 surveys.
4. Region: In the same table (6.2) it is clear that infant and child mortality rates are higher in Gaza Strip than the West Bank. These differences were discussed in the section of levels and trends.
5. Mother's age: As seen in table 6.3 the lowest child mortality rates are reported among women aged 25-34 years. Probability of child death increases when mothers are less than 25 years. It is worthy to mention that this age group includes women starting from 15 years old and the problem of early marriage is still common in the Palestinian Territory.

[8] Palestinian Central Bureau of statistics. (1997) The Demographic Survey for the West Bank and the Gaza Strip. Final Report, 1997.

Table 6.3: Infant and child mortality by mother age, 2004

Mother's age	Neonatal Mortality	Post neonatal mortality	Infant mortality	Under five mortality
15-24	22.7	8.6	31.2	35.7
25.34	15.0	6.8	21.8	25.2
35-54	11.9	9.1	21.0	25.9

6. Parity: Table No. 6.4 shows that the child and infant death rates increase when the number of children ever born increases. The highest rate is reported among families with four children and more. This is true for both infant and child mortality with some variation in the time of death during the infancy period where the first category (1-2) children reported higher post neonatal rates than the second category of 3 children. This could be explained by social factors where more care is given for the first child and then care is less. This is reflected on large families with more than four children where post neonatal is highest where care is less. These findings are similar to the Demographic and Demographic and Health Survey 2000 in the Palestinian Territory. Generally the results come in accordance of the results of Demographic and Health Survey in Egypt Jordan and Yemen.

Table 6.4: Relation ship between number of children ever born and mortality rates for infants and children, 2004

Children ever born	Neonatal Mortality	Post neonatal Mortality	Infant Mortality	Under Five Mortality
1-2	13.4	4.9	18.3	23.2
3	17.8	3.8	21.6	27.1
4+	17.1	10.0	27.2	31.2

The birth and death events are correlated, when we compare crude birth rates and infant mortality rates in select countries in the world, we observe that countries with high fertility as measured by Total Fertility Rate has also high infant mortality rates. As the Total Fertility Rates decrease the infant mortality decrease (Table 6.5). These findings confirm our findings in the Demographic and Health Survey 2004 in Palestinian Territory regarding the relation ship between child mortality and high Fertility.

This risk factor is under-control in the Palestinian Territory. Reports from PCBS and MOH shows a decline in total and the specific fertility rate especially among women at high risk.[4,6]
During the current Demographic and Health Survey we cannot examine the relation ship between provision of antenatal care services and infant and child mortality where 95% of women included in the survey received antenatal care. The high percentage of care provision makes comparison with the small non-beneficiary group a difficult task. It is true that the quantity of the service is satisfactory but the question about quality of antenatal care needs more investigations.

Table 6.5: Total fertility rate and infant mortality rate in a selected countries, 2002

Country	Infant Mortality Rate	Total Fertility Rate
Afghanistan	189	6.8
Somalia	130	4.2
Egypt	38	3.3
Turkey	36	2.5
United kingdom	7	1.6
Switzerland	5	1.4

Source: World Health Organization (2004), The World Health Report 2004, Changing History, Geneva

6.5 Causes of infant and child deaths:

According to Ministry of health report Pneumonia respiratory diseases, congenital anomalies, prematurity and septicemia are the main courses of infant mortality. The main causes of death among under five children are pneumonia, respiratory disorders, accidents, and congenital anomalies. A large proportion of these moralities are preventable [(6).] Demographic and Demographic and Health Survey 2004 don't explore causes of infant and child mortality.

Executive summary:

Results of the demographic and Health Survey 2004 in the Palestinian territory show that infant and child mortality rates are accepted if compared with the countries in the region. The mortality rates are similar to those reported in Syria, Lebanon and Jordan. Neonatal, post neonatal, infant and the under five mortality rates decline in the last 15 years in both Gaza strip and the West Bank. There are major differences in mortality rates between the two regions, where higher rates are reported in Gaza Strip. Males reported higher mortality rates than females. The results pointed risk factors for mortality mainly the locality where living in Gaza increases the chances of infant and child death. Probability of death is higher in the refuge camps, while the rural localities expressed lower chances of death. The second risk factor is the parity, where the probability of death increases as parity increases. Mortality rates are higher among early married women. This survey did not explore causes of deaths during the investigated period. Data from Ministry of health could be used to define main causes of death and to plan for the relevant health programs to minimize infant and child mortality. More efforts are required to reduce infant and child mortality. This necessitates to continue support of primary health care programs and mainly care of the children and the pregnant women. Since neonatal mortality is the major component of death during childhood, improvement of maternities and neo-natal health services are required
to reduce neo-natal mortality and subsequently infant and child mortality.

Recommendations:

- Continuity of Demographic and Demographic and Health Survey to define the main causes of infant and child deaths and the related risk factors.
- Support of women health by encouraging education, provision of antenatal and postnatal care and discouragement of early marriage.
- Coordination between the national health services and UNRWA services to work together to reduce infant and child mortality in the refugee camps.
- Reduction of neo-natal moralities by all health care providers through support of antenatal care and family planning program.
- Improvement of maternity sections in the hospital to ensure safety for the mother and the newborn.
- Improvement of diagnostic facilities and proper management for prematurity.

Chapter Seven

Maternal Health

7.1 Introduction:

The global safe motherhood initiative that was launched in 1987 challenged governments and international agencies around the world to give more attention to the women's health needs based on the life cycle approach. When we take women's health perceptions into consideration, we find that the way biomedicine addresses the incidence of maternal mortality provides views on only very limited aspects of the problem. The medical perspective provides only a partial answer to the causes of the tragedy of maternal mortality, focusing on the meaning of a healthy delivery combined with the experiences of women who have delivered in hospitals. Women know this through experience and in accordance make their choices of where to deliver (Sholkamy 1996).

Women's health needs are often neglected and research has rarely focused on women's reproductive health; therefore, the information available is limited. Most of the new studies on reproductive and prenatal health remain unpublished. In Palestine no data is currently available on reproductive morbidity.

In the Middle East many women face health risks as a result of early pregnancy, post-partum hemorrhage, hypertension, anemia, nutritional deficiencies and high fertility rates[1].

Table 7.1: Lifetime risk of maternal in the World by region, 2000

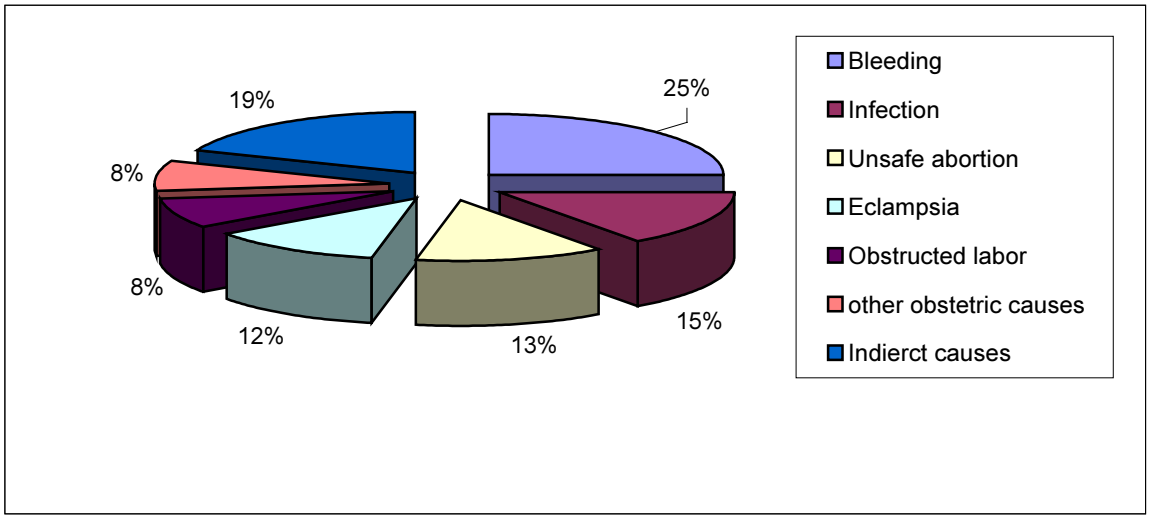
Region	Date
Africa	1 in 15
Asia	1 in 105
Latin America and Caribbean	1 in 150
Europe	1 in 1.895
North America	1 in 3.750

Source: (Maternal Mortality in 2000: Estimates Developed by WHO, UNICEF and UNFPA; www.who.int/reproductive-health/publications/maternal_mortality_2000.html)

The common causes of maternal mortality and morbidity in the developing world are hemorrhage, sepsis, high blood pressure and obstructed labor. For every maternal death, 16 to 25 women suffer short or long-term illness such as anemia, infections, fistulas and uterine prolapse.

[1] *Eastern Mediterranean Health Journal, Vo16, No.4*

Figure 7.1: Causes of maternal death in the World, 2002



Source: Raising Awareness for Reproductive Health in Complex Emergencies, 2002, p.45

A framework for reducing maternal and neonatal mortality and morbidity focuses on dealing with the four delays:

- Recognizing a complication
- Deciding to seek care
- Reaching an equipped health care facility
- Receiving appropriate treatment (quality of care)

Main strategies for preventing maternal and perinatal mortality include:

1. Early recognition of complications with referral
2. Access to skilled attendants and emergency obstetric care
3. Prevention of high risk pregnancy through family planning
4. Management of delivery and abortion complications
5. Breastfeeding support
6. Essential newborn care

This chapter will discuss maternal and child health based on standard childbirth objectives[2]. The evidence linking maternal health programmes to the health of mothers remains mainly correlational and at the aggregate population level. Such evidence does not prove causality, as the observed relationship may be due to the presence of known or unknown confounding factors or to bias.

7.2 Maternal Health:

7.2.1 Antenatal Care:

Antenatal care is not a single well-defined intervention; rather it involves many components. The biological efficacy of only a few of these components has been demonstrated and no formal studies systematically relating the contribution of each component are available.

Antenatal care:

- Health assessment
- Detection and management of complications
- Maintenance of maternal nutrition

[2] *CARE, 2002*

- Behavior change and communication
- Health promotion interventions:
  - Tetanus toxoid (TT) vaccination
  - Folic acid and ferrous sulfate supplements

The appropriate outcome measure is not well specified. Total maternal mortality is too broad and depends on too many other uncontrollable variables, including access to other health services.

The answer to the question: "Is antenatal care effective?" requires well-designed studies which show the separate contribution of each component.

7.2.2 Health assessment:
Assessment of the impact of antenatal care programmes at the population level is too crude to answer the question as to whether interventions during pregnancy can improve maternal health. There are a number of reasons for this uncertainty: it's very difficult, if not impossible, to examine the impact of antenatal care on the outcomes of pregnancy. Antenatal care should be an integral part of continuous care that begins with the antenatal care and continues through delivery and the postpartum period. Furthermore, quality of care and health promotion are the most important factors that influence the outcome of the pregnancy.

Table 7.2: Women's receipt of routine prenatal examinations by demographic characteristics, 2004

Background Characteristics	Routine Examinations								Total number of Births
	Fetus Pulse	Abdominal Exam\Uterine	Ultra Sound	Urine Analysis	Blood Analysis	Blood Pressure	Length	Weight	
Region									
Palestinian Territory	97.0	78.3	90.2	95.1	96.4	97.2	71.9	96.8	3,196
West Bank	96.2	70.6	93.1	93.4	94.9	96.5	67.4	96.3	1,855
Gaza Strip	98.2	88.9	86.2	97.4	98.5	98.2	77.9	97.5	1,341
Type of Locality									
Urban	96.7	79.0	91.6	95.3	96.4	97.3	73.4	96.4	1,741
Rural	96.3	73.2	93.5	93.1	95.3	96.5	68.9	96.7	905
Camps	98.9	84.8	80.5	97.6	98.5	98.1	71.8	98.3	550
Birth Order									
First	97.1	79.6	89.3	95.0	96.1	98.2	75.8	98.0	565
Second or Third	96.8	76.7	90.4	94.7	96.4	97.3	70.8	96.9	1,034
Fourth or Fifth	96.1	75.8	89.6	94.8	96.4	95.9	68.2	97.1	826
Sixth and Over	98.1	82.4	91.3	96.3	97.0	97.6	74.5	95.6	771
Educational Qualification									
None	98.4	74.3	87.7	94.7	94.7	93.0	69.5	95.2	247
Elementary	96.8	79.4	91.4	94.6	95.1	95.3	66.1	93.6	630
Preparatory	96.2	77.2	89.4	94.9	96.5	97.5	74.2	97.3	1,178
Secondary and Above	98.0	79.7	90.5	95.7	97.5	98.8	73.2	98.5	1,141

The routine examinations mentioned in table 7.2, above, are part of the antenatal medical records and the national unified reproductive health guidelines and protocols (2000) adapted by the Ministry of Health. These examinations are usually conducted by doctors, nurses and midwifes.

Weight and height:
Table 7.2 shows that (96.8%) of pregnant women in this Demographic Health survey 2004, (DHS) were weighed, yet only (71.9%) of them had their height measured in the Palestinian Territory. This percentage was lower in the West Bank (67.4%) than in Gaza Strip (77.9%). This table does not reflect the quality of care given to pregnant women, it only shows the number of procedures provided, as mentioned in the protocol. The fact that one third of the women their height not measured could be used as an indicator of the quality of health care.

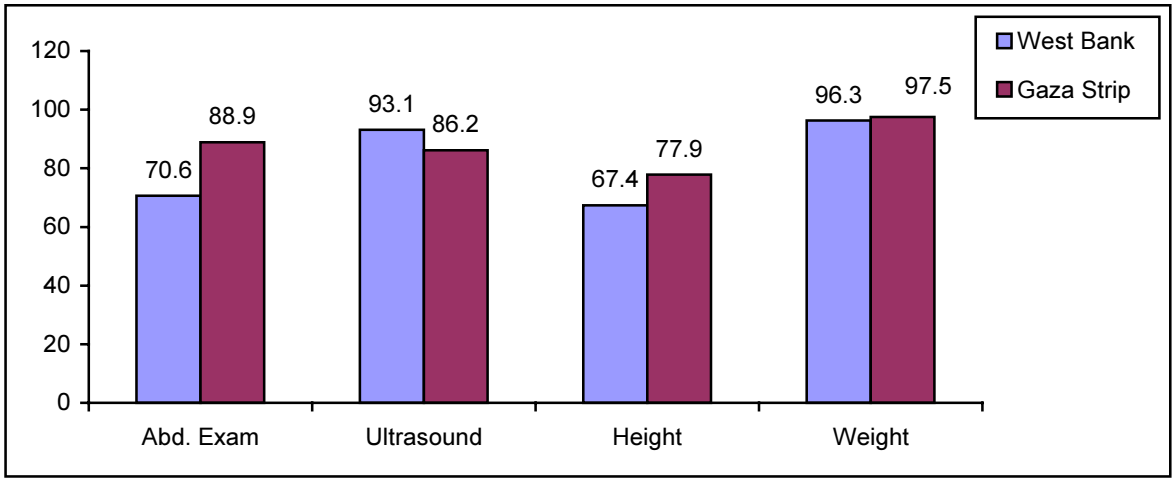
Blood pressure and urine analysis:
Blood pressure and urine analysis are very important indicators for predicting preeclampsia, which is a condition peculiar to pregnancy, manifested by hypertension, oedema and/or proteinuria (World Health Organization, 2000). In the Palestinian Territory, (97.2%) of women had their blood pressure measured during antenatal care. The urine analysis indicator mentioned in table 7.2 shows that (95.1%) of women surveyed had this test during pregnancy (93.4% in the West Bank and 97.4% in Gaza). This does not indicate whether the test was performed to identify infection, or albumin and sugar in the urine.

The ultrasound examination:
The ultrasound examination for pregnant women is commonly used in the Palestinian Territory (90.2%), as shown in table 7.2; in fact it is overused by health professionals, given the fact that it is supposed to be used only once in each trimester, based on the MOH protocols and guidelines, in order to predict congenital abnormalities and intrauterine growth retardation. Instead, health professionals use it during every visit only to determine the fetal heartbeat. It is important to mention here that there is a difference in the ultrasound use between the West Bank, where (93.1%) of women surveyed reported having received ultrasound while in Gaza Strip, (86.2%) of women indicated that they had received this examination. This is because in Gaza Strip antenatal care is primarily provided by midwives in UNRWA clinics, and midwives do not provide ultrasound service – this service is performed only by doctors. This is further reflected in the fact that the data from refugee camps, where UNRWA staff are the primary providers, show a lower level of ultrasound use (80.5%) than in urban (91.6%) and rural (93.5%) areas[3].

The uterine height:
Abdominal examination of the uterus should be done in the first and return visits to determine the uterine height, which helps in approximating the number of weeks completed in the pregnancy (gestational age). This examination was given to a low percentage of women (78.3% in the Palestinian Territory) when compared to ultrasound and fetus pulse examinations. It was also less used in the West Bank (70.6%) than in Gaza Strip (88.9%), as shown in Figure 7.2.

[3] *UNFPA, MOH, 2000*

Figure 7. 2: Percentage of Woman who received selected routine examinations by region, 2004



Birth order does not seem to have been a factor in access to routine examinations selected for investigation in this study. This household survey revealed that significant proportions of women received these routine examinations, but the data does not measure their awareness of the reasons for conducting/receiving these examinations, which is the early detection of eclampsia.

7.2.3 Antenatal care coverage and source of antenatal care:

Based on the data collected in 2004, the percentage of mothers who received antenatal care was (96.5%) but that does not reflect the number of visits, the quality of care, or the mothers' satisfaction; at the same time the coverage was higher among those surveyed in 2004 than in 2000 household survey (95.6%) or the 1996 survey (94.6%)[4].

There was a directly proportional relationship between education level and the receipt of antenatal care. Those women who did not receive antenatal care were more likely to be less educated compared to women who did receive antenatal care. Among the non-educated women, (48.4%) said that they did not access antenatal care because they had not had any problems (see table 7.3), suggesting that these women are not aware of the importance of the preventive objectives of antenatal care. There is also a significant difference between the percentage of women who did not access antenatal care because they had no problems during pregnancy in the West Bank (16.7%) compared to similar women in Gaza Strip (64.1%), despite the fact that the services in general have been more accessible there than in the West Bank.

In addition, access to antenatal care decreased with parity, with fewer women accessing antenatal care for their 4th pregnancy or more.

[4] *PCBS Health Survey Final Report, 2001*

Table 7.3: Percentage Distribution of Births (Last Two) in Three Years Preceding Survey Whose Mothers Did Not Receive Antenatal Care, by Reason and Selected Background Characteristics, 2004

Background Characteristics	Reason For Not Receiving Antenatal Care			Number of Births Whose Mothers did not Receive ANC	Total Number of Births
	Previous Experience	Had No Complaints	Other		
Region					
Palestinian Territory	66.6	23.0	10.4	111	**3,196**
West Bank	72.8	16.7	10.5	73	**1,855**
Gaza Strip	25.6	64.1	10.3	38	**1,341**
Type of Locality					
Urban	64.8	25.3	9.9	65	**1,741**
Rural	68.5	21.6	9.9	37	**905**
Camps	71.4	14.3	14.3	9	**550**
Birth Order					
First	81.6	13.2	5.2	5	**565**
Second and Third	68.3	20.2	11.5	33	**1,034**
Fourth and Fifth	74.4	20.9	4.7	25	**826**
Sixth and Over	44.8	37.3	17.9	48	**771**
Mother's Education					
None	32.3	48.4	19.3	26	**247**
Elementary	57.6	25.8	16.6	34	**630**
Preparatory	75.5	20.4	4.1	30	**1,178**
Secondary and Above	81.3	12.1	6.6	12	**1,141**

In Palestine there are four health sectors providing maternal care (see figures 7.3 and 7.4) -- the MOH, UNRWA, the NGOs and the private doctors -- so the mothers can use more than one provider. Regarding the places where most mothers received antenatal care, it varied between the West Bank and Gaza Strip. In the Gaza Strip, as shown in Figure 7.3, most of the population are refugees, which contributes to the high proportion (60.7%) of mothers who reported using the UNRWA centers. The second most frequently used services among women there were the MOH services (23.5%), and the private physician clinics which were used by (13.0%) of women. This could be due to the poor socio-economic status characterizing Gaza Strip - more qualitative studies should be conducted to help explain these findings.

As shown in Figure 7.4, in the West Bank the physicians' clinics were the most frequently mentioned source of antenatal care (used by 50.3% of women surveyed), the second most frequently used (23.5%) were the government primary care facilities (if we consider the governmental health centers and the MCH governmental centers as a single category for the purposes of this survey), and the NGOs centers (4.1%) were the least commonly used.

Figure 7.3: Place of antenatal care, Gaza Strip, 2004

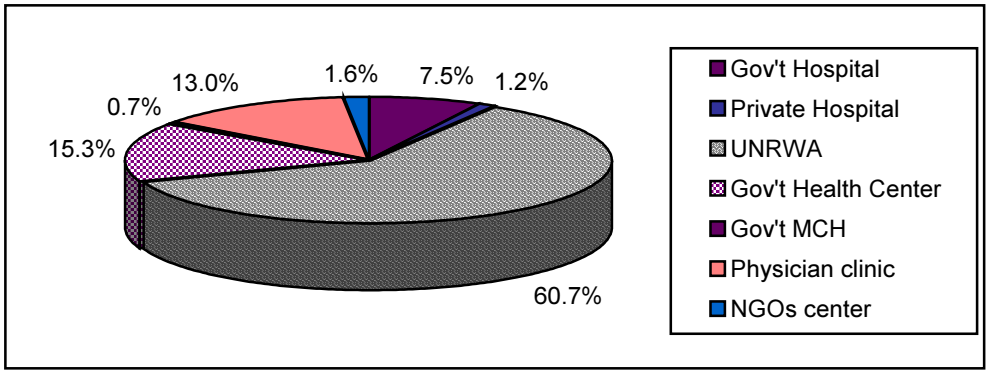
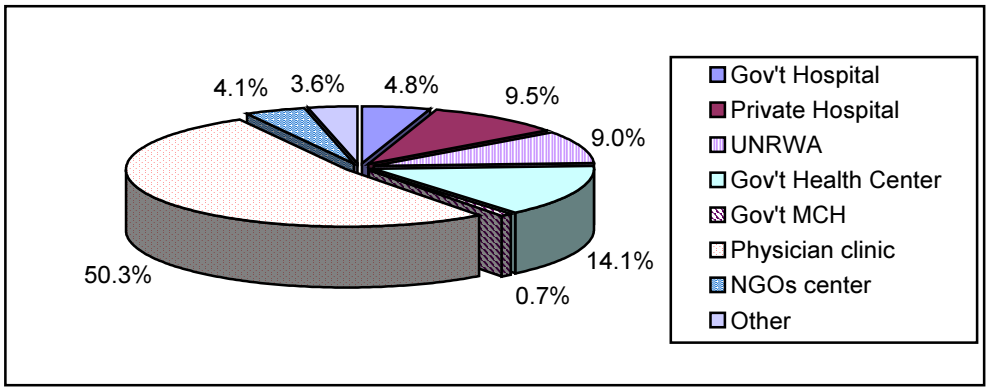


Figure 7. 4: Place of antenatal care, West Bank, 2004



In Palestine, people often seek routine care in hospital settings, rather than in the more appropriate primary health care centers; however, this study data, as shown in figures 7.3 and 7.4 above, indicate that both in the West Bank and in the Gaza Strip the health centers in general are used for antenatal care more than the hospitals. More investigations should be done to examine why women prefer the health centers rather than the hospitals for antenatal care in order to identify factors that can be used to promote similarly appropriate care-seeking behavior for other routine or curative services.

7.2.4 Detection and Management of Complications:

The main causes of maternal mortality and morbidity worldwide are vaginal bleeding, sepsis, pregnancy-induced hypertension, eclampsia, and pre-eclampsia. In the Palestinian Territory, a total of (60.8%) of the women surveyed said that they had experienced health problems during their last pregnancies (in the three years prior to the survey interview). The reported incidence was particularly high in the West Bank (65.1%) compared to Gaza Strip (54.8%) (see table 7.4). The reported incidence of complications of pregnancy also increased with parity – the more children a mother had had, the more likely it was that she had experienced complications. Urinary tract and reproductive tract infections combined were the most common complications of pregnancy. with (39.3%) of women surveyed reporting having experienced these.

Table 7.4: Percentage of Births (Last Two) in Three Years Preceding Survey Whose Mothers Had Certain Health Problems, by Health Problem and Selected Background Characteristics, 2004

Background Characteristics	Health Problems					
	Urinary Tract Infection	Vaginal Bleeding	Hyper-tension	Signs Of Premature Delivery	Gesta-tional Diabetes	Eclampsia
Region						
Palestinian Territory	25.2	9.7	9.4	7.9	2.3	3.7
West Bank	30.2	12.7	9.0	9.0	2.5	4.9
Gaza Strip	18.3	5.5	10.0	6.5	1.9	2.0
Type of Locality						
Urban	25.1	9.3	8.2	7.7	2.2	3.4
Rural	28.8	11.2	9.5	8.6	2.7	4.2
Camps	19.7	8.6	13.3	7.7	1.8	3.6
Birth Order						
First	26.2	8.1	6.5	7.8	1.9	4.1
Second or Third	25.2	10.0	8.2	7.6	2.1	3.5
Fourth or Fifth	24.9	10.5	9.3	9.1	2.1	3.8
Sixth and Over	24.8	9.5	13.2	7.3	3.0	3.5
Mother's Education						
None	32.9	11.3	8.9	4.7	2.8	2.8
Elementary	24.8	8.7	11.4	7.6	2.5	3.8
Preparatory	24.4	9.3	8.0	7.5	1.3	3.9
Secondary and Above	24.4	10.5	9.5	9.2	2.9	3.4

Table (7.4 Cont.): Percentage of Births (Last Two) in Three Years Preceding Survey Whose Mothers Had Certain Health Problems, by Health Problem and Selected Background Characteristics, 2004

Background Characteristics	Health Problems						% Who Suffer from Health Problem
	Reproductive Tract Infection	Anemia	Convulsions	Edema	Fever	Headache	
Region							
Palestinian Territory	14.1	21.1	5.2	18.3	9.1	20.3	**60.8**
West Bank	16.3	19.8	8.5	21.1	9.7	19.5	**65.1**
Gaza Strip	11.4	22.7	1.2	14.5	8.3	21.3	**54.8**
Type of Locality							
Urban	14.4	21.0	5.9	18.1	9.8	19.2	**60.0**
Rural	14.5	19.8	5.5	20.8	7.5	19.7	**63.8**
Camps	12.6	23.5	3.0	14.9	9.5	24.8	**58.3**
Birth Order							
First	14.0	14.8	4.5	19.7	9.0	16.4	**57.6**
Second or Third	14.2	19.4	5.6	14.4	8.0	18.8	**59.6**
Fourth or Fifth	13.9	24.4	5.4	19.3	9.4	22.4	**62.8**
Sixth and Over	14.2	24.5	5.2	21.3	10.1	23.0	**61.6**
Mother's Education							
None	11.6	26.6	1.9	20.3	12.9	28.4	**61.0**
Elementary	12.9	22.3	5.5	18.4	12.1	24.2	**63.2**
Preparatory	15.5	21.4	4.5	18.4	8.7	19.5	**60.3**
Secondary and Above	13.3	18.6	6.7	17.3	7.1	16.9	**59.6**

Urinary and Reproductive Tract Infection:

Both urinary and reproductive tract infections were more frequently reported by women in the West Bank (30.2% and 16.3% respectively) compared to women in Gaza Strip (18.3% and 11.4%, respectively), and women in rural communities (28.8%) reported urinary tract infections more often than women in urban (25.1%) and camp settings (19.7%). In the camp settings, in particular, fewer women reported urinary tract infections, possibly because of the influence of female midwives who talk to their clients about infection when they provide antenatal care in the UNRWA clinics. Primagravida women reported more infections than multi-parous women, consistent with universal trends. In addition, women who reported having had no education also were more likely to have had infections, possibly related to their level of understanding and practice of good hygiene, while among women with any education, there was no significant difference in incidence of infection relative to the level of education received. (see table 7.4)

Anemia and Vaginal Bleeding:

Anemia and vaginal bleeding are the second most common complications among women in Palestine, after infection. It is well known that hemorrhage is the main cause of maternal mortality in developing countries. More than twice the number of women in the West Bank (12.7%) compared to the Gaza Strip (5.5%) indicated having experienced vaginal bleeding during their pregnancy(s) in the three years prior to the survey.

On the other hand, more women in Gaza Strip (22.7%) reported experiencing anemia compared to women in the West Bank (19.8%); West Bank and Gaza Strip prevalence of anemia combined was 21.1%. Further, more women in camps reported have experienced anemia compared to women in rural areas, and anemia was reported much less frequently among primagravida women (14.8%) compared to multi-parous women (19.4% and above). Anemia was more frequently reported among the uneducated women, again consistent with developing world data. (see table 7.4)

Hypertension:
Hypertension was the third most frequently reported complication of pregnancy among the women surveyed. The difference in reported incidence between the West Bank and Gaza Strip is striking, with 8.5% of women in the West Bank reporting convulsions compared to just 1.2% in Gaza Strip, as shown in table 7.4. Further, the reported incidence of eclampsia was 4.9% in the West Bank compared to 2.0% in the Gaza Strip, and edema of the face was also much higher in the West Bank (21.1% compared to Gaza Strip 14.5%. It appears that hypertension-related complications may be more successfully managed in Gaza Strip, and therefore less frequently progress to convulsions, in keeping with one of the main objectives of antenatal care. Further investigation is recommended.

7.2.5 Behavior change and communication:
As shown in table 7.5 below, a high percentage (55.1%) of women surveyed did not recall having received any health education; in particular, 68.6% of women from the Gaza Strip and 61.7% of women living in refugee camps reported that they did not receive health education. There is no significant difference in education for women relative to their parity, suggesting that health education for primagravida and/or multi-parous women is not structured. The method through which health education is provided to women is not clear. Further, the information available describes women's recall of having received health education, but it does not specify the source of information – the health education could have occurred, for example, in school rather than through the health system.

Table 7.5: Percentage of Births (Last Two) at Hospitals in Three Years Preceding Survey Whose Mothers Received Health Education, by Subject and Selected Background Characteristics, 2004

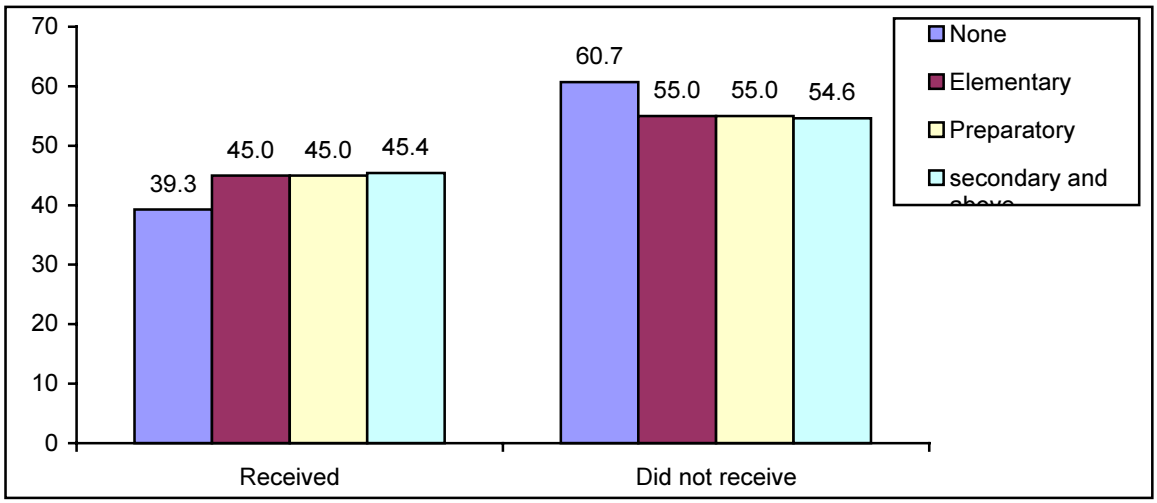
Background Characteristics	Subject of Health Education					Percentage Who Receive Education	Percentage Who did not Receive Education
	Importance of Follow up	Immunization	Family Planning	Nutrition of Mother	Breast-feeding		
Region							
Palestinian Territory	32.9	44.4	27.7	33.0	42.3	44.9	55.1
West Bank	39.2	59.8	31.2	36.9	47.6	54.7	45.3
Gaza Strip	24.2	24.0	22.4	27.2	34.5	31.4	68.6
Type of Locality							
Urban	31.7	42.6	25.5	31.5	42.3	44.7	55.3
Rural	33.7	53.1	29.8	34.0	41.7	49.6	50.4
Camps	35.6	35.6	30.6	36.1	43.0	38.3	61.7
Birth Order							
First	31.6	42.4	23.2	31.6	41.6	45.1	54.9
Second and Third	35.6	45.2	28.2	34.1	44.2	45.3	54.7
Fourth and Fifth	30.3	46.0	26.9	31.6	41.0	44.2	55.8
Sixth and Over	33.3	43.3	31.4	34.0	41.5	45.0	55.0
Mother's Education							
None	29.6	42.9	25.5	25.8	37.0	39.3	60.7
Elementary	30.0	42.2	26.3	30.0	41.1	45.0	55.0
Preparatory	33.5	46.3	27.8	33.3	41.1	45.0	55.0
Secondary and Above	34.6	43.5	28.5	35.0	44.6	45.4	54.6

Figure 7.5 indicates that reported receipt of health education increases with level of education among the women surveyed: 60.7% of the non-educated women reported that they had never received health education, while 54.6 % of the most educated women indicated that they had not received health education – the trend of increased exposure to health education with increased general education was consistent for each of the specific health education topics included in the survey.

Many factors may contribute to this trend, including non-educated women's lack of access to written information/materials, as well as lack of access to school-based health education. In general, increased health education during antenatal care would be of benefit to all women, and would likely reduce the gap between non-educated and educated women.

These responses also suggest that health education is, in fact, of importance to women and that their lack of health education is of concern to them. Women were better exposed to (or were more likely to recall) health education related to their babies' health, e.g. breastfeeding and immunization, as compared to the more mother-oriented health issues such as family planning, follow-up care and nutrition.

Figure 7.5: Percentage distribution of mothers who gave births at hospitals in the three years preceding the survey by health education status of mother's education, 2004



7.2.6 Health promotion interventions during the antenatal period:

Tetanus Toxoid (TT) vaccination:

Protection against tetanus can begin before birth, continue in the newborn period, and be sustained through reinforcing doses given at later ages. The WHO recommendation for the prevention of tetanus is the administration of DTP at 6, 10, and 14 weeks of age. Some countries provide a fourth dose of DTP at 18-24 months of age. Given the high death rate, and despite the fact that many countries have achieved increased coverage of women of child-bearing age with at least 2 doses of tetanus toxoid, neonatal tetanus is still a major global public health problem, with an estimated 500,000 cases still occurring every year.

Neonatal tetanus continues to be seriously underreported, since populations at highest risk for neonatal tetanus tend to live in rural areas and have the poorest access to health care and birth registration. In view of the significant disease burden, the elimination of neonatal tetanus as a public health problem by the year 2005 (defined as a rate of neonatal tetanus below 1/1000 live births at district level) has been agreed to by all member states of WHO, UNICEF and UNFPA.

MOH Policy:

Table 7.6: Tetanus toxoid immunization schedule for women of childbearing age and pregnant women without previous exposure to TT, Td or DTP

Dose	When to give	Expected duration of protection
TT (or Td) 1	at first contact or as early as possible during pregnancy	None
TT (or Td) 2	at least 4 weeks after TT 1	1-3 years
TT (or Td) 3	at least 6 months after TT 2 or during subsequent pregnancy	At least 5 years
TT (or Td) 4	at least 6 months after TT 3 or during subsequent pregnancy	At least 10 years
TT (or Td) 5	at least 6 months after TT 4 or during subsequent pregnancy	For all childbearing years, and possibly longer

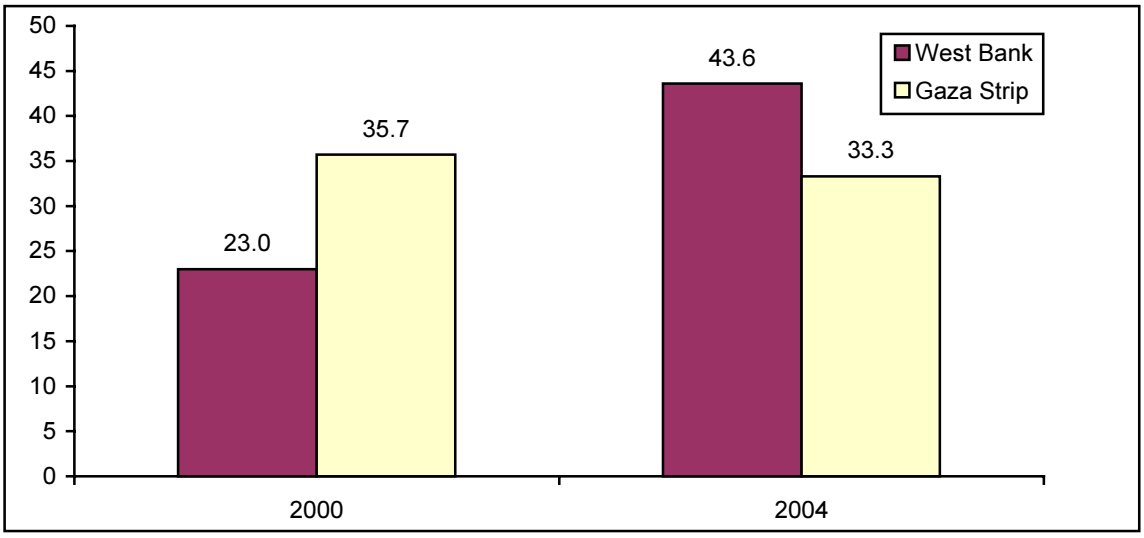
The MOH vaccination schedule relative to tetanus toxoid (TT) is comprehensive and should provide complete protection through a series of 4 doses given at the home (or in postnatal care/child health facilities) during the first year of life and two additional doses given to girls in school. Most women in Palestine are likely to be fully immunized as a result of vaccines received during childhood; however, the MOH Primary Health Care Department recognizes that uneducated women/school leavers and women in the Bedouin population are at risk for missing the final doses which are given in school, which would leave these women (and their newborns) without complete protection against tetanus. Therefore, to minimize the risks among these vulnerable groups, additional doses to be given to women during and after pregnancy have been added to the MOH protocol. The vaccination for adult women is taken in three doses based on MOH protocol: during the first antenatal visit, one month after the first dose ,and one year after the first dose. A 3- dose course of TT will provide protection against maternal and neonatal tetanus for at least 5 years.

Table 7.7: Percentage of mothers who delivered in year preceding the survey and received tetanus toxoid by number of does and selected background characteristics, 2004

Background Characteristics	Received Tetanus Toxoid During Last Pregnancy	Received At Least 5 Doses During Life Time	Received At Least 3 Doses The Last One Within 10 Years	Received At Least 2 Doses The Last One Within 3 Years	Number of Women Who Gave Birth last Year
Region					
Palestinian Territory	37.4	1.9	9.0	25.7	**1,251**
West Bank	43.6	3.8	13.5	30.2	**705**
Gaza Strip	33.3	0.7	6.0	22.8	**546**
Type of Locality					
Urban	39.0	1.2	10.6	29.3	**683**
Rural	39.6	3.6	8.3	22.5	**344**
Camps	31.6	1.9	6.3	20.9	**224**
Mother's Education					
Non	27.8	2.8	13.9	25.0	**64**
Elementary	40.7	2.1	12.2	28.1	**250**
Preparatory	41.1	2.2	10.3	28.9	**449**
Secondary and Above	33.3	1.6	5.1	22.0	**467**

- In table 7.7 the percentage of mothers who delivered in the year preceding the survey and received tetanus during their last pregnancy in the Palestinian Territory was (37.4%) in 2004 compared to (27.5%) in the year 2000.
- In 2004, (43.6%) of mothers surveyed in the West Bank, and (33.3%) of mothers surveyed in the Gaza Strip reported having received tetanus toxoid vaccine during their last pregnancy, compared to (23.0%) in the West Bank and (35.7%) in Gaza Strip in the year 2000. (see figure 7.6) The immunization coverage levels in the West Bank nearly doubled. It's important to note, however, that this information is based on women's recall since there are no home-based records for women that document their immunization coverage. As such there is no clear information that would explain the significant increase in TT coverage in the West Bank since the previous survey

Figure 7.6: Reported tetanus toxoid coverage among women in the West Bank compared to women in Gaza Strip, 2000, 2004



- The data shows a correlation between increased education and increased vaccination coverage against tetanus, probably because of better awareness and increased use of antenatal care among more educated women. Among the non-educated women, 27.8% were immunized against tetanus compared to 33.3% of women with secondary education or above.
- In the Palestinian Territory the percentage of mothers who received at least 2 doses, the last one within 3 years prior to the survey was 25.7%. Among the mothers surveyed, only 9.0% had received at least 3 doses, the last one within 10 years, and only 1.9% of the total survey sample had received at least 5 doses during their life time. To protect the newborn, women with no record of previous TT immunization should receive at least two doses of tetanus toxoid vaccine at least four weeks apart, with the last dose at least 2 weeks before delivery.
- In the Palestinian Territory, it is difficult to be sure of, or confirm, actual TT immunization coverage among women due to the fact that women are not likely to remember exactly how many doses they have received since birth, and at this date there are no home immunization cards for women, which could be used to confirm women's actual coverage levels, as well as population-based coverage.
- The TT immunization schedule should include an initial dose given at the first contact with immunization services, a second dose at least 4 weeks after the first dose, and a third dose 6-12 months after the second dose. Protective antibody levels are attained in 80-90% of women after the second dose, and in 95-98% of women after the 3rd dose. This basic course will provide protection for at least 5 years. Fourth and fifth doses of TT given later will prolong the duration of immunity for 10 and 20 years, respectively.

Folic acid and ferrous sulfate supplements:

Among the women surveyed, the percentage of women taking iron tablets (75.7%) was significantly higher than the percentage of women taking folic acid (43.5%). Comparable findings were obtained in the year 2000, when the percentage of women reporting iron intake was 75.8% and the percentage reporting folic acid intake was 44.3%. This could possibly be attributed to:

1. Women being more aware of or more familiar with iron supplements than with folic acid or supplements combining iron and folic acid, which could lead to either lower intake of folic acid, or under-reporting of folic acid intake by women who do not realize that they are actually taking folic acid, either alone or in combination with iron
2. Lack of awareness of the importance of folic acid among providers

Women in Gaza Strip were more likely to report that they had not received folic acid (55.0%) compared to women in the West Bank (29.0%); however, as mentioned above it is not clear whether the women in fact understand what folic acid is, and can differentiate between iron and folic acid. Women are not always likely to know the content of the 'vitamin' or supplement tablets that they receive; therefore the survey respondents may not have been able to accurately report whether they were receiving iron, folic acid, or both in combination. Given the fact that the WHO recommendations suggest that women receive folic acid prior to pregnancy, and receive iron during pregnancy, we recommend that health policy in Palestine be made consistent with the recommendations, and that the next survey consider these parameters in investigating iron and folic acid intake. (WHO Focused Antenatal Care – see Annex1).

7.3 Intrapartum/Delivery Care:

Pregnancy and birth are normal biological processes for 85% of women. Only 15% of women develop complications and among them, about 12% are referred to higher level care. The vast majority of the women transferred are not emergencies, only 2% of them are considered emergency transfers. For every maternal death, 16 to 25 women suffer short or long-term illness such as anemia, infections, fistulas or uterine prolapse.

- Skilled attendance
- Basic obstetric care (equipped health center)
- Comprehensive emergency obstetric care
- Transportation and referral
- Support for breastfeeding
- Obstetric complications

7.3.1 Comprehensive emergency obstetric care:

Obstetric complications

Women in Palestine experiencing delivery of their first children are shown to be less likely to have normal deliveries compared to both national and international averages, with more episiotomies, more vacuum deliveries, and more cesarean sections among primagravida women than among multi-parous women in Palestine.

The universal rate of normal deliveries is 85%, while in the Palestinian Territory only 72.2% of deliveries are considered normal. This significantly lower rate of normal deliveries should be investigated further; it may in fact be a reflection of inappropriate use or over-use of certain procedures including common use of episiotomies (10.4% in the West Bank and 14.9% in Gaza Strip), and an unusually high rate of cesarean sections. PCBS data indicates a cesarean section rate of 6.0% in 1996, 8.8% in 2000, and the rate increased again to 12.8% in 2004. Cesarean sections are more frequently performed for more educated women (15.1% among women with secondary school education and above) and for multi-parous women having delivered 6 or more times 15.7%. Vacuum and forceps, which require a high level of provider skill, are also still used commonly – no information is available about the actual

level of skill among providers relying on these tools and invasive techniques, or the evidence indicating that these approaches were necessary.

Table 7.8: Percentage Distribution of Births (Last Two) Born in Three Years Preceding Survey, by Mode of Delivery and Selected Background Characteristics, 2004

Background Characteristics	Nature of Delivery					Number of Births
	Normal	Caesarian Section	vacuum	Forceps	Episeotomy	
Region						
Palestinian Territory	72.2	12.8	2.1	0.6	12.3	3,196
West Bank	73.4	13.1	2.0	1.1	10.4	1,855
Gaza Strip	70.6	12.2	2.2	0.1	14.9	1,341
Type of Locality						
Urban	71.7	13.2	1.8	0.6	12.7	1,741
Rural	76.3	11.9	2.4	0.8	8.6	905
Camps	67.1	12.7	2.6	0.4	17.2	550
Birth Order						
First	57.3	13.0	3.4	0.4	25.9	565
Second and Third	71.8	12.0	2.0	0.9	13.3	1,034
Fourth and Fifth	79.2	10.6	2.0	0.6	7.6	826
Sixth and Over	76.2	15.7	1.4	0.7	6.0	771
Mother's Education						
None	74.8	12.8	1.9	-	10.5	247
Elementary	72.9	12.2	2.4	0.5	12.0	630
Preparatory	73.5	11.1	2.2	0.9	12.3	1,178
Secondary and Above	69.3	15.1	1.8	0.6	13.2	1,141

Basic obstetric care (equipped health center):

Among the women surveyed, more than half (53.3%) delivered their most recent babies in governmental hospitals/health centers, and nearly one fourth (22.8%) delivered in private hospitals or health centers, while the remaining women were spread across a range of other hospitals, clinics and maternity homes. Mothers' use of hospitals does not necessarily reflect a perception of any significant difference between government and private hospitals. Maternity homes are a new source of delivery care, added since 2000.

The data indicates that a significant number of women choose to deliver in clinics; however, we have none of the essential information regarding the skills and equipment available for both normal and complicated or emergency deliveries in these clinics.

In the West Bank more women use private hospitals (34.9%) compared to women in Gaza Strip (6.8%) while in Gaza Strip more women use the government hospitals (64.1%) compared to women in the West Bank (44.8%). (see table 7.9) In addition, in Gaza Strip it was more common to deliver in a physician's clinic (10.6%) compared to the West Bank (2.6%). Home deliveries on the other hand were more common in the West Bank (4.7%)

compared to Gaza Strip (0.7%). Relative to women living in refugee camps, these women were less likely to use the private hospital centers (13.7%) compared to urban (24.8%) and rural women (24.7%). Among these women, rural women were also most likely to deliver at home (4.9%) and were less likely to deliver in a physician's clinic (3.2%), whereas women from the urban settings were more likely to use NGO Centers and physician's clinics.

Primagravida women were more likely to use private hospitals (25.4%) than were multi-parous women (18.4%). At the same time, multi-parous women were more likely to use physician's clinics (7.6%) or to deliver at home (4.9%) compared to primagravida women (4.2% and 1.6%, respectively). Refugees, not surprisingly, used the UNRWA centers much more frequently (17.2%) compared to the urban (6.9%) and rural women (2.7%). In the Gaza Strip, furthermore, the UNRWA facilities, which include maternity homes were much more commonly used (12.6%) compared to their use in the West Bank (3.7%). Note that in the West Bank there is only one UNRWA hospital, located in Qalqilia.

Less educated women tended to go the governmental hospitals (63%) or to deliver at home (5.2%) more than women with any education (51.2% and 1.9% respectively). The more educated women were more likely to use private hospitals (25.3%) compared to the women without education (13.8%).

NGO facilities seem to play much less of a role in delivery services relative to other sectors' facilities

The obstetric client load on the governmental hospitals has increased from (43.3%) in 2000 to (53.3%) in 2004, most probably because of universal availability of insurance, but the resources for these hospitals have not increased, resulting in an increased burden on human and other resources. In addition, fewer women are using private hospitals now (22.8%) compared to in 2000 (27.8%), perhaps also due to the deteriorating economic situation limiting private expenditures, and the availability of insurance. In the West Bank in 2000, up to 40.2% of women delivered in private hospitals compared to 34.9% in 2004. Nationally, in 1996, 28.3% of women used private hospitals, and in 2000, 27.8% of women used private hospitals

Table 7.9: Percentage Distribution of Births (Last Two) in Three Years Preceding Survey, by Place of Delivery and Selected Background Characteristics, 2004

Background Characteristics	Place of Delivery									Number of Births
	Governmental Health hospital /center	Private Hospital/center	UNRWA Hospital/center	NGOs Hospital/center	Israeli Hospital	Maternity home	Physician Clinic	At home	Other	
Region										
Palestinian Territory	53.3	22.8	7.5	4.1	1.4	1.3	6.0	3.0	0.6	**3,196**
West Bank	44.8	34.9	3.7	4.7	2.5	1.1	2.6	4.7	1.0	**1,855**
Gaza Strip	64.1	6.8	12.6	3.4	-	1.6	10.6	0.7	0.2	**1,341**
Type of Locality										
Urban	49.8	24.8	6.9	4.7	2.1	1.2	7.6	2.5	0.4	**1,741**
Rural	57.1	24.7	2.7	3.1	1.0	2.0	3.2	4.9	1.3	**905**
Camps	57.0	13.7	17.2	3.8	0.2	0.5	5.7	1.6	0.3	**550**
Birth Order										
First	57.1	25.4	3.8	4.9	1.8	1.1	4.2	1.6	0.1	**565**
Second or Third	51.4	25.1	7.0	4.5	2.0	1.4	5.4	2.5	0.7	**1,034**
Fourth or Fifth	51.7	22.5	9.0	4.1	1.1	1.1	6.5	3.0	1.0	**826**
Sixth and Over	53.9	18.4	9.2	3.0	0.8	1.7	7.6	4.9	0.5	**771**
Mother's Age										
15-29	53.9	23.0	7.8	4.1	1.5	1.2	5.6	2.4	0.5	**2,008**
30-49	52.2	22.4	7.0	4.2	1.4	1.6	6.8	3.8	0.6	**1,188**
Mother's Education										
None	63.0	13.8	8.1	1.8	-	1.4	5.2	5.2	1.5	**247**
Elementary	55.7	21.2	6.5	2.6	0.5	1.8	6.8	3.9	1.0	**630**
Preparatory	52.9	22.4	7.7	5.1	1.6	1.0	5.6	2.9	0.8	**1,178**
Secondary and Above	51.2	25.3	7.6	4.3	2.1	1.4	6.1	1.9	0.1	**1,141**

Table 7.10: Percentage Distribution of Births (Last Two) in Three Years Preceding Survey Occurring at Health Facility, by Place of Delivery and Main Reason For Choosing Place of Delivery, 2004

The Main Reason For Choosing Place of Delivery	Place of Delivery						
	Physician Clinic	Maternity Home	Israeli Hospital	NGOs Hospital \Center	UNRWA Hospital \ Center	Private Hospital\ Center	Governmental Health Hospital \Center
Better Service	60.1	53.6	58.1	69.3	65.0	71.1	36.8
Difficult to Reach Another Place	12.4	22.0	7.0	6.5	4.1	5.1	5.1
Premature Delivery	4.3	9.8	-	2.4	5.0	2.8	6.8
Health Insurance/Less Cost	-	-	25.6	8.1	15.4	4.9	39.2
Private Physician	20.0	9.8	-	8.9	1.4	11.6	4.8
Pregnancy Complication	-	2.4	-	1.6	2.7	0.9	2.8
No Alternative	3.2	2.4	9.3	3.2	6.4	3.6	4.5
Total number of births	**193**	**42**	**40**	**125**	**217**	**667**	**1,635**

Relative to the women's reasons for choosing a specific facility or sector for their recent deliveries (see table 7.10), 71.1% of women chose private hospitals because they felt that they offered better services; in fact relatively few women (36.8%) felt that the governmental hospitals offered better services, while 53.6% of women felt that the maternity homes gave better services. Relative to access issues, and difficulty in reaching facilities, 22.0% of women chose maternity homes because they could not reach other facilities. Women also accessed maternity homes for premature deliveries, suggesting that in fact the maternity homes were successful in helping to solve access problems. Among women surveyed, 39.2% chose governmental hospitals because of the availability of insurance and lower costs; also, women using Israeli hospitals indicated that they chose those facilities for reasons of insurance, or because they had no choice. Women who chose physician's clinics (20.0%) or private hospitals (11.6%) tended to do so because of their relationships with their own physicians. Among women with complications, 20.6% of women in 2000 chose government hospitals compared to only 2.8% in 2004. Complications of pregnancy had no influence on women's choice of private facilities.

Skilled attendance:

The presence of a trained birth attendant is essential at every delivery; however, WHO estimates that only 55% of world total births are attended by trained personal (Fathalla WHO). Regarding the personnel who provided the antenatal care received, the overwhelming majority of women in the West Bank indicated that physicians had provided their antenatal care, and in Gaza Strip nurses and physicians were the primary providers of antenatal care. It is important to note, however, that this data may reflect a lack of understanding among women of the actual roles and titles of reproductive health providers. For example, although 60.7% of women in Gaza Strip received their antenatal care from UNRWA clinics, where the bulk of antenatal care is provided by midwives, only 1.0% of women in Gaza Strip indicated receiving their antenatal care from midwives.

The physicians, nurses, and midwives are key providers for delivery services. Physicians assisted 66.4% of mothers surveyed during their most recent delivery; they also provide a significant amount of antenatal care services (72.3%) (see table 7.11 and 7.12), but very

limited postnatal care (7.3%), although specialized physicians in fact provided postnatal care to 19.5% of the women surveyed. Doctors provided more antenatal care in the West Bank (87%) compared to Gaza Strip where doctors provided antenatal care to 52% of women surveyed. Delivery services in Gaza Strip, on the other hand, were more frequently provided by physicians (81.1%) compared to the West Bank (54.6%). There were no significant differences in postnatal care service providers' contributions between Gaza Strip and the West Bank

For this report, nurses and midwives assisting at delivery are examined in combination because trained nurses as well as midwives provide delivery support and mothers are unlikely to differentiate between the two types of female providers The total number of midwives in Palestine is 436, with a ratio of 13 per 100,000 population. Among the midwives, 260 are working in the West Bank, and 156 of these are employed in the governmental sector.(Wick and Mikki). In the antenatal period, nurses and midwives provide 36.6% of care in the Palestinian Territory, and in Gaza Strip they provide 65.7% of the care, compared to 15.6% in the West Bank. In Gaza Strip the nurses and midwives play a very minor role in postnatal care, serving only 7.6% of women surveyed compared to specialists who provided postnatal care to 13.9% of the women, suggesting that women are more likely to attend postnatal care if they need curative services for a problem that they recognize as a health concern. Routine postpartum checkups are not common. Specialists were more often accessed for postnatal care in the West Bank (23.7%) compared to Gaza Strip (13.9%).

Table 7.11: Percentage of Births (Last Two) in Three Years Preceding the Survey Whose Mothers Received Antenatal Care, by Personnel Providing Antenatal Care and Selected Background Characteristics, 2004

Background Characteristics	Personnel Providing Antenatal Care					Received Antenatal Care	Number of Births Whose Mothers Received ANC
	Physician	Nurse	Midwife	Daya	Other		
Region							
Palestinian Territory	72.3	34.6	2.0	0.1	0.3	96.5	**3,083**
West Bank	86.7	12.8	2.8	0.1	0.4	96.1	**1,781**
Gaza Strip	52.3	64.7	1.0	-	0.2	97.2	**1,302**
Type of Locality							
Urban	72.9	33.9	1.6	0.1	0.4	96.3	**1,676**
Rural	82.0	19.6	1.8	-	0.3	95.9	**867**
Camps	54.2	61.3	4.2	-	0.2	98.4	**540**
Birth Order							
First	73.5	35.0	0.5	0.4	0.5	99.1	**559**
Second and Third	74.5	30.3	1.8	-	0.5	96.8	**1,000**
Fourth and Fifth	72.2	35.2	3.0	-	0.2	97.0	**801**
Sixth and Over	68.6	39.2	2.5	-	0.1	93.8	**723**
Mother's Education							
Non	62.4	30.5	0.5	0.5	-	87.8	**187**
Elementary	69.5	34.6	1.4	0.2	0.8	94.6	**596**
Preparatory	71.6	34.9	2.4	-	0.3	97.5	**1,147**
Secondary and Above	76.4	35.4	2.4	-	0.3	98.9	**1,124**

Table 7.12: Percentage Distribution of Births (Last Two) in Three Years Preceding Survey, by Personnel Assisting Delivery and Selected Background Characteristics, 2004

Background Characteristics	Personnel Assisting at Delivery						Number of Births
	Physician	Nurse	Midwife	Daya	Relatives/ Friends	Other	
Region							
Palestinian Territory	66.4	25.0	6.9	1.2	0.3	0.2	**3,196**
West Bank	54.6	31.3	11.7	1.7	0.4	0.3	**1,855**
Gaza Strip	81.1	17.2	1.0	0.4	0.1	0.2	**1,341**
Type of Locality							
Urban	69.8	23.0	5.7	1.2	0.2	0.1	**1,741**
Rural	55.8	30.5	11.1	1.7	0.5	0.4	**905**
Camps	72.1	22.7	4.5	0.6	-	0.1	**550**
Birth Order							
First	75.0	18.8	5.4	0.8	-	-	**565**
Second and Third	65.4	26.0	7.3	0.7	0.4	0.2	**1,034**
Fourth and Fifth	60.0	29.1	9.0	1.6	0.3	-	**826**
Sixth and Over	68.0	23.6	5.5	1.9	0.3	0.7	**771**
Mother's Age							
15-29	65.6	25.8	6.8	1.2	0.3	0.3	**2,008**
30-49	67.3	23.8	7.2	1.2	0.2	0.3	**1,188**
Mother's Education							
Non	58.5	33.8	4.8	1.9	-	1.0	**247**
Elementary	66.0	26.1	5.5	1.8	0.2	0.4	**630**
Preparatory	64.7	26.0	7.7	1.1	0.4	0.1	**1,178**
Secondary and Above	70.3	21.4	7.3	0.6	0.3	0.1	**1,141**

7.4 Postpartum Care:

The postpartum period is defined as the first four to eight weeks after delivery. This is the time of vulnerability for new mothers and their newborns. It is also a crucial time for the initiation of positive habits for the future. Maternal mortality and morbidity is common during the postpartum period:

- 16% occur during labor;
- 60% occur in the postpartum period;
- 72% occur in the first week after childbirth;
- 40% are due to postpartum hemorrhage;

Natal care:

- Danger signs and referral
- Postpartum home visit
- Promoting health of newborn
- Newborn care
- Support for breastfeeding
- Postpartum family planning

In the Palestinian Territory in the three years prior to the survey, 96.5% of women received antenatal care, with no significant difference relative to region. Relative to postnatal care, a total of 65.9% of women surveyed did not receive postnatal care; with 70.4% in the Gaza Strip and 62.4% in the West Bank indicating that they did not receive postnatal care. This is consistent with MOH data which also indicates that about 34% of postpartum women receive postnatal care in the West Bank and Gaza Strip. In 2000, only 26.3% of women indicated that they did not receive postnatal care – as shown in the table below, access to postnatal care among Palestinian women has been improving since 1996.

Figure 7.7: Percentage Distribution of Births (Last Two) Born in Three Years Preceding Survey, by Personnel Receipt of any Health Care six weeks acts delivery, 2004

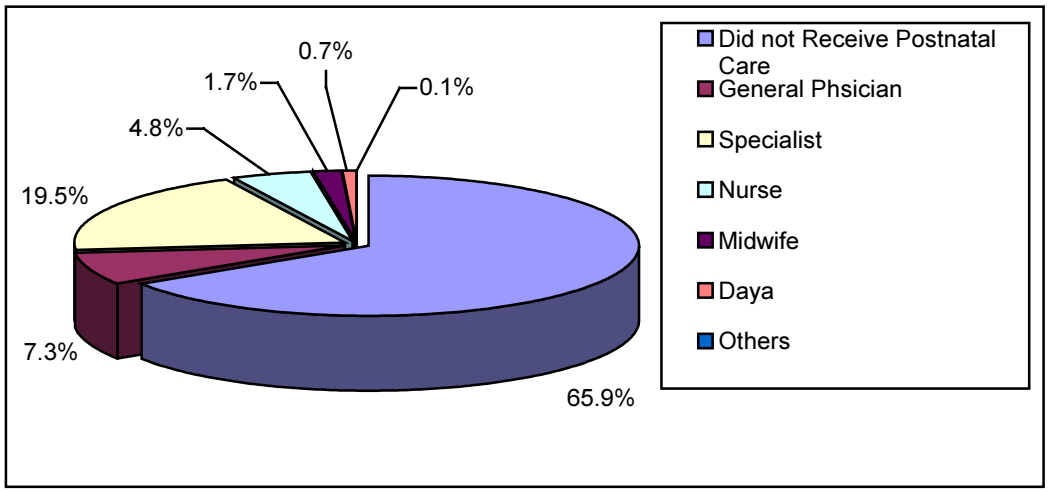


Table 7.13: Postnatal Coverage in the Palestinian Territory, 1996 to 2004

Year	Did receive postnatal care	Did not receive
1996	19.7	80.3
2000	26.3	73.7
2004	34.1	65.9

Regarding the duration of women's hospital stays after delivery, a very high percentage (39.0%) of women indicated that they left the hospital within 24 hours post delivery. Comparable results (34.0%) were obtained in the year 2000. The majority (77.9%) of mothers surveyed indicated that they left because there was no need to stay, suggesting that these women were not aware of the potential for or dangers of postpartum complications for themselves or their newborns. Results from the year 2000 show that 87% of women left the hospital after delivery for the same reason. Another 12.2% of the women surveyed indicated that they left the hospital within 24 hours at the hospital's request, although this was far less likely to occur in UNRWA facilities (6.6%), which are more prevalent in Gaza, compared to government hospitals (12.0%), private hospitals (14.7%) or NGO run facilities (13.0%). Women were less likely to leave within 24 hours if they delivered in a private hospital, despite the cost, possibly because either the women themselves were more comfortable, or because of a difference in the availability of or adherence to protocols in private facilities as compared to government facilities.

Table 7.14: Percentage Distribution of Births (Last Two) in Three Years Preceding Survey Occurring at Health Facilities, by Place of Delivery and Main Reason for Leaving Place of Delivery Before 24 Hours, 2004

Place of Delivery	Main Reason for Leaving Place of Delivery						Percentage Who Left	Percentage Who did not Leave
	Other	Hospital Request	Not Necessary to Stay	Service is not Satisfactory	High Cost	Family Conditions		
Governmental Hospital\ Center	1.4	12.0	78.7	3.8	0.3	3.8	43.6	56.4
Private Hospital\Center	2.1	14.7	75.9	-	2.1	5.2	30.2	69.8
UNRWA Hospital\Center	3.9	6.6	75.0	-	1.3	13.2	37.9	62.1
NGOs Hospital\ Center	4.3	13.0	80.5	-	-	2.2	41.4	58.6
Total	1.9	12.2	**77.9**	2.6	0.7	4.7	39.0	61.0

Executive summary:

- Antenatal care should be an integral part of continuous care that begins with the antenatal care and continues through the intrapartum, delivery and the postpartum period.
- Quality of care and health promotion are the most important factors that influence the outcome of the pregnancy

Antenatal Care

- In the Palestinian Territory, based on the data collected in 2004 in this household survey, 96.5% of mothers surveyed received antenatal care, 96.8% of pregnant women were weighed, yet only 71.9% of them had their height measured.
- Among the women surveyed, 97.2% had their blood pressure measured during the antenatal period, and 95.1% had urine analysis tests.
- The ultrasound examination for pregnant women is commonly used in the Palestinian Territory (90.2%); in fact it is overused by health professionals, given the fact that it is supposed to be used only once in each trimester, based on the MOH protocols and guidelines,
- There is a difference in the ultrasound use between the West Bank, where 93.1% of women surveyed reported having received ultrasound, and Gaza Strip, where 86.2% of women indicated that they had received this examination.
- Abdominal examination of the uterus for the uterine height to predict the weeks of the pregnancy should be done in the first and return visits to determine the uterine height and compare it with the gestational age. This examination was given to a low percentage of women (78.3%) when compared to ultrasound and fetus pulse examinations. It was also less used in the West Bank (70.6%) than in Gaza Strip (88. 9%).
- There was a proportional relationship between the increase in education level and the receipt of antenatal care. Those women who did not receive antenatal care were more likely to be less educated compared to women who did receive antenatal care.
- Access to antenatal care decreased with parity, with fewer women accessing antenatal care for their 4th pregnancy or more.
- In the West Bank the physicians' clinics were the most frequently mentioned source of antenatal care (used by 50.3 % of women surveyed), the second most frequently used (18.7%) were the government primary care facilities (if we consider the governmental health centers and the MCH governmental centers as a single category for the purposes of this survey), and the NGOs centers (3.2%) were the least commonly used.

- In the Gaza Strip most of the population are refugees, which contributes to the high proportion (60.7%) of mothers who reported using the UNRWA centers. The second most frequently used services among women in Gaza strip were the MOH services (16.0%), and the private physician clinics which were used by (13.0%) of women. This could be due to the poor socio-economic status characterizing Gaza Strip, more qualitative studies should be conducted to help explain these findings.
- In the Palestinian Territory, a total of (60.8%) of the women surveyed said that they had experienced health problems during their last pregnancies. The reported incidence was particularly high in the West Bank (65.1%) compared to Gaza Strip (54.8%). It should also be noted that complications of pregnancy increased with parity.
- The most common complications of pregnancy are urinary and reproductive tract infections combined, with 39.3% of women surveyed reporting having experienced these.
- The prevalence of anemia in the Palestinian Territory was (21.1%), and was higher in Gaza strip (22.7%) compared to the West Bank (19.8%). More women in camps reported have experienced anemia compared to women in rural areas.
- Anemia was reported much less frequently among primagravida women (14.8%) compared to multi-parous women (19.4% and above). Anemia was also more frequently reported among the uneducated women, again consistent with developing world data.
- Health promotion is important to women; lack of health education is of concern to them. Women were better exposed to (or were more likely to recall) health education related to their babies' health, e.g. breastfeeding and immunization, as compared to their recall of the more mother-oriented health issues such as family planning, follow-up care and nutrition.
- Most women in Palestine are likely to be fully immunized for tetanus as a result of vaccines received during childhood; however, the MOH Primary Health Care Department recognizes that uneducated women/school leavers and women in the Bedouin population are at risk for missing the final doses which are given in school, which would leave these women (and their newborns) without complete protection against tetanus. Therefore, to minimize the risks among these vulnerable groups, additional doses should be given to women during and after pregnancy. The vaccination for adult women is taken in three doses based on MOH protocol: during the first antenatal visit, one month after the first dose, and one year after the first dose. A 3- dose course of TT will provide protection against maternal and neonatal tetanus for at least 5 years.
- In the Palestinian Territory, it is difficult to be sure of, or confirm, actual TT immunization coverage among women due to the fact that women are not likely to remember exactly how many doses they have received since birth, and there are no home immunization cards for women, which could be used to confirm women's actual coverage levels, as well as population-based coverage.
- The percentage of women taking iron tablets (75.7%) was significantly higher than the percentage of women taking folic acid (43.5%). Women may be more aware of or more familiar with iron supplements than with folic acid or supplements combining iron and folic acid, which could lead to either lower intake of folic acid, or under-reporting of folic acid intake by women who do not realize that they are actually taking folic acid, either alone or in combination with iron'

Intrapartum Care:

- The universal rate of normal child births is 85%, while in the Palestinian Territory only 72. 2% of child births are considered normal. This significantly lower rate of normal deliveries should be investigated further; it may in fact be a reflection of inappropriate use or over-use of certain procedures including common use of episiotomies (10.4% in the

West Bank and 14.9% in Gaza Strip), and an unusually high rate of instrumental delivery (vacuum, forceps) and cesarean sections.

- Among the women surveyed, more than half (53.3%) gave birth in governmental hospitals/health centers, and nearly one fourth (22.8%) delivered in private hospitals or health centers, while the remaining women were spread across a range of other hospitals, clinics and maternity homes.
- In the West Bank more women used private hospitals (34. 9%) for delivery compared to women in Gaza Strip (6.8%) ,while in Gaza Strip more women used the government hospitals (64.1%) compared to women in the West Bank (44.8%).
- The data indicates that a significant number of women choose to deliver in clinics; however, we have none of the essential information regarding the skills and equipment available for both normal and complicated or emergency deliveries in these clinics.
- In Gaza Strip women more commonly delivered in a physician's clinic (10.6%) compared to the West Bank (2.6%). Home deliveries on the other hand were more common in the West Bank (4.7%) compared to Gaza Strip (0.7%).
- The obstetric client load on the governmental hospitals has increased from (43.3%) in 2000 to (53.3%) in 2004, most probably because of universal availability of insurance, but the resources for these hospitals have not increased, resulting in an increased burden on human and other resources. In addition, fewer women are using private hospitals now (22.8%) compared to in 2000 (27.8%), perhaps also due to the deteriorating economic situation limiting private expenditures, and the availability of insurance.
- Physicians assisted 66.4% of the mothers surveyed during their most recent deliveries; they also provide a significant amount of antenatal care services (72.3%), but very limited postnatal care (7.3%), although specialized physicians in fact provided postnatal care to (19.5%) of the women surveyed. Doctors provided more antenatal care in the West Bank (87%) compared to the Gaza Strip where doctors provided antenatal care to (52%) of women surveyed. Delivery services in Gaza, on the other hand, were more frequently provided by physicians (81.1%) compared to the West Bank (54.6%). There were no significant differences in postnatal care service providers' contributions between Gaza and the West Bank

Post Partum Care:

- Relative to postnatal care, a total of (65.9%) of women surveyed did not receive postnatal care; with (70.4%) in Gaza and (62.4%) in the West Bank indicating that they did not receive postnatal care
- Regarding the duration of women's hospital stays after delivery, a very high percentage (39.0%) of women indicated that they left the hospital within 24 hours post delivery.
- Women were less likely to leave within 24 hours if they delivered in a private hospital, despite the cost, possibly because either the women themselves were more comfortable, or because of a difference in the availability of or adherence to protocols in private facilities as compared to government facilities.

Recommendations:

1. In order to prevent transmission of tetanus during childbirth, immunization services, especially for pregnant women, should be improved. In addition, promoting clean delivery services and cord care practices, and strengthening disease reporting and case investigation systems would contribute to controlling this preventable disease.
2. In order to improve documentation of immunization coverage including women's TT immunization status, a home-based record for women's immunization coverage should be introduced, and the tetanus toxoid immunization protocol should be updated to take

into account the immunizations received during childhood. These changes should be introduced into efforts to strengthen and improve the HMIS, and should be disseminated to private providers who offer antenatal care in their clinics.

3. Evidence-based protocols for normal childbirth, especially for primagravida women, should be promoted by:
   - Investing more resources and training for midwives and nurses and their role in improving postnatal care since, as women, they are more able to make home visits
   - Strengthening transportation and referral systems

4. Health policies toward postnatal care should be strengthened, promoting postnatal care in general, as well as home visits, to improve postnatal care coverage and reduce the incidence of maternal mortality and morbidity that primarily occurs during this period. Linkages between immunization services and postnatal care services should also be developed in practical terms to further support women's access to postnatal care.
5. In order to reach women in the post partum period, care should be based on home visits, since it is in the home environment that women and their newborns can best be supported, encouraged, and instructed.
6. Women's understanding/knowledge of, and ability to detect problems during antenatal, natal and postnatal care is not clear; further investigation should be conducted, and the results used to further inform the most appropriate questions for future surveys of maternal health in the West Bank and Gaza Strip.
7. No information is available relative to referral services in the West Bank and Gaza Strip – this essential element of health service delivery should be included in future research.
8. Data on abortion and post abortion care is not currently available in the Palestinian Territory, therefore specific recommendations are not possible. In general, however, any post abortion care services in the West Bank and the Gaza Strip should address the following key components:
   - Clinical assessment
   - Danger signs and referral
   - Complications
   - Family planning.
9. Future surveys should include questions assessing the availability, quality and utilization of post abortion care services.

Chapter Eight

Child Health

8.1 Introduction:

This chapter looks at several indicators of child health which have been promoted by UNICEF, WHO and UNISCO. The idea is to assess the child's health every several years, to look at trends, compare the results with other countries, and evaluate the success of programs aimed at prevention of communicable diseases and promoting child's health in developing countries. These indicators address vaccination coverage, feeding practices, vitamin supplementation, child's nutritional status and prevalence and management of the two major diseases: acute respiratory infection and diarrhea. All these indicators are known to affect the health and development of the child worldwide by preventing infectious diseases, dehydration, pneumonia, weight loss, blindness, goiter and death.

This chapter presents and analyzes data obtained from the health survey 2004. The data then are compared with data from the health survey 2000 to examine trends, and to see if health objectives were met.

8.2 Weight at birth:

This table of birth weight includes pre-term and full term babies. It highlights the percentage of under weight and overweight newborns at birth as they are at increased risk of neonatal mortality and morbidity. It shows that the majority of babies are weighed at birth 98.5%. Birth weight has a normal distribution with 8.2% below 2.5 kg and 10.5% above 4 kg.

Females tend to have slightly higher percentage of low birth weight compared to males while males tend to have slightly higher birth weight compared to females. There is no regional variation in birth weight. Camps tend to have the highest percentage of low and high birth weight at the same time. Low birth weight tends to decrease with higher parity and at the same time high birth weight tends to increase with higher parity. Mothers who are illiterate have lower percentages of low birth weight compared to mothers with any level of education.

Table 8.1: Percentage Distribution of Births (Last Two) in the last Three Years Preceding the Survey, by Weight at Birth and Selected Background Characteristics, 2004

Background Characteristics	Weight in Grams at Birth			Weighed at Birth	Number of Births
	Below 2,500	3,999– 2,500	4,000 and Over		
Region					
Palestinian Territory	8.2	81.3	10.5	98.5	3,196
West Bank	8.2	81.6	10.2	97.7	1,855
Gaza Strip	8.3	80.9	10.8	99.4	1,341
Type of Locality					
Urban	8.7	82.3	9.0	98.5	1,741
Rural	7.1	82.4	10.5	97.8	905
Camps	8.8	76.7	14.5	99.3	550
Sex					
Males	7.9	79.5	12.6	98.7	1,626
Females	8.3	83.2	8.5	98.3	1,570
Birth Order					
First	10.9	82.9	6.2	99.3	565
Second and Third	8.5	83.8	7.7	98.2	1,034
Fourth and Fifth	6.6	81.9	11.5	98.7	826
Sixth and Over	7.6	76.3	16.1	98.0	771
Mother's age					
15-29	8.4	81.5	10.1	98.7	2,008
30-49	8.0	83.7	8.3	98.1	1,188
Mother's Education					
None	6.8	81.1	12.1	96.5	247
Elementary	9.1	76.1	14.8	97.7	630
Preparatory	8.4	81.5	10.1	98.8	1,178
Secondary and Above	8.3	81.2	10.5	99.3	1,141

8.3: Breast Feeding:

Breast feeding is considered an asset to child health as it promotes bonding with the mother, reduces the number of diarrheal illnesses and provides the newborn with natural immunity. Percentage of breast fed babies is high 95.6% in the Palestinian Territory. with no regional or sex differences.

Most of infants weaned in the first three months are from the West Bank 21.9%, mainly rural areas 21.2% followed by urban 15.6%. Males (17.1%) are more likely to be weaned in the first three months compared to females 14.7%. There is no obvious trend in weaning in the first three months and maternal age or education.

Table 8.2: Differentials in Prevalence and Duration of Breastfeeding Among Children Born in the last Three Years Preceding the Survey, by Type of Breastfeeding and Selected Background Characteristics, 2004

Background Characteristics	Mean Duration of Breastfeeding Rate (Months)	Continued Breastfeeding Rate (CBFRT)	Percentage of the Weaned within the First Three Months	Percentage of Breasted
Region				
Palestinian Territory	10.9	72.6	16.1	95.6
West Bank	9.8	69.6	21.9	95.5
Gaza Strip	12.5	76.3	7.2	95.7
Type of Locality				
Urban	10.8	73.2	15.6	94.8
Rural	10.4	72.0	21.2	96.6
Camps	11.8	71.1	9.5	96.4
Sex				
Males	10.8	74.8	17.1	95.3
Females	11.0	69.6	14.7	96.2
Birth Order				
First	9.4	31.4	13.8	93.5
Second and Third	10.1	74.6	17.3	95.4
Fourth and Fifth	11.7	86.8	17.9	97.5
Sixth and Over	12.4	82.7	14.1	95.5
Mother's age				
15-29	10.3	65.1	15.6	95.9
30-49	11.9	84.6	16.9	95.1
Mother's Education				
None	11.6	90.0	15.0	97.0
Elementary	11.1	72.5	11.8	94.9
Preparatory	11.3	76.7	18.7	96.4
Secondary and Above	10.2	66.7	14.8	95.0
Mother's Labor force status				
Employed	10.0	68.2	16.7	94.3
Unemployed	11.0	58.5	13.1	96.9

Continued breast-feeding rate (9-12 months) is highest in the Gaza Strip 76.3%, among illiterate mothers (90.0% and slightly more in males 74.8% than females 69.6%. It is lowest in first born 31.4%, mother of secondary and higher education 66.7% and in younger mothers (15-29 yrs) at 65.1% compared to those at 30-49 years old 84.6%. There is no variation in locality type.

Mean duration of breast-feeding is high in the Palestinian Territory, at 10.9 months. It is highest in the Gaza Strip 12.5%, camps 11.8%, children of higher rank 12.4% and older mothers 11.9%. It is lowest in children of mothers with secondary or higher education 10.2%.

In summary, breast feeding is influenced by experience (low in first born and younger mothers), culture of male preference (wean males into other milk in the first three months and carry on breast feeding them longer than females) and women of higher education are more likely to wean their children early or stop breast feeding altogether possibly because they are more likely to be working and maternity leave at best is no longer than three months.

If one compares this result with HS survey of 2000, one finds percentage of breast fed babies has declined slightly from 97.2% to 95.6%. More infants were weaned in the first three months (16.1% compared to 14% in 2000) and duration of breast-feeding was slightly reduced from 11.1 months in the year 2000 to 10.9 months in 2004. Having said this continued breast-feeding rate has increased from 68.8% in 2000 to 72.6% in 2004.

The result implies that more work is needed to keep breast-feeding rates at high levels to ensure adequate and appropriate nutrition for infants.

Table 8.3: Percentage Distribution of Children (Last Two) Born in the last Three Years Preceding the Survey Who Were Breastfed, by Interval, Number of Hours Between Birth and Timing of First Breastfeeding and Selected Background Characteristics, 2004

Background Characteristics	Number of Hours Between Birth and First Breastfed				Total Number of Births
	0	1-2	5-3	6+	
Region					
Palestinian Territory	55.2	19.7	7.6	17.5	**3,196**
West Bank	57.4	15.6	6.5	20.5	**1,855**
Gaza Strip	52.2	25.3	9.1	13.4	**1,341**
Type of Locality					
Urban	53.9	20.2	7.8	18.1	**1,741**
Rural	56.6	18.5	6.5	18.4	**905**
Camps	57.4	19.6	8.6	14.4	**550**
Sex					
Males	53.2	19.9	7.9	19.0	**1,626**
Females	57.3	19.5	7.0	16.2	**1,570**
Birth Order					
First	46.9	18.0	10.6	24.5	**565**
Second and Third	58.0	18.4	6.0	17.6	**1,034**
Fourth and Fifth	56.5	20.4	8.1	15.0	**826**
Sixth and Over	56.0	21.9	7.0	15.1	**771**
Mother's age					
15-29	56.7	19.1	7.2	17.0	**2,008**
30-49	52.7	20.6	8.2	18.5	**1,188**
Mother's Education					
None	61.7	19.9	6.8	11.6	**247**
Elementary	56.4	19.7	7.0	16.9	**630**
Preparatory	54.7	20.5	7.3	17.5	**1,178**
Secondary and Above	53.7	18.3	8.5	19.5	**1,141**

To promote breast-feeding, midwives and nurses are to encourage mothers to breast feed straight after delivery. This is practiced by 55.2% of mothers, more in the West Bank 57.4% than Gaza Strip 52.2%, more in females' infants 57.3% than males (53.2%) and in younger mothers 56.7%. It is less practiced in urban areas 53.9% and with first born child (46.9%), decreases gradually as mother's education increases (61.7% to 53.7%). See table (8.3)

If one compares the results with HS 2000, percentage of breast fed babies in the first hour has increased from 50.3% to 55.2% with the main increase in the practice in rural areas (49.5% to 56.6%) and camp areas (50.2% to 57.4%).
In summary one finds initiation of breast feeding has increased from 2000 to 2004, but after it was initiated it declined slightly as shown in the previous table, suggesting other factors are playing a role in weaning and in mean duration of breast feeding.

Table 8.4: Percentage Distribution of Children Born in the last Three Years Preceding the Survey Who Have Been Weaned, by Reason of Weaning and Age at Weaning (Months), 2004

Reason for Weaning	Age at Weaning (Months)				Total
	6>	11 - 6	23 - 12	+24	
Mother Sick	9.9	7.3	8.4	0.0	9.5
Child Sick	6.2	2.8	3.3	1.1	3.9
Child Died	0.6	0.0	0.1	0.0	0.9
Nipple Breast Problem	3.4	0.8	1.2	0.0	1.8
Insufficient Milk	31.6	20.0	11.6	2.2	16.1
Desire to Work	9.0	2.3	1.5	0.0	3.7
Child Refused	20.9	10.0	2.8	0.0	7.4
Child Old Enough	1.7	12.8	48.1	91.1	31.7
Mother Became Pregnant	14.7	44.0	23.0	5.6	24.1
Use of Family Planning Method	2.0	0.0	0.0	0.0	0.9
Distribution of Births Weaned	**19.9**	**22.5**	**52.5**	**5.1**	**100**
Number of Weaned Children	**346**	**391**	**938**	**94**	**1,769**

This table is an important one as it highlights main causes of weaning at the different ages of children, as stated by the mother. The table shows that 42.4% of infants are weaned prior to one year, while 52.5% of children are weaned at 12-23.

For those who are less than 6 months, the commonest cause for weaning is insufficient milk 31.6%, followed by the child refusing to feed 20.9%. Other causes are the mother became pregnant 14.7% and desire to work 9.0%. All the reasons mentioned 72.2% in total can be influenced by proper counseling of mother on the use of contraception after delivery and the value of spacing, then advice on how to continue breast feeding while working.

As the infant grows , causes for weaning vary slightly as mother became pregnant becomes the commonest one at 44.0%, followed by insufficient milk 20.0%, then child refused the breast milk 10.0% and child old enough 12.8%. Again all 86.8% are preventable with proper counseling of mothers by midwives or obstetricians.

Comparing the results with HS 2000, what is remarkable is the increase in the numbers of mothers who weaned their children less than 6 months because they want to work 2.3% compared to 9.0%) and mother who became pregnant 4.0% to 14.7%. In the 6-11 months category, a lot more mothers became pregnant and stopped breast feeding 24% in 2000 compared to 44% in 2004.

In summary, early weaning in the Palestinian Territory is preventable through early counseling of mothers on contraceptive use and the importance of spacing, after delivery and prior to discharge from hospital. One also needs to investigate the high increase in the number of pregnancies causing mothers to stop breast feeding their infants; is it due to lack of access to contraception services or the mother does wish to get pregnant.

8.4 Diarrhea:

Diarrheal disease is one of the commonest causes of mortality and morbidity in children under five years of age. The percentage of children experiencing diarrhea in the last two weeks prior to the survey in 2004 is 15.3%. The diarrhea was reported more in males 16.5%, in rural areas 17.1% and in the age group of 6-11 month 34.6% and 12-23 months 23.3%. Unacceptable fluids were given to 32.6% of children, more in the Gaza Strip 35.8%, to those living in the rural areas 34.9% and by mothers who have no education 34.0% or elementary education 35.5%, to males 34.2% more than females (30.7%) and increasingly with the increase in the child' age 46.9% to 36+ months down to 6.7% in those less than 6 months.

Comparing the results with the HS 2000 is not feasible as the definitions of diarrhea are different in the two surveys. The definition of diarrhea in 2004 was based on mother's perception and the consistency of the stool, while in the year 2000; it was based on the frequency and the consistency of the stool.

In general less breast milk and Gruel was used in the year 2004, 36.9% and 52% respectively compared to 2000 41.4% and 57.7% respectively, and more ORS was used in the year 2004 31%.0 compared to the year 2000 20.6%.

Table 8.5: Percentage of Children Under Five Years of Age with Diarrhea in Two Weeks Preceding Survey Who Were Treated, by Type of Treatment and Selected Background Characteristics, 2004

Background Characteristics	Had Diarrhea in Last Two Weeks	Type of Treatment								Number of Children With Diarrhea	Total Number Children Under Five
		Un-acceptable Fluides	Water	Water with Food	Other Milk or Infant Formula	ORS	Locally Acceptable Fluids	Gruel	Breast Milk		
Region											
Palestinian Territory	15.3	32.6	72.8	63.5	37.0	31.0	65.4	52.0	36.9	**736**	**4,835**
West Bank	15.6	30.4	70.0	60.4	35.4	35.1	65.8	57.2	32.7	**444**	**2,871**
Gaza Strip	15.0	35.8	77.1	68.2	39.2	24.7	64.7	44.2	43.2	**292**	**1,964**
Type of Locality											
Urban	14.4	31.9	72.3	65.8	35.8	29.7	64.4	49.2	37.6	**380**	**2,668**
Rural	17.1	34.9	76.3	62.1	40.1	32.8	67.7	57.8	34.9	**232**	**1,364**
Camps	15.6	29.8	68.5	58.9	34.7	32.0	64.5	49.6	37.9	**124**	**803**
Sex											
Males	16.5	34.2	75.2	66.1	39.6	31.4	66.1	54.7	35.9	**404**	**2,459**
Females	14.1	30.7	69.9	60.2	33.7	30.4	64.5	48.8	38.0	**332**	**2,376**
Age of Child (Months)											
Less than 6	16.3	6.7	47.8	32.2	30.8	25.6	25.6	14.4	88.9	**90**	**559**
6-11	34.6	19.4	79.4	70.3	39.4	36.8	65.2	52.9	69.0	**155**	**525**
12-23	23.3	37.4	75.8	73.2	39.9	36.2	75.3	56.1	30.8	**198**	**917**
24-35	13.4	41.7	72.8	60.9	33.9	37.4	74.6	64.3	6.1	**114**	**924**
36+	8.0	46.9	77.9	62.8	39.3	18.6	69.0	56.6	2.8	**145**	**1,897**
Mothers' Education											
None	14.1	34.0	70.2	51.1	28.3	21.3	59.6	57.4	46.8	**47**	**420**
Elementary	14.4	35.5	75.2	70.2	29.8	31.2	68.8	58.2	34.0	**141**	**990**
Preparatory	15.2	32.2	72.0	62.2	36.2	34.7	64.6	51.1	35.2	**268**	**1,769**
Secondary and Above	16.4	32.8	72.3	63.1	42.2	30.2	65.7	50.0	37.7	**268**	**1,651**

8.5 Respiratory Tract Infection:

Upper respiratory tract infections were looked at through three variables, cough, blocked nose and chest problem. The highest reported symptom was chest problem at 42.4% followed by blocked nose 33.4% then cough 21.0%. The trend of each symptom is different from the others.

Chest problems; were reported more in the Gaza Strip 48.5%, rural areas 44.5%, and males 43.2% and by illiterate mothers 62.8%. Blocked nose; was reported more from the West Bank 35.5%, urban areas 34.1%, and by mothers of elementary education or higher 34.1% to 35.0%. Cough; was reported higher in the camps 22.8%, in males 22.1% and more in mothers with preparatory education 21.4% and above.

Chest problem is a vague diagnosis if made by lay people 62.8% reported by illiterate mothers, one should be skeptical about its interpretation. Comparing the results to those of 2000, cough was the only common indicator. It was reported less frequently at 17.0%, and has a similar trend to 2004, except for region as it was more observed in the Gaza Strip 19.9% compared to the West Bank 15.2% in the year 2000 compared to no trend for 2004.

Table 8.6: Percentage of Children Under Five Years of Age Who Had Cough in Two Weeks Preceding Survey, by Symptoms and Selected Background Characteristics, 2004

Background Characteristics	Had Cough in Last Two Weeks	Symptoms					Number of Infected Children	Number Children Under Five
		Blocked Nose	Chest Problem	Both	Other	DK		
Region								
Palestinian Territory	21.0	33.4	42.4	18.9	3.5	1.8	**1,007**	**4,835**
West Bank	21.6	35.5	38.7	18.9	4.5	2.4	**617**	**2,871**
Gaza Strip	20.0	30.0	48.5	18.8	1.7	1.0	**390**	**1,964**
Type of Locality								
Urban	20.7	34.1	42.1	18.7	3.5	1.5	**550**	**2,668**
Rural	20.4	32.6	44.5	16.5	3.0	3.4	**276**	**1,364**
Camps	22.8	32.4	39.5	24.0	4.1	0.0	**181**	**803**
Sex								
Males	22.1	33.6	43.2	19.6	1.8	1.8	**539**	**2,459**
Females	19.8	33.2	41.3	17.9	5.7	1.9	**468**	**2,376**
Age of Child (Months)								
Less than 6	22.1	44.1	31.9	20.2	2.6	1.2	**122**	**559**
6-11	30.1	27.5	55.7	15.7	1.1	0.0	**156**	**525**
12-23	24.4	33.0	34.2	28.3	3.1	1.5	**220**	**917**
24-35	22.9	33.7	42.9	16.9	3.2	3.2	**205**	**924**
36+	15.6	32.4	45.1	14.0	5.9	2.6	**300**	**1,897**
Mother's Education								
None	19.0	23.6	62.8	13.6	0.0	0.0	**62**	**420**
Elementary	19.9	34.1	21.8	40.8	3.3	0.0	**195**	**990**
Preparatory	21.5	34.8	41.7	18.0	4.1	1.3	**381**	**1,769**
Secondary and Above	21.4	35.0	39.3	17.8	3.8	4.1	**352**	**1,651**

8.6 Immunization:

Of those children less than 5 years included in the survey, 72.9% had their immunization read straight from their immunization card. The result shows that immunization records were available for males 74.4% more than females 71.3%, and slightly more by mothers with any level of education (range between 71.3% to 75.3% compared to 70.7% by mothers with no education). Immunization records were less available as the child's age increased.

The variation in the percentage if children immunized for any one vaccine is directly influenced by two factors: first is the percentage of records seen vs. mothers recall, as the latter is less accurate and second by the fact that children living in Jerusalem tend to follow the Israeli schedule of immunization which does not included measles or BCG. Analyzing the data within this context, the table clearly shows high rates of immunizations for all vaccines after taking time of immunization into consideration. The highest percentages of immunization for DTP, Polio and HB are attained at the age group of 12-23 months as the third dose is given at 6 months. The highest percentage for MMR is attained at 24-35 months of age because it is given at 15 months. Note that immunization rate is not influenced by mother's education. Also Measles and BCG will be looked at in a different table where children living in Jerusalem are excluded.

Table 8.7: Percentage of Children Under Five Years of Age in the Palestinian Territory Whose Immunization Card Was Seen and Who Received Specific Immunization, by Selected Background Characteristics, 2004

Background Characteristics	Children Received Specific Immunization													
	MMR	Measles	BCG	HB			DPT			Polio			% With a Card Seen	Number of Children Under Five
				1	2	3	1	2	3	1	2	3		
Sex														
Males	66.6	75.3	94.0	99.2	95.9	80.8	94.5	94.5	94.6	95.0	95.1	95.1	74.4	**2,459**
Females	65.9	73.3	93.6	98.7	95.4	79.9	93.5	93.5	93.5	95.0	95.0	95.0	71.3	**2,376**
Age of Child (Months)														
Less than 6	-	-	88.1	99.4	83.4	10.4	68.1	68.2	68.2	70.3	70.2	70.2	93.7	**559**
6-11	-	43.0	95.4	99.5	98.1	85.2	98.1	98.0	98.0	100.0	100.0	100.0	92.4	**525**
12-23	80.4	95.1	95.0	99.5	98.9	95.0	97.8	97.9	97.9	99.6	99.5	99.5	86.8	**917**
24-35	97.7	95.7	95.7	99.5	98.5	93.6	100.0	100.0	100.0	99.8	99.8	99.8	71.5	**924**
36+	95.5	93.1	93.9	97.9	96.9	93.3	98.9	98.9	98.9	99.3	99.3	99.3	56.0	**1,897**
Mother's education														
None	72.9	80.5	96.2	99.6	94.1	77.9	92.4	92.5	92.5	92.8	92.9	92.9	70.7	**420**
Elementary	65.5	74.0	94.3	99.0	96.1	80.1	92.6	92.6	92.6	95.1	95.1	95.1	71.3	**990**
Preparatory	68.8	75.0	94.3	98.8	96.2	82.3	95.0	95.0	95.0	95.3	95.3	95.3	75.3	**1,769**
Secondary and Above	63.3	73.1	92.3	99.1	95.1	78.8	94.1	94.3	94.3	95.2	95.3	95.3	72.5	**1,651**
Total	**66.4**	**73.4**	**93.8**	**99.0**	**95.7**	**80.4**	**94.0**	**94.0**	**94.1**	**95.0**	**95.1**	**95.1**	**72.9**	**4,835**

Table 8.8: Percentage of Children Under Five Years of Age in the West Bank Whose Immunization Card Was Seen and Who Received Specific Immunization, by Selected Background Characteristics, 2004

Background Characteristics	MMR	Measles	BCG	Children Received Specific Immunization									Percent With a Card Seen
				HB			DPT			Polio			
				1	2	3	1	2	3	1	2	3	
Sex													
Males	66.4	73.1	90.6	98.8	95.9	82.9	94.0	94.1	94.1	94.5	94.7	94.7	78.2
Females	67.6	72.5	90.4	98.4	95.9	82.8	93.2	93.2	93.2	94.6	94.6	94.6	75.1
Age of Child (Months)													
Less than 6	-	-	81.0	99.4	83.6	10.0	65.8	65.9	65.9	66.9	66.9	66.9	93.1
6-11	-	38.5	92.9	100.0	99.2	90.8	97.9	98.1	98.1	100.0	100.0	100.0	95.6
12-23	80.0	92.8	91.9	99.3	99.1	97.5	96.6	96.7	96.7	99.3	99.2	99.2	89.5
24-35	96.9	93.2	93.2	99.1	98.6	95.5	100.0	100.0	100.0	99.7	99.7	99.7	73.1
36+	94.6	90.7	91.5	97.0	96.9	94.7	98.9	98.9	98.9	99.4	99.5	99.5	63.2
Mother's education													
None	67.6	74.5	94.1	99.3	94.9	77.2	90.5	90.7	90.7	91.2	91.4	91.4	74.7
Elementary	65.5	72.4	91.7	98.7	96.2	80.9	92.2	92.0	92.0	94.4	94.3	94.3	74.5
Preparatory	70.3	74.4	91.5	98.4	96.3	86.0	94.8	94.8	94.8	95.2	95.1	95.1	79.9
Secondary and Above	64.3	70.9	87.5	98.7	95.4	81.0	93.6	94.0	94.0	94.5	94.8	94.8	75.4
Total	**67.0**	**72.8**	**90.4**	**98.6**	**95.9**	**82.8**	**93.6**	**93.6**	**93.6**	**94.6**	**94.6**	**94.6**	**76.9**

Table 8.8 shows that there are more children with Immunization cards in the West Bank 76.9% compared to 72.9% in the Palestinian Territory. Also immunization percentages of measles 72.8% and BCG 90.4% have dropped slightly compared to the national figures 73.4% for measles and 93.8% for BCG because of those children using the Israeli immunization schedule where BCG and measles are excluded

Table 8.9: Percentage of Children Under Five Years of Age in Gaza Strip Whose Immunization Card Was Seen and Who Received Specific Immunization, by Selected Background Characteristics, 2004

Background Characteristics	MMR	Measles	BCG	Children Received Specific Immunization									Percent With a Card Seen	Number of Children Under Five
				HB			DPT			Polio				
				1	2	3	1	2	3	1	2	3		
Sex														
Males	66.8	78.8	99.6	99.9	95.8	77.4	95.5	95.5	95.5	95.8	95.8	95.8	69.1	**1,005**
Females	63.0	74.7	99.0	99.2	94.6	74.8	93.9	93.9	93.9	95.5	95.6	95.6	65.8	**959**
Age of Child (Months)														
Less than 6	-	-	98.6	99.0	82.7	11.5	71.6	71.6	71.6	75.0	75.1	75.1	94.1	**221**
6-11	-	49.1	98.9	98.9	96.6	77.7	97.7	97.8	97.8	100	100.0	100.0	88.4	**226**
12-23	80.8	98.7	99.7	99.7	98.7	91.2	99.7	99.7	99.7	100.0	100.0	100.0	83.2	**377**
24-35	98.8	99.2	99.2	100	98.0	90.6	100	100.0	100.0	100.0	100.0	100.0	69.3	**396**
36+	97.5	98.4	99.4	100	96.8	90.2	98.7	98.8	98.8	99.1	99.0	99.0	44.6	**740**
Mother's education														
None	80.0	88.9	99.0	100	93.0	78.8	95.0	95.0	95.0	94.9	94.9	94.9	65.8	**177**
Elementary	65.5	76.8	99.2	99.6	96.1	78.8	93.7	93.5	93.5	96.5	96.4	96.4	66.6	**386**
Preparatory	65.7	76.2	99.8	99.6	95.8	75.6	95.4	95.4	95.4	95.6	95.6	95.6	67.8	**673**
Secondary and Above	62.1	76.1	99.0	99.6	94.7	75.5	94.7	94.7	94.7	95.4	96.0	96.0	68.8	**725**
Total	**65.4**	**77.2**	**99.3**	**99.6**	**95.2**	**76.4**	**94.8**	**94.8**	**94.8**	**95.8**	**95.8**	**95.8**	**67.7**	**1,964**

Table 8.9 shows that there are fewer children from the Gaza Strip 67.7% with immunization records compared to the West Bank 76.9%. The percentages of children immunized for BCG 99.3% and measles 77.2% are very high in the Gaza Strip compared to the West Bank 90.4% for BCG and 72.8% for measles. There is a relatively low immunization uptake for third dose of HB reaching a maximum of 76.4% compared to the West Bank of 82.8%.

Table 8.10: Percentage of Children Aged 12-23 Months Who Received Specific Immunization, by Selected Background Characteristics, 2004

Background Characteristics	BCG	Measles	All Vaccines*	Children Who Received Specific Immunization						% With a Card Seen	Number of Children
				DPT			Polio				
				1	2	3	1	3	2		
Region											
Palestinian Territory	95.2	95.2	92.3	97.8	97.8	97.8	99.5	99.5	99.5	86.2	**917**
West Bank	92.2	93.1	88.5	96.9	96.9	96.9	99.4	99.4	99.4	88.5	**540**
Gaza Strip	99.7	98.4	98.1	99.4	99.4	99.4	99.7	99.7	99.7	83.0	**377**
Type of Locality											
Urban	91.8	93.2	90.0	98.2	98.2	98.2	99.3	99.3	99.3	85.9	**513**
Rural	100.0	97.8	96.4	98.2	98.2	98.2	100.0	100.0	100.0	89.2	**252**
Camps	98.4	97.6	93.3	96.8	96.8	96.8	99.2	99.2	99.2	82.8	**152**
Sex											
Males	95.7	95.4	92.6	98.1	98.1	98.1	99.8	99.8	99.8	86.5	**483**
Females	94.6	95.1	92.2	97.8	97.8	97.8	99.2	99.2	99.2	86.1	**434**
Mother's Education											
None	93.4	100.0	93.4	98.4	98.4	98.4	100.0	100.0	100.0	89.7	**81**
Elementary	96.6	94.6	91.9	96.6	96.6	96.6	100.0	100.0	100.0	87.1	**171**
Primary	95.5	95.2	93.3	98.1	98.1	98.1	99.4	99.4	99.4	87.7	**359**
Secondary and Above	93.7	94.4	90.9	98.8	98.8	98.8	99.2	99.2	99.2	83.4	**304**

All Vaccines: Children who have received the three dosages of polio and DPT, and received the dosages of Measles and BCG.

The uptake of all immunizations are very high in the Palestinian Territory, a minimum of 95.2% for any one vaccine. There is a higher immunization uptake in the Gaza Strip and in he rural and camp areas for BCG and measles only, reflecting the effect of those living in urban areas, particularly Jerusalem and, using the Israeli immunization schedule, which excludes measles and BCG. There is no sex or maternal education differences in the immunization uptake.

Table 8.11: Percentage of Children Under Five Years of Age Who Received Specific Immunization (At least one dose), by Type and Selected Background Characteristics, 2004

Background Characteristics	Number of Children Under Five	Type of vaccine			
		Hepatitis A	Chicken Box	Haemophilus Influenza type B	Influenza
Sex					
Males	**2,459**	10.2	9.6	14.5	9.2
Females	**2,376**	10.6	10.4	14.6	8.5
Mother's Education					
None	**420**	6.1	8.3	10.9	7.8
Elementary	**990**	9.7	9.3	12.6	6.9
Preparatory	**1,769**	9.6	9.2	14.4	8.9
Secondary and Above	**1,651**	12.9	11.8	17.1	10.6
Total	**4,835**	**10.4**	**10.0**	**14.6**	**8.9**

Table 8.11 includes all vaccines given to children in the West Bank and Gaza Strip by the private sector. Some are given routinely to children living in the Jerusalem area as part of the Israeli schedule of immunization. As the total immunization percentages are low, with pockets of high uptake, it is important to survey these diseases to monitor levels of immunity in the community and to anticipate outbreaks or epidemics.

Influenza vaccine is given in winter to children and adults at any age (6 months onward). Indication for immunization of influenza vaccine depends on the medical, social and family history of the child. It is given upon the recommendation of a health professional, and not given routinely to all children.

Other immunizations (chicken Box, Hepatitis A and Haemophilus influenza type B) are given to two categories of children; those following the Israeli schedule who obtain Haemophilus influenza type B and Hepatitis A at routine immunization, and offered chicken Box vaccine at reduced cost. And those who are following the Palestinian authority immunization schedule; they are offered Hepatitis A, Chicken Box and Haemophilus Influenza type B privately at full cost.

The highest uptake is for Haemophilus Influenza 14.6% and Hepatitis A 10.4%, followed by Chicken Box 10.0%.

There is a clear trend in immunization uptake of these 4 vaccines showing marked increase with mother’s education especially at the secondary and above level. This may reflect income and knowledge, which are pre-determinants for these relatively expensive vaccines. It is a relief to find out that there are no differences between the sexes in the immunization rate.

Table 8.12: Percentage of Children Under Five Years of Age Who Received Specific Immunization (At least one dose), by Type and Selected Background Characteristics, living in Jerusalem, 2004

Background Characteristics	Type of vaccine				Number of Children Under Five
	Hepatitis A	Chicken Box	Haemophilus Influenza type B	Influenza	
Sex					
Males	68.2	41.4	63.1	47.1	**2,459**
Females	68.2	51.1	68.8	38.7	**2,376**
Mother's Education					
None	30.8	0.0	30.8	8.6	**420**
Elementary	59.6	39.8	62.6	27.9	**990**
Preparatory	65.5	49.1	68.1	51.8	**1,769**
Secondary and Above	80.1	50.6	69.1	46.1	**1,651**
Total	**68.2**	**46.1**	**65.8**	**43.0**	**4,835**

Table 8.12 shows clearly the high uptake of Haemophilus Influenza type B 65.8% and hepatitis A (68.2%) routinely given to children following the Israeli immunization schedule. Chicken box has a lower uptake at 46.1% and Influenza vaccine is at 43.0%.

It is worth noting that not all of the children living in Jerusalem governorate follow the Israeli Immunization schedule, as some areas follow the Palestinian schedule, specifically J2 (Those parts of Jerusalem not annexed by Israel in 1967), therefore the fairly inadequate uptake, of Hepatitis A and Haemopholus Influenza type B, around 70%.

8.7 Malnutrition:

Child growth is an important indicator of children's well being. It reflects nutrition security at that particular time.

Underweight is a good indicator of acute malnutrition. It is at 4.9%, more in the camps 6.0%, females 5.1%, in the age group 6-11 months 7.9% and in children of mothers with no education 7.3%.

Stunting, an indicator of chronic malnutrition is at 9.9%. It is more in the Gaza Strip 11.4%, urban areas 10.7%, and females 10.5%, age group 12-23 months 15.6% and decreases with increasing maternal education (12.2% in children of mothers with elementary education to 9.3% in children of mothers with secondary and above education).

Wasting is the ratio of underweight to stunting. It worsens if weight is reduced, but improves if height is decreased, presenting a contradictory image of child nutrition. Therefore it has to be interpreted within the context of the other parameters and not on its own. Wasting was found to be at 2.8%, a lot more in the West Bank 3.4% than Gaza Strip 1.8%. This is a result of having more stunting in the Gaza Strip than the West Bank, which improves on the outcome measure of wasting. It is more severe in males 3.0% compared to females 2.6% for the same reason mentioned above. It is very high at the age group of 6-11 months 6.0% and

in children of mothers with no education 4.0%. Note that percentage of severe wasting, stunting and underweight (less than -3SD) are not high.

Table 8.13: Percentage of Children Under Five Years of Age Who are Severely or Moderately Undernourished, by Selected Background Characteristics, 2004

Background Characteristics	Weight for Height		Height for Age		Weight for Age		Number of Children Under Five
	Less than - 2SD	Less than -3SD	Less than - 2SD	Less than - 3SD	Less than - 2SD	Less than -3SD	
Region							
Palestinian Territory	2.8	0.7	9.9	2.9	4.9	0.7	**4,835**
West Bank	3.4	0.8	8.8	2.9	4.8	0.7	**2,871**
Gaza Strip	1.8	0.7	11.4	2.9	4.9	0.7	**1,964**
Type of Locality							
Urban	2.7	0.8	10.7	3.1	4.9	0.7	**2,668**
Rural	2.8	0.7	8.4	2.3	4.2	0.2	**1,364**
Camps	3.0	0.7	9.9	3.2	6.0	1.2	**803**
Sex							
Males	3.0	0.7	9.3	2.9	4.7	0.8	**2,459**
Females	2.6	0.7	10.5	2.9	5.1	0.5	**2,376**
Age of Children (Months)							
Less than 6	5.3	1.5	5.3	1.3	3.2	0.6	**559**
6-11	6.0	2.0	5.7	2.2	7.9	1.2	**525**
12-23	3.2	0.4	15.6	3.9	5.4	0.5	**917**
24-35	1.4	0.8	9.1	2.7	4.6	1.2	**924**
36-47	1.7	0.5	11.1	3.4	4.9	0.6	**1,001**
48-59	1.9	0.1	7.6	1.9	3.7	0.0	**896**
Mother's Education							
None	4.0	0.7	12.5	2.6	7.3	1.0	**420**
Elementary	2.4	0.6	12.2	2.9	4.9	0.6	**990**
Preparatory	2.5	0.8	9.3	3.2	4.9	0.8	**1,769**
Secondary and Above	3.1	0.8	8.6	2.6	4.2	0.5	**1,651**

Table 8.14: Malnutrition among children loss than 5 years in the Palestinian Territory, 1996-2004

Year	Stunting	Wasting	Under weight
1996			
West Bank	6.7	2.2	3.9
Gaza Strip	8.2	3.7	5.2
Palestinian Territory	7.2	2.8	4.0
2000			
West Bank	7.0	1.5	2.6
Gaza Strip	8.3	1.4	2.4
Palestinian Territory	7.5	1.4	2.5
2004			
West Bank	8.8	3.4	4.8
Gaza Strip	11.4	1.8	4.9
Palestinian Territory	9.9	2.8	4.9

Looking at nutrition indicator over time 1996-2004, it is obvious that stunting, an indicator of chronic malnutrition is on the increase.

The initial increase 1996-2000 was small and mainly in the West Bank. Following that period; 2000-2004 there was a marked increase in stunting in the West Bank and Gaza Strip, but more so in the Gaza Strip.

Underweight has shown a decline from the year 1996-2000 during Oslo period with a relative improvement in the general living conditions, followed by an increase during 2000-2004 during the second Intifada.

Wasting on the other hand is a reflection of weight over height and is very much influenced by acute changes in weight, hence there is a relative improvement from 1996-2000 followed by marked increase from 2000-2004 as underweight increased again.

In summary as the cycle of increasing underweight is followed by increasing levels of stunting, it is obvious that 1996-2000, Oslo period, showed a decline in underweight, and a possible slowing of previously increasing levels of stunting. If this has carried through, there should have been a reverse of stunting in the period that followed, 2000 onward, provided living conditions continued to improve. But with the second Intifada and the strict Israeli measures on movements and access to health care and food with increasing poverty, a marked deterioration in underweight and stunting followed disrupting the apparent improvement noted previously.

Figure 8.1 : Stunting among children less than 5 years by type of locality, 2000, 2004

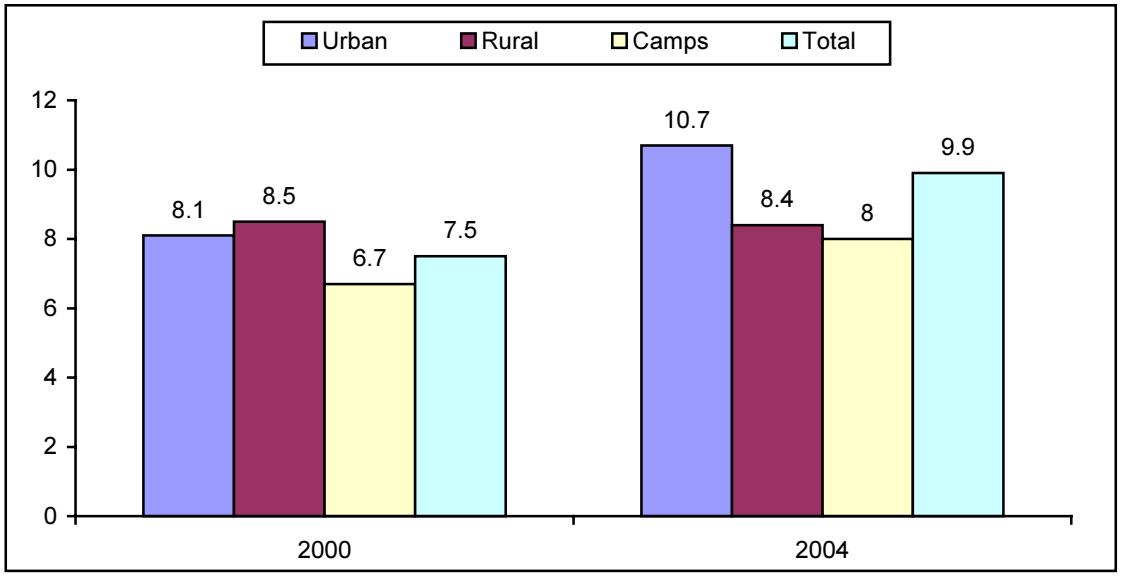


Figure 8.1 shows that stunting have increased in 2004 from 7.5% in 2000 to 9.9% in 2004. The main increase was noted in urban areas 8.1% to 10.7% and the camps 6.7% to 8.0%. The rural areas were not affected. This might have been related to Israeli measures of curfews and closures during the second Intifada, which mainly affected the camps and cities of the West Bank and Gaza Strip, less so for rural areas.

Figure 8.2: Malnutrition among children less than 5 years by region , 1996, 2004

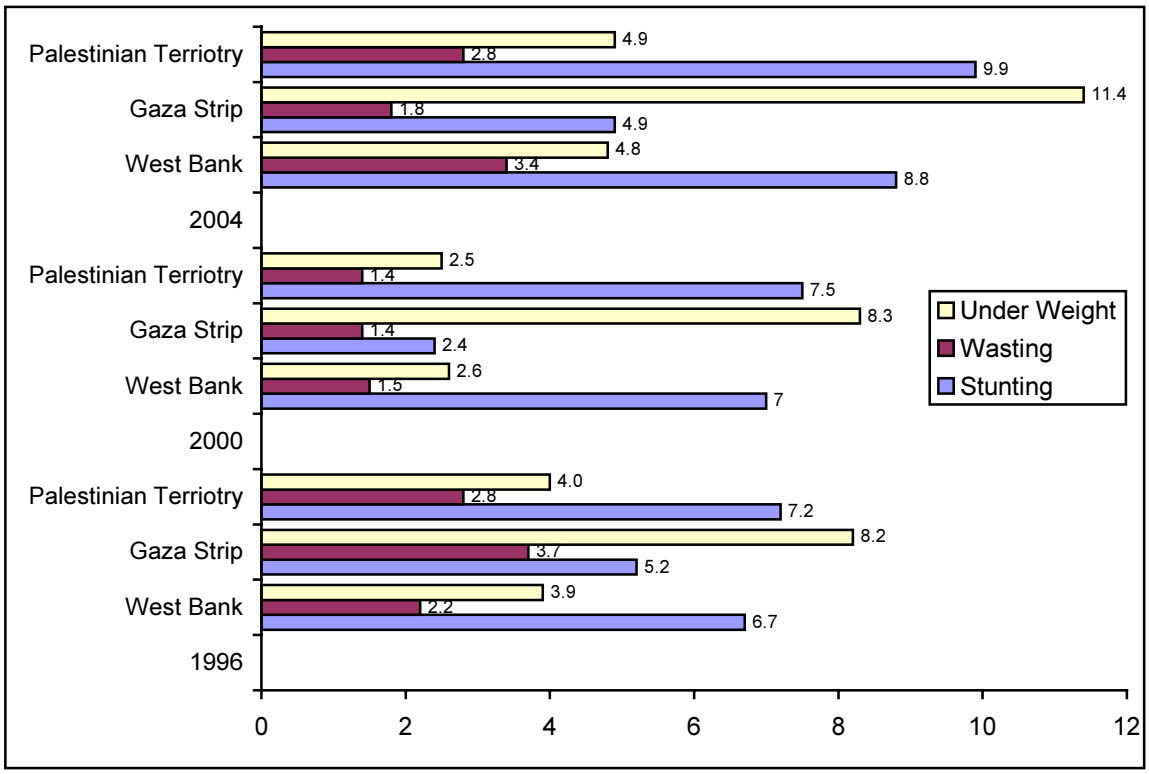


Figure 8.2 shows that in 1996, stunting was the worst indicator in child malnutrition. Underweight and wasting were also high, especially in the Gaza Strip. By the year 2000, with 4-5 years of Oslo accord, indicators of acute malnutrition improved with narrowing of the gap between the West Bank and Gaza Strip. In addition stunting (chronic malnutrition) almost remained static. If the same conditions persisted, one would expect the percentage of stunting to start decreasing. But with the second Intifada, Israeli measures of closure and curfew causing increasing poverty and reduced access to health care, resulted in further deterioration in child nutrition indicator. The highest increase was in stunting in the Gaza Strip (11.4%) compared to the West Bank (8.8%), reflecting the existing gap already present before the Intifada, while underweight increased to the same levels, also reflecting previous levels as shown by the graph..

As there are some definite signs of improving conditions in some areas now, other areas seem to suffer more due to the wall, disengagement and land confiscations. Consequently one can expect further deterioration in child health unless serious measures are implemented.

8.8 Vitamin A/D and iron intake

Vitamin A&D should be given to all infants at birth and up to one year of age. It prevents rickets and night blindness, caused by deficiency of these vitamins. The table shows marked differences in vitamin A&D intake between the West Bank and Gaza Strip. This is a reflection of UNRWA policy of not giving A&D to all infants under one year contrary to the MoH policy.

As shown two third of infants (68.3%) under 6 months in the West Bank are taking the vitamin drops while only 20.6% of infants under 6 months are taking it in the Gaza Strip.

As child nutrition is deteriorating in general, one finds there is an urgent need to include vitamin A& D for UNRWA children as well to ensure high levels of coverage to reduce upcoming cases of rickets and night blindness.

Table 8.15: Percentage of children less than 5 years who received vitamin A/D by region and age, 2004

Region	Less than 6 month	6-11	12-23	24+	Total
West Bank	68.3	75.3	74.9	74.6	73.8
Gaza Strip	20.6	41.5	59.7	53.6	48.6
Total	47.2	59.3	68.1	65.2	62.4

Table 8.16 :Percentage of children less than 5 years who received iron syrup by region and age, 2004

Region	Less than 6 months	6-11 months	12-23 months	24+	Total
West Bank	12.5	31.6	38.1	37.1	32.8
Gaza Strip	9.9	29.5	63.3	57.3	47.5
Total	11.3	30.6	49.4	46.1	39.5

The policies for iron supplementation for UNRWA and MoH mainly depend on testing blood for anemia at 6 months and giving iron medication if anemia is present. This has varied slightly over the years. Despite these preventive measures, iron deficiency anemia continues to exist at high levels in children less than 5 years.

What this table 8.16 shows is that a small percentage of infants are receiving iron in the community below one year of age (11.3% for under 6 months and 30.6% for those 6-11 months).
There is a marked increase in iron intake in children after the age of one year in the Gaza Strip, not so evident in the West Bank. Still the overall supplementation is not exceeding 40% of children less than 5 years overall, which is inadequate to tackle high levels of anemia in the community.

Executive summary:
Birth weight is very much influenced by maternal factors and bears no consequences to child's health unless it is high, above 4 Kg or low, below 2.5 Kg. Low birth weight (LBW), a predictor of child health, is influenced by maternal factors and is dependant on the duration of the pregnancy i.e. gestation. As a result LBW rate is difficult to interpret if those children with gestation below 37 weeks are not excluded as they represent a different category of children with different risk factors compared to those born at full term (37+ weeks).

Breast feeding is high in the Gaza Strip and in the camps. Mothers at young age (15-29 years) are less likely to continue breast feeding (9-12 months) with mean duration of breast feeding in months is lower than any other category. Mothers of first newborns take longer to initiate breast feeding, are less likely to breast feed altogether and percentage of those who continue to breast feed (9-12 months) and mean duration of breast feeding is lower than any other category.

Commonest causes for stopping breast feeding, especially for young children, are preventable. Such as the milk is not sufficient, the baby refuses the mother's milk or the mother became pregnant.

It is obvious that raising breast feeding initiation, continued breast feeding rate and mean duration of breast feeding can be improved with appropriate and adequate counseling and support of mothers on breast feeding issues and practices before delivery and prior to hospital discharge.

Diarrhea in the last two weeks preceding the survey was reported at 15.3%. Diarrhea in the Palestinian Territory is usually viral in origin, as it is more prevalent in the age group 6-11 months at 34.6%, where viral infections are the commonest. It is low in the older age group of 36+ months at 8%. Almost one third of mothers give unacceptable fluids during diarrheal illness. Although the numbers are not comparable to 2004 survey due to different definitions, the trend is the same with more diarrheas in males, in the rural areas and in the age groups 6-11 months followed by 12-23 months old children.

Acute respiratory tract infections had more than one indicator of cough, blocked nose and chest problem. The latter was least accurate as it required medical examination to confirm the diagnosis of a chest problem. The trend is similar to the year 2000 with more cough in the camps, males and mothers with higher education possibly linking cough to crowdness in the camps and sending children to the nursery by mothers with higher education.

Immunization uptake is best evaluated by looking at a specific vaccine in relation to the age at immunization; otherwise the percentage of uptake will be artificially low. Immunization uptake remains high in the Palestinian Territory despite the closures and curfews imposed by the Israeli army during the Intifada. Variation in the uptake of measles and BCG between the Gaza Strip and the West Bank is due to those children living in the West Bank and Jerusalem who follow the Israeli immunization schedule which excludes these two vaccines. The percentage of children vaccinated for the third dose of Hepatitis A is lower in the Gaza Strip compared to the West Bank, which needs further investigation.

There are certain vaccines made available to those children following the Israeli schedule, but not to those following the Palestinian Territory schedule. This means there will be pockets of high and low immunization rates among children in the Palestinian Territory, reflecting on the herd immunity. This may result in an outbreak affecting older age groups and shifting the diseases from a childhood one to an adult one. In certain diseases such as chicken Box and Hepatitis A, this shift will cause higher mortality and morbidity rates for when the epidemic or an outbreak does occur. This warrants strict surveillance system of the disease prevalence among all age groups and a measure of immunity to predict the likelihood occurrence of an outbreak.

Growth parameters of children in the Palestinian Territory have been affected greatly by the political situation. The result is an increasing rate of chronic and acute malnutrition. In 2004, high rates have affected the Gaza Strip more than the West Bank, urban areas and camps more than rural areas and females more than males. The most vulnerable groups are those children 6-11 months for underweight and 12-23 months for stunting. Both of these variables are positively affected by maternal education i.e. lower rates in children of mothers with secondary and above education. Compared to the result of 2000, there was a definite improvement in stunting and underweight at the time compare to 1996, toppled by the Israeli measures during the Intifada 2000-2004, affecting mainly the urban and camps areas, where curfews and closures were most severe.

Recommendations:
Low birth weight can be more accurately assessed if gestational age of the child is known.

Breast feeding practices can be greatly improved if mothers are counseled on breast feeding issues before delivery and supported through out the initiation and maintenance process of breast feeding after delivery and prior to discharge.

The definitions of acute respiratory infections and diarrhea should be unified. The value of measuring these indicators should be assessed.

The vaccines given to children outside the immunization schedule offered by the Palestinian Territory should be surveyed and monitored to predict the time of an outbreak due to low vaccination rate. This is likely to occur first in J2 area (Those parts of Jerusalem not annexed by Israel in 1967), where some children are following the Israeli schedule and others are not.

Growth parameters of children less than five years of age have been worsening since the year 2000.

There has been a clear shift of malnutrition from rural to urban and camps from 2000 to 2004 influenced by the political changes. This warrants a greater emphasis at working towards

nutrition security through having nutritional policies that will maintain a healthy, safe, adequate and secure diet to children. One of these could be promoting breast feeding through targeting issues mentioned in this report earlier on, to reduce weaning rates in the first year of life. A complementary approach will be to tackle high levels of anemia in children in the first two years of life, as very high levels are documented in this age group by the nutritional survey 2002. This is likely to have an impact on stunting and underweight as both are highest in the age groups 12-23 months and 6-11 months respectively.

Chapter Nine

Public Health

9.1 Introduction:

The following factors made health a pressing issue on world countries agendas: change in the pattern of diseases from communicable to non-communicable diseases; the speedy and increasing spread of chronic disease worldwide especially in developing countries; the increase in mortality rates resulting from such diseases; the increase in disabilities; the absence of social and economic equality; and the increasing conflicts between countries.

The health situation in Palestine has undergone a number of stages, like similar countries; many communicable diseases have been brought under control, for instance, and the development of an immunization system for children. However, there is still a number of difficult problems facing the health situation in Palestine in general. Such issues are related to health issues in general. The most important of these problems is the clear increase in non-communicable diseases and the increase in the number of handicapped people due to Israeli oppressive measures. Henceforth, it is imperative to focus on such problems and other issues using available data in order to monitor the changes in indicators and the progress made.

The PCBS Demographic and Health Survey 2004 provided a number of indicators of public health for the individuals included in the survey sample. The survey questionnaire covered several topics including health insurance coverage, smoking, chronic diseases, and disabilities. This chapter will deal with the data concerning public health issues of the Demographic and Health Survey 2004.

9.2 Health insurance:

Despite the improvements introduced by the Ministry of Health to the health insurance systems in Palestine during the past few years, the issue of arriving to a national and comprehensive health insurance is still facing a number of challenges and hurdles, most importantly, security and political instability, high unemployment rates, lack of sufficient coordination between health service providers in Palestine[1].

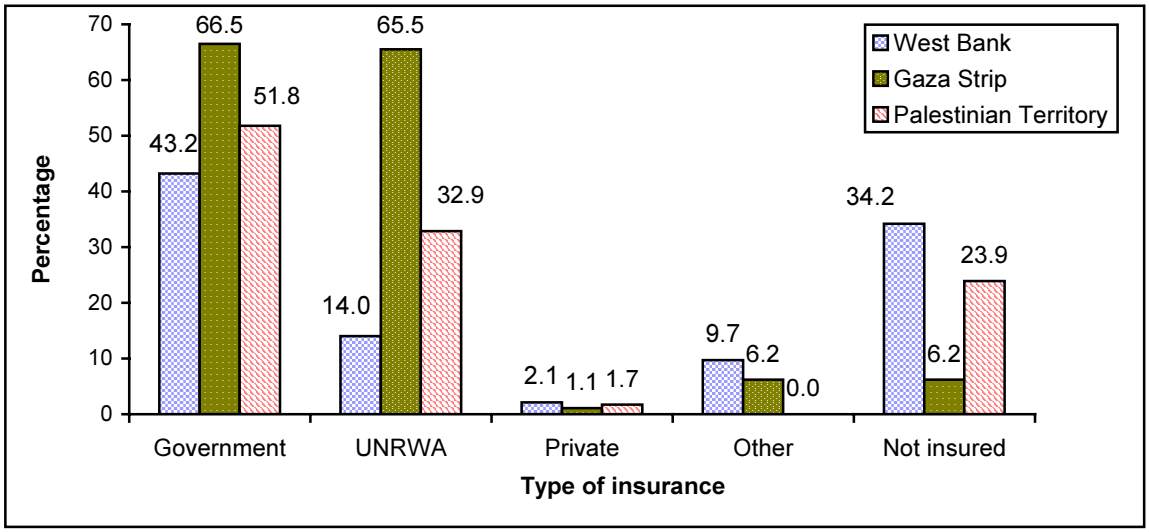
The Demographic and Health Survey 2004 asked respondents about the type(s) of health insurance they have. The list included a number of types of health insurances, most prominently, government (Ministry of Health), security forces health insurance, UNRWA health insurance, private insurance, and the Israeli insurance. The results of the survey show that 76.0% of individuals have at least one type of health insurance, which is an increase of 26.0% compared with 2000. The variation in health insurance coverage between the West Bank and Gaza Strip is significant (65.8% and 93.8% respectively). The high government insurance, supervised by the Ministry of Health, in Gaza Strip and the high percentage of people who receive UNRWA services are behind the high percentage of health insured Gazans in comparison with the percentage of health insured West Bankers.

Figure 9.1 shows that the government insurance has the highest percentage in the study 51.8% at an increase of 52.0% from 2000. This rise could be due to establishing the al Aqsa Intifada insurance, which is part of the insurances supervised by the Ministry of Health. Al-Aqsa

[1] Ministry of Health, *National Strategic Health Plan* (1999-2003), Palestine

Intifada insurance increased the percentage of government health insurance due to the large number of people in covered.

Figure 9.1: Percentage of Individuals by Type of Health Insurance and Region, 2004



However, despite the large number of people benefiting from the government health insurance, the question remains about the quality of services those people receive from this type of insurance especially after the Presidential Decree, which called for establishing AL-Aqsa Intifada insurance that became an additional burden upon the Ministry of Health while human and financial resources of the Ministry remained the same.

Security forces insurance increased by more than double of the coverage of 2000. Such huge increase could be due to the increase in the number of people who are insured under this type in Gaza Strip (the percentage of security forces insurance coverage in Gaza Strip reached 6.9% in 2000 compare to 8.7% in 2004). In the West Bank, the percentage of security forces health insurance remained fixed at 1.4% for 2000 and 2004.

According to data, the percentage of private insurance coverage in the West Bank is higher than that of the Gaza Strip (2.1% and 1.1% respectively). This reaffirms the economic differences between the two regions where West Bank households can afford to have private insurance whereas the majority of Gazan households cannot afford to have private health insurance. It is worth noting that the definition for health insurance used in 2000 is different from the definition used in 2004 where Israeli insurance was in 2000 considered as private insurance but not in 2004, therefore, it was impossible to compare the change rate of private insurance during the past period.

UNRWA insurance registered higher percentage in comparison with 2000 14.8% and 32.9% in 2000 and 2004 respectively. The difference in the definition in both surveys may have been the reason for such difference in the coverage of the UNRWA health insurance.

9.3 Smoking:

Smoking is one of the challenges facing the health in the world. According to data published by the World Health Organization (WHO), one-third of adult males in the world smoke; moreover, smoking causes the death of 4 million people every year worldwide[1] .

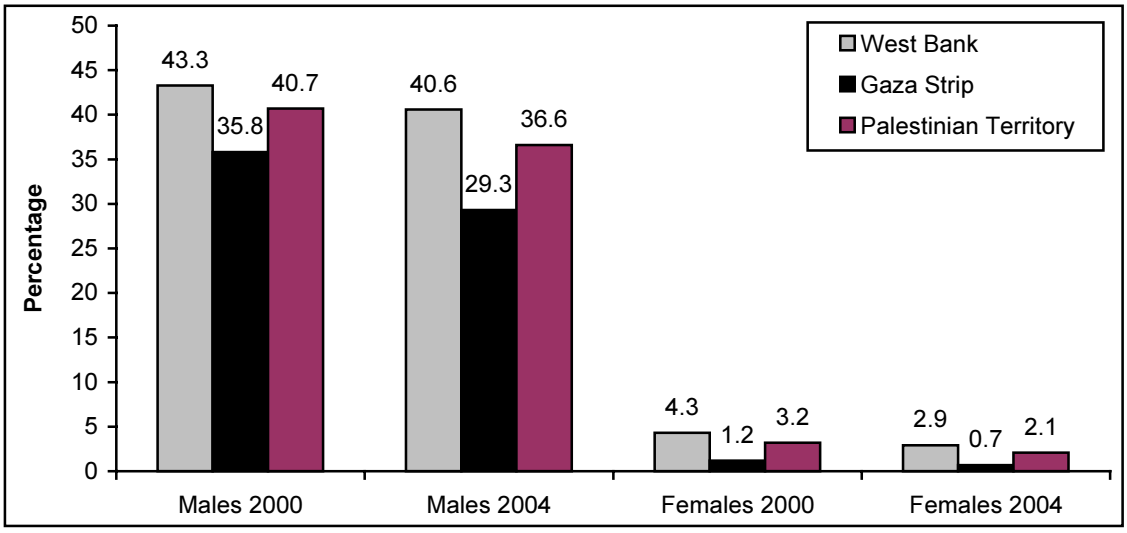
[1] ibid

According to studies, the spread of smoking is falling in developed countries whereas it is on the rise in developing countries. For instance, the percentage of smoking in the United States of America dropped by almost half during the past three decades; whereas, it such percentage rises by 3.4% every year in developing countries.[2]

The Demographic and Health Survey 2004 asked respondents aged 10 years and above about practicing the habit of smoking; the question included a number of alternatives (cigarettes, pipe, water pipe, ex-smoker, never-smoked). The following text shows the data of individuals aged 12 and above in order to facilitate comparison with the Health Survey 2000 when the smoking question was put to individuals aged 12 and above.

According to results, 463,046 or 19.6% people aged 12 years and above smoke, a reduction by 11.0% from 2000. According to data, 36.6% of the smokers are males whereas 2.1% of the smokers are females (Figure 9.2). The figure 9.2 shows that the percentage of male smokers dropped by 10.0% in 2004 in comparison with 2000. Alternatively, the percentage of female smokers dropped by 34.0%; this could be the result of increasing awareness about the dangers of smoking and the deterioration in the economic situation in general, which made people give up smoking altogether since it is not one of life bear necessities. It is obvious that the percentage of male smokers in the West Bank is more than that of Gaza Strip, which was the norm in 2000. The percentage of female smokers in Gaza Strip is the smallest; it also clearly dropped in 2004 compared with 2000.

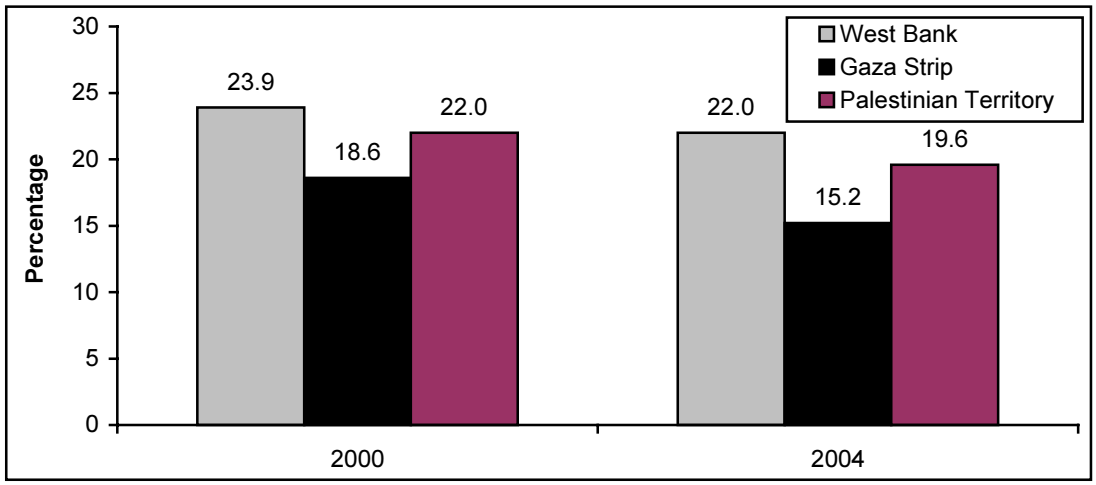
Figure 9.2: Percentage of Individuals Aged 12 Years and Over who Practice Smoking by Sex and Region, 2000, 2004



As for region, there is a clear gap in the percentages of smokers between the West Bank and Gaza Strip. The percentage of individuals aged 12 years and above who smoke in the West Bank is 22.0% compared to 15.2% in Gaza Strip. According to the data of figure 9.3, the gap by region existed in 2000; perhaps the pattern and social and economic living conditions in Gaza Strip are behind the low percentages of smokers in comparison with the West Bank.

[2] World Health Organization, 2002, *Tobacco Free Initiative, Health effects of smoking among young people*, available at: www.wpro.who.int/media_center/fact_sheet/fs_200205208.htm

Figure 9.3: Percentage of Individuals Aged 12 Years and Over who Practice Smoking by Region 2000, 2004

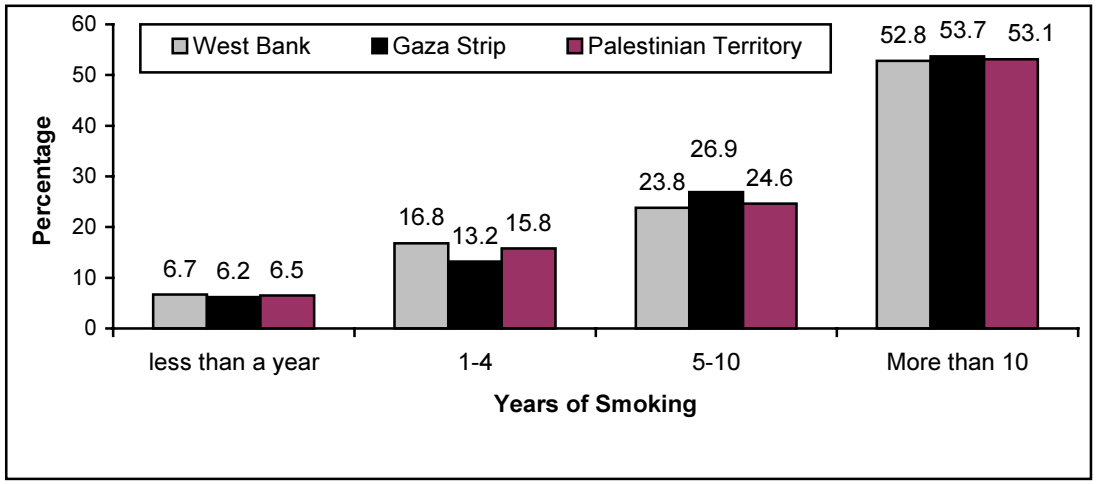


According to the data of the prevalent of smoking habit of by age groups, the number of smokers in the age group 12-19 is 28,857 or 4.1% of the smokers. The number of smokers aged 20-29 is 152,942 or 24.5% of the smokers. Moreover, the number of smokers aged 30 and above is 281,265 or 27.0% of the smokers.

Data indicates that approximately half the smokers 51.0% smoke 11-20 cigarettes a day; 23.0% of smokers smoke 21-40 cigarettes a day; and the percentage of those who smoke more than 40 cigarettes a day is 4.2%, the rest smokes 10 cigarettes and less daily.

Data of figure 9.4 show that more than half of the smokers aged 12 years and above have smoked for more than ten years; the percentage of smokers of the same age group who have smoked for less than a year is 6.5%.

Figure 9.4: Percentage Distribution of Individuals Aged 12 Years and Over who Practice Smoking by Years of Smoking and Region, 2004



9.4 Chronic diseases:

Chronic diseases are the main causes of mortality and disabilities worldwide. Heart diseases, diabetes, obesity, cancer, and respiratory diseases constitute 59.0% of 57 million deaths annually worldwide and 46.0% of the spread of diseases. [3]

The epidemic change resulting from the nutritional pattern, civilization, economic development, and other factors caused the change in the patterns of the spread of communicable and non-communicable (chronic) diseases. According to studies, the change in the food patterns is moving faster in the developing countries than in the developed countries, which increases the spread of chronic disease in developing countries. [3]

Locally, the reports of the Ministry of Health in 2004 indicate that heart diseases are the main causes of death in the West Bank and Gaza Strip 20.1%. Cancer occupies the fourth rank and is behind 9.0% of deaths. Blood pressure comes seventh with responsibility for 4.9% of the deaths, and diabetes comes ninth with 4.1%[4].

The Demographic and Health Survey 2004 asked respondents whether they suffered from at least one of the chronic diseases included in the questionnaire (diabetes, hypertension, cancer, cardiovascular diseases, asthma, epilepsy, ulcer, hereditary diseases, diseases of the joints, and anemia). According to date, 92.3% of respondents suffer from one of the aforementioned chronic diseases. The percentage of those who indicated that they suffered from at least one of these diseases and receive treatment for it was 7.7%, an increase of 35.0% in comparison with 2000.

Hypertension and diabetes are in the first and second ranks of chronic diseases in 2004 (3.0% and 2.2% respectively); they were the same diseases occupying the first and second ranks of chronic diseases in the Health Survey 2000.

Table 9.1 shows that the percentage of people who have chronic diseases is higher in the West Bank in comparison with Gaza Strip (8.7% and 6.0% respectively). However, no variations are noticeable by type of locality. As the table 9.1 indicates, diabetes, hypertension, ulcer, asthma, diseases of the joints and anemia are higher in the West Bank than Gaza Strip.

Table 9.1 also shows that females suffer more from chronic diseases than males (8.9% and 6.6% respectively). This was also the case in 2000 when the percentages were 6.4% for females and 5.1% for males. Females suffer from hypertension, diseases of the joints, and anemia twice as much as males. The life expectancy rate, which is higher for women, may be behind the high percentage of having chronic diseases, in addition to social reasons that dominate the society and deprive females of some social and health rights.

Data indicate that 239,130 individuals aged 35 years and above suffer from at least from one chronic disease included in the survey at 30.0%. Data also indicate that hypertension is the disease that those individuals suffer from mostly at 13.8%, followed by diabetes at 10.2%, and joints diseases and anemia at 8.6% each.

[3] World Health Organization, 2002, *Facts related to chronic diseases*, available at www.wpro.who.int/media_center/fact_sheet/fs_200205208.htm

[4] Ministry of Health, HMIS, *Health status in Palestine*, *Annual Report 2003*, Palestine: MOH; 2004

Table 9.1: Percentage of Persons Who Indicated Having Certain Diseases and Receiving Treatment for such Diseases by Disease and Selected Background Characteristics, 2004

Background characteristics	Disease										Healthy
	Diabetes	High BP	Cardiac diseases	Cancer	Ulcer	Asthma	Epilepsy	Hereditary diseases	Diseases of joints	Anemia	
Region											
Palestinian Territory	2.2	3.0	1.2	0.1	0.7	0.8	0.2	0.4	2.0	2.0	92.3
West Bank	2.4	3.4	1.4	0.1	0.9	0.9	0.2	0.4	2.6	2.6	91.3
Gaza Strip	1.9	2.3	0.8	0.1	0.3	0.7	0.3	0.3	1.1	1.1	94.0
Locality Type											
Urban	2.3	3.3	1.2	0.1	0.6	0.7	0.2	0.3	2.0	2.0	92.1
Rural	2.0	2.7	1.3	-	0.9	0.9	0.2	0.5	2.5	2.5	92.1
Refugee camp	2.3	2.7	1.1	0.2	0.6	1.0	0.3	0.3	1.5	1.5	92.9
Sex											
Males	2.0	2.0	1.1	0.1	0.8	0.8	0.3	0.2	1.3	1.3	93.4
Females	2.4	4.0	1.3	0.1	0.6	0.9	0.2	0.6	2.8	2.8	91.1
Age (years)											
0-34	0.1	0.2	0.1	0.1	0.2	0.5	0.2	0.3	0.3	0.3	98.1
35+	10.2	13.8	5.2	0.4	2.7	2.0	0.3	0.8	8.6	8.6	70.2

9.5 Disability:

Talking about disability in the Palestinian Territory brings recollection of the arbitrary measures of the Israeli occupation against the Palestinian society, which increase the possibility of disabilities. A study by Institute of Community and Public Health at Birzeit University stated that 13.0% of injuries among Palestinians during the Intifada caused permanent disabilities [5] The annual report of the Ministry of Health indicates that 1,183 disabilities in the West Bank occurred during the start of the Intifada and 2003[6]. In spite of the fact that the results of the Demographic and Health Survey 2004 indicate do not pointy to a rise in disability rates in general in comparison with 1997 when disability spread data were gathered through the questionnaire of the Population, Housing and Establishment Census 1997; we must understand that 4 additional years of Israeli oppression was sufficient to cause the percentages of disabled people to rise. Perhaps the definition used in the Demographic and Health Survey 2004 to measure prevalence of disabilities was not successful in screening the prevalence of disabilities accurately.

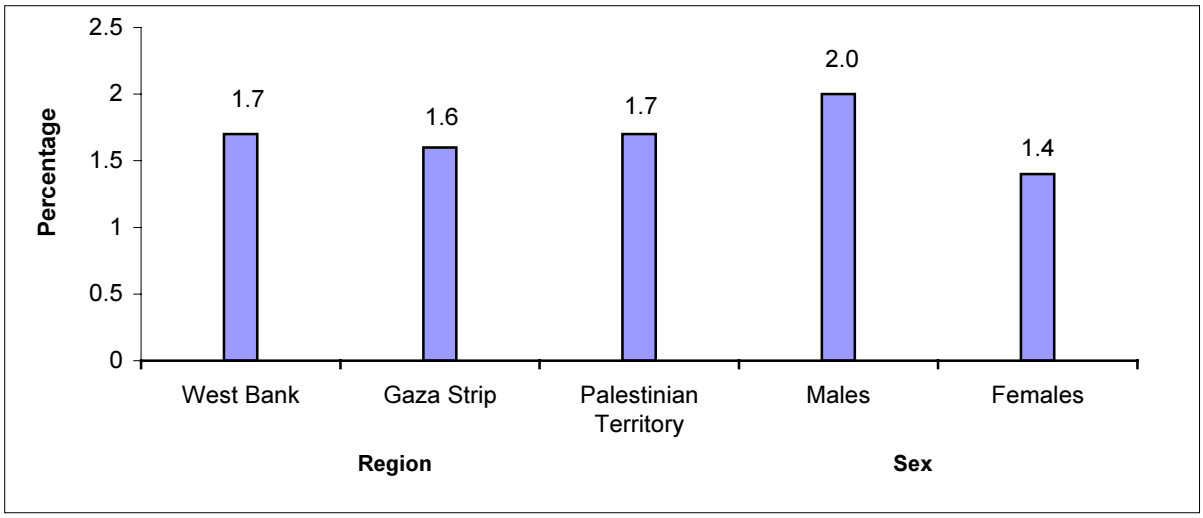
The Demographic and Health Survey 2004 results show that the percentage of disability stands at 1.7%; no major variations have been noticed between the two regions (1.7% and 1.6% respectively).

Figure 9.5 shows the variation in disabilities by sex; the percentage of disability among males is almost double than that of females. This could be due to the nature of the roles males play in public life like taking part in the labor force and the activities of the Intifada. It is worth

[5] Ferriman A., *Palestinian Territories face huge of disability*, *BMJ Journal 2002*, 9 Feb. 320-324
[6] Ministry of Health, HMIS, *Health status in Palestine*, *Annual Report 2003*, Palestine: MOH; 2004

noting these results are consistent with the results of the PCBS Population, Housing and Establishment Census 1997.

Figure 9.5: Percentage of Individuals with Special Needs in the Palestinian Territory by Sex and Region, 2004



Data show that the percentage of disabled people in rural areas and refugee camps (1.9% for both localities) is higher than that of urban areas 1.5%.

Data also show that the percentage of disability increases with age, which is anticipated since risk factors related to disabilities increase with age especially with the spread of chronic diseases among advanced age groups.

9.5.1 Type of disability:

Physical disability has the highest percentage of disabilities; almost one-third 29.8% of disabled people are physically handicapped. The percentage is higher in Gaza Strip and urban areas and among males (33.0%, 31.0%, and 31.0% respectively). The difference in the percentages of disability between males in females could be due to the fact the physical disabilities caused by war, work accidents, and road accidents among males are more than those of the females, which could be due to more males participation in wars and Intifada than females in addition to more participation of males in the labor force compared to females.

Seeing disabilities occupy the second place with 18.7% of disabilities. This disability is higher in the West Bank than in Gaza Strip (21.0% and 14.4% respectively). It is also higher among females than males (21.3% and 17.0% respectively). This causes for more concentration on females with respect to health and social aspects.

Mental disability occupies the third rank with 13.6% of disabilities. This disability is higher in the West Bank than in Gaza Strip, which is contrary to the results of the Population, Housing and Establishment Census 1997. The drop in the percentage of mentally disabilities at refugee camps could be due to the drop of the percentage in Gaza Strip (table 9.2).

Table 9.2: Percentage Distribution of Individuals with Special Needs by Type of Disability and Selected Background Characteristics, 2004

Background characteristics	Type of disability										
	Seeing	Hearing	Speaking	Mental	Physical	Hearing and speaking	Mental and physical	Multiple	Grasping	Others	**Total**
Region											
Palestinian Territory	18.7	6.0	8.3	13.6	29.8	5.0	2.6	11.8	3.9	0.4	**100**
West Bank	20.9	6.3	10.0	14.8	28.1	3.3	2.4	9.3	4.3	0.6	**100**
Gaza Strip	14.4	5.3	5.1	11.4	33.0	8.3	3.0	16.4	3.1	-	**100**
Sex											
Males	16.9	5.7	9.0	12.5	30.9	6.2	2.9	10.9	5.0	-	**100**
Females	21.3	6.4	7.2	15.3	28.1	3.2	2.1	13.2	2.3	0.9	**100**
Locality Type											
Urban	17.9	6.6	5.8	15.8	30.9	3.9	2.8	14.0	1.5	0.8	**100**
Rural	19.9	6.1	11.5	13.6	27.6	4.9	1.1	9.2	6.1	-	**100**
Refugee camp	18.5	4.0	9.4	8.0	30.5	8.0	4.7	10.4	6.5	-	**100**

9.5.2 Cause of disability:

Table 9.3 shows that disabilities caused by diseases are the highest at 34.6%, followed by genetic diseases 32.5%, and road accidents at 3.0%. The disabilities caused by diseases are the highest in Gaza Strip and females and at refugee camps (37.9%, 41.5%, and 38.0% respectively). The disabilities caused by genetic diseases are the highest in Gaza Strip, among males, and in rural areas (37.0%, 33.6%, and 34.6% respectively). The reason for a higher percentage in the disabilities caused by genetic diseases in Gaza Strip than the West Bank could be due to the high percentage in marriage among relatives.

The differences between males and females with respect to disabilities caused by diseases is that females are more susceptible to chronic diseases than males for social reasons and longer life expectancy, as previously indicated.

Table 9.3: Percentage Distribution of Individuals with Special Needs by Cause of Disability and Selected Background Characteristics, 2004

Background characteristics	Cause of disability								
	Disease	Genetic	During delivery	War	Work accident	Traffic accident	Other accidents	Others	Total
Region									
Palestinian Territory	34.6	32.5	6.9	6.0	3.3	3.0	9.1	4.6	100
West Bank	32.8	30.1	6.7	5.7	3.8	3.9	11.2	5.8	100
Gaza Strip	37.9	36.9	7.4	6.6	2.3	1.5	5.0	2.4	100
Sex									
Males	29.8	33.6	5.5	9.0	4.6	4.8	8.1	4.6	100
Females	41.5	30.9	9.0	1.6	1.4	0.5	10.5	4.6	100
Type of locality									
Urban	33.9	32.4	8.5	3.5	3.0	4.6	7.8	6.3	100
Rural	33.6	34.6	3.8	6.8	3.3	1.8	12.0	4.1	100
Refugee camp	38.0	28.9	8.2	11.4	4.1	1.0	7.4	1.0	100

Moreover, as indicated in table 9.3, there is a difference between males and females concerning disabilities caused by war and work accidents as well as road accidents. The percentages of these disabilities are higher among males than females; for instance, the percentage of disabilities caused by war among males is 6 times that of females. Also, the percentage of disabilities caused by work accidents is also 3 times higher among males than females. The reasons for these differences are perhaps due to the size of male participation in wars, the Intifada in specific, and the labor market, which is higher than female participation.

According to table 9.4, diseases constitute the main reason for visual, hearing, and physical disabilities (44.7%, 53.8%, and 39.3%). Genetic causes were the main causes behind the hearing and speaking, speaking disabilities (69.6%, 62.4%, and 46.4% respectively). These results are consistent with the results of the Population, Housing and Establishment Census 1997.

Table 9.4: Percentage Distribution of Individuals with Special Needs by Disability and Cause of Disability, 2004

Type of disability	Cause of disability								Total
	Disease	Genetic	During delivery	War	Work accident	Traffic accident	Other accidents	Others	
Seeing	44.7	20.1	3.1	4.5	3.7	2.9	14.3	6.7	**100**
Hearing	53.8	14.3	-	11.0	2.5	2.9	5.9	9.6	**100**
Speaking	26.8	62.4	3.7	-	3.8	-	3.3	-	**100**
Hearing and speaking	13.2	69.6	7.0	-	-	3.5	3.4	3.3	**100**
Physical	39.3	19.0	9.5	9.6	5.1	5.8	9.0	2.7	**100**
Grasping	19.6	22.5	-	30.4	11.8	-	15.7	-	**100**
Mental	25.1	45.3	7.4	1.2	-	1.8	8.3	10.9	**100**
Mental and physical	12.5	34.3	18.6	-	-	-	21.1	13.5	**100**
Multiple	31.4	46.4	11.5	2.7	1.5	1.3	5.2	-	**100**
Other	55.0	45.0	-	-	-	-	-	-	**100**
Total	**34.6**	**32.5**	**6.9**	**6.0**	**3.3**	**3.0**	**9.1**	**4.6**	**100**

Executive summary

- There is an increase in the percentage of health insurance coverage by 26.0% in comparison with 2000; the percentage of individuals insured at the Ministry of Health is higher in Gaza Strip than the West Bank.
- The number of private insurance beneficiaries in the West Bank is double that of Gaza Strip.
- 19.6% of individuals aged 12 years and above in the Palestinian Territory smoke, the percentage of this age group smokers dropped by 11.0% compared with 2000.
- The percentage of smokers is higher in the West Bank and among males (22.0% and 36.6% respectively).
- 4.1% of individuals aged 12-19 years smoke; 27.0% of those aged 30 years and more are smokers.
- Half of smokers smoke an average of 11-20 cigarettes a day compared to one-quarter of smokers who smoke 21-40 cigarettes a day.

- 7.7% of respondents stated that they suffer from at least one chronic disease with an increase of 35.0% from 2000; this percentage is higher in the West Bank and among females.

- Hypertension and diabetes are still the highest percentages among diseases respondents suffer from.
- 1.7% of individuals in the Palestinian Territory are disabled; the percentage of disabled males is double than that of females.
- Physical disability is the highest among disabilities at one-third of disabilities; it is higher in Gaza Strip and among males.
- Diseases are the main causes of disabilities followed by genetic causes (34.6% and 32.5% respectively).

Recommendations

1. Due to the increasing widespread of chronic diseases in the Palestinian Territory and limited available data about this indicator we recommend that an additional category of chronic diseases to be added to the questionnaire of the surveys to be conducted in the future.

2. Since the definition used for measuring the prevalence of disabilities in the Palestinian Territory does not allow measuring the size of the phenomenon precisely, it would be recommended to use a wider definition to prevalence of disabilities in the Palestinian society and attempt to implement the new categories of disability published by WHO.

3. There is a drop in the percentages of smokers in general, it would be essential to invest this drop by concentrating on awareness campaigns against smoking especially among school and university students.

Reference

1. Palestinian Central Bureau of Statistics 2005, *Demographic and Health Survey 2004*, *Main Findings*, Ramallah, Palestine.

2. Palestinian Central Bureau of Statistics 2000, *Health Survey 2000*, *Main Findings*, Ramallah, Palestine.

3. Palestinian Central Bureau of Statistics 2001, *Health Survey 2000*, *Final Report*, Ramallah, Palestine.

4. Palestinian Central Bureau of Statistics 2002, *Analytical Reports Series on the Data of Census and Demographic and Health Surveys, No. 3: Children Health in the Palestinian Territory*, Ramallah, Palestine.

5. Palestinian Central Bureau of Statistics 2004, *Health Services Access Survey 2003*, *Main Findings*, Ramallah, Palestine.

6. Population Reference Bureau, 2004. World Populationta Sheet

7. World Health Organization (2004), The World Health Report 2004, Changing History, Geneva.

8. The National Health Plan for the Palestinian People. Objectives and Strategies. April 1994.

9. Palestinian National Authority, Ministry of Health, The Status of Health in Palestine. Annual Report 2003, Palestine.

10. Department of Statistics and ORC Macro ; (2003) "Jordan Population and Family Demographic and Demographic and Health Survey, 2002." ORC Macro, Calverton, MD

11. El-Zanaty, Fatma and Ann A. Way. 2004. 2003 Egypt Interim, Demographic and Demographic and Demographic and Health Survey. Cairo Egypt: Ministry of Health and Population [Egypt], National Population Council, El-Zanaty and Associates, and ORC Macro.

12. El-Zanaty, Fatma and Ann Way(2001).. Egypt Demographic and Demographic and Demographic and Health Survey 2000. Calverton, Maryland USA: Ministry of Health and Population (Egypt), National Population Council and ORC Macro.

13. Yemen (2005) USAID Country Health Statistical Report Yemen.

14. Yemen (2004) Yemeni Survey for family health, The Arab project for family Health 2004.

15. Libyan Arab Jamahiria (1995), Arab Libyan maternal and Child Demographic and Demographic and Health Survey, Principal Report Chapter 3, Pan Arab Project for child development.

16. Palestinian Central Bureau of Statistics (1997). The demographic Survey for the West Bank and the Gaza Strip. Final Report, 1997.

17. Palestine Central Bureau of Statistic 1994. Demography of the Palestinian Population in the West Bank and Gaza Strip, Current status report.

18. Palestinian Central Bureau of Statistics (1999). Population in the Palestinian Territory, 1997-2025,

19. CARE: Raising Awareness for Reproductive Health in Complex Emergencies. (Washington, DC, USA: CARE, 2002)

20. Carlough M: Postpartum & Newborn Care, a Self Study Manual. (Chapel Hill, NC: PRIME, 1999)

21. Rashado H: Policy and Research Paper N°6: Evaluation of the Impact of Health Interventions (ISBN 2-87108-037-2 © Copyright 1994 IUSSP)

22. UNFPA: National Unified Reproductive Health Guidelines and Protocols. (Palestine: UNFPA, Ministry of Health, 2000)

23. WickL and NMikki: Childbirth in Palestine: Reported Practices and Evidence-based Guides. (Ramallah: Birzeit University, 2004)

24. World Health Organization: Reproductive Health During Conflict and Displacement. (Geneva: World Health Organization, 2000)

25. World Health Organization: Maternal Mortality in 2000: Estimates Developed by WHO, UNICEF, and UNFPA. (available on www.who.int/reproductive-health/publications/maternal_mortality_2000.html)

26. Ministry of Health, *National Strategic Health Plan* (1999-2003), Palestine

27. World Health Organization, 2002, *Tobacco Free Initiative, Health effects of smoking among young people*, available at: www.wpro.who.int/media_center/fact_sheet/fs_200205208.htm.

28. World Health Organization, 2002, *Fact Sheets, Smoking statistics*, available at www.wpro.who.int/media_center/fact_sheet/fs_200205208.htm

29. World Health Organization, 2002, *Facts related to chronic diseases*, available at www.wpro.who.int/media_center/fact_sheet/fs_200205208.htm

30. Ministry of Health, HMIS, *Health status in Palestine*, *Annual Report 2003*, Palestine: MOH; 2004

31. Ferriman A., *Palestinian Territories face huge of disability*, *BMJ Journal 2002*, 9 Feb. 320-324

Annexes

Annex 1

Focused Antenatal Care: A Better, Cheaper, Faster, Evidence-based Approach

- Traditionally, antenatal care (ANC) programs have mirrored those in developed countries. Too often, programs are poorly implemented and do little to promote the health of mothers and newborns.
- Until recently, many of the components of antenatal care had not been rigorously evaluated. Now the World Health Organization (WHO) has developed a focused ANC package that includes only counseling, examinations, and tests that serve immediate purposes and have proven health benefit.

Goals of Focused ANC: The new approach to ANC emphasizes the quality of care rather than the quantity. For normal pregnancies WHO recommends only four antenatal visits. The major goal of focused antenatal care is to help women maintain normal pregnancies through:

- Identification of pre-existing health conditions
- Early detection of complications arising during the pregnancy
- Health promotion and disease prevention
- Birth preparedness and complication readiness planning.
-

Identification of pre-existing health conditions: As part of the initial assessment, the provider talks with the woman and examines her for signs of chronic conditions and infectious diseases. Pre-existing health conditions such as HIV, malaria, syphilis and other sexually transmitted diseases, anemia, heart disease, diabetes, malnutrition, and tuberculosis may affect the outcome of pregnancy, require immediate treatment, and usually require a more intensive level of monitoring and follow-up care over the course of pregnancy.

Note: The new focused antenatal care model does away with screening for risk factors. Research has discredited the "risk approach," although it is still in widespread use. The risk approach fails to predict who will go on to develop complications of pregnancy and delivery. Instead, the WHO package includes a classifying form to help providers identify women who have conditions requiring treatment and more frequent monitoring.

Early Detection of Complications: The provider talks with and examines the woman to detect problems of pregnancy that might need treatment and closer monitoring. Conditions such as anemia, infection, vaginal bleeding, hypertensive disorders of pregnancy, and abnormal fetal growth or abnormal fetal position after 36 weeks may be or become life-threatening if left untreated.

Health Promotion and Disease Prevention: Counseling about important issues affecting a woman's health and the health of the newborn is a critical component of focused ANC. Discussions should include:

- How to recognize danger signs, what to do, and where to get help
- Good nutrition and the importance of rest
- Hygiene and infection prevention practices
- Risks of using tobacco, alcohol, local drugs, and traditional remedies
- Breastfeeding
- Postpartum family planning and birth spacing.

All pregnant women should receive the following preventive interventions:

- Immunization against tetanus
- Iron and folate supplementation.

In areas of high prevalence women should also receive:

- Presumptive treatment of hookworm
- Voluntary counseling and testing for HIV
- Protection against malaria with intermittent preventive treatment and insecticide-treated bed nets
- Protection against vitamin A and iodine deficiency.

Birth Preparedness and Complication Readiness: Approximately 15 percent of women will develop a life-threatening complication so every woman and her family should have a plan for the following:

- A skilled attendant at birth
- The place of birth and how to get there including how to access emergency transportation if needed
- Items needed for the birth
- Money saved to pay the skilled provider and for any needed mediations and supplies
- Support during and after the birth (e.g., family, friends)
- Potential blood donors in case of emergency.

Implementation of Focused ANC: The WHO ANC package is designed as a job aid for ANC providers. It includes the forms and checklists needed to implement the package and instructions for use. To introduce the package into practice may require, depending on the country, updating national clinical standards and guidelines for ANC, modification of pre-service training curricula in ANC, in-service training for ANC providers and their supervisors, and a thorough assessment and plan for making changes in drugs, equipment, and supplies needed to implement the package. USAID-funded programs have developed model standards and guidelines that can be adapted to local conditions. Likewise, training modules and curricula exist to help providers update their knowledge and skills.

WHO Antenatal Care Randomized Trial: Manual for the Implementation of the New Model

Annex 2

WHO Recommendations on Tetanus Toxoid Immunization Schedule

WHO Policy

(i) Prevention of tetanus in all age groups

Protection against tetanus in all countries is obtained through adherence to immunization schedules that start in the newborn period, with reinforcing doses at older ages. The EPI recommendation for the administration of DTP in developing countries at 6, 10, and 14 weeks of age (5) is also being used in many other countries. A reinforcing dose of TT approximately 6 months to 1 year after the third dose is used in an increasing number of countries.

(ii) Prevention of neonatal tetanus

Given the high death rate, and despite increasing coverage in many countries of women of child-bearing age with at least 2 doses of tetanus toxoid, neonatal tetanus is still a major global public health problem, with an estimated 500,000 cases still occurring every year. Neonatal tetanus continues to be seriously underreported, since populations at highest risk for neonatal tetanus tend to live in rural areas and have the poorest access to health care and birth registration. In view of the significant disease burden, the elimination of neonatal tetanus as a public health problem by the year 2005 (defined as a rate of neonatal tetanus below 1/1000 live births at district level) has been agreed to by all member states of WHO, UNICEF and UNFPA (6).

(i) Prevention of tetanus in all age groups

Protection against tetanus can begin before birth, continue in the newborn period, and be sustained by reinforcing doses at older ages. The WHO recommendation for the prevention of tetanus is the administration of DTP at 6, 10, and 14 weeks of age. Some countries provide a fourth dose of DTP at 18-24 months of age.

Dose When to give Expected duration of protection TT 1 at first contact or as early as possible in pregnancy None TT 2 at least 4 weeks after TT1, 1 - 3 years TT 3 at least 6 months after TT 2 5 years TT 4 at least one year after TT 3 or during subsequent pregnancy 10 years TT 5 at least one year after TT 4 or during subsequent pregnancy All childbearing years

Table. Tetanus toxoid immunization schedule for women of childbearing age and pregnant women without previous exposure to TT, Td or DTP.

Dose	When to give	Expected duration of protection
TT (or Td) 1	at first contact or as early as possible during pregnancy	None
TT (or Td) 2	at least 4 weeks after TT 1	1-3 years
TT (or Td) 3	at least 6 months after TT 2 or during subsequent pregnancy	At least 5 years
TT (or Td) 4	at least 6 months after TT 3 or during subsequent pregnancy	At least 10 years
TT (or Td) 5	at least 6 months after TT 4 or during subsequent pregnancy	For all childbearing years, and possibly longer

Palestinian Authority
Palestinian Central Bureau of Statistics
Health Demographic Survey, 2004
Household questionnaire

All information in this questionnaire is for exclusive statistical purposes only. It is considered confidential in accordance with the General Statistics Law of 2000.

IDH00	**Questionnaire's serial number in the sample** ☐☐☐☐	**IDH04**	**Questionnaire's number in the enumeration area:** ☐☐
IDH01	**Governorate:**_____ ☐☐	**IDH05**	**Building's address:** _____
IDH02	**Locality:** _____ ☐☐☐☐☐☐	**IDH06**	**Name of household head:** _____
IDH03	**Enumeration area's number in the Locality:** ☐☐☐		

Interview record:

IR01	**Visits' schedule**	**Day**	**Month**		
		☐☐	☐☐	1st visit	
		☐☐	☐☐	2nd visit	
		☐☐	☐☐	3rd visit	
IR02	**Total number of visits**	☐			
IR03	**Final result of the interview** ☐	1	Completed		
		2	Partially completed		
		3	Family traveling		
		4	Nobody at home		
		5	Refused to cooperate		
		6	Information not available		
		7	Other / specify ……..		
IR04	**Line No. of respondent to questions on household** ☐☐	**IR05**	**Total No. of household members (males, females)** ☐☐		
IR06	**Total No. of eligible women (ever married)** ☐☐	**IR07**	**Total No. of eligible women interviewed** ☐☐		
IR08	**Total No. of children under 5 years** ☐☐	**IR09**	**Total No. of children under 5 years interviewed** ☐☐		
IR09 A	**Total number of children 5-17 years** ☐☐	**IR09B**	**Total number of women 15-54 years** ☐☐		

IR10	**Interview's schedule**	**Day**	**Month**	**Hour**
				Start – 1st visit
				End – 1st visit
				Start – 2nd visit
				End – 2ndvisit
				Start – 3rd visit
				End – 3rd visit

IR11	**Interviewer's name:**	**IR13**	**Supervisor's name:**	**IR15**	**Verifier's name:**	**IR17**	**Data enterer's name:**
IR12	**Interviewer's number:**	**IR14**	**Supervisor's number:**	**IR16**	**Verifier's number:**	**IR18**	**Data enterer's number:**
IR19	**Encoder's name:**	**IR20**	**Encoder's number:**				

☐ Interviewer: Please check the box with X if an additional questionnaire has been used.

Section 1: Household Members Data

HR01	HR02	HR03	HR04	HR05	HR06	HR07	HR08
Member's serial number	Names of usual household members (three names) Please, tell me the names of all persons who usually live in your household, including small children and infants, and starting with the household head	What is the relation of (name) to the household head? 1. Household head 2. Spouse 3. Son/daughter 4. Father/mother 5. Brother/sister 6. Grandparent 7. Grandson/granddaughter 8. Son-in-law/daughter-in-law 9. Other relative 10. Other	Is (name) male or female? 1. Male 2. Female	What is (name)'s date of birth in day, month and year? **Interviewer: record this information from official documents whenever possible** Day Month Year	**Interviewer: calculate age from the date of birth in HR05 and record the result in complete years** **If date of birth is unknown, ask for the age and record it** **Record (00) if age less than 1 year** **98 – Don't know**	Is (name) a registered refugee, non-registered refugee or non-refugee? 1. Registered refugee 2. Non-registered refugee 3. Non-refugee?	Is (name) a returnee or non-returnee? 1. Returnee 2. Non-returnee
1.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
2.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
3.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
4.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
5.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
6.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
7.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
8.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
9.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
10.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
11.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
12.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
13.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
14.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
15.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
16.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐
17.		☐☐	☐	☐☐ ☐☐ ☐☐☐☐	☐☐	☐	☐

HR01	HR02	HR09		HR10		HR11	HR12	
Member's serial number	Names of usual household members (three names) Please, tell me the names of all persons who usually live in your household, including small children and infants, and starting with the household head	Mother's place of residence when (name) was born: **Locality/Governorate/Country**	**Code**	(Name)s current usual place of residence: **Locality/Governorate/Country**	**Code e**	Period of residence in the current usual place of residence (in complete years)	(Name)'s previous usual place of residence, if any: **Record (-) if there was no previous place of residence and skip to HR14** **Locality/Governorate/Country**	**Code**
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								

HR01	HR02	HR13	HR14	HR15		HR16	HR17
Member's serial number	Names of usual household members (three names) Please, tell me the names of all persons who usually live in your household, including small children and infants, and starting with the household head	Reasons for changing the previous place of residence: 1. Employment 2. Study 3. Marriage 4. Company 5. Displacement (due to the wall) 6. Displacement (Israeli measures & occupation) 7. Poor financial status of the family 8. Returning home 9. Preserving Jerusalem ID 10. Other	Was (name) living in this community in September 2000? 1. Yes → HR16 2. No 3. Born after September 2000 → HR16	Where was (name) living in September 2000? **Locality/Governorate/Country**	**Code**	Does the current place of residence match with the place of residence registered in (name)'s ID card? 1. Yes 2. No 3. Does not have an ID card (too young) 4. Do not have an ID card (no family unification permit)	Is (name)'s mother alive? 1. Yes 2. No → HR19
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							

HR01	HR02	HR18	HR19	HR20	HR20A	HR21	HR22
Member's serial number	Names of usual household members (three names) Please, tell me the names of all persons who usually live in your household, including small children and infants, and starting with the household head	**Interviewer: if the mother lives in the household, record her line No. from HR01** **Record (00) if the mother does not live in the household**	Is (name)'s father alive? 1. Yes 2. No → HR20A	**Interviewer: if the father lives in the household, record his line No. from HR01** **Record (00) if the father does not live in the household**	Does (name) have any of the following diseases according to a medical diagnosis? 1. Diabetes 2. Hypertension 3. Cardiac disease 4. Cancer 5. Ulcer 6. Asthma 7. Epilepsy 8. Hereditary disease (thalassemia, blood disease) 9. Joint diseases (rheumatism) 10. Anemia 11. Healthy	Does (name) have health insurance? 1. Yes, MOH health insurance 2. Yes, Military health insurance 3. Yes, UNRWA health insurance 4. Yes, Social Welfare health insurance / elderly 5. Yes, private health insurance 6. Yes, Israeli health insurance 7. Yes, health insurance from abroad 8. No, without insurance	Type of disability: 1. None → HR24 2. Seeing 3. Hearing 4. Speech 5. Hearing & speech 6. Physical 7. Griping of fingers 8. Mental 9. Mental & physical 10. Multiple 11. Other
1.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
2.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
3.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
4.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
5.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
6.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
7.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
8.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
9.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
10.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
11.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
12.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
13.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
14.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
15.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
16.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐
17.		☐☐	☐	☐☐	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8	☐☐

				For persons aged 5 years or over	For persons aged 10 years or over			
HR01	**HR02**	**HR23**	**HR23A**	**HR24**	**HR25**	**HR26**	**HR27**	**HR28**
Member's serial number	Names of usual household members (three names) Please, tell me the names of all persons who usually live in your household, including small children and infants, and starting with the household head	Cause of disability: 1. Disease 2. Congenital 3. Perinatal 4. War 5. Work-related injury 6. Road accident 7. Accident of another type 8. Other, specify:	How old was (name) when the disability first appeared? **Record age in full years Record (00) if age less than 1 year**	Is (name): 1. Currently attending school 2. attended school and dropped out 3. Attended school and graduated 4. Never attended school → HR27	How many years of schooling did (name) successfully complete? **Record (00) if years of schooling are less than 1 year 98 – Don't know**	What is (name)'s educational attainment? 01. Illiterate (go to R11) 02. Can read and write 03. Elementary 04. Preparatory 05. Secondary 06. Intermediate level diploma 07. Bachelors degree 08. Higher diploma 09. Masters degree 10. Ph. D. 98. Don't know	Type of relation to labor force during the last week: 1. Employed from 1-14 hours 2. Employed for 15 hours or over 3. Away from job, but will return 4. Unemployed, has ever worked 5. Unemployed, has never worked 6. Full time student 7. Full time involved in household chores 8. Unable to work 9. Does not work and does not seek job 10. Does not work and does not seek job because he/she is discover aged 11. Other **(If answer 5-11, go to HR29)**	Main occupation: What kind of work (name) is/was doing in detail? **Occupation** **Code**
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								
16.								
17.								

		For persons aged 10 years or over				For persons aged 12 years or over				
HR01	**HR02**	**HR29**	**HR29A**	**HR29B**	**HR29C**	**HR30**	**HR31**	**HR32**	**HR33**	**HR34**
Member's serial number	Names of usual household members (three names) Please, tell me the names of all persons who usually live in your household, including small children and infants, and starting with the household head	Does (name) smoke? 1. Yes, mostly cigarettes → HR29B 2. Yes, mostly pipe → HR29C 3. Yes, mostly narghile → HR29C 4. Ex-smoker 5. Does not smoke and never smoked → HR30	Since when did (name) quit smoking? **Record period in full months and then go to HR30**	For persons smoking cigarettes: How many cigarettes does (name) smoke daily? 1. 10 or less 2. 11-20 3. 21-40 4. Over 40	For smoking persons: For how long has (name) been smoking? **Record number of full years** **Record (00) if less than 1 year**	What is (name)'s current marital status? Is he/she … 1. Single 2. Engaged for the first time and not married yet 3. Married 4. Divorced 5. Widow/widower 6. Separated	**Interviewer: Circle the line No. of the currently or ever married women whose age is less than 55 years (i.e. eligible women for interview)**	**Interviewer: Circle the line No. of the eligible woman's husband from HR01** **In case husband does not live in the household, record (00)**	**Interviewer : Circle the line No. of children under 5 years, eligible for interview for this age group**	**Interviewer : Circle the line No. of females in the age group 15-54 years**
1.		☐	☐☐	☐	☐☐	☐	01	☐☐	01	01
2.		☐	☐☐	☐	☐☐	☐	02	☐☐	02	02
3.		☐	☐☐	☐	☐☐	☐	03	☐☐	03	03
4.		☐	☐☐	☐	☐☐	☐	04	☐☐	04	04
5.		☐	☐☐	☐	☐☐	☐	05	☐☐	05	05
6.		☐	☐☐	☐	☐☐	☐	06	☐☐	06	06
7.		☐	☐☐	☐	☐☐	☐	07	☐☐	07	07
8.		☐	☐☐	☐	☐☐	☐	08	☐☐	08	08
9.		☐	☐☐	☐	☐☐	☐	09	☐☐	09	09
10.		☐	☐☐	☐	☐☐	☐	10	☐☐	10	10
11.		☐	☐☐	☐	☐☐	☐	11	☐☐	11	11
12.		☐	☐☐	☐	☐☐	☐	12	☐☐	12	12
13.		☐	☐☐	☐	☐☐	☐	13	☐☐	13	13
14.		☐	☐☐	☐	☐☐	☐	14	☐☐	14	14
15.		☐	☐☐	☐	☐☐	☐	15	☐☐	15	15
16.		☐	☐☐	☐	☐☐	☐	16	☐☐	16	16
17.		☐	☐☐	☐	☐☐	☐	17	☐☐	17	17

Section 2: Dwelling and Household Data

HD00	Number of person responding to this section	Person's name: _____	☐☐
HD01	Type of dwelling where the household live:	1. Villa 2. House 3. Apartment 4. Independent room 5. Tent 6. Barrack 7. Other / specify _____	☐
HD02	House ownership	1. Rented without furniture …….. 2. Rented with furniture …… 3. Owned …… 4. For free …… 5. For work …….. 6. Other / specify _____	☐
HD03	Now I want to ask you few questions about the dwelling where you usually live What is the main source of drinking water for your household?	1. Public water network ……... 2. Purchase from water tankers …… 3. Domestic cistern …… 4. Spring or stream …… 5. Other / specify _____	☐
HD04	How does the household dispose domestic waste water?	1. Public sanitation network …….. 2. Cesspit …… 3. Other / specify _____	☐
HD05	What type of toilet facility is used by the household?	1. Flush toilet …….. 2. Traditional toilet …… 3. Both …… 4. Other / specify _____ 5. None ……..**(go to HD08)**	☐
HD06	Is the facility located within your dwelling or yard?	1. Inside the dwelling …… 2. In the yard ……	☐
HD07	Is this facility for your household only or do you share it with other households?	1. For household only …….. 2. Shared with other households ……..	☐
HD08	Where do you keep garbage inside the house before disposing it?	1. Covered container / in a cupboard ……. 2. Uncovered container …….. 3. Plastic bags …… 4. Other / specify _____	☐
HD09	Where do you put the disposed garbage?	1. Inside the kitchen …….. 2. Outside the kitchen, but within the housing unit …… 3. Outside the housing unit ……	☐
HD10	How does the household dispose the garbage?	1. By garbage collector 2. Thrown in a special place …….. 3. Burned …… 4. Thrown in the street …….. 5. Other / specify _____	☐
HD11	How often does the household dispose the garbage?	1. Daily ……... 2. At least twice per week …….. 3. Once per week …… 4. Other / specify _____	☐
HD12	What kind of material is the floor made from?	1. . Tiled …… 2. Ceramic ……... 3. Cement …… 4. Other / specify _____	☐

HD13	How many rooms are there in the dwelling?	Number of rooms ……..			☐☐
HD14	Are the following commodities and services available to the household? 1. Yes 2. No	1. Private car ☐ 2. Electric fridge ☐ 3. Solar heater ☐ 4. Washing machine ☐ 5. Gas stove ☐ 6. Dish washer ☐	7. Central heating ☐ 8. Vacuum cleaner ☐ 9. Home library ☐ 10. TV set ☐ 11. Video player ☐ 12. Telephone line ☐	13. Jawwal ☐ 14. Israeli mobile phone ☐ 15. Computer ☐ 16. Satellite dish ☐ 17. Internet service ☐ 18. Radio/cassette recorder ☐	
HD15	**Interviewer: Take a sample of the salt and test it according to the training manual.** What is the test result?	1. Not iodized (No color change) …… 2. Iodized less than 15 ppm (light color) ……... 3. Iodized over 15 ppm (dark color) …… 4. No salt in the household …… 5. Salt not tested ……			☐

Palestinian Authority
Palestinian Central Bureau of Statistics
Health Demographic Survey, 2004
Women (15-54 years) questionnaire

All information in this questionnaire is for exclusive statistical purposes only. It is considered confidential in accordance with the General Statistics Law of 2000.

IDH00	**Questionnaire's serial number in the sample** ☐☐☐☐	**IDH04**	**Questionnaire's number in the enumeration area:** ☐☐
IDH01	**Governorate:**_____ ☐☐	**IDH05**	**Building's address:** _____
IDH02	**Locality:** _____ ☐☐☐☐☐☐	**IDH06**	**Name of household head:** _____
IDH03	**Enumeration area's number in the Locality:** ☐☐☐		

Interview record:

WIR01	**Visits' schedule**	**Day**	**Month**	
		☐☐	☐☐	1st visit
		☐☐	☐☐	2nd visit
		☐☐	☐☐	3rd visit
WIR02	**Total number of visits**	☐		
WIR03	**Final result of the interview** ☐	1	Completed	
		2	Partially completed	
		3	Traveling	
		4	Could not interview the woman	
		5	Refused to cooperate	
		6	No eligible woman	
		7	Information not available	
		8	Other / specify ……..	
WIR04	**Total No. of eligible women** ☐	**WIR05**	**Total No. of eligible women interviewed** ☐	
WIR05	**Line No. of the eligible woman from household roaster** ☐			

☐ Interviewer: Please check the box with X if an additional questionnaire has been used.

Section 3: Women's Health

Interviewer: Ask the following questions to all women in the age group 15-54 years regardless of their marital status.

			First woman	Second woman	Third woman
WH01					
WH02	Name of eligible woman (15-54 years) from HR02		_____	_____	_____
WH03	Woman's line No. from HR34		☐☐	☐☐	☐☐
WH04	How do you evaluate your health status?	1. Excellent 2. Very good 3. Moderate 4. Acceptable 5. bad 6. Very bad	☐	☐	☐
WH05	Do you think that your weight:	1. Matches with your height 2. Less than it should be, compared to your height 3. Much less than it should be, compared to your height 4. More than it should be, compared to your height 5. Much more than it should be	☐	☐	☐
WH06	Do you practice physical exercises:	1. More than 3 times a week 2. 3 times a week 3. Less than 3 times a week 4. Sometimes 5. Do not practice at all	☐	☐	☐
WH07	Did you have a health problem during the past two weeks?	1. Yes 2. No **(skip to WH11)**	☐	☐	☐
WH08	What was the problem?		Yes / No	Yes / No	Yes / No
		1. Acute illness	1 / 2	1 / 2	1 / 2
		2. Psychological condition	1 / 2	1 / 2	1 / 2
WH09	When you had this problem, did you see any of the following? **(Interviewer: for women responding by 1-4, skip to WH11)**		Yes / No	Yes / No	Yes / No
		1. Doctor's clinic	1 / 2	1 / 2	1 / 2
		2. Hospital	1 / 2	1 / 2	1 / 2
		3. Pharmacy	1 / 2	1 / 2	1 / 2
		4. Traditional healer	1 / 2	1 / 2	1 / 2
		5. Self treatment	1 / 2	1 / 2	1 / 2
WH10	For women who did not see anybody for their illness, why did not you see anybody?		Yes / No	Yes / No	Yes / No
		1. Condition did not require	1 / 2	1 / 2	1 / 2
		2. Financail reasons	1 / 2	1 / 2	1 / 2
		3. Difficult access to the provided services	1 / 2	1 / 2	1 / 2
		4. Social reasons hindering access	1 / 2	1 / 2	1 / 2
WH11	Do you suffer anemia?	1. Yes 2.. No **(skip to WH14)** 3.. Don't know **(skip to WH14)**	☐	☐	☐
WH12	For women suffering anemia, how did you know that you suffer anemia?	1. Diagnosed by a doctor / clinic / hospital 2. Through symptoms 3. Other / specify _____	☐	☐	☐
WH13	What did you do when you knew that you have anemia?	1. Saw a doctor who prescribed treatment for me 2. Took a medicine from the pharmacy 3. Took care of my nutrition 4. Did nothing 5. Other / specify _____	☐	☐	☐

WH14	Where do you go when you feel ill?	1. Governmental clinic/center 2. UNRWA clinic/center 3. NGO clinic/center 4. Private clinic 5. Hospital 6. Seek care from traditional healers 7. Other / specify _____ 8. Nowhere	☐	☐	☐
WH14A	**Interviewer: Refer to HR06: 1. the interviewee's age is 20-54 years, proceed with the questions 2. No (skip to the next section)**				☐
WH15	Have you carried out a pap smear test at least once every 3 years?	1. Yes 2. No	☐	☐	☐
WH16	Do you perform manual breast self-examination?	1. Once per month 2. Once every few months 3. Other 3. No	☐	☐	☐

Palestinian Authority
Palestinian Central Bureau of Statistics
Health Demographic Survey, 2004
Ever married women's questionnaire

All information in this questionnaire is for exclusive statistical purposes only. It is considered confidential in accordance with the General Statistics Law of 2000.

IDH00	**Questionnaire's serial number in the sample** ☐☐☐☐	**IDH04**	**Questionnaire's number in the enumeration area:** ☐☐
IDH01	**Governorate:**_____ ☐☐	**IDH05**	**Building's address:** _____
IDH02	**Locality:** _____ ☐☐☐☐☐☐	**IDH06**	**Name of household head:** _____
IDH03	**Enumeration area's number in the Locality:** ☐☐☐		

Interview record:

IR01	**Visits' schedule**	**Day**	**Month**	
		☐☐	☐☐	1st visit
		☐☐	☐☐	2nd visit
		☐☐	☐☐	3rd visit
IR02	**Total number of visits**	☐		
IR03	**Final result of the interview** ☐	1	Completed	
		2	Partially completed	
		3	Traveling	
		4	Could not interview the woman	
		5	Refused to cooperate	
		6	No eligible women	
		7	Information not available	
		8	Other / specify ……..	
IR04	**Total No. of eligible women** ☐	**IR06**	**Total No. of eligible women interviewed** ☐	
IR05	**Line No. of the eligible woman from household roster** ☐			

☐ Interviewer: Please check the box with X if an additional questionnaire has been used.

Section 4: Reproduction

RE01a	**Interviewer: Record**	Interviewee's name …… Interviewee's line No. in the household roster |___|___|	
RE01b	**Record (00) If husband does not live in the household**	Husband's line No. in the household roster |___|___|	
RE02	What is your marital status?	Married …….. 1 Divorced ..…… 2 →	RE03A
		Widowed ……3 →	RE03A
		Separated ……4 →	RE03A
RE03	Does your husband have another wife?	Yes ……..1 No ……2	
RE03A	How old were you at (first) marriage?	Age ……..|___|___|	
RE03B	How long has you marital life been in complete years?	Number of years …..……|___|___|	
RE03C	What is the type of kinship between you and your (first) husband?	Cousin (son of father's brother) ..…….. 1 Cousin (son of father's sister) ……2 Cousin (son of mother's brother) ……...3 Cousin (son of mother's sister) ……..4 Cousin (son of father's brother and mother's sister or son of father's sister and mother's brother) ……..5 From the same clan (hamola) ……6 No kinship ……7	
RE03D	Have you been married only once or more than once?	Once ……...1 More than once ……..…2	
RE04	Have you ever been pregnant?	Yes ……..1 No ……2 →	RE14
RE04A	How old were you at first pregnancy?	Age ……..|___|___|	
RE05	Have you ever given birth even if the newborn lived only for moments?	Yes ……..1 No ……2 →	RE12
RE06	When did you have your first birth? *Day/Month/Year*	|___|___| / |___|___| / |___|___|___|___|	
RE07	What was your age when you had your first birth	Age ……..|___|___|	
RE08	Do you have sons or daughters who live now with you?	Yes ……..1 No ……2 →	RE10
RE09	Number of sons living with you: Number of daughters living with you: **Interviewer, if none, record (00)**	A. Sons ……..|___|___| B. Daughters ……..|___|___|	
RE10	Do you have sons or daughters who are alive but do not live with you in the household?	Yes ……..1 No ……2 →	RE12
RE11	Number of sons who do not live with you: Number of daughters who do not live with you: **Interviewer: if none, record (00)**	A. Sons ……..|___|___| B. Daughters ……..|___|___|	
RE12	Have you ever given birth to a baby who showed signs of life (like breathing, crying or movement) but he/she died later even if he/she lived few minutes or hours or days?	Yes ……..1 No ……2 →	RE14
RE13	How many of your sons died? How many of your daughters died? **Interviewer, if none, record (00)**	A. Sons ……..|___|___| B. Daughters ……..|___|___|	
RE14	**Interviewer: Sum answers to RE09, RE11 and RE13 and record total** **If none, record (00)**	Total ……..|___|___|	
RE15	**Interviewer: Check RE14 and ask:** Just to make sure that I have this right: you have had in total (total from RE14) births during your life. Is this correct? 1. Yes ↓ 2. No Probe and correct answers to RE09-RE14 as necessary.		
RE16	**Interviewer: Check RE14:** 1. One or more births |___| ↓ 2. No births |___| → RE32A		
	Now I would like to talk with you about all your births in your married life, whether still alive or not and whether they live with you or not, starting with the first one you had: **Interviewer: Record names of all births in RE18 and record twins each on a separate line**		

RE17	RE18	RE19	RE20	RE21	RE22	RE23	RE24	RE25	RE26	RE27
						For alive births		For dead births		
Birth's No.	Name all of your children, starting with the first birth, then the second, etc, until reaching the youngest one:	Is (name) single or twin? 1. Single 2. Twin	Is (name) male or female? 1. Male 2. Female	In what month and year was (name) born? **Probe: What is his/her birth date?** Month year	Is (name) still alive? 1. Yes 2. No → RE25	How old was (name) at his/her last birthday? **Record age in complete years Record (00) if age less than 1 year**	Is (name) living with you in the household? 1. Yes 2. No → RE26, except for first birth Second birth	How old was (name) when he/she died? **Interviewer: If one year, probe: How many months old was (name)? Record days if less than one month, months if less than 2 years, or years if 2 years or over.** Days Months Years	**Interviewer: Subtract birth month and year of (name) from birth month and year of previous birth.** Is the difference 2 years or more: 1. Yes 2. No → next birth	Where there any other live births between (name) and previous birth? 1. Yes 2. No
01		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|		
02		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
03		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
04		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
05		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
06		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
07		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
08		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
09		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
10		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
11		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
12		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
13		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
14		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
15		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
16		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2

RE17	RE18	RE19	RE20	RE21	RE22	RE23	RE24	RE25	RE26	RE27
						For alive births		For dead births		
Birth's No.	Name all of your children, starting with the first birth, then the second, etc, until reaching the youngest one:	Is (name) single or twin? 1. Single 2. Twin	Is (name) male or female? 1. Male 2. Female	In what month and year was (name) born? **Probe: What is his/her birth date?** Month year	Is (name) still alive? 1. Yes 2. No → RE25	How old was (name) at his/her last birthday? **Record age in complete years Record (00) if age less than 1 year**	Is (name) living with you in the household? 1. Yes 2. No → RE26, except for first birth Second birth	How old was (name) when he/she died? **Interviewer: If one year, probe: How many months old was (name)? Record days if less than one month, months if less than 2 years, or years if 2 years or over.** Days Months Years	**Interviewer: Subtract birth month and year of (name) from birth month and year of previous birth.** Is the difference 2 years or more: 1. Yes 2. No → next birth	Where there any other live births between (name) and previous birth? 1. Yes 2. No
17		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|		
18		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
19		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
20		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
21		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
22		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
23		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
24		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
25		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
26		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
27		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
28		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
29		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
30		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
31		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2
32		1 2	1 2	|___|___| / |___|___|___|___|	1 2	|___|___|	1 2	|___|___| |___|___| |___|___|	1 2	1 2

RE28	What was the birth day of the last birth you had **Day/month/year**	|___|___| / |___|___| / |___|___|___|___|	
RE29	**Interviewer: Subtract the month and year of last birth from the month and year of the interview date.** Is the difference 2 years or more?	Yes ……..1 No ……2 →	RE31
RE30	Have you had any live birth since the birth of (name of last birth)?	Yes ……..1 No ……2	
RE31	**Interviewer: Compare total in RE14 with number of births from the woman's reproductive history.** 1. Both numbers are same |___| 2. Numbers are different |___| → record the correct Check if: A. Year of birth is recorded for each birth …… |___| B. Current age is recorded for each living child …….. |___| C. Age at death is recorded for each dead child …… |___| D. Age at death is recorded for each child who dies at age less than 12 months …….. |___|		
RE32	**Interviewer: Check RE21 and record number of births since April 1999** |___|___|		
RE32A	**Interviewer:** **1. Woman's age less than 50 years and currently married or divorced/widowed/separated since 100 days or less** |___| ↓	**2. Woman's age 50 years or over and currently married or divorced/widowed since more than 100 days** |___| → RE37	
RE33	Are you pregnant now?	Yes ……..1 No ……2 → Unsure ……3 →	RE37 RE37
RE34	How many months pregnant are you? **Interviewer: Record number of complete months**	Number of months ……..|___|___| Don't know ……98	
RE35	When did your last menstrual period start? (Date if given) ___/___/_____	Months ago …… 1 |___|___| Years ago ……2 |___|___| Never menstruated ……3 99	
RE36	At the time when you became pregnant, did you have the desire to become pregnant at that time, had the desire to become pregnant later or did not have the desire to become pregnant at all?	Desire now …….. 1 Desire later …….. 2 Not at all …….. 3 Don't know/didn't decide …… 8	
RE37	Have you ever had any other pregnancies which did not result in a live birth, either by abortion or still birth?	Yes ……..1 No ……2 →	RE39
RE38	How many times did you have abortion or still birth during your life?	A. Number of abortions ……..|___|___| B. Number of still births ……..|___|___|	
RE38A	How many times did you have abortion or still birth in the last 3 years preceding this survey?	A. Number of abortions ……..|___|___| B. Number of still births ……..|___|___|	
RE39	**Interviewer: Sum answers to RE14 and RE38 and record the total. If woman is currently pregnant as indicated from RE33, then add (1) to the total.** **No pregnancies, record (00)**	Total ……..……..|___|___|	
RE40	**Interviewer: Check RE39 and ask:** Just to make sure that I am right, You have had (total from RE39) pregnancies in your life, including this pregnancy (if woman is pregnant). Is that correct? 1. Yes 2. No. record the correct RE14, RE33, RE38 and RE39		

Section 5: Family Planning Methods

FP01	**Interviewer: Record**	Interviewee's name …… Interviewee's line No. in the household roster |___|___|
FP02	**Record (00) If husband does not live in the household**	Husband's line No. in the household roster |___|___|

Now I would like to talk about family planning and the different methods that couples can use to delay or avoid pregnancy.

FP03	Which ways or methods have you heard about?	Yes, spontaneously	Yes, after probe	No	**FP04** Have you ever used (method) at any time? 1. Yes	1. No
1.	**(Contraceptive pills)** Woman takes a pill a day continuously	1	2	3 ↓	1	2
2.	**(IUD)** Medical device inserted in the uterus by a doctor or a nurse	1	2	3 ↓	1	2
3.	**(Injections)** Intramuscular injection used to prevent pregnancy for several months	1	2	3 ↓	1	2
4.	**(Suppository, foam, jelly, sponge, diaphragm)** methods used in the vagina shortly before sexual intercourse	1	2	3 ↓	1	2
5.	**(Condom)** Single-use rubber sac preservative used by man during sexual intercourse	1	2	3 ↓	1	2
6.	**(Female sterilization)** Permanent method by tubular ligation in woman	1	2	3 ↓	Did you have a sterilization operation to prevent having more children? 1	2
7.	**(Male sterilization)** Permanent method by seminal ligation in men	1	2	3 ↓	Did your husband have a sterilization operation to prevent having more children? 1	2
8.	**(Rhythm /Periodic abstinence)** Based on identifying woman's fertility days and avoiding intercourse in this period	1	2	3 ↓	1	2
9.	**(Withdrawal)** Ejaculating outside the vagina at the end of the intercourse	1	2	3 ↓	1	2
10.	**(Breastfeeding)** Breastfeeding the child day and night to avoid pregnancy	1	2	3 ↓	1	2
11.	Have you heard of any other way or method that a woman or a man can use to avoid pregnancy?	1 Specify: _____		3 ↓	1	2

FP05	Have you ever used any family planning method?	Yes…..……. 1 Yes, previously but stopped now ……2 No ……3 →	FP11
FP06	What methods have you used? **(Interviewer: Correct FP03, FP04 if necessary)**	…….. …… …… …….	
FP07	What is the first main method you have used to delay or avoid pregnancy?	Pills …… 01 IUD …… 02 Injections...……...03 Suppository/foam/jelly/diaphragm/sponge .04 Condom ……...05 Female sterilization/tubular ligation ……...06 Male sterilization ……07 Rhythm ……08 Withdrawal ……..09 Breastfeeding ……...10 Other (specify) _____ 11	
FP08	How old were you at the first use?	Age in complete years |___|___|	
FP09	How many living children did you have when you first used a family planning method? **Record (00) if no child at first use**	A. Total of male children |___|___| B. Total of female children |___|___| C. Total |___|___|	
FP09A	**Interviewer: ask this question only to women who used IUD.** When you used the IUD, did you suffer of the following?	Yes / No 1. Secretions …… 1 2 2. Itching ……. 1 2 3. Burning micturation …… 1 2 4. Abdominal pain …….. 1 2 5. Pain in the reproductive organs 1 2 6. Intermittent bloody secretions 1 2 7. Increase in the menstruation days 1 2	
FP10	**Interviewer: Check RE02** **1. Currently married** |___| ↓ **2. Divorced, widowed or separated** |___| →		FP18
FP11	**Interviewer: Check RE33** **1. Not pregnant or uncertain** |___| ↓ **2. Pregnant or postpartum** |___| →		FP18
FP12	**Interviewer: Check FP04 (item 6)** **1. Woman not sterilized** |___| **2. Woman sterilized** |___| → ↓		FP14A
FP13	Are you currently using any method to delay or avoid pregnancy?	Yes ……..1 No ……2 →	FP17
FP14 **FP14A**	What is the main method you are currently using? **Interviewer: (Circle item 6 if she is sterilized)**	Pills …… 01 IUD …… 02 Injection ……...03 Suppository/foam/jelly/diaphragm/sponge ..04 Condom ……05 Female sterilization/tubular ligation ……06 Male sterilization ……07 Periodic abstinence ..……08 Withdrawal ……..09 Breastfeeding ……...10 Other (specify) _____ 11	→ FP16

FP15	From where did you obtain (method)?	Governmental center/hospital ……1 NGO center/hospital ……...2 UNRWA center/hospital ……3 Private hospital/center/clinic ……..…4 Pharmacy ……5 Other (specify) _____ 6	
FP16	What is your main reason for using (method)?	Physician advice……1 Husband didn't oppose it ……2 Friends advice ……3 Convenient ……4 Cheap ……5 Other (specify) _____ 6	→ FP18
FP17	What is the main reason for not using any family planning method currently?	Desire to have children ……01 Oppose family planning ……...02 Husband's disapproval ……03 Relative oppose ……04 Side effects …… 05 Don't know about availability of FP methods ..06 Difficult to get the method ……07 High cost ……..08 Method is inconvenient ……09 Menopause ……10 Husband is not currently living in household ..11 Infertility ……..12 Contradict with religious beliefs ..……13 Other (specify) _____ 14 Don't know …….. 98	
FP18	If you want to get information about family planning, from where do you get this information? **Interviewer: Record all mentioned**	Governmental center/hospital ……1 NGO center/hospital ……...2 UNRWA center/hospital ……3 Private hospital/center/clinic ……..…4 Media ……..5 Relatives and friends ……..6 Brochures and books ……..7 Other (specify) _____ 8	

Section 6: Pregnancy and Breastfeeding

AN01	**Interviewer: Record**		Interviewee's name …… Interviewee's line No. in the household roster |___|___|	
	Record (00) If husband does not live in the household		Husband's line No. in the household roster |___|___|	
AN02	**Interviewer: Check RE22** **Have the woman ever given birth to at least one live baby during the last 3 years (since April 2001)?** 1. Yes ↓ 2. No → Next section |___|			
	Interviewer: Ask about last two pregnancies resulted in live births in the last 3 years. Enter line number and name for each since April 2001 from reproductive history table, even if the birth is no more alive. Ask the questions about all these births starting with the last one. Now I would like to ask you some more questions about the last two pregnancies ended with live births during the last 3 years preceding the survey. We will talk about each birth separately. **(Refer to the births roster)**			
AN03	Birth's line No. from RE17		**Last pregnancy** |___|___|	**Pre-last pregnancy** |___|___|
AN04	Child's birth date in day, month and year		___/___/_____	___/___/_____
	Birth's name from RE18		Name: _____	Name:_____
AN05	At the time when you became pregnant with (name), did you have the desire to become pregnant, to wait, or did not have the desire to become pregnant?	Desire to become pregnant …… Desire to wait…… Didn't desire to become ever pregnant...	1 → AN06A 2 3 → AN06A	1 → AN06A 2 3 → AN06A
AN06	For how long did you want to wait?	Number of months …….. Don't know ……	|___|___| 98	|___|___| 98
AN06A	Did you receive antenatal care during your pregnancy with (name)?	Yes …… No ……..	1 2 → AN12	1 2 → AN12
AN07	Who did examine you during your pregnancy with (name)? **Interviewer: Record all mentioned**	Doctor …… Nurse …… Midwife…… Daya …… No one …… Other (specify) ……	1 2 3 4 5 6 _____	1 2 3 4 5 6 _____
AN08	Where did you mainly obtain the antenatal care (place you mostly visited)?	Governmental hospital ……... Private hospital …… UNRWA center …….. Governmental health center …… Governmental MCH center …… Private doctor's clinic …… NGO clinic or health center …… Other (specify) ……..	1 2 3 4 5 6 7 8 _____	1 2 3 4 5 6 7 8 _____

			Yes	No	DK	Yes	No	DK
AN08A	During antenatal care for this pregnancy, did you have any of the following tests at least once?	A. Weighing ……..	1	2	8	1	2	8
		B. Height measurement …….	1	2	8	1	2	8
		C. Blood pressure measurement ….	1	2	8	1	2	8
		D. Blood test …….	1	2	8	1	2	8
		E. Urine analysis …….	1	2	8	1	2	8
		F. Ultrasound ……	1	2	8	1	2	8
		G. Pelvic examination/uterus height	1	2	8	1	2	8
		H. Fetal Puls rate ……						

			Yes, lecture	Yes, printed material	No	Yes, lecture	Yes, printed material	No
AN08B	During antenatal care for this pregnancy, did you get any information about the following?	A. Diet ……	1	2	8	1	2	8
		B. High risk pregnancy signs…….	1	2	8	1	2	8
		C. Breastfeeding …….	1	2	8	1	2	8
		D. Family planning …….	1	2	8	1	2	8
		E. Post-natal care ……	1	2	8	1	2	8

			Last pregnancy	Pre-last pregnancy
	Child's name from RE18		Name: _____	Name:_____
AN09	Why did you choose this place to receive antenatal care? **Interviewer: Record all mentioned**	Accessibility to service …….. Better service quality ……. Female service provider ……. Availability of health insurance …. Low cost ……. Inability to reach other places due to Israeli measures ……. Other (specify) ……..	1 2 3 4 5 6 7 _____	1 2 3 4 5 6 7 _____
AN10	How months have you been pregnant when made the first antenatal visit for this pregnancy?	Month …….. Don't know ……..	|___|___| 98	|___|___| 98
AN11	How many antenatal care visits did you have during your pregnancy with (name)?	Number of visits …… Don't know ……	|___|___| 98 **Record answer and skip to AN13**	|___|___| 98 **Record answer and skip to AN13**
AN12	What was your main reason for not getting antenatal care?	Have no pregnancy problems ….. Have previous experience …… Service is unavailable …… High cost …… Service is dissatisfactory ……. Israeli measures prevented me from receiving the service ……. Other (specify) …….	1 2 3 4 5 6 7 _____	1 2 3 4 5 6 7 _____
AN13 **AN14**	During your pregnancy with (name) did you have any of the following problems? **Interviewer: For those having problems, ask if the interviewee consulted anybody primarily about it and record the code for the applicable response:** 1. Went to the hospital 2. Consulted a private doctor 3. Consulted a nurse 4. Consulted midwife 5. Consulted a daya 6. Other (specify) _____ 7. Did nothing	A. Eclampsia …….. B. Gestational diabetes …… C. Signs of premature delivery ….. D. Hypertension ……. E. Vaginal bleeding …….. F. Urinary tract infection …….. G. Acute headache …… H. High fever …… I. Swelling in the body or face …. J. Convulsions …… K. Anemia …… L. Reproductive tract infections …	Yes No response code 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 ……	Yes No response code 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 …… 1 2 ……
AN15	Have you taken any of the following during your pregnancy with (name)?	A. Iron pills …….. B. Folic acid pills ……. C. Iron + folic acid pills……	Yes No DK 1 2 8 1 2 8 1 2 8	Yes No DK 1 2 8 1 2 8 1 2 8
AN16	**Interviewer: For those answering 'Yes' to at least one in AN15:** From where did you obtain the iron or folic acid pills? **Interviewer: Record all mentioned**	Governmental hospital or center … Private hospital or health center …. UNRWA hospital or health center .. NGO hospital or health center …… Private doctor's clinic ……. Pharmacy …… Other (specify) ……..	1 2 3 4 5 6 7 _____	1 2 3 4 5 6 7 _____

			Last pregnancy	Pre-last pregnancy
	Child's name from RE18		Name: _____	Name:_____
AN17	Where did you give birth to (name)?	Governmental hospital or center … Private hospital or health center …. UNRWA hospital or health center .. NGO hospital or health center …… Israeli hospital …… Maternity home …….……. Private doctor's clinic …… At home ……. Other (specify) ……..	1 2 3 4 5 6 7 8 9 _____	1 2 3 4 5 6 7 8 9 _____
AN17A	Was this place your preferred choice?	Yes …… No …….	1. → AN19 2	1. → AN19 2
AN17B	If no, what is the reason for having delivery in this place? **Interviewer: Record all mentioned**	Difficulty reaching another place due to Israeli measures …….. Sudden delivery …… Insurance available/lower cost …. My private doctor works there….. No other place available …….. Other (specify) …….	1 2 3 4 5 6 _____	1 2 3 4 5 6 _____
AN18	What is your preferred place for delivery?	Governmental hospital or center … Private hospital or health center …. UNRWA hospital or health center .. NGO hospital or health center …… Israeli hospital …… Maternity home …….……. Private doctor's clinic …… At home ……. Other (specify) ……..	1 2 3 4 5 6 7 8 9 _____	1 2 3 4 5 6 7 8 9 _____
AN19	Who assisted you during the delivery of (name)?	Doctor …….. Nurse …… Midwife …….…… Daya …… Relative/friend ……. Other (specify) ……. No one ……	1 2 3 4 5 6 _____ 7	1 2 3 4 5 6 _____ 7
AN20	What is the main reason for choosing this place for delivery?	Better service Difficulty reaching another place due to Israeli measures …….. Sudden delivery …… Insurance available/lower cost …. My private doctor works there….. No other place available …….. Other (specify) …….	1 2 3 4 5 6 7 _____	1 2 3 4 5 6 7 _____
	Interviewer: ask questions AN21-AN23 to woman who answered question AN17 by 1-5 only:			
AN21	How long did you stay in the hospital?	A. Number of hours …….. B. Number of days ……..	|___|___| |___|___|	|___|___| |___|___|
AN22	**For those who stayed less than 24 hours before discharging from hospital:** What is the main reason to leave the hospital before completing 24 hours there?	Family situation …….. High cost ……. Service unsuitable …….. No need to stay more …….. Hospital asked me to leave ……. Other (specify) _____	1 2 3 4 5 6	1 2 3 4 5 6

			Last pregnancy		Pre-last pregnancy	
	Child's name from RE18		Name: _____		Name:_____	
AN23	Did you receive health education on any of the following topics before leaving the hospital?		Yes, lecture / Yes, print material / No		Yes, lecture / Yes, print material / No	
		A. Breastfeeding ……	1 2 3		1 2 3	
		B. Mother nutrition ……	1 2 3		1 2 3	
		C. family planning ……	1 2 3		1 2 3	
		D. Immunization ……	1 2 3		1 2 3	
		E. Importance of medical follow up	1 2 3		1 2 3	
AN24	After giving birth to (name) and during the first 8 weeks after delivery (puerperium period), did you have any of the following problems?		**AN24** Yes / No	**AN25** Yes / No	**AN24** Yes / No	**AN25** Yes / No
		A. Bad smell excretions ……	1 2	1 2	1 2	1 2
		B. Severe hemorrhage ……	1 2	1 2	1 2	1 2
		C. High fever ……	1 2	1 2	1 2	1 2
		D. Convulsions ……..	1 2	1 2	1 2	1 2
		E. Mastitis ……	1 2	1 2	1 2	1 2
AN25	**For those answering 'Yes' to any item in AN23:** Did you receive treatment?	F. Depression ……	1 2	1 2	1 2	1 2
		1. Yes 2.No				
AN26	Was (name) delivered by normal delivery, by episiotomy, by forceps, by suction or by cesarean?	Normal ……	1		1	
		Episiotomy ……	2		2	
		Forceps ……	3		3	
		Suction ……	4		4	
		Cesarean ……..	5		5	
AN27	During the puerperium period (8 weeks after delivery) whom did you see for post-natal care?	General practitioner ……..	1		1	
		Specialist ……..	2		2	
		Nurse ……	3		3	
		Midwife ……..	4		4	
		Daya ……..	5		5	
		No one ……..	6		6	
		Other (specify) ……	7 _____		7 _____	
AN28	During the puerperium period (8 weeks after delivery) did health educator/nurse/daya visit you?	Yes ……	1		1	
		No ……	2 → AN30		2 → AN30	
AN29	Did she talk to you about any of the following topics?		Yes / No		Yes / No	
		A. Family planning ……	1 2		1 2	
		B. Breastfeeding ……	1 2		1 2	
		C. Personal hygiene ……..	1 2		1 2	
		D. Nutrition ……..	1 2		1 2	
		E. Resuming sexual activity …….	1 2		1 2	
		F. Child care ……..	1 2		1 2	
		G. Importance of exercise …….	1 2		1 2	
		H. Watching weight …….	1 2		1 2	
		I. Other (specify) ……..	1 _____ 2		1 _____ 2	
AN30	Was (name) weighed at birth?	Yes ……	1		1	
		No ……	2 → AN32		2 → AN32	
AN31	How much did (name) weigh at birth? **Record weight in grams from health card if available**	From the card ……	1 |___|___|___|___|		1 |___|___|___|___|	
		Without the card ……	2. |___|___|___|___|		2. |___|___|___|___|	
		Don't know ……..	99998		99998	

			Last pregnancy	Pre-last pregnancy
	Birth's line No from RE17		|___|___|	|___|___|
	Child's name from RE18		Name: _____	Name:_____
AN32	Did you breastfeed (name)?	Yes …… No ……	1 2 → AN37	1 2 → AN37
AN33	How long after (name)'s birth did you start breastfeeding him/her? **Interviewer: Record (00) for No. 1 if answer was 'immediately after birth' or 'less than 1 hour'**	Immediately after birth …… Hours …… Days ……..	1 |___|___| 2 |___|___| 3 |___|___|	1 |___|___| 2 |___|___| 3 |___|___|
AN34	Are you still breastfeeding (name)?	Yes …… No …… Baby died ……	1 → AN38 2 3	1 → AN38 2 3
AN35	For how many months did you breastfeed (name)?	Number of months …… Still breastfeeding ……	|___|___| 98	|___|___| 98
AN36	For how many months did you breastfeed (name) exclusively?	Months …… Don't know ……	|___|___| 98	|___|___| 98
AN37	Why did you stop breastfeeding (name)? **(Main reason)**	Mother's illness/weakness …… Baby's illness/weakness …… Baby died …….. Nipple/breast problem …… Breast milk is not enough …… Mother is working …… Baby refused the breast …… Weaning age …….. Became pregnant …….. Started using contraceptives …….. Other (specify) ……..	01 02 03 → next birth 04 05 06 07 08 09 10 11 _____	01 02 03 → next section 04 05 06 07 08 09 10 11 _____
AN38	Did you use any kind of milk other than breast milk to feed (name)?	Yes …… No …… Don't know …….	1 2 → AN41 8 → AN41	1 2 → AN41 8 → AN41
AN39	How old was (name) when you started giving him/her any kind of milk other than breast milk?	Months …… Don't know ……	|___|___| 98	|___|___| 98
AN40	Why did you start giving (name) any kind of milk other than breast milk? **Interviewer: Record all mentioned**	Mother's illness/weakness …… Baby's illness/weakness …… Doctor's advice …….. Nurse's advice …… Nipple/breast problem …… Breast milk is not enough …… Mother is working …… Baby refused the breast …… Weaning age …….. Became pregnant …….. Started using contraceptives …….. Other (specify) ……..	01 02 03 04 05 06 07 08 09 10 11 12 _____	01 02 03 04 05 06 07 08 09 10 11 12 _____
AN41	How old was (name) when you started giving him/her additional fluids, such as juices?	Months …… Not given any liquids yet …….. Don't know ……	|___|___| 95 98	|___|___| 95 98
AN42	How old was (name) when you started giving him/her food other than fluids and milk?	Months …… Not given any foods yet …..…….. Don't know ……	|___|___| 95 98	|___|___| 95 98
AN43	Has (name) received vitamin A+D drops even if one time only?	Yes …… No …… Don't know …….	1 2 → AN47 8 → AN47	1 2 → AN47 8 → AN47

			Last pregnancy	Pre-last pregnancy
	Child's name from RE18		Name: _____	Name:_____
AN44	How old was (name) when he/she received vitamin A+D drops last time?	Months …… Don't know ……	|___|___| 98	|___|___| 98
AN45	For how long did (name) continue receiving vitamin A+D drops?	Months …… Still receiving vitamin A+D …….. Don't know ……	|___|___| 95 98	|___|___| 95 98
AN46	From where the drops/liquid were obtained last time?	On routine visit to health center .... On sick child visit to health center .. Bought from pharmacy …….. Pharmacy/insurance …… Other (specify) …… Don't know …… Not receiving now ……	1 2 3 4 5 _____ 6 7	1 2 3 4 5 _____ 6 7
AN47	Has (name) received iron syrup? **Interviewer: If the answer is 2 or 3, skip to the next birth**	Yes …… No …… Don't know …..……	1 2 → Next birth 8 → Next birth	1 2 → Next section 8 → Next section
AN48	For how long did (name) receive iron syrup? **Record (00) if less than 1 month**	Months …… Still receiving iron …….. Don't know ……	|___|___| 95 98	|___|___| 95 98
			Go back to AN34 in the next column. If no more births skip to next section	**Upon completing the data for the second birth, skip to next section**

Section 7: Tetanus Toxoid

TT01A	**Interviewer: Record**	Interviewee's name …… Interviewee's line No in the household roster |___|___|	
TT01B	**Record (00) If husband does not live in the household**	Husband's line No in the household roster |___|___|	
TT02A	**Interviewer: Ask this section to women who gave birth to a live child since April 2003. Check RE21** **Have the woman given birth to a live baby during the past year (since April 2003)?** 1. Yes ↓ 2. No → Next section |___|		
TT02	Do you have a card or any document recording your immunizations?	Yes, card seen …… 1 Yes, card not seen ……2 No ……3 Don't know ……..8	
TT03	When you were pregnant with your last child, did you receive any injection to prevent him/her from getting convulsions after birth (an anti-tetanus doses taken during last pregnancy)?	Yes ……..…… 1 No ……. ……2 → Don't know ……..8 →	TT06 TT06
TT04	How many doses did you receive during your last pregnancy?	Number of doses …… |___|___| Don't know ……..98	
TT05	**Interviewer: Check TT04** **Number of** doses**: 1. One** doses **or less** |___| ↓ **2. Two or more** |___| → next section		
TT06	Did you receive any additional tetanus toxoid doses / injections at any time before your last pregnancy, including during previous pregnancy or between pregnancies?	Yes ……..…… 1 No ……. ……2 → Don't know ……..8 →	TT09 TT09
TT07	How many tetanus toxoid doses (injections) did you receive at any time before your last pregnancy?	Number of doses …… |___|___| Don't know ……..98	
TT08	When was the last dose (before your last pregnancy) received? Or: How many years ago did you receive the last dose? **Interviewer: If the woman did not know the date in month and year, record 99 for month and 9999 for year.**	A. Month / year |___|___| / |___|___|___|___| B. Years ago …… |___|___|	
TT09	**Interviewer: Sum responses of questions TT04 to TT07 to obtain total number of doses in life time.**	Number of shots …… |___|___| If no doses at all ……00 Don't know ……98	أ

Section 8: Fertility Preference

PR01	**Interviewer: Record**	Interviewee's name …… Interviewee's line No in the household roster |___|___|	
	Record (00) If husband does not live in the household	Husband's line No in the household roster |___|___|	
PR02	**Interviewer: Check FP04** **1. Neither one of the couple is sterilized** |___| ↓	**2. Wife or husband is sterilized or woman age 50 years or over or divorced/widowed** |___| → PR11	
PR03	**Interviewer: Check RE33** **1. Woman not pregnant or not sure** |___| ↓	**2. Woman pregnant** |___| →	PR06
PR04	Would you like to have more children or would you prefer not to have any more children?	Have more children…… 1 No more children ……2 → Cannot get pregnant ……3 → Not her decision .....4 Undecided/Don't know ..……..8	PR10 PR11
PR05	How long would you like to wait from now before the birth of next child?	Period Months ..... |___|___| 1 Years ……..….... |___|___| 2 Soon …… 993 Cannot get pregnant ……...…994 God's will ……...…995 Don't know...……..…998 Other (specify) _____ 996	PR08
PR06	After delivery, would you like to have more children or would you prefer not to have more children?	Have more children…… 1 No more children ……2 → Not her decision .....3 Undecided/Don't know ..……..8	PR10
PR07	After the delivery, how long would you like to wait before the birth of another child?	Period Months ..... |___|___| 1 Years ……..….... |___|___| 2 Soon …… 993 Cannot get pregnant ……...…994 God's will ……...…995 Don't know...……..…998 Other (specify) _____ 996	
PR08	How many boys you wish to have in the future in addition to the number you have now?	Number of boys …… |___|___| The most possible number ……..94 God's will ……...…95 Don't know ……..98 Other (specify) _____ 96	
PR09	How many girls you wish to have in the future in addition to the number you have now?	Number of girls …… |___|___| The most possible number ……..94 God's will ……...…95 Don't know ……..98 Other (specify) _____ 96	
PR10	Who decides the number of children in your family?	Husband …… 1 Wife …… 2 Both husband and wife …….. 3 Mother-in-law …… 4 Others …… 5 Other (specify) _____ 6 Don't know …… 8	
PR11	**Interviewer: Check RE22** **1. Woman has living children** |___| ↓	**2. Woman does not have living children** |___| →	PR13

PR12	If you could go back to the time when you did not have any children and could choose the number of children you wish to have in your whole life, how many would that be? **Interviewer: Probe for a numeric response and skip to the next section**	Number of males ..…… |___|___| Number of females …… |___|___| Total ……..…… |___|___| The most possible number ……94 God's will ……...95 Don't know ……98 Other (specify) _____ 96	
PR13	If you could choose a certain number of children to have in your whole life, how many would that be? **Interviewer: Probe for a numeric response**	Number of males ..…… |___|___| Number of females …… |___|___| Total ……..…… |___|___| The most possible number ……94 God's will ……...95 Don't know ……98 Other (specify) _____ 96	

Section 9: Knowledge about AIDS

A00	**Interviewer: Record**	Interviewee's name …… Interviewee's line No in the household roster |___|___|	
	Record (00) If husband does not live in the household	Husband's line No in the household roster |___|___|	
A01	Have you ever heard about a disease known as AIDS (Acquired Immune Deficiency)?	Yes …… 1 No ……..2	 → Next section
A02	From which sources have you heard information about AIDS? **Interviewer: Record all mentioned**	Radio …….. TV …….. Newspapers/magazines …… Brochures/posters …… Health workers …… Lectures …….. Religious places ……. Schools/teachers …… Public gatherings ……... Friends/relatives …… Workplace …… Other (specify) _____	1 2 3 4 5 6 7 8 9 10 11 12
A03	Is there anything one can do to prevent getting infected with HIV/AIDS?	Yes …… 1 No …….. 2 Don't know …… 8	 → A05 → A05
A04	Which of the following things can help prevent AIDS?		Yes / No / DK
		A. Using a condom ……..	1 2 8
		B. Having sex only with husband …	1 2 8
		C. Avoiding blood transfusion …….	1 2 8
		D. Avoiding injections …….	1 2 8
		E. Avoiding kissing …….	1 2 8
		F. Abstinence from having sex ……	1 2 8
		G. Avoiding handshaking …….	1 2 8
		H. Avoiding mosquito bites ……	1 2 8
		I. Seeking protection from the disease at traditional healers ……	1 2 8
		J. Avoiding talking to infected people	1 2 8
		K. Avoiding tattoos …….	1 2 8
		L. Avoiding ear/nose piercing …….	1 2 8
		M. Avoiding going to the dentist ….	1 2 8
A05	Is it possible that a person with apparently good health may have HIV?	Yes …… No …….. Don't know ……	1 2 8
A06	Do you think AIDS patients do not die, sometimes die or always die because of this disease?	Do not die because of this disease … Sometimes die …….. Always die …… Don't know ……	1 2 3 8
A07	Do you think your chance to get infected with AIDS is low, average, high or there is no risk at all?	Low …… Average …… High …… No risk …… Don't know ……..	1 2 3 4 8
A08	Is it possible for AIDS to be transmitted from the mother to her baby?	Yes …… No …….. Don't know ……	1 2 → A10 3 → A10
A09	How may AIDS transmission happen?		Yes / No / DK
		A. During pregnancy ……..	1 2 8
		B. During delivery ……..	1 2 8
		C. During breastfeeding ……..	1 2 8
		D. Other (specify) _____	1 2 8
A10	If a teacher is infected with HIV virus but does not show any symptoms, should he/she be allowed to continue teaching at school?	Yes …… No …….. Don't know ……	1 2 8
A11	If you know a person selling food is infected with HIV/AIDS, would you buy food from him/her?	Yes …… No …….. Don't know ……	1 2 8

A12	Currently, do you know a place where testing for AIDS is provided?	Yes …… No …….. Don't know ……	1 2 8

Palestinian Authority
Palestinian Central Bureau of Statistics
Health Demographic Survey, 2004
Child questionnaire

All information in this questionnaire is for exclusive statistical purposes only. It is considered confidential in accordance with the General Statistics Law of 2000.

IDH00	**Questionnaire's serial number in the sample** ☐☐☐☐	**IDH04**	**Questionnaire's number in the enumeration area:** ☐☐
IDH01	**Governorate:**_____ ☐☐	**IDH05**	**Building's address:** _____
IDH02	**Locality:** _____ ☐☐☐☐☐☐	**IDH06**	**Name of household head:** _____
IDH03	**Enumeration area's number in the Locality:** ☐☐☐		

Interview record:

CIR01	**Visits' schedule**	**Day**	**Month**	
		☐☐	☐☐	1st visit
		☐☐	☐☐	2nd visit
		☐☐	☐☐	3rd visit
CIR02	**Total number of visits**	☐		
CIR03	**Final result of the interview** ☐	1	Completed	
		2	Partially completed	
		3	Traveling	
		4	Could not interview the child	
		5	Refused to cooperate	
		6	No eligible children	
		7	Information not available	
		8	Other / specify ……..	
CIR04	**Total No. of children under 5 years of age** ☐☐			
CIR05	**Total No. of children less than 5 years of age whose data was completed** ☐☐			
CIR06	**Line No. of mother or caretaker from household roster** ☐☐			
CIR07	**Total No. of children 5-17 years old** ☐☐			
CIR08	**Total No. of children 5-17 years old whose data was completed** ☐☐			

☐ Interviewer: Please check the box with X if an additional questionnaire has been used.

Section 10: Children education

<table>
<tr><th rowspan="2">E00</th><th rowspan="2">E01</th><th colspan="9">This section is only for children 5-17 years old</th></tr>
<tr><th>E02</th><th>E03</th><th>E04</th><th>E05</th><th colspan="2">E06</th><th>E07</th><th colspan="2">E08</th></tr>
<tr><td>Line number of child's mother or caretaker</td><td>Child's line number</td><td>Names of children between 5-17 years old</td><td>During the current school year, is (name) currently enrolled in school?

1. Yes → E05
2. No</td><td>During the current school year, was (name) enrolled in school at any part of the school year?

1. Yes
2. No → E07</td><td>Out of the last 7 days, how many days did (name) attend school?

Interviewer: Record number of days

Number of days</td><td colspan="2">At which educational level and which grade is (name) enrolled?

1. Kindergarten
2. Basic
3. Secondary
4. intermediate diploma/BA
8. Don't know</td><td>Was (name) enrolled in school during the past school year?

1. Yes
2. No → next child
8. Don't know → next child</td><td colspan="2">At which educational level and which grade was (name) enrolled in the past year?

1. Kindergarten
2. Basic
3. Secondary
4. intermediate diploma/BA
8. Don't know</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td>Level</td><td>Grade (DK 98)</td><td></td><td>Level</td><td>Grade (DK 98)</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
<tr><td></td><td></td><td></td><td>1 2</td><td>1 2</td><td>|___|</td><td>|___|</td><td>|___|___|</td><td>1 2 8</td><td>|___|</td><td>|___|___|</td></tr>
</table>

Section 11: Children Health and Immunization

	Enter the line number, name and survival status of each birth since April 1999 from the reproductive history roaster. Ask these questions about each birth starting from the last one. Use an additional questionnaire if there are more than 3 births.				
			Last birth	Next to last birth	Second next to last
IM01	Line number from HR01 **Interviewer: Record (00) for dead birth**		|___|___|	|___|___|	|___|___|
IM02	Line number from RE17		|___|___|	|___|___|	|___|___|
IM03	Birth's name from RE18 and survival status from RE22	Alive .... Dead	Name __________ 1 2 → (next column) → No births → next section	Name __________ 1 2 → (next column) → No births → next section	Name __________ 1 2 → (next column) → No births → next section
IM04	Do you have a card where (name)'s vaccinations are recorded? **If yes:** May I see it, please?	Yes, seen … Yes, not seen No card …. Don't know	1 → IM06 2 → IM07 3 8	1 → IM06 2 → IM07 3 8	1 → IM06 2 → IM07 3 8
IM05	Did you ever have vaccination card for (name)?	Yes ……… No ……….	1 → IM07 2 → IM07	1 → IM07 2 → IM07	1 → IM07 2 → IM07
IM06	Interviewer: Record dates of all vaccinations from the card (record 99 in 'Day' column if card shows that vaccination was given but date is not recorded)		Day Month Year	Day Month Year	Day Month Year
	HB 1st dose 2nd dose 3rd dose		|__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__|	|__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__|	|__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__|
	BCG		|__|__|__|__|__|__|__|__|	|__|__|__|__|__|__|__|__|	|__|__|__|__|__|__|__|__|
	IPV (intramuscular injection) 1st dose 2nd dose		|__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__|	|__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__|	|__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__|
	OPV (mouth drops) 1st dose 2nd dose 3rd dose 4th dose		|__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__|	|__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__|	|__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__|
	DPT 1st dose 2nd dose 3rd dose 4th dose		|__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__|	|__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__|	|__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__| |__|__|__|__|__|__|__|__|
	Measles		|__|__|__|__|__|__|__|__|	|__|__|__|__|__|__|__|__|	|__|__|__|__|__|__|__|__|
	MMR		|__|__|__|__|__|__|__|__|	|__|__|__|__|__|__|__|__|	|__|__|__|__|__|__|__|__|

			Last birth	Next to last birth	Second next to last
	Birth's name from RE18		Name _____	Name _____	Name _____
	Interviewer: Questions IM07-IM16 are asked to those who do not have cards or they have but not seen. Did (name) receive any of the following vaccinations?				
IM07	BCG vaccination against tuberculosis, that is an injection in the arm or shoulder that usually causes a scar	Yes …… No …… Don't know ……	1 2 8	1 2 8	1 2 8
IM08	OPV vaccine, that is drops in mouth against polio	Yes …… No …… Don't know ……	1 2 → IM10 8 → IM10	1 2 → IM10 8 → IM10	1 2 → IM10 8 → IM10
IM09	How many doses?	doses ……. Don't know 98	|___|___|	|___|___|	|___|___|
IM10	IPV, that is an intramuscular injection against polio	Yes …… No …… Don't know ……	1 2 → IM12 8 → IM12	1 2 → IM12 8 → IM12	1 2 → IM12 8 → IM12
IM11	How many doses?	doses ……. Don't know 98	|___|___|	|___|___|	|___|___|
IM12	Was the first HB vaccine (against hepatitis) received just after birth or later?	Just after birth .. Later ……	1 2	1 2	1 2
IM13	DPT vaccination, that is an intramuscular injection against diphtheria, whooping cough and tetanus, that is given at the same time with polio vaccine	Yes …… No …… Don't know ……	1 2 → IM15 8 → IM15	1 2 → IM15 8 → IM15	1 2 → IM15 8 → IM15
IM14	How many doses?	doses ……. Don't know 98	|___|___|	|___|___|	|___|___|
IM15	An injection to prevent measles	Yes …… No …… Don't know ……	1 2 8	1 2 8	1 2 8
IM16	MMR, that is an injection to prevent mumps, measles and rubella	Yes …… No …… Don't know ……	1 2 8	1 2 8	1 2 8
IM17	Did (name) receive any of the following vaccinations?	Influenza…….. Meningitis …… Chickenpox ….. Hepatitis A ……	Yes No DK 1 2 3 1 2 3 1 2 3 1 2 3	Yes No DK 1 2 3 1 2 3 1 2 3 1 2 3	Yes No DK 1 2 3 1 2 3 1 2 3 1 2 3
IM18	Has (name) had an illness with cough at any time in the last 2 weeks?	Yes …… No …… Don't know ……	1 2 → IM21 8 → IM21	1 2 → IM21 8 → IM21	1 2 → IM21 8 → IM21
IM19	When (name) had an illness with cough, did he/she breath rapidly than usual and/or had any difficulty breathing?	Yes …… No …… Don't know ……	1 2 → IM21 8 → IM21	1 2 → IM21 8 → IM21	1 2 → IM21 8 → IM21
IM20	Were these symptoms a result of a chest health problem or due to blocked nose or both?	Blocked nose …. Chest problem … Both …….. Other (specify) … Don't know …….	1 2 3 4 _____ 8	1 2 3 4 _____ 8	1 2 3 4 _____ 8

			Last birth	Next to last birth	Second next to last
	Birth's name from RE18		Name _____	Name _____	Name _____
IM21	Has (name) had diarrhea at any time in the last 2 weeks?	Yes …… No ……. Don't know ……	1 2 → next birth 8 → next birth	1 2 → next birth 8 → next birth	1 2 → next birth 8 → next birth
IM22	During the last episode of diarrhea, did (name) drink ant of the following?		Yes No	Yes No	Yes No
		Breast milk ……	1 2	1 2	1 2
		Cereals/soup ….	1 2	1 2	1 2
		Acceptable home fluids, like yogurt	1 2	1 2	1 2
		ORS …….	1 2	1 2	1 2
		Formula …….	1 2	1 2	1 2
		Water with food	1 2	1 2	1 2
		Water only ……	1 2	1 2	1 2
		Unacceptable fluids, like carbonated drinks	1 2	1 2	1 2
		Other (specify) …	1 _____ 2	1 _____ 2	1 _____ 2

Section 12: Anthropometry

M01	**Interviewer: Check HR05** **1. One birth or more since April 1999** |___| ↓ **2. No birth since April 1999** |___| → End of interview

Interviewer: Measurements of height and weight are taken for all children under 5 years old. Use an additional questionnaire if there were more than 3 children.

			1. Last birth	2. Next to last birth	3. Second next to last
M02	Child's line number from HR01		|__|__|	|__|__|	|__|__|
M03	Child's name from HR02		_____	_____	_____
M04	Child's birth date from HR05	Day Month Year	|__|__| |__|__| |__|__|__|__|	|__|__| |__|__| |__|__|__|__|	|__|__| |__|__| |__|__|__|__|
M04a	Does (name) have a birth certificate? Can I see it?		Yes, seen …… 1 Yes, not seen …….. 2 No ……3 1, 2 go to M05	Yes, seen …… 1 Yes, not seen …….. 2 No ……3 1, 2 go to M05	Yes, seen …… 1 Yes, not seen …….. 2 No ……3 1, 2 go to M05
M04b	Has (name) been registered at the official departments?		Yes …….. 1 No ……... 2	Yes …….. 1 No ……... 2	Yes …….. 1 No ……... 2
M05	Child's length or height (in cm)		|__|__|__| . |__|	|__|__|__| . |__|	|__|__|__| . |__|
M06	Is child's height measured lying down or standing up?		Lying down ..... 1 Standing up 2	Lying down ..... 1 Standing up 2	Lying down ..... 1 Standing up 2
M07	Child's weight (in kg)		|__|__| . |__|	|__|__| . |__|	|__|__| . |__|
M08	Result	Weight & height measured … Weight measured only …….. Height measured only …….. Child not present ……. Child refused ……. Mother/caretaker refused …. Other (specify) ……	1 2 3 4 5 6 7 _____	1 2 3 4 5 6 7 _____	1 2 3 4 5 6 7 _____
M09	Name and code of person taking the measurements: _____ |__|__|__|__|			Name and code of the assistant: _____ |__|__|__|__|	

Interviewer's Notes

Notes on the respondent: _____

_____

Notes on certain questions : _____

_____

Any other notes: _____

_____

Interviewer's name: _____ Date: / /

Interviewer's code: _____

Supervisors Notes

_____

_____

Supervisor's name: _____ Date: / /

Supervisor's code: _____

Verifier's Notes

_____

_____

Verifier's name: _____ Date: / /

Verifier's code: _____